

Latin America and Korea: Partners for Sustainable Trade and Investment



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Foreword



Foreword

Since 2000, the commercial relationship between Korea and Latin America and the Caribbean (LAC) has grown at an exceptional annual rate, in terms of trade and investment. As a result of growing cooperation, both regions are well-positioned to contribute to effective solutions for the current global food, energy, and climate challenges. By reaffirming their commitment to free trade and investment, Korea and Latin America and the Caribbean can turn this opportunity to construct more robust bilateral and global value chains.

Korea's capacity for innovation has underpinned its economic transformation. The nation's concentration on technology is evident in its substantial investment in research and development (R&D). This approach has allowed Korea to develop advanced technologies currently at the forefront of innovation. This is the outcome of forward-thinking education policies, public-private coalitions to push strategic investments, and an unwavering commitment to promoting global economic competitiveness. These are indeed some of the main development gaps that LAC must bridge in pursuit of prosperity.

According to this report, the two economies can unlock potential in food and energy security and climate change by strengthening the multilateral trade system and enhancing competition, labor, and environmental norms in their preferential trade agreements. For instance, Korea could contribute significantly by utilizing its innovation system to bolster LAC's attempts to harness new digital and microbial technologies to raise agricultural yields. On the other hand, LAC is the world's largest net exporter of food and agricultural products. It is also one of the most productive, an opportunity to stabilize and reduce global food prices, which would be favorable for Koreans and others.

The Inter-American Development Bank has been a trailblazer in Korea-Latin America and Caribbean collaboration since Korea's entry into the IDB in 2005. As Korea approaches the seventeenth anniversary of becoming an IDB member country, its contribution has been critical for the development of LAC. The Bank is committed to building upon these achievements to improve the region's quality of life as we move forward.

The LAC-Korea Partnership is premised on the shared view of a strong, robust relationship that has laid the foundation for developing closer, stronger ties between both regions. We hope this report will contribute to the success of the 2022 Korea-LAC Business Summit and to a fruitful exchange of ideas on the policy options available to perpetuate this strategic partnership.

Fabrizio Opertti
Manager
Integration and Trade Sector



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Executive Summary



Executive Summary

- The relationship between Korea and Latin American and the Caribbean (LAC) has come a long way. As the two economies embraced trade with one another in the early 1990s, their connection went from being irrelevant to being a wealth machine. Bilateral trade grew at an impressive annual rate of 11.5%—reaching a record high in 2021. The trade boom was followed by US\$26 billion in investments by Korean firms in the region since 2000.
- Despite this meteoric rise, some longstanding challenges remain, and new ones are emerging. There are lingering trade barriers—tariffs peaks, particularly for agricultural goods, as well as costly customs procedures and high logistics costs. There is also misguided resentment around what is seen as an “unfair,” unbalanced exchange of “commodities for machines.”
- However, these frictions tend to be dwarfed by a string of disruptive shocks to the global economy—protectionist backlashes; growing and interrelated sanitary, food, energy, and climate crises; and a fast-moving “digital transformation.” Although not specific to the relationship, they will most likely shape its future.
- Despite the challenges, both economies have a set of policies, institutions, and comparative advantages that, if reinforced and leveraged by trade and cooperation, can turn these shocks into bilateral and global opportunities for inclusive and sustainable growth.
- This is the case for the global quest for resilient value chains. By reinforcing their commitment to a market economy and free trade—as well as to sustainability, equity, and democratic values—LAC and Korea can turn this quest into an opportunity to build more robust bilateral and global value chains. This can be done, inter alia, by collaborating to strengthen the multilateral trade system and by deepening competition, labor, and environmental standards in their growing network of preferential trade agreements.
- The two economies are also well placed to contribute to effective solutions to the ongoing global food, energy, and climate crises. LAC is the world’s largest net exporter of food and agriculture goods (15% of the world’s exports). It is also one of its most productive, with significant unexploited agricultural land and freshwater resources. It has enormous potential to stabilize and lower international food prices, benefiting consumers in Korea and elsewhere.
- As closing the “food gap” cannot come at the expense of the planet, it will have to come mostly from innovation rather than land use and deforestation, which already account for 18% of the region’s carbon emissions. This is where the partnership between Korea and LAC could make a significant contribution by leveraging the former’s world-renowned innovation system to boost the latter’s already considerable efforts to harness new digital and microbiology technologies to increase agricultural yields.
- The synergy of LAC and Korea’s integration can also make both countries and the world better prepared to face short- and long-term energy challenges. LAC—which holds 20% of the world’s oil reserves—has the resources to step in and offer Korea—which imports 95% of its energy—and the world a secure supply. This will be critical to a smooth transition to more sustainable, renewable sources of energy.
- The opportunities in this renewable future are even more promising. LAC has one of the cleanest energy matrices in the world, with nearly 30% of renewable sources—a share significantly higher than those of the world (14%) and Korea (4%). The region is also well positioned in the supply of minerals that are critical to this transition: it has some of the world’s largest reserves of copper, lithium, nickel, silicon, and rare earth elements.
- This difference in energy endowments also creates valuable opportunities for allocating



resources better and reducing the two economies' carbon footprints. LAC has a better chance of abating the carbon emissions of energy-intensive industries such as steel, aluminum, and cement. It could also be more cost-effective in the production of zero-emission fuels such as hydrogen. Korea, in turn, has a strong foothold in segments of the value chain that can boost the supply and shift the demand for energy toward renewables, such as the production of solar panels, lithium batteries, and electric vehicles.

- The potential to abate emissions goes beyond food and energy. Korea and most of LAC have made ambitious commitments to reach carbon neutrality by 2050 but given the differences in the energy matrices and Korea's higher emission intensity per unit of output (it emits three times more CO₂ per dollar of output than LAC's average), there is a clear opportunity for a robust bilateral carbon trade to mobilize resources and reduce transition costs to a net zero emissions economy.
- The digital transformation also has the potential for trade and investment creation by lowering information, logistics, and regulatory costs, as well as by enabling new trade modalities (e-commerce) and varieties (digitally transmitted goods and services). Korea and LAC have just begun to explore these new opportunities. Services represent just a fraction of trade in goods (14% in 2019). Substantial investments in information and communication technologies (ICT) infrastructure will be required, particularly in LAC. As a major supplier of ICT goods, Korea could be a vital partner in this process. There is also an urgent need to move forward with an essential legal and regulatory policy agenda to reduce costs and facilitate digital trade.
- While markets and the private sector have been the main drivers of the relationship, they clearly benefited from prolific intergovernmental cooperation. The flow of Korea's development assistance to the region has reached US\$1.6 billion in grants and loans since 2008.
- A significant share of this assistance was financed and leveraged through the IDB (US\$550.6 million since 2012) in areas such as innovation, poverty reduction, private-sector development, and public capacity-building, which will be critical for the relationship to meet the economic, social, and environmental challenges of a fast-changing world economy.



Introduction



I. Introduction

The relationship between Korea and LAC has come a long way. Gone are those days when the two economies were pursuing inward-oriented development strategies and barely trading with each other or with the world. Gone are those days when Korea was a junior trade and investment partner in LAC's relationship with Asia, overshadowed by its giant neighbors, Japan and China.

Today, Korea is undisputedly among the region's most important economic partners. The prosperity that came when both economies embraced the "Great Liberalization" in the early 1990s radically transformed their relationship. Bilateral trade in goods took off, growing at an impressive annual rate of 11.5% between 1990 and 2021, more than twice that of trade with Japan. In 2021, it reached US\$57 billion—an all-time high. The trade boom was followed by US\$26 billion in investments by Korean firms in the region since 2000. This dynamism withstood even the Covid pandemic, with bilateral trade and investment recovering faster than flows with the rest of the world.

Challenges old and new

Despite this meteoric rise, some longstanding challenges remain, and new ones are emerging. The former include lingering trade barriers—tariffs peaks, particularly for agricultural goods, as well as costly customs procedures and high logistics costs. There is also misguided resentment around what is seen as an "unfair," unbalanced exchange of "commodities for machines." These frictions, though, tend to be dwarfed by the turbulence arising from a string of disruptive shocks to the global economy. Even though they are not specific to the relationship, they will most likely shape its future.

These shocks come in every shape and form. The growing populist backlashes against trade and the rising geopolitical tensions among some of the world's largest economies are threatening the open, rules-based global economic order, an order that has guided the bilateral relationship and is behind much of the prosperity that these two economies have enjoyed in the last 30 years.

Likewise, the growing, interrelated sanitary, food, energy, and climate crises—whose devastating social consequences should not be underestimated—may easily lead countries to fall for ineffective and costly protectionist solutions.

There is also a fast-moving technological shock, known as the digital transformation.¹ It has the potential to reshape comparative advantages and raise difficult questions about the future of less-skilled, labor-intensive goods and tasks—the essence of LAC's manufacturing activity—further complicating an already thorny political economy of trade and integration.

Fortunately, the outlook is not all doom and gloom. Both economies have, for the most part, a set of policies, institutions, and comparative advantages that, if reinforced and leveraged by trade and cooperation, can turn these shocks into bilateral and global opportunities for inclusive, sustainable growth.

Opportunities for more robust and resilient value chains

One such opportunity for transformation is the current global search for value chains that are more resilient to geopolitical, sanitary, and environmental shocks. By reinforcing their commitments to a market economy and free trade—as well as to sustainability, equity, and democratic values—LAC and Korea can turn this search into an opportunity to build and participate in more robust bilateral and global value chains. This can be done, inter alia, by collaborating to strengthen the multilateral trade system and by deepening competition, labor, and environmental standards in their growing network of preferential trade agreements (PTAs), particularly the LAC-Korea agreements.

¹ Moreira and Stein (2019), chapter 11. <https://flagships.iadb.org/en/DIA2019/trading-promises-for-results>.



Closing the food gap

The two economies are also well placed to contribute to effective solutions to the current and future global food, energy, and climate crises, the interconnected nature of which demand a coordinated approach. LAC is the world's largest net exporter of food and agricultural goods (15% of global exports). It is also one of its most productive regions in the world, and one of the few with significant resources of unexploited agricultural land and fresh water.² It has an enormous potential to stabilize and lower international food prices, benefiting consumers in Korea and beyond.

However, reaching this potential cannot come at the expense of the planet. Helping to close the “food gap”—which is estimated would require a 50% increase in global food production by 2050—will have to come mostly from innovation and higher productivity.³ A supply expansion based on increasing cultivated agricultural land would induce further land-use change and deforestation, which already contribute to 18% of the region's greenhouse gas (GHG) emissions. This is where Korea can make a significant contribution. It could leverage its world-renowned innovation system to add to LAC's already considerable efforts to harness new digital and microbiology technologies to increase agricultural yields while reducing the carbon footprint of its food.

Smoothing and facilitating the transition to sustainable energy

The synergy of LAC and Korea's integration can also make both countries and the world better prepared to face short- and long-term energy challenges, which, as with food, are closely related to environmental concerns. The short term is about stabilizing and lowering the price of fossil fuels, which have spiked since the war in Ukraine. This has fueled an inflation spiral that threatens to jeopardize growth and increase inequality. Again, LAC—which holds 20% of the world's oil reserves—has the resources to step in and offer Korea—which imports 95% of its energy—and the world a secure supply of oil that is virtually free of geopolitical risks. This will be critical to a smooth transition to more sustainable, renewable sources of energy.⁴

The opportunities for this partnership in this renewable future are even more promising. LAC has one of the cleanest energy matrices in the world, with nearly 30% of renewable sources—a share significantly higher than those of the world (14%) and Korea (4%).⁵ The region is also well positioned in the supply of minerals that are critical in this transition—it has some of the highest global reserves of copper (Chile, Peru), lithium (Chile, Argentina, Bolivia), nickel (Brazil, Colombia, and Guatemala), silicon and rare earth metals (Brazil).⁶

This difference in energy endowments—or “carbon comparative advantages”—creates valuable opportunities to better allocate resources between the two economies and reduce their joint carbon footprint. LAC, for instance, has a better chance of minimizing GHG emissions of energy-intensive industries such as steel, aluminum, and cement. Or to be more cost-effective in the production of zero-emission fuels such as hydrogen, which requires a significant amount of (clean) electricity.

Korea, in turn, has a strong foothold in the segments of the value chain that could boost the supply and demand of renewable energy such as the production of solar panels, lithium batteries, and electric vehicles.⁷ Again, the gains from trade, investment, and technology transfers are limitless.

2 Rabobank (2015) <https://economics.rabobank.com/publications/2015/september/latin%2Damerica%2Dagricultural%2Dperspectives/>
Morris et al. (2020) <https://www.worldbank.org/en/region/lac/brief/future-foodscapes-re-imagining-agriculture-in-latin-america-and-the-caribbean>.

3 WRI (2019) https://research.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf.

4 ENI (2022) <https://www.eni.com/en-IT/global-energy-scenarios/world-energy-review.html> and IEA <https://www.iea.org/countries>.

5 IEA <https://www.iea.org/countries>.

6 ENI (2022) <https://www.eni.com/en-IT/global-energy-scenarios/world-energy-review.html>.

7 Leruth et al. (2022).



Saving the planet

The most critical public policy challenge of our time stands above the food and energy crises but is tightly intertwined with them: global warming. The partnership's ability to limit both economies' carbon footprints could go well beyond food and energy.

Korea and most of LAC have made ambitious commitments to reach carbon neutrality by 2050 but given the differences in the energy matrices and Korea's higher emission intensity per unit of output (it emits three times more CO₂ per dollar of output than LAC's average), there is a clear opportunity for a robust bilateral carbon trade to mobilize resources and reduce the costs of a transition to a net zero-emission economy for firms.⁸

As argued elsewhere, LAC is the world's largest producer of environmental services, with a vast potential to sell carbon "credits" or "offsets" that are originated in investments to reduce greenhouse (GHG) emissions, either by expanding the supply of renewable fuels or by enhancing or preserving carbon stocks such as the region's abundant forests.⁹ The latest United Nations Climate Change Conference (COP 26, article 6) provides a clear framework for the development of this market, either bilaterally (through the mutual recognition of national emission trading systems) or multilaterally (under a UN certification mechanism). It is estimated that the marginal costs of GHG abatement in Korea are currently several orders of magnitude higher than the LAC's average, suggesting a huge potential for the two partners to trade and reduce the transition costs.¹⁰

Digitalization for trade and investment

Completing the group of shocks likely to shape the LAC-Korea relationship for decades to come, the digital transformation has the potential to create trade and investment that can more than offset its threats to low-skilled jobs. New technologies such as autonomous vehicles, robots, AI, and blockchain are reducing transportation and logistics costs, as well as those related to the regulation of trade and investment and administrative procedures. Online platforms and digital marketplaces are lowering information and communications costs, making it easier for firms, particularly small and medium firms (SMEs) to enter foreign markets. And perhaps more importantly, digital technologies have enabled the emergence of new trade modalities (e-commerce) and varieties (digitally transmitted goods and services).¹¹

As the composition of bilateral trade and investment suggests, Korea and LAC have only just begun to explore these new opportunities. Services, for instance, represent just a fraction of trade in goods (14% in 2019).¹² SMEs barely participate in this interchange. To make these opportunities a reality, substantial investments in ICT infrastructure will be required, particularly in LAC, whose digital competitiveness is way behind Korea's.¹³ As a major supplier of ICT goods, Korea could become a vital trade and investment partner in this process.

There is also an urgent need to move forward with an essential legal and regulatory policy agenda to reduce costs and facilitate digital trade, particularly in services. Both Korea and a significant number of LAC countries stand above the world's average on barriers to digitally traded services, which range from restrictions to cross-border data flows, access to online content, trading, technology, and market access barriers.

8 IEA <https://www.iea.org/countries>.

9 Morris et al. (2020).

10 Edmonds et al. 2019. <https://www.worldscientific.com/doi/full/10.1142/S201000782150007X>

11 Moreira and Stein (2019). Chapter 11.

12 See Section II.

13 Korea ranks 12th in the 2021 IMD digital competitiveness index, whereas the most competitive LAC country (Chile) ranks 39th. <https://www.imd.org/centers/world-competitiveness-center/rankings/world-digital-competitiveness/>.

Cooperation to complement and maximize market gains

While markets and the private sector have been the main drivers of the growing integration between the two economies, they clearly benefited from prolific intergovernmental cooperation, which laid the groundwork for more trade and investment. This has been about sharing knowledge, building capacity in the public sector, and exchanging policy lessons.

Structured around solid institutions, and in close cooperation with international organizations such as the Inter-American Development Bank (IDB), this cooperation has allowed the flow of Korea's development assistance to the region to increase to a total of US\$1.6 billion in grants and loans since 2008. A significant share of this assistance (US\$550.6 million since 2012) was financed and leveraged through the IDB in areas such as innovation, poverty reduction, private-sector development, and public capacity-building, which will be critical for the relationship to meet the economic, social and environmental challenges of a fast-changing world economy.



Trade: Brief Anatomy of a Relationship



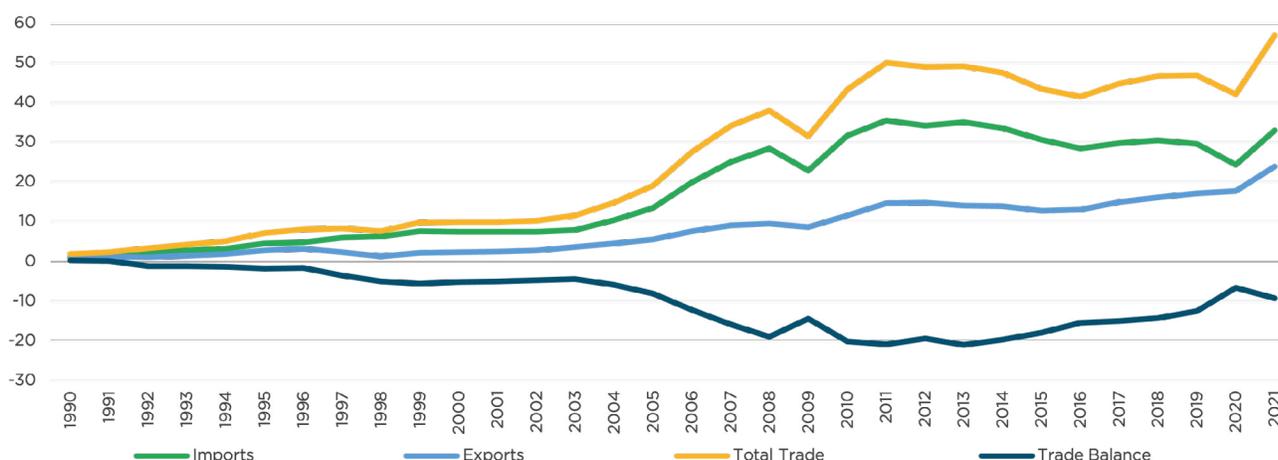
II. Trade: Brief Anatomy of a Relationship

Commodities for machines

By now, the story is well known. It all started with a bang: as LAC and Korea embraced trade liberalization in the early 1990s, they unleashed a powerful trade relationship. This was driven by the marked differences in the two economies' comparative advantages: LAC's abundance in natural resources and Korea's increasingly competitive manufacturing sector. The boom preceded the 2000s commodity supercycle but it was clearly strengthened by it as commodity prices skyrocketed (figure 1).

Since 1990, bilateral trade in goods grew at an impressive annual rate of 11.5%, reaching a record US\$57 billion in 2021, after a sharp but brief drop in 2020 as the Covid pandemic hit. As bilateral trade grew, Korea's share of LAC's trade more than doubled to 2.2%, virtually equivalent to that of Japan. LAC has also significantly increased its share of Korea's trade, which reached a peak of 6% in 2010 before falling to 4% in 2021.

Figure 1. LAC-Korea Bilateral Trade.
Goods. 1990-2021. Billions of US\$.



Source: IDB Integration and Trade Sector with data from IMF Direction of Trade Statistics (DOTS).

Note: Based on imports and exports reported by 26 LAC countries.

For most of these 30 years, the trade in goods has been markedly unbalanced, with a growing surplus for Korea. Since the financial crisis in 2009, however, this trend has been reversed, as the slowdown in the region's growth caused its imports to plateau, while exports sustained their dynamism even during the pandemic.

Table 1. Top Korean Imports from LAC 2021.

| HS6 | Product | Imports (billions of US\$) | % | Main partners |
|--------|--|----------------------------|------|---------------------------------|
| 270900 | Petroleum oils and oils obtained from bituminous minerals, crude | 5.09 | 18.2 | MEX (65%), BRA (32%), ECU (2%) |
| 260300 | Copper ores and concentrates | 2.73 | 9.8 | PER (47%), CHL (34%), PAN (13%) |
| 100590 | Maize (excluding seed for sowing) | 1.74 | 6.2 | ARG (74%), BRA (24%), PRY (2%) |



| HS6 | Product | Imports (billions of US\$) | % | Main partners |
|--------|--|-------------------------------|-------------|---------------------------------|
| 740311 | Copper, refined, in the form of cathodes and sections of cathodes | 1.66 | 6.0 | CHL (100%) |
| 260700 | Lead ores and concentrates | 1.64 | 5.9 | MEX (54%), BRA (27%), BOL (17%) |
| 260111 | Non-agglomerated iron ores and concentrates | 1.21 | 4.3 | BRA (100%) |
| 260800 | Zinc ores and concentrates | 0.95 | 3.4 | PER (44%), MEX (35%), BOL (17%) |
| 230400 | Oilcake and other solid residues, resulting from the extraction of soya-bean oil | 0.76 | 2.7 | BRA (95%), ARG (5%) |
| 470329 | Non-coniferous chemical wood pulp, soda or sulphate | 0.46 | 1.6 | BRA (48%), CHL (26%), URY (25%) |
| 260112 | Agglomerated iron ores and concentrates (excluding roasted iron pyrites) | 0.46 | 1.6 | BRA (74%), CHL (26%) |
| | Total of top 10 imported products | 16.70 | 59.9 | |

Source: IDB Integration and Trade Sector with data from International Trade Center, Trade Map.

As suggested earlier, this trade boom has been mostly about the exchange of commodities for machines. LAC's exports have been heavily concentrated in a few agricultural and mining commodities (table 1), while imports from Korea consist of a diversified basket of manufacturing goods, dominated by cars, ships, and ICT goods (table 2).

Table 2. Top Korean Exports to LAC 2021.

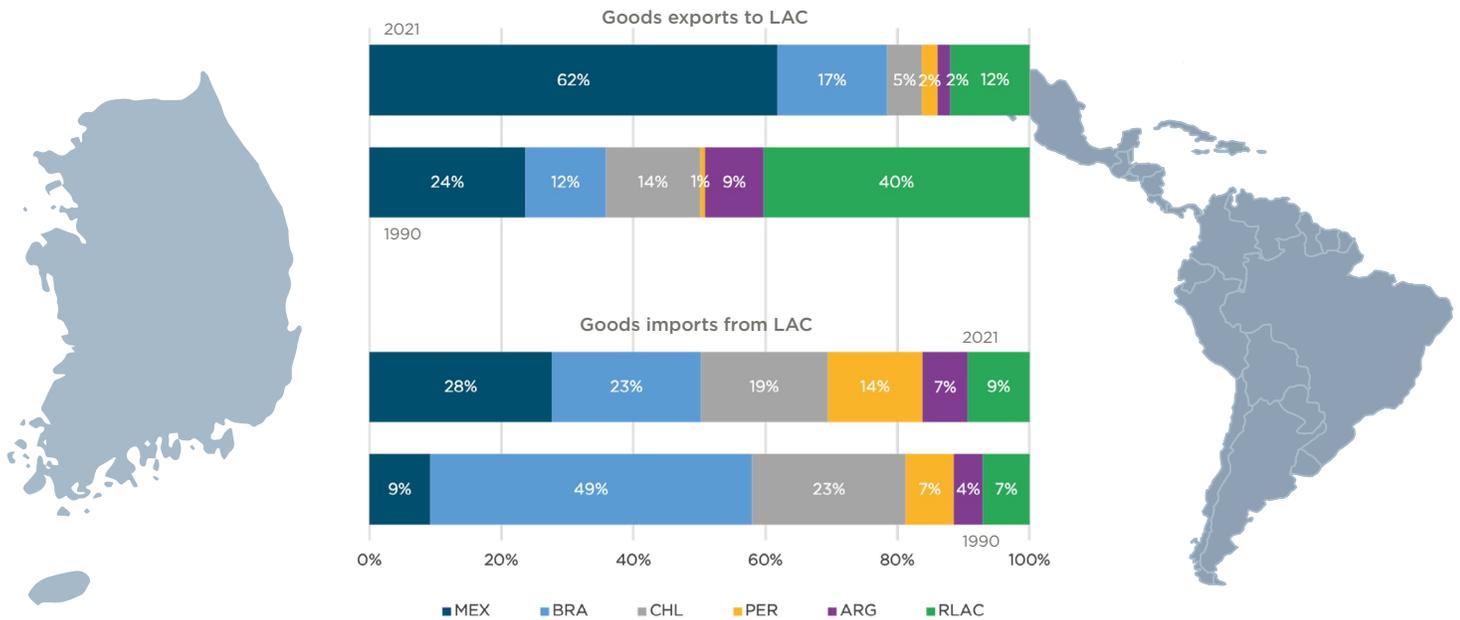
| HS6 | Product | Exports (billions of US\$) | % | Main partners |
|--------|--|-------------------------------|--------------|---------------------------------|
| 890120 | Tankers | 1.13 | 4.5 | PAN (62%), BHS (38%) |
| 870899 | Parts and accessories, for tractors and motor vehicles for the transport of ten or more persons | 0.85 | 3.5 | MEX (54%), BRA (21%), CHL (6%) |
| 890190 | Other vessels for the transport of goods and vessels for the transport of both persons and goods | 0.83 | 3.4 | PAN (77%), BHS (22%) |
| 870323 | Motor cars and other motor vehicles principally designed for the transport of persons | 0.65 | 2.6 | MEX (21%), CHL (19%), DOM (14%) |
| 854232 | Electronic integrated circuits as memories | 0.63 | 2.5 | BRA (90%), MEX (10%) |
| 852990 | Parts suitable for use with flat panel display modules, transmission and reception apparatus for radiobroadcasting, television, digital cameras, video camera recorders, radar apparatus, radio navigation | 0.58 | 2.4 | MEX (84%), BRA (14%), ARG (2%) |
| 721070 | Flat products of iron or non-alloy steel, painted, varnished or coated with plastics | 0.46 | 1.8 | MEX (75%), BRA (10%), COL (5%) |
| 721049 | Flat-rolled products of iron or non-alloy steel, not corrugated, plated or coated with zinc | 0.43 | 1.7 | MEX (93%), BRA (6%), SLV (1%) |
| 271012 | Light oils and preparations, of petroleum or bituminous minerals | 0.42 | 1.7 | ECU (73%), MEX (22%), GTM (5%) |
| 852351 | Solid-state, non-volatile data storage devices for recording data from an external source [flash memory cards or flash electronic storage cards] | 0.41 | 1.7 | MEX (96%), BRA (3%) |
| | Total of top 10 exported products | 6.39 | 25.83 | |

Source: IDB Integration and Trade Sector with data from International Trade Center, Trade Map.



This exchange has been highly concentrated in a few countries in the region, a characteristic that has become more prominent over the years, particularly because of the growing importance of Mexico as a manufacturing hub and export platform to the US (figure 2).

Figure 2. Korea’s Main Trade Partners in LAC.
1990–2021.



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

Note: Based on imports and exports of 33 LAC countries. RLAC stands for “Rest of Latin America and the Caribbean.”

The broad traits of the relationship are in line with the region’s ties with other Asian economies, notably China. However, there are at least two important distinctions. First, Korea’s manufacturing is more specialized in the high-end, tech-intensive segments of the value chain and, as such, is more complementary to LAC’s comparative advantages and less prone to creating trade frictions. This contrasts with the broad spectrum of China’s comparative advantages, which include labor-intensive, politically sensitive sectors. Commonly used indicators of export similarity show that the overlap of the region’s manufacturing exports is, in most cases, lower with Korea than with China.¹⁴ Second, LAC’s exports to Korea tend to be more diversified than those to China—the top four goods accounted for 36% of total exports in 2021 against 64% of total exports to China, including a higher share of manufacturing goods—17% versus 13% in the same year.¹⁵

The “missing” trade in services

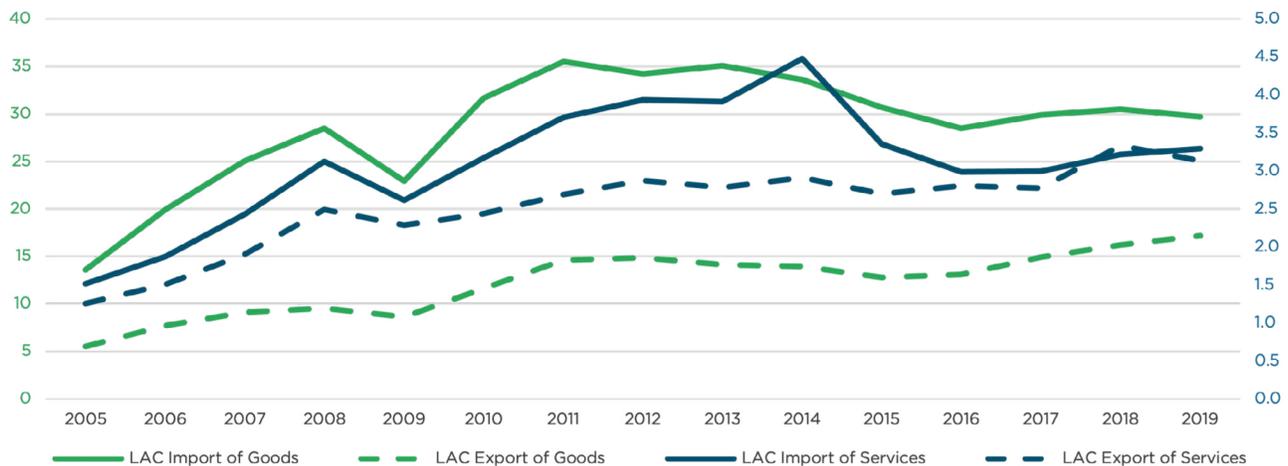
The story around trade in goods may be well known, but the same is not true of trade in services. What has happened to this relationship in the last 30 years? In principle, there were also reasons to expect a boom since the two economies’ liberalization in the 1990s also covered commercial services. However, as discussed later, the removal of barriers was more limited, services are intrinsically more difficult to trade, and the complementarity between the two economies is less obvious than in the case of goods.

¹⁴ For instance, the Finger-Kreinin index of goods export similarity between China, Korea and a sample of 21 LAC economies, calculated at HS 4 digits, is, in most cases, higher in the China than in the Korea comparison, except for Brazil and Argentina, probably driven by the auto industry.

¹⁵ Alternative measures of concentration such as the Hirschman-Herfindahl index point in the same direction. LAC’s exports to Korea reach 0.05 in 2021 against 0.11 for those to China.

What does the data say? Unfortunately, data on commercial services trade is scarce because their intangibility makes transactions notoriously difficult to track. The good news is that there are estimates available for 2005–2019. What they suggest is a dynamism akin to that observed in goods. In fact, flows of goods and services seem to have been highly correlated, sharing some of the same trends. For instance, there was a reversal in Korea’s growing surplus in services after the Global Financial Crisis, which led to a virtually balanced trade scenario right before the pandemic (figure 3). In 2019, bilateral trade in services reached US\$6.5 billion, or 14% of the trade in goods.

Figure 3. LAC-Korea Bilateral Trade in Goods and Services.
2005–2019. Billions of US\$.



Source: IDB Integration and Trade Sector with data from WTO-OECD Balanced Trade in Services Dataset (BaTiS) and the IMF DOTS. Data for 26 LAC countries.

The main driver behind these high correlations seems to be so-called trade-related services such as transportation (sea and air freight) and travel (business trips excluding tourism), albeit to a lesser extent, which support the exchange of goods. As shown in figure 4, transportation and travel accounted for 53% of LAC’s services imports from Korea in 2019, while for exports this figure was 73%. The latter has a greater percentage of travel services, likely coming from Korea’s growing foreign direct investment (FDI) and tourism in the region.

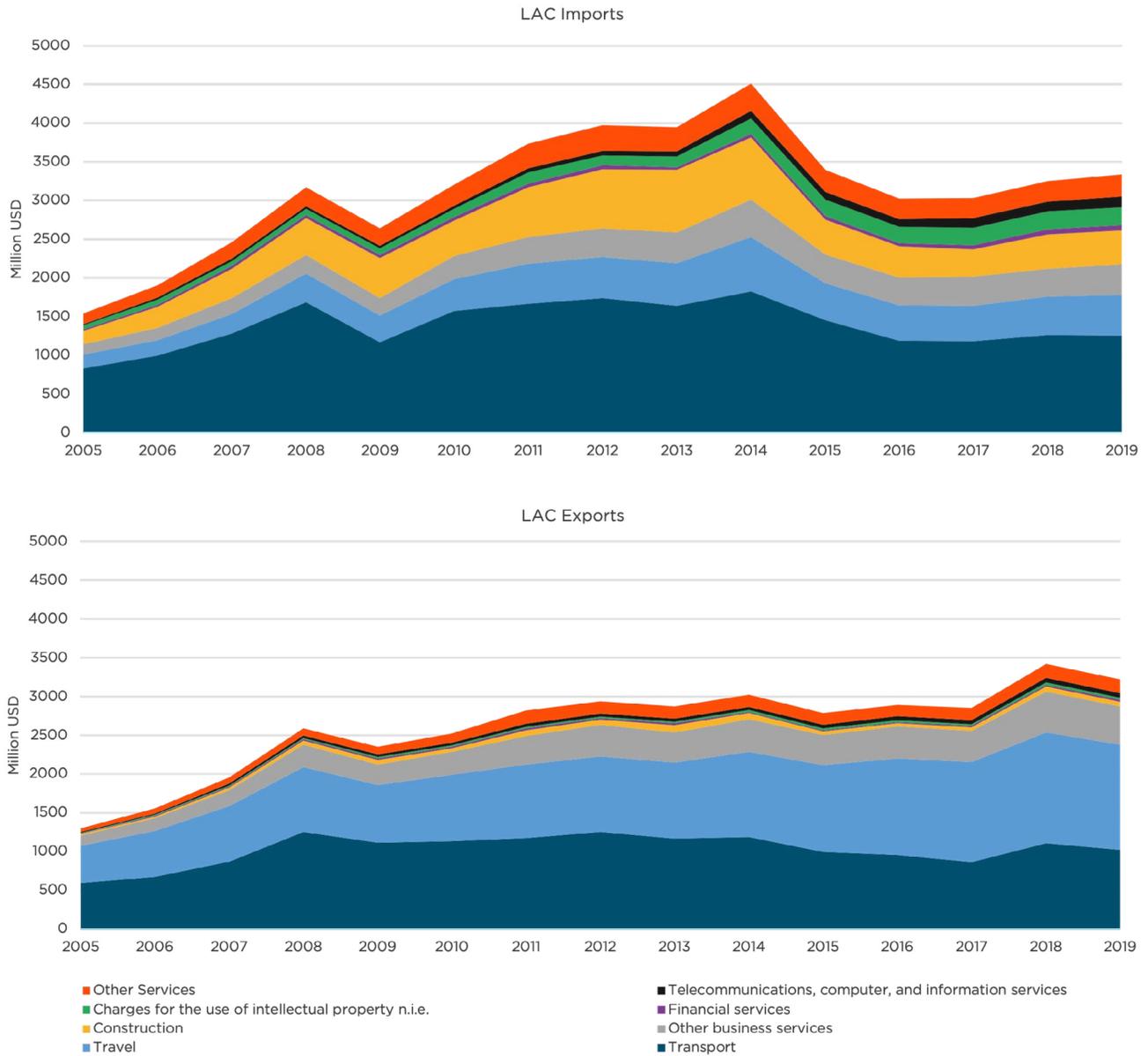
There are, though, green shoots of a boom in knowledge-based services: telecommunications, computer, and information services; intellectual property; and other business services like R&D and professional and management consultancy. These are services whose dynamics are not directly related to goods, the demand for which and the tradability of which have been significantly increased by the digital transformation, which has led to lower transportation, communication, and information costs.¹⁶

As expected, this fledgling boom is far more visible in LAC’s imports from Korea, reflecting the latter’s greater investments in R&D and human capital. Knowledge-based services accounted for 24% of LAC imports from Korea in 2019, up from 13% in 2005. Although lagging, the share of these services in LAC exports to Korea is not much further behind, increasing from 12% to 18% over the same period, led by other business services. As in the case of goods, bilateral trade in services tends to be concentrated in a handful of countries, but to a considerably lesser extent, with a stronger presence of the smaller LAC economies, particularly the Caribbean (figure 5).

16 DIA Chapter 11.



Figure 4. LAC-Korea Bilateral Trade in Services.
Category composition. 2005–2019. Millions of US\$.



Source: IDB Integration and Trade Sector with data from WTO-OECD Balanced Trade in Services Dataset (BaTiS).



Figure 5. LAC-Korea Bilateral Trade in Services.
Country composition. 2005–2019. %.



Source: IDB Integration and Trade Sector with data from WTO-OECD Balanced Trade in Services Dataset (BaTiS).



Is there room for improvement?

There is little doubt that this growing and robust trading relationship brought significant productivity and welfare gains for both economies over the last three decades. But has it reached its full potential? Is it strong enough to weather and take advantage of the myriad shocks that have been disrupting the world economy lately?

There is nothing so good that it cannot be improved. Policymakers should also heed the proverbial warning that “if it ain’t broken, don’t fix it.” A lot of the concerns raised about the LAC–Korea relationship over the last 30 years have been about the “unfair” exchange of commodities for machines, which, compounded by trade imbalances, are allegedly jeopardizing LAC economies.

This sort of concern seems to be grounded in misguided beliefs that the only exports that will bring benefits are those of manufacturing goods, because of their presumed technological sophistication. Or that trade relationship should necessarily be balanced. There is nothing in mainstream economics to support these beliefs. Indeed, the mercantilist obsession with bilateral or multilateral surpluses was debunked as far back as the 18th century by Adam Smith.

Both mining and agriculture can be highly sophisticated enterprises, drawing from a wide array of technologies. Ironically, as was discussed in the introduction, LAC’s abundance of natural resources turns out to be an asset when it comes to weathering the current food, energy, and climate crises and in the process create new opportunities to trade and cooperate with Korea. The latter’s exports of ICT and environmental goods, in turn, is highly instrumental for the region to make the most of this potential.

There would be legitimate causes for concern if this exchange of commodities for machines were the result of government intervention. This is clearly not the case. This is about comparative advantages. Yet, it can be argued that, despite considerable progress, the relationship is not entirely free from intervention, particularly in the form of tariff and nontariff barriers and cumbersome customs procedures. Likewise, government policies, particularly in LAC, have fallen short of eliminating bottlenecks in the transportation infrastructure. These are the real reasons for concern, and this is where there is considerable room for improvement.

Tariff and nontariff barriers

Korea still imposes import tariffs on the agricultural exports of most countries in LAC, except for those it has already signed a PTA with Chile, Peru, Colombia, and Central America (figure 6). The levels of protection of these goods also follow a steep pattern of “tariff escalation” (i.e., higher tariffs for more processed goods), posing greater challenges for LAC firms that want to diversify and add value to their food exports. For some of these food products (e.g., dairy products, fruits, vegetables, maize, and soybeans), tariffs are combined with quantitative restrictions—tariff quotas—with “in-quota” tariffs that can be as high as 50%.¹⁷

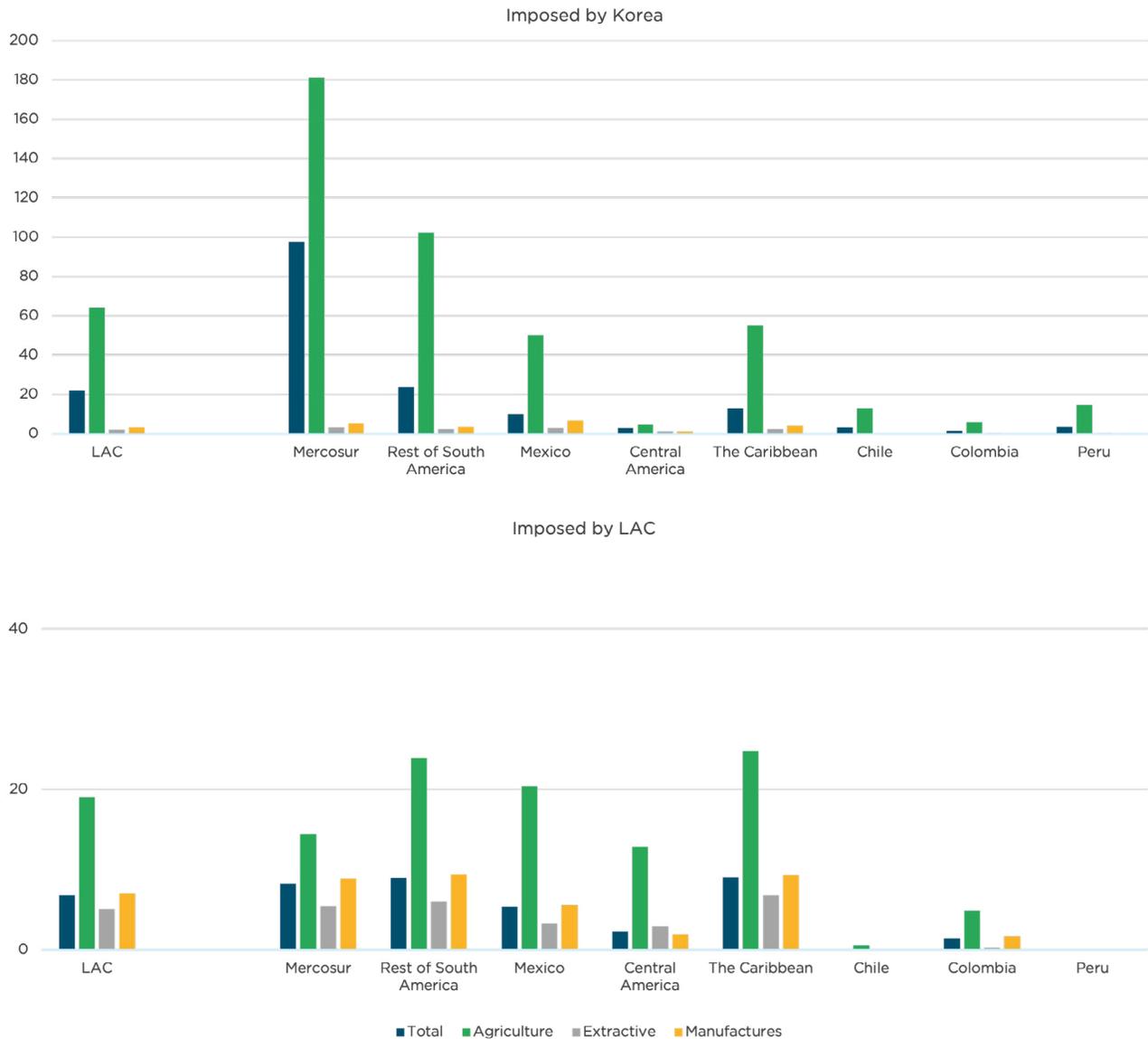
LAC, in turn, has some of its largest economies, particularly those that are part of MERCOSUR, still imposing nearly double-digit tariffs on Korea’s manufacturing exports—also plagued by tariff escalation. Surprisingly, given their comparative advantages, tariffs on agricultural goods are even higher.

High levels of protection for agriculture are likely to be particularly costly, not only because of the standard efficiency and equity considerations—the price of food weighs much more heavily on the budget of the poor—but because of the current challenges posed by the food and climate crises. The best way to close the world’s food gap without increasing emissions is to allow resources to flow to the most productive regions with the smallest carbon footprints.

17 WTO Trade Policy Review—Republic of Korea (2021).

A similar argument can be made for goods that are directly related to the digital transformation and the sanitary and environmental crises. As shown in figure 7, there is still considerable room to eliminate tariffs on these goods. Freer trade would allow both economies to make the most of the digital transformation while pooling resources to address the sanitary and environmental crises at the lowest possible cost.

Figure 6. LAC-Korea Applied Tariffs.
2020. %.

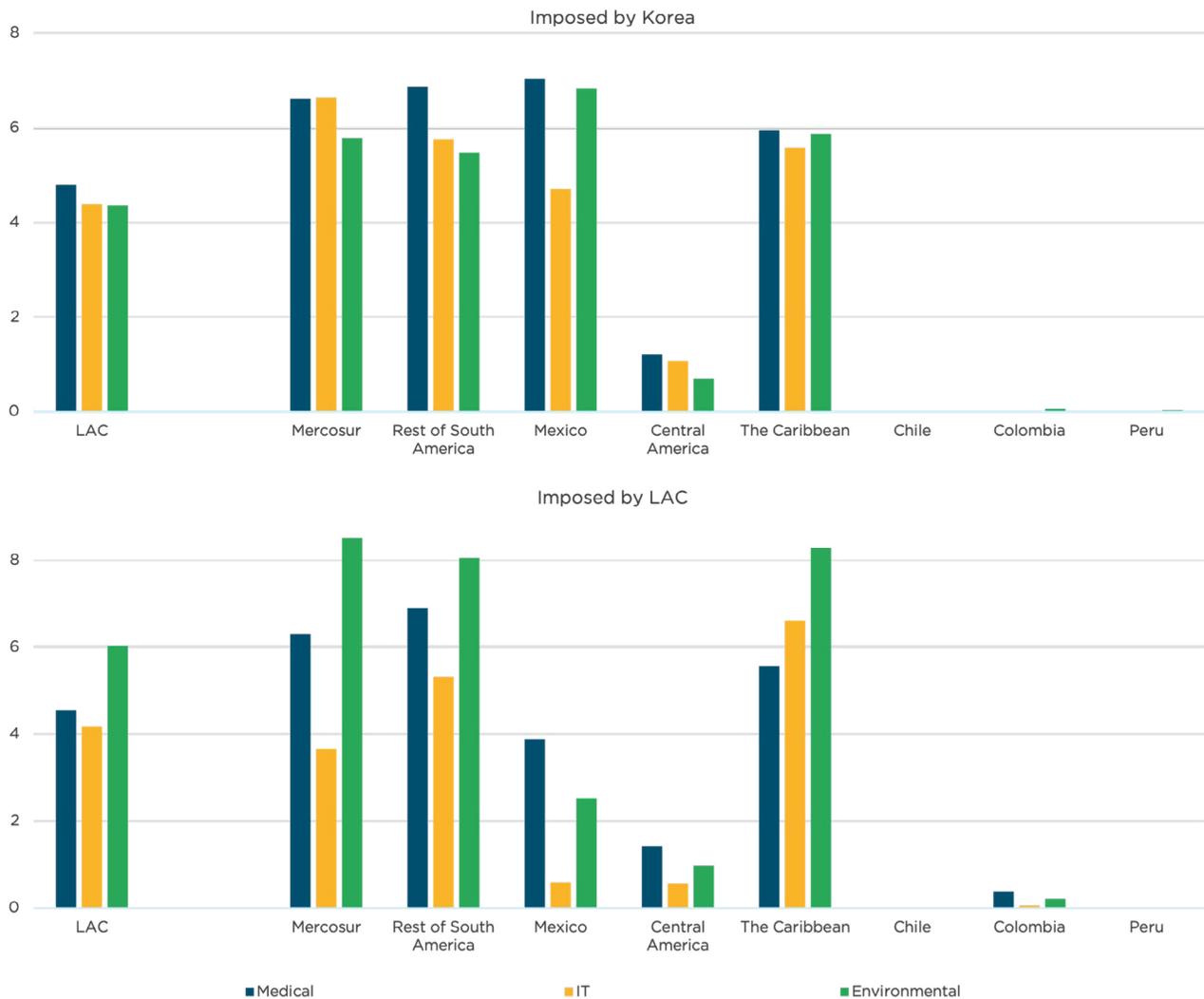


Source: IDB Integration and Trade Sector with data from WITS, BACI, and ITC MacMap.

Note: Bilateral tariffs were aggregated at the HS 6-digit level considering the weight that each product represented in the partner's exports to the world in 2019. Country-group tariffs are a simple average of the member's bilateral tariffs. Most tariffs are from 2020. Exceptions include Korean tariffs imposed on CRI, NIC, HND, SLV, and PAN (2021) and tariffs imposed by BHS and TTO (2018) and GRD (2019).



Figure 7. LAC–Korea Applied Tariffs on Information Technology, Environmental and Medical Goods. 2020. %.



Source: IDB Integration and Trade Sector with data from WITS, BACI, and ITC MacMap.

Note: Bilateral tariffs were aggregated from the 6-digit level considering the weight that each product represented in the partner’s exports to the world in 2019. Country-group tariffs are a simple average of the member’s bilateral tariffs. Most tariffs are from 2020. Exceptions include Korean tariffs imposed on CRI, NIC, HND, SLV, and PAN (2021) and tariffs imposed by BHS and TTO (2018) and GRD (2019). Products 220710 and 130219 were removed from the medical and environmental product group imposed by Korea due to a significantly high tariff-rate quota.

The trade agenda relating to services is also significant. As argued earlier, data on trade in services is scarce, particularly when it comes to barriers to this. There are thorny difficulties in measuring and quantifying regulatory barriers. However, the evidence available suggests that both economies have some important homework to do to explore the full potential of their bilateral trade, particularly in the all-promising realm of digitally delivered services.

For instance, there is evidence that some of the largest economies in the region have a significantly higher tax burden for service imports that can be twice as high as those for local providers.¹⁸ There

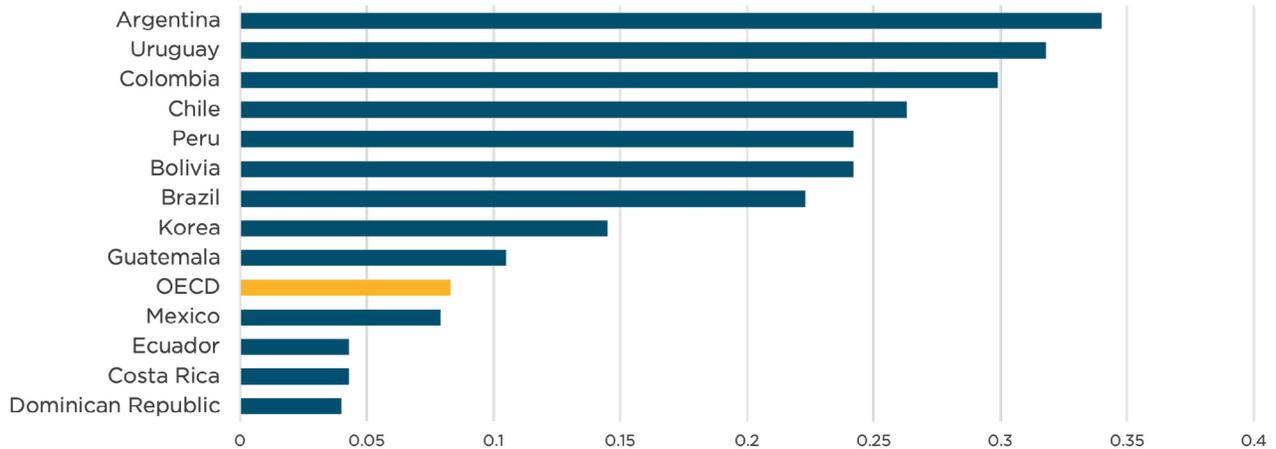
¹⁸ Danielle Trachtenberg (forthcoming). “Tax Barriers to Services Imports in Latin America and the Caribbean: The case of IT Services. IDB Monograph series.



is also evidence from regulatory indices that suggests that most LAC economies and Korea have higher restrictions on trade in services than the OECD average. This is particularly the case for digitally enabled services, as shown in figure 8. For services in general, the picture is more mixed, with the level of restrictions varying widely across types of services (figure 9).

Figure 8. Digital Services Trade Restrictiveness Index.

Korea and selected LAC countries. 2021.

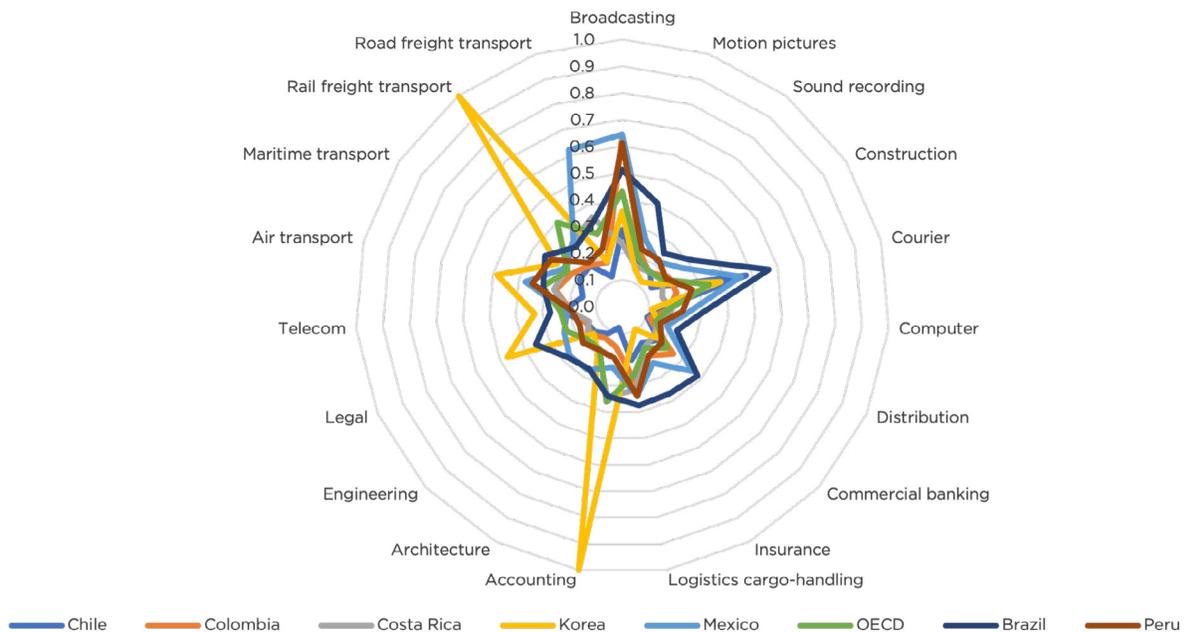


Source: IDB Integration and Trade Sector with data from the OECD's Services Trade Restrictiveness Index.

Note: Complete openness to trade and investment gives a score of zero, while being completely closed to foreign service providers yields a score of one.

Figure 9. Services Trade Restrictiveness Index.

Korea and selected LAC countries. 2021.



Source: IDB Integration and Trade Sector with data from the OECD's Services Trade Restrictiveness Index.

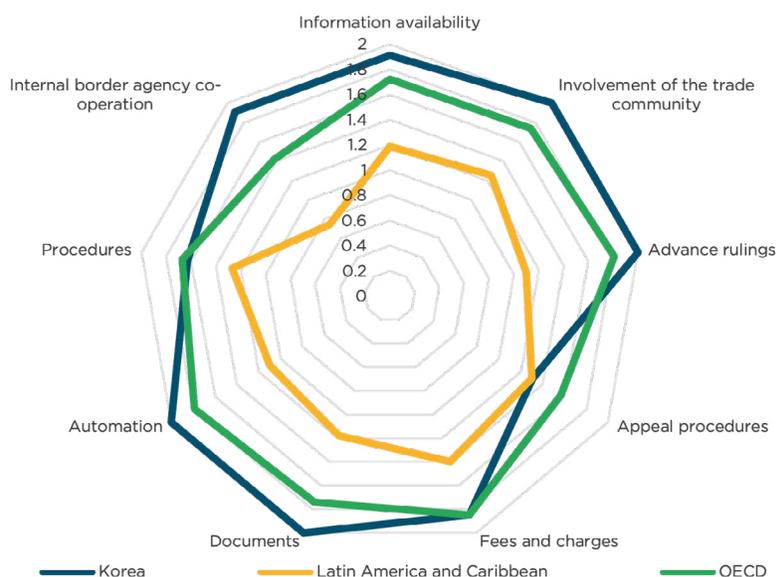
Note: Complete openness to trade and investment gives a score of zero, while being completely closed to foreign services providers yields a score of one.



Trade facilitation and logistics

There are also opportunities for improvement on the other two fronts of the trade relationship—trade facilitation and logistics. Their importance was made abundantly clear as value chains became clogged and freight rates skyrocketed in the aftermath of the pandemic.¹⁹ LAC has a lot to learn about trade facilitation from Korea, whose indicators suggest that it is ahead of the OECD in most dimensions, while LAC lags behind (figure 10). This is likely to reflect Korea’s full implementation of the WTO 2013 Trade Facilitation Agreement, a feat the region has yet to achieve, having implemented only 75% of the requirements, on average.²⁰

Figure 10. Trade Facilitation Index.
LAC, Korea, and the OECD. 2019.



Source: IDB Integration and Trade Sector with data from the OECD’s Trade Facilitation Index.

Note: TFIs take values from 0 to 2, where 2 designates the best performance that can be achieved. These seek to reflect not only the regulatory framework in the countries concerned but delve into the state of implementation of various trade facilitation measures, as far as is possible.

The same can be said about logistics, with Korea usually better placed than LAC in logistic indices such as the Logistic Performance Index (LPI). In the latest available figures (2018), the country was 25th in the ranking, whereas the best-placed LAC economy, Chile, ranked 34th.

Low transportation and logistics costs should be a top priority in a relationship between two economies sitting more than ten thousand miles apart and trading a significant amount of transportation-intensive, “heavy” commodities. Systematic data on shipping rates would provide better diagnostics for guiding the bilateral agenda on this issue, as would the number of shipping firms competing in bilateral routes. Unfortunately, this sort of information is hard to find.

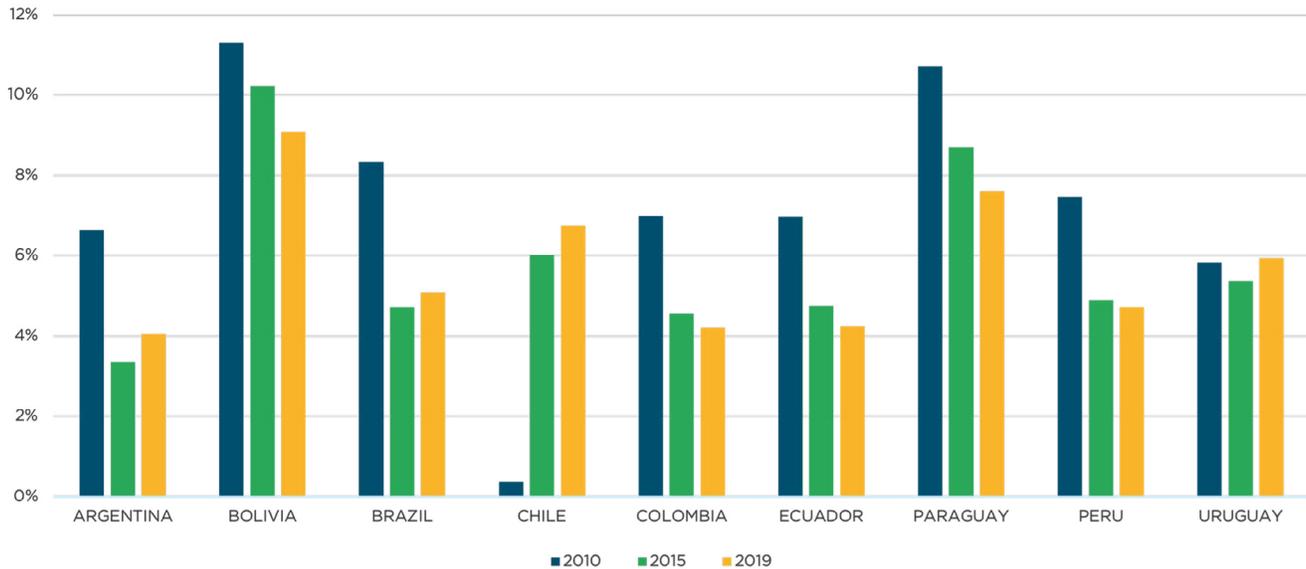
What can be observed are the freight rates paid by LAC importers of Korean products, which shed some light on the scale of the problem and recent trends. However, this is clearly a partial view—

¹⁹ Blyde and Volpe Martincus (2022), <https://blogs.iadb.org/integration-trade/en/how-are-global-shipping-disruptions-affecting-latin-american-freight-rates%ef%bf%bc>.

²⁰ WTO (n.d.), https://www.wto.org/english/tratop_e/tradfa_e/tradfa_e.htm.

transportation costs for LAC commodity exporters are likely to be significantly more relevant given the nature of the goods being transported. In any event, the data on LAC imports from Korea suggests that there were signs of improvement, at least until the onset of the pandemic, with ad valorem freight rates falling for most countries (figure 11).

Figure 11. Ad Valorem Freight Rates for LAC Imports from Korea.
2010–2019. %.



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

Note: Ad valorem freight rates are calculated by taking the ratio of freight over imports in CIF values for each LAC country-partner-year-mode of transportation. The picture above shows the median ad valorem freight. Data for Argentina and Ecuador in 2019 only include flows until September. Data for Bolivia include freight and insurance.

PTAs as the way forward

As the figures on bilateral tariffs already suggested, PTAs can be a very effective tool for eliminating trade barriers. But this is just one aspect of what they can do, especially given the current disruptions to the global economy.

One of the main extra benefits is related to uncertainty. As the WTO falters and countries resort to protectionist measures, PTAs can reaffirm LAC and Korea’s commitment to rules- and market-based international trade, without which bilateral trade and investment will falter and the search for resilient value chains will remain elusive. Other important benefits include providing an institutional platform to address the growing demands for better labor and environmental standards and explore the joint opportunities in goods and services coming from the digital transformation.

As mentioned briefly earlier, there are currently four PTAs in force between LAC and Korea, which cover only a limited number of LAC economies: Chile, Colombia, Peru, and Central America (figure 12 and table 3). There are, though, four other ongoing bilateral negotiations—MERCOSUR, Mexico, Ecuador, and Guatemala—which, if successful, will cover more than 90% of the region’s GDP and bilateral trade. Korea is also applying to become an Associated State of the Pacific Alliance, a regional PTA that includes Chile, Colombia, Mexico, and Peru.²¹

21 Pacific Alliance (2022), <https://alianzapacifico.net/en/pacific-alliance-south-korea-negotiations-begin>.

As the current PTAs and ongoing negotiations cover a wide range of “new” issues—including services, digital trade, investments, and labor and environment standards—they are uniquely equipped to move the relationship forward in this new global environment. It is important, though, that partners broaden and strengthen the enforceability of their provisions, particularly on the politically pressing issues of labor and environmental standards. This is especially relevant in light of the current paralysis afflicting the WTO dispute settlement mechanism.

On the labor side, it is important to reassure the public that labor legislation will be enforced and that workers will not face any type of discrimination based on gender and race. Turning to environmental matters, agreements can go beyond the current commitments of the Paris Agreement by offering innovative policy frameworks such as the mutual recognition of emissions trading systems. Solutions that would allow for more ambitious emissions targets at a lower social cost.

Figure 12. LAC-Korea Preferential Trade Agreements.

In force and under negotiation. 2022.



Source: IDB Integration and Trade Sector with data from Ministry of Trade, Industry, and Energy.



Table 3. LAC-Korea PTAs in Force.
Policy coverage and enforcement.

| Discipline | Peru | Colombia | Chile | Central America |
|--------------------------------|------|----------|-------|-----------------|
| Trade facilitation and customs | | | | |
| Services | | | | |
| Public procurement | | | | |
| Movement of capital | | | | |
| Investment | | | | |
| Competition policy | | | | |
| Environmental laws | | | x | |
| Labor market regulation | | | x | |
| Visa and asylum | x | | | x |

| | |
|---|---------------|
| | Enforceable |
| | Unenforceable |
| x | Not included |

Source: IDB Integration and Trade Sector with data from World Bank, Deep Agreements Database, and OAS-SICE.



Investment: Driving Digitalization and Sustainability



III. Investment: Driving Digitalization and Sustainability

It took longer for LAC-Korea bilateral investment to take off than it did for bilateral trade, but the former eventually reacted to the more favorable policy environment and the growing volumes of trade. Flows have been notoriously more imbalanced than in the case of trade—they center almost totally on Korea’s investments in LAC—but this is not entirely unexpected. Korea has accumulated capital and technology much faster than the region in the last 30 years and has been in a better condition to export them.

The investment boom came in early in the commodity supercycle, peaking in 2012, when approximately US\$2.4 billion—8.1% of all Korean outward FDI flows—was invested in multiple projects across the region. From 2015 until 2020, these bilateral flows entered a declining trend, with LAC losing momentum as a destination. The good news, though, is that not only did the pandemic not lead to a steep fall, but investment surged to approximately US\$2 billion again in 2021, growing at a faster pace than Korea’s overseas investment in the rest of the world (see figure 13).

Figure 13. Korea’s Outward Investment Flows to LAC.
2000–2022*. Millions of US\$.



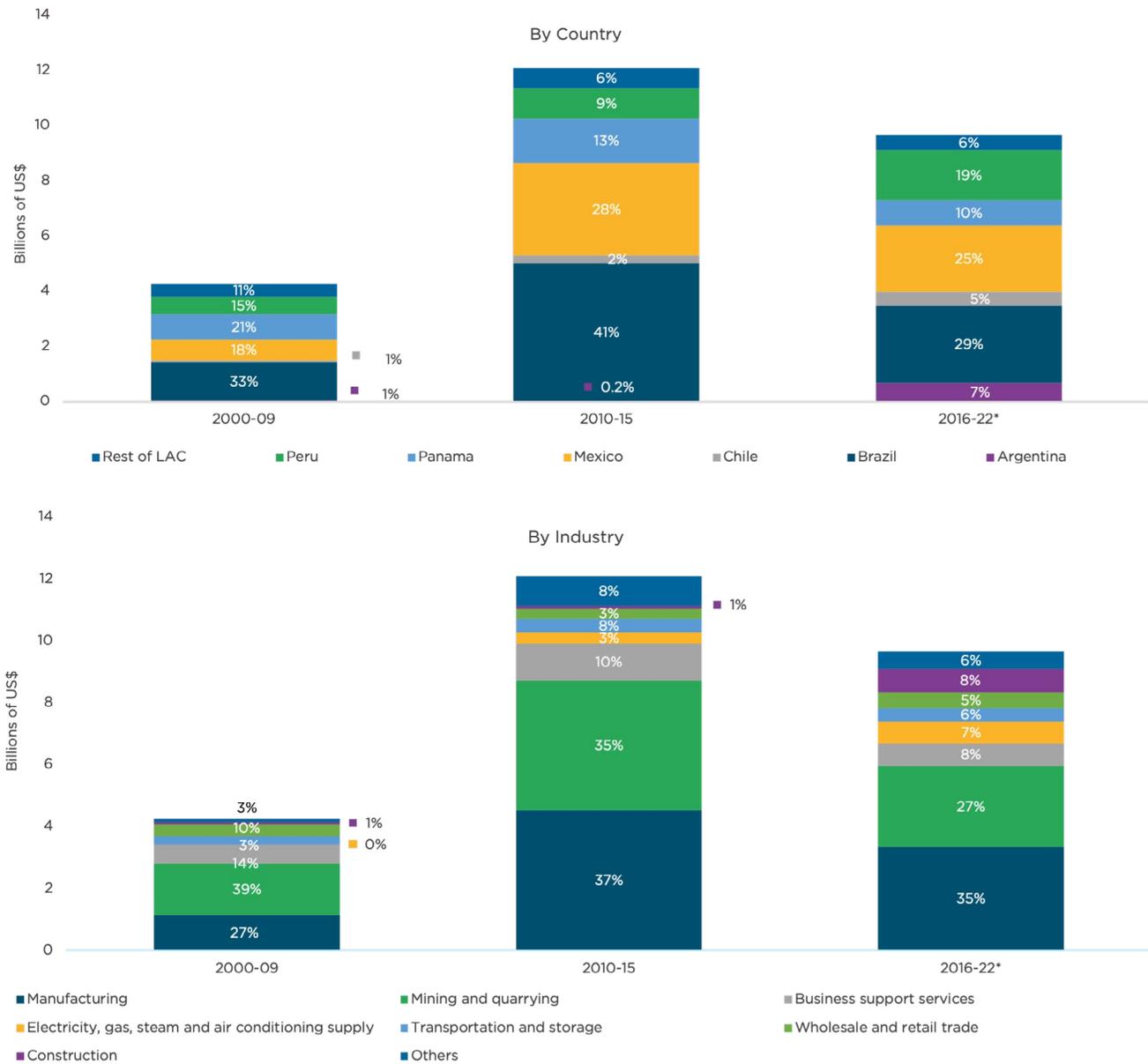
Source: IDB Integration and Trade Sector with data from the Export-Import Bank of Korea (KEXIM).

Note: The share represents the proportion of FDI from Korea with LAC as its destination. *Values for 2022 represent outflows for the first quarter of the year.

This evolution can be further understood by analyzing the sectors and LAC countries that attracted the most Korean investment over the past two decades (see figure 14). The main destinations for Korean investment have been the region’s largest economies, Brazil and Mexico, which have attracted around 60% of flows since 2000, mainly to mining projects.



Figure 14. Foreign Direct Investment Outflows from Korea to LAC.
2000–2022. Billions of US\$.



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

Note: Each bar represents the cumulative value of Korean FDI outflows for all 33 LAC countries during the reference period.
*Values for 2022 represent outflows for the first quarter of the year

This started to change at the beginning of the following decade as investors started to switch to more diversified investments in manufacturing. Investment went to different sectors, ranging from the automotive sector—Kia in Mexico and Hyundai in Brazil and Mexico—to consumer electronics—Samsung and LG in Brazil and Mexico. This shift contributed to improving the quality of investment, which allowed host economies to enhance the productive process; transfer technology, knowledge, and know-how; and create new jobs.



During this period, Mexico replaced Panama as the second-largest recipient of Korean FDI, attracting over a quarter of the cumulative flows between 2016 and the first quarter of 2022. Korean companies seeking proximity to the North American market and its value chains helped shape this trend. In contrast, Panama saw its share drop from 21% in 2000–2009 to 10% in 2016–2022. Despite this loss, Korean investment in Panama remains substantial, mainly driven by business management and support services, as well as transportation (see box 1).

In contrast to Brazil and Mexico, Korea's investments in mining and quarrying in Peru did not lose momentum over the last 20 years and still account for most of the inflows (98%). In 2021 they reached a historic peak, representing more than US\$470 million in value.

Investment in a sustainable future

The benefits of this increasingly robust investment relationship are likely to be particularly beneficial for both economies when it comes to navigating the current disruptions to the world economy, particularly with respect to the climate crisis. The Korean government and multinational enterprises (MNEs) have stepped up their investment in clean, renewable energies, the spillovers of which are likely to benefit LAC and the world.

Hydrogen is a case in point. In 2021, Korea approved the world's first hydrogen law, the Hydrogen Economy Promotion and Hydrogen Safety Management Law. It lays the groundwork for a hydrogen economy, offering concessional loans and tax incentives for research and development.²² Within the law's framework, the Korea Gas Corporation (KOGAS), a state-owned utility company, plans to invest around US\$27 billion overseas by 2040 to establish renewable power generation facilities to produce "green" hydrogen.²³

Production of green hydrogen will be most cost-effective in locations that have an optimal combination of abundant renewable resources, available land, access to water, and the ability to transport and export energy to large demand centers.²⁴ These characteristics make LAC one of the most competitive destinations for this investment, given its abundant endowment of renewable energy, as discussed above.

This complementarity extends to other areas of decarbonization, which is already a reality in the electric mobility segment. Lithium is a critical input in value chains for batteries and can be found in abundance in a few regions of LAC. The so-called Lithium Triangle, which encompasses parts of Bolivia, Chile, and Argentina, holds around 58% of the world's lithium resources.²⁵

Korean firms hold strong positions in the lithium battery and electric vehicle value chains and are already investing to exploit this potential. In 2018, for instance, POSCO—a Korean steel and energy MNE—acquired lithium tenements in the Hombre Muerto salt lake in northern Argentina for US\$280 million. This transaction was one of the largest mergers and acquisitions (M&A) of Korean firms in the region (table 4). Recently, POSCO announced plans to invest an additional US\$4 billion in Argentina (see box 1).²⁶

22 (Kim, 2021a), <http://www.koreaherald.com/view.php?ud=20210208000926>.

23 (Kim, 2021b), <http://www.koreaherald.com/view.php?ud=20210728000563>.

24 IRENA (2022), <https://www.irena.org/publications/2022/Jan/Geopolitics-of-the-Energy-Transformation-Hydrogen>.

25 USGS (2021), <https://pubs.usgs.gov/periodicals/mcs2021/mcs2021-lithium.pdf>.

26 Reuters (2021), <https://www.reuters.com/world/americas/south-koreas-posco-invest-4-bln-lithium-project-argentina-2022-03-21/>.

Table 4. Largest Korean M&As in Latin America and the Caribbean.
2000–2022*.

| Year | Acquirer company | Target assets/company | % acquired | Announced total value (millions of US\$) | Target country | Sector | Seller company (country) |
|-------|--|---|------------|--|----------------|----------------|---------------------------------------|
| 2009 | Korea National Oil Corp. (KOR), Ecopetrol S.A. (COL) | Offshore International Group Inc. | 100 | 900 | Peru | Oil&Gas | |
| 2011* | POSCO Holdings Inc., Korea Investment Private Equity Co Ltd. | Cia. Brasileira de Metalurgia e Mineração | 5 | 650 | Brazil | Mining | |
| 2012 | Polaris Shipping Co Ltd. | 10 ships for transporting iron | 100 | 600 | Belize | Transportation | Vale S.A. (BRA) |
| 2017 | CJ CheilJedang Corp., STIC Investment Inc. | Sementes Selecta S.A. | 90 | 318.21 | Brazil | Beverages | |
| 2011 | Korea Electric Power Corp. | Jamaica Public Service Co Ltd. | 40 | 287.43 | Jamaica | Electric | |
| 2018 | POSCO Holdings Inc. | Lithium tenements—Hombre Muerto salt lake | 100 | 280 | Argentina | Mining | Galaxy Resources Ltd. (AUS) |
| 2019 | GS Engineering & Construction Corp. | FIP Operações Industriais/Brk Ambiental | 82.76 | 268.77 | Brazil | Water | Brookfield Business Partners LP (CAN) |
| 2011 | Korea Resources Corp. | Santo Domingo copper iron gold project | 30 | 218.64 | Chile | Mining | Capstone Mining Corp. (CAN) |
| 2010 | Samsung C&T Corp./Korea Resources Corp. | Mining Assets | 30 | 190 | Chile | Coal | |
| 2012 | Korea Panama Mining Corp. | Minera Panama S.A. | 20 | 169 | Panama | Mining | Inmet Mining Corp. (CAN) |

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

* This is not considered an M&A transaction because of the small share acquired. However, it shows the importance of Korean investment in LAC.

Box 1. Success Stories of Korean Firms in LAC

Developing the lithium battery value chain: POSCO in Argentina

In 2010, the POSCO Group, a South Korean steelmaker, developed a lithium extraction method that reduced the extraction time from 12–18 months to between 8 hours to 30 days, while simultaneously increasing yields. After a period of research and feasibility studies, the company started piloting production in different locations, such as the Maricunga salt lake in Chile (2013) and the Pozuelos salt lake (2014) and Cauchari salt lake (2015) in Argentina.

Seeking to scale up production and strengthen its position in the lithium battery value chain, in 2018 POSCO acquired lithium tenements in the Hombre Muerto salt lake in northern Argentina for US\$280 million.



By the first quarter of 2022, after solid results on the pilot plans, POSCO pledged to invest another US\$4 billion in the lithium industry in Argentina. On the same date that this announcement was made, it started constructing the first commercial plant to extract and purify brine lithium, consequently producing lithium phosphate. A second plant, which will be located in the General Güemes Industrial Park, will use this input to manufacture lithium hydroxide.

The facilities are expected to be completed in the first half of 2024 and will have an initial annual production capacity of 25,000 tons of lithium hydroxide. Production is expected to be increased in stages to a maximum of 100,000 tons by 2028. This will contribute significantly to Argentina's current supply of lithium, which is expected to reach 77,500 tons by the beginning of 2023. The 25,000 tons of lithium hydroxide produced by POSCO Group can be used to power about 600,000 electric vehicles. This figure can increase to 2.4 million, if production of lithium hydroxide increases to 100,000 tons. Furthermore, this FDI will generate US\$260 million per year in exports for the next 30 years while simultaneously generating 1,900 jobs in the same period.²⁷

Building long-lasting transportation infrastructure: a Hyundai-led joint venture in Panama

In February 2020, the HPH Joint Venture Consortium—composed of Hyundai Engineering & Construction (51%), POSCO E&C (29%), and Hyundai Engineering (20%)—was awarded a US\$2.85 billion contract for the design, construction, and financing of Panama Metro line 3. The Korean consortium outbid the proposals of the China Railway Group and the Spanish–Chinese ACPC consortium.

The new metro line is the largest infrastructure project initiated by the Panama government and consists of a total of 25km of elevated railways (monorail), 12 stations, and one vehicle depot. The project connects Panama City and Arraiján and will help decongest traffic on roads into and out of Panamanian capital, while connecting approximately 500,000 Panamanians (12% of the population) who live in the Province of Panama Oeste to the capital. The end-to-end journey time will take 45 minutes and the line will have a carrying capacity of 20,000 passengers/hour in each direction during peak times.

Positive economic and environmental effects are expected to emerge from this investment. First, a direct effect on employment can already be seen. Construction started in 2021, and 2,500 new jobs have been created, a number which is expected to double by the end of the project. Second, because of enhanced transportation and logistics, the project is intended to stimulate economic development in the surrounding areas, attracting new housing, commercial, industrial, and other projects. On the environmental side, carbon dioxide emissions are expected to drop by 20,000 tons per year due to traffic reductions.

The HPH Consortium's previous experience in numerous infrastructure megaprojects such as a similar monorail in the city of Daegu in Korea is also an advantage. HPH has signed a cooperation agreement with the Daegu Metropolitan Transit Corporation, through which all the knowledge acquired during the operation of this transportation system will be made available to the Panama Metro.²⁸

27 POSCO (2017), <https://newsroom.posco.com/en/posco-innovation-shapes-lithium-market/>; POSCO (2022), <https://newsroom.posco.com/en/posco-holdings-begins-construction-of-saltwater-lithium-plant-in-argentina/>; Reuters (2022), <https://finance.yahoo.com/news/south-koreas-posco-invest-4-204130789.html>; Government of Argentina (2022) <https://www.argentina.gob.ar/noticias/se-inauguro-la-primer-planta-comercial-de-litio-de-salta>; América Economía (2022), <https://www.americaeconomia.com/posco-argentina-proyecto-litio-salta>.

28 HPH Consorcio (2022), <https://consorciolinea3.com/>; Hyundai E&C (2022), https://en.hdec.kr/en/company/press_view.aspx?CompanyPressSeq=197#YxIcpHbMI2w; Herh (2020) <http://www.businesskorea.co.kr/news/articleView.html?idxno=40946>

Expanding and diversifying presence in manufacturing: LG Electronics in Brazil and Mexico

LG Electronics' presence in Mexico and Brazil dates back to the 1990s. In 1995, LG established a factory in Manaus, in the northern state of Amazonas, where it manufactured consumer goods including TVs, microwave ovens, DVD players, and air conditioners. In 2005, the company opened a plant in Taubaté, in the state of São Paulo, producing mobile phones, laptops, and monitors.

In early 2021, the company announced it would wind down its mobile phone business worldwide and would therefore relocate its monitor and laptop manufacturing lines to Manaus. To this end, LG announced that it would enlarge its Manaus plant by 12,000 square meters through an estimated investment of US\$62 million. Once work has been completed and the new facilities are fully operational, LG will become the fourth-largest employer in Amazonas, adding 150 jobs and growing its local workforce to 2,200 members.

LG also arrived in Mexico in the 1990s. The company acquired Zenith, a former US TV manufacturer, along with its Mexican operations. Over the past 30 years, the company consolidated its production of consumer goods in the North American market producing from three different locations: Monterrey and the US border cities of Mexicali and Reynosa.

In 2021, LG Electronics formed a joint venture with the Canadian firm Magna International Inc., LG Magna e-Powertrain, to enter the electric vehicle value chain. In April 2022, they announced the construction of a new US\$100 million plant in Ramos Arizpe, Mexico. The 260,000-square-foot facility will be LG Magna e-Powertrain's first production base in North America and is anticipated to add about 400 new jobs. Scheduled for completion in 2023, the new factory will produce electric vehicle parts, namely inverters, motors, and onboard chargers to support General Motors' electric vehicle production. LG Magna e-Powertrain combines LG's expertise in developing components for motors, inverters, and onboard chargers with Magna's know-how in electric powertrain systems and automotive manufacturing.²⁹

On the other side of the relationship, LAC's investments in Korea have been of a much smaller magnitude. In 2013–2020, LAC's net FDI in Korea totaled approximately US\$770 million, most of which was in the form of equity investments. The largest flows come from countries that act as intermediate destinations for investments whose source cannot be positively identified as being LAC investors, such as Barbados, Panama, and Bahamas (see table 5). Not considering these countries, Mexico has been the largest LAC investor in Korea.

Box 2. Success Story of a LAC Firm in Korea

Supporting animal health through vaccines: Biogénesis Bagó from Argentina

The history of Biogénesis Bagó in the veterinary sector dates back to 1934, when Laboratorios Bagó was founded in Argentina. Over the years the company has grown, established itself as an important player in the animal health industry, and become a global leader in the production of foot and mouth disease (FMD) vaccines. The company researches, develops, and commercializes biotechnological products and veterinary services, which provide effective solutions to key diseases that impact animal health and herd productivity around the world. Its products and services reach more than 40 countries worldwide.

29 LG (2021), <https://www.lgnewsroom.com/2021/05/expanding-production-to-create-more-opportunities-in-brazil/>; MAGNA (2022), <https://www.magna.com/company/newsroom/releases/release/2022/04/19/news-release---lg-magna-e-powertrain-celebrates-groundbreaking-of-new-facility-in-mexico>; Son (2022), <https://www.koreaherald.com/view.php?ud=20220420000665>.

Biogénesis Bagó’s relationship with Korea started in 2016. After two years of intense efforts—testing the efficacy and duration of immunity of the Argentine vaccine (O1 Campos strain) against the virus strain present in Korea—the company obtained authorization from the country’s Ministry of Agriculture, Food, and Rural Affairs to export vaccines to it. Biogénesis Bagó’s vaccines helped control an FMD outbreak, saving many pigs from being slaughtered.

Korea’s significant animal population—over 11 million pigs and 3.8 million cattle as of 2020—make the country an important market for veterinary products. Seeking to consolidate its position in the country’s animal health market, Biogénesis Bagó announced in July 2022 that it would form a consortium with the Korean firm FVC for the construction of a vaccine factory in the Korean town of Osong, 110 kilometers from the capital Seoul. The new plant will produce up to 100 million doses of the FMD vaccine per year and will have an approximate cost of US\$50 million. Production is expected to start by 2023. The company’s previous recent experience constructing a plant in China will be an advantage in the consolidation of the firm’s position in the Korean animal health market.

This strategic partnership will increase the supply of safe, affordable, world-class FMD vaccines to local Korean livestock producers. Furthermore, it will help to protect the country’s sanitary status while collaborating with the Animal and Plant Quarantine Agency (APQA) (the local health authority) through research and development.³⁰

Table 5. Top 10 LAC Origins of Net Foreign Direct Investments in Korea.
2013–2020.

| Country | Net FDI (millions of US\$) | Share of total FDI |
|---------------------|----------------------------|--------------------|
| Barbados | 503.77 | 70.21% |
| Mexico | 128.16 | 17.86% |
| Panama | 66.44 | 9.26% |
| Bahamas | 13.53 | 1.89% |
| Chile | 4.55 | 0.63% |
| Brazil | 3.86 | 0.54% |
| Uruguay | 2.60 | 0.36% |
| Dominica | 2.38 | 0.33% |
| Haiti | 1.49 | 0.21% |
| Antigua and Barbuda | 0.96 | 0.13% |

Source: IDB Integration and Trade Sector with data from OECD. Note: Net flows are negative for a few LAC countries (BLZ, PRY, PER, COL, and GTM) and therefore the percentage shares slightly exceed 100.

Removing obstacles to investment: investment and double taxation treaties.

Multiple bilateral agreements such as bilateral investment treaties (BITs), double taxation treaties (DTTs), and the investment chapters of PTAs have helped shape the current LAC–Korea investment environment. BITs and the investment chapters of PTAs protect foreign investors’ rights by establishing a transparent framework for issues such as investment admission, expropriation, and legal treatment, and by creating dispute settlement mechanisms. Starting with Paraguay in 1992, Korea-

³⁰ Cision PR Newswire (2022), <https://www.prnewswire.com/news-releases/biogenesis-bago-joins-korean-company-fvc-for-the-construction-of-world-class-fmd-vaccine-site-in-south-korea-301591840.html>; Biogénesis Bagó (2016), <https://www.biogenesisbago.com/ar/nota-prensa/136/>.



has signed 17 BITs with LAC countries (see figure 15)³¹.

BITs have been complemented by DTTs, which lower investment costs by establishing rules to coordinate double taxation relief and by sharing information between national tax agencies on applicable tax bases, withholding taxes, and other relevant tax measures. Korea has signed 9 DTTs with LAC countries.³²

Figure 15. Korea’s Bilateral Investment Treaties and Double Taxation Treaties with LAC. 2022.



Source: IDB Integration and Trade Sector with data from UNCTAD and National Tax Service.

Note: Chile, Peru, Costa Rica, Nicaragua, and Panama replaced their BIT with Korea with an investment chapter in the PTA. In the figure, investment chapters in PTAs are considered to be binding BITs.

Even though this network of BITs and DTTs is already impressive, there is clear room for greater coverage, particularly with respect to some of the largest economies in the region, such as Argentina and Brazil—the former only has a BIT in place with Korea and the latter only has a DTT. There is also room for greater cooperation between the two economies’ import promotion agencies, which can be particularly useful to boost bilateral FDI for smaller firms.³³ In KOTRA—Korea’s very successful investment promotion agency—for instance, there is a lot of knowledge to share with its LAC counterparts, to boost bilateral investment.

31 A few of these BITs were terminated and then replaced by newer investment chapters in the PTAs. This was the case of the BITs with Chile, Peru, Costa Rica, Nicaragua, and Panama.

32 Double taxation relief is ensured through tax rules, not tax rates, which remain under the sovereign authority of each nation.

33 For detailed analysis of LAC investment promotion agencies see Volpe (2021), <https://publications.iadb.org/en/making-invisible-visible-investment-promotion-and-multinational-production-latin-america-and>.

Cooperation: Enabling and Extending Market Gains



IV. Cooperation: Enabling and Extending Market Gains

No successful bilateral relationship can rely on markets alone. Cooperation between governments—to share knowledge, build capacities, and finance development projects—can help maximize the gains from economic integration and spread its benefits more widely. This has been a key element of the success of LAC–Korea relations in the past 30 years. Much more will be needed as both economies face an era of intense turbulence and disruption in the world economy.

Cooperation is needed in several domains: to preserve a rules-based international trade system amid growing geopolitical tensions; to build resilient value chains that are capable of withstanding sanitary and natural disasters; to make integration more inclusive by strengthening labor and sanitary standards and safety nets; and to make the most of the digital transformation while minimizing its impact on the more vulnerable segments of society. Above all, cooperation is needed to feed and save the planet by speeding up the transition to renewable energies and sustainable agriculture.

To face these challenges, LAC and Korea can build on a long history of intergovernmental relations, supported by solid bilateral and multilateral frameworks. Joint initiatives involve a range of agencies, led by the Korea International Cooperation Agency (KOICA)—which provides grants for development projects, technical assistance, and capacity-building—and by Korea Eximbank which provide concessional loans and consultancy services, often in collaboration works with international financial institutions.

Overall, Korea's official development assistance (ODA) to LAC increased steadily until 2018, when it reached the US\$215 million peak. LAC's share of total outflows, though, has been more volatile. There were losses in the first decade of the millennium, recovered in the second decade. The pandemic years have seen signs of reversal of the previous upward trend, but these were extraordinary times to reach any definitive conclusion.

There are good reasons to be optimistic. Korea's latest five-year strategy (2021–2025) aims to double the ODA budget and focuses specifically on some of those areas which, as argued before, are key to helping the two parties use their relationship to ride out the disruptions currently shaking the global economy into a sustainable future. These key areas are digitalization; climate change; infrastructure; health; education; agriculture and fisheries; and water, sanitation, and hygiene.³⁴

The new strategy reaffirms the Country Partnership Strategies (CPS) as a key instrument for targeting intergovernmental cooperation through 27 priority bilateral relationships. They include four LAC countries with a long history of bilateral cooperation: Bolivia, Colombia, Paraguay, and Peru. In 2020, these countries accounted for 62% of Korea's ODA disbursements to the region.³⁵

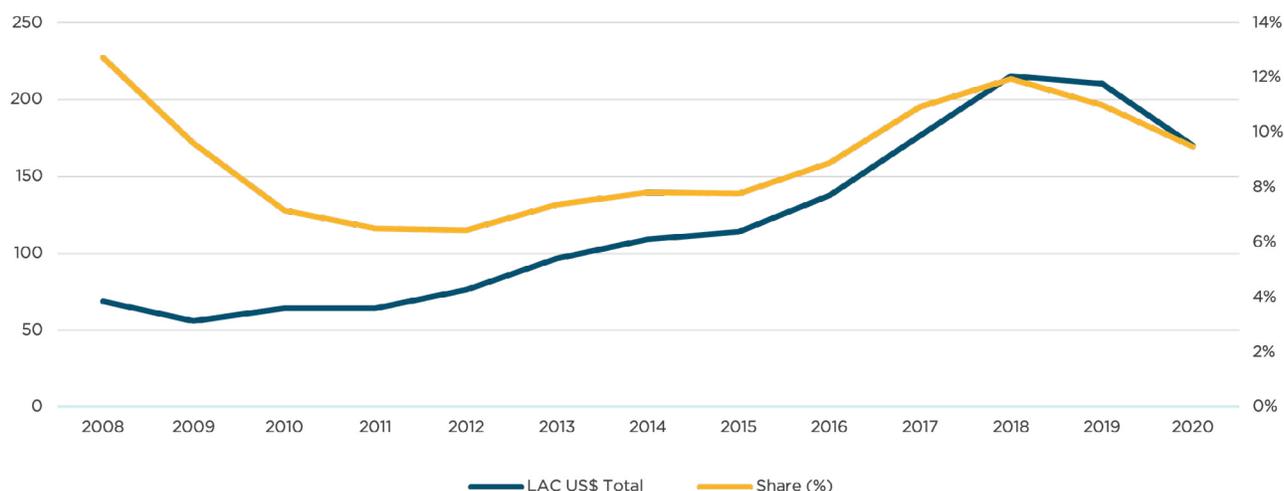
34 SEEK Development (2021), <https://donortracker.org/policy-updates/south-korea-announces-five-year-oda-strategy-2021-2025>; KOICA (2019),

http://www.koica.go.kr/sites/koica_en/download/11_KOICA_Cooperation_Strategy_Towards_Latin_America.pdf;

35 ODA Korea (2022), https://www.odakorea.go.kr/ODAPage_2022/eng/cate02/L02_S04_01.jsp; and OECD (2022), <https://stats.oecd.org/Index.aspx?DataSetCode=TABLE2A#>



Figure 16. Korea’s Net Official Development Assistance Disbursements to LAC.
2008–2021. Millions of US\$ and %.



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

<https://stats.oecd.org/Index.aspx?DataSetCode=TABLE2A#>

An impactful partnership with the Inter-American Development Bank

Beyond being trade and investment partners for LAC, stakeholders across the Government of Korea have also been critical development partners for the region. Since Korea became an IDB member country in 2005, the IDB has served as a bridge for this relationship, connecting Korea to governments, businesses, and other players in LAC and helping to channel Korean expertise, financing, and innovation to where it is needed most.

The Korea-IDB partnership is constantly evolving. Initially, the collaboration was aligned with the priorities emerging from each Annual Meeting of the IDB Group’s Board of Governors and focused on laying the groundwork for broad collaboration. The objectives were to facilitate partnerships with diverse Korean public entities, create financing mechanisms to support emerging development issues, and host high-level events to promote economic and diplomatic ties. In recent years, the IDB’s agenda for driving recovery and sustainable development in LAC has taken the partnership to new heights, allowing for mid- to long-term planning focused on generating greater impact by focusing on a narrow, highly strategic set of priorities. In addition, over the past few years, the partnership has developed a deeper focus on the private-sector and the new mandate put forth by the IDB Group’s Board of Governors.

The Korea Infrastructure Co-financing Facility and the Korea Trust Funds: Trusted sources of development finance for LAC

When Korea joined the IDB Group, its first course of action was to create three trust funds to facilitate Korean support for poverty reduction, technological innovation, and private-sector development efforts (see box 3). In 2012, the Korea Trust Funds (KTFs) were complemented by a fourth fund that targets public-sector management, as well as the Korea Infrastructure Co-financing Facility (KIF), which finances sovereign guaranteed loans for infrastructure development. Since then, through these platforms, Korea has contributed \$550.6 million to finance projects through the IDB Group.



Box 3. The Korea Trust Funds and Co-Financing Facility at the IDB

The Knowledge Partnership Korea Fund for Technology and Innovation (KPK) shares Korean best practices in science and innovation, ICTs, energy, and transportation with LAC. Since its inception in 2005, the KPK has become a fundamental funding source for technical capacity-building, energy infrastructure investment, trade promotion, the benchmarking of research and development efforts to enhance innovation performance, and institutional development.

The Korea Poverty Reduction Fund (KPR) supports poverty reduction and social development efforts by empowering the most vulnerable and economically disadvantaged groups in LAC. Since its establishment in 2005, the KPR has been a critical complement to IDB financing for non-reimbursable technical cooperation operations that improve income, living conditions, and access to social services for vulnerable populations.

The Korea Private Sector Development and Innovation Fund (KPS) promotes private-sector development in LAC. This fund was a key vehicle for channeling more than US\$40 million in Korean support to the IDB's private-sector investment body, IDB Invest. Following IDB Invest's consolidation into an independent entity in 2016, the remaining funds have been managed by IDB to fund private-sector development activities across the region.

The Public Capacity-building Korea Fund for Economic Development (KPC) facilitates the efficient allocation and use of public-sector resources at the national and subnational levels. Since its creation in 2012, KPC has specifically worked to strengthen public capacity in all fiscal-related sectors through the design, implementation, monitoring, and evaluation of policies, strategies, programs, and projects.

The Korea Infrastructure Co-Financing Facility (KIF) was established in 2015 to promote economic growth and advance poverty alleviation through the co-financing of sovereign guaranteed loans for infrastructure projects.

Korea Trust Funds

| Fund | Fund focus | Year of establishment | Lifetime funding from Korea (millions of US\$) | Lifetime approvals (millions of US\$) | Projects |
|------|--|-----------------------|--|---------------------------------------|----------|
| KPK | Science and technology, education, and IT infrastructure | 2005 | 78.80 | 65.78 | 152 |
| KPR | Poverty reduction and social development, including disaster prevention and relief | 2005 | 63.50 | 51.27 | 148 |
| KPS | Private-sector and SME development | 2005 | 40.00 | 25.7 | 199 |
| KPC | The efficient use of public-sector resources | 2012 | 40.00 | 35.52 | 76 |

Source: Korea Trust Funds at the Inter-American Development Bank Group, 2021. Note: The table reports technical cooperation only as of December 2021.



A deeper look at the KTFs

Through the KTFs, Korean resources have and continue to make substantial contributions to IDB Group's programs, maximizing the impact of IDB's own resources and expanding the IDB's capacity to pursue innovative approaches to reducing poverty and spurring social and economic development. They have funded projects in emerging areas like sustainable cities, civil registration, and migration, as well as areas in which Korea is uniquely positioned as a global leader, such as digital transformation.

Critically, these funds have deepened Korea's regional and bilateral relationships in LAC, while positioning Korea as a critical knowledge partner. In particular, the KTFs have played an important role as a platform for knowledge sharing, in part by funding projects that generate new evidence and inform future programs and policies, and in part by facilitating the integration of Korean expertise into KTF-funded operations.

While the KTFs have been generating impact since their creation, operations continue evolving and improving year in and year out. For example, the implementation and disbursement of KTF-funded operations improved compared with 2020, when the KTFs prioritized accelerating fund approvals in light of the Covid-19 emergency. By 2021, the emphasis had shifted to implementation, with a focus on accelerating execution. In addition, 2021 was a year of strategic preparation for the KTFs, with a focus on laying the groundwork for them to play a more active role in the region in the future. That year, Korea made new contributions of nearly US\$17 million to the KPK and KPR trust funds, while a Letter of Intent was signed to replenish the KPC with US\$20 million over the next five years. These efforts shined a spotlight on the KTFs as a critical source of development financing, while setting the stage for greater support from Korea to LAC in the coming years.

Looking ahead, the KTFs will maintain their historic focus on maximizing the impact of resources and supporting priority projects tailored to the nuances of each country's development landscape. Given the clear alignment between the IDB's agenda and Korea's focus on the digital economy, climate change, and support to SMEs, the KTFs will be a critical vehicle for financing recovery, growth, and social progress in the region. Perhaps most importantly, they will remain a key platform through which the Korea-IDB partnership can evolve, innovate, and grow, channeling joint support to the region's most pressing development priorities.

The KTFs have financed countless high-impact projects. For example, the Ministry of Economy and Finance (MOEF) and the IDB set out to improve the supply of LAC human capital specialized in ICT, which is considered critical to seizing the benefits of digital transformation. To this end, a US\$3 million Korea-LAC Tech Corps Program (KTC), finances the deployment of Korean professionals to support ICT-focused projects and provide ICT-based solutions to meet the needs of public institutions and private firms in LAC, while providing scholarships to public officials pursuing ICT-related master's degrees in Korea. This first round was highly successful, with positive evaluations from participants.

Noteworthy results include the creation of an app in Uruguay that provides SMEs with easy access to economic news and microfinance institutions, which can provide relevant financial services. Likewise, efforts in Barbados are geared toward developing renewable energy-based fishing vessels, and a forecasting model that calculates the amount of energy available.

Another example is related to the digital transformation of the healthcare sector, which requires shifts at the institutional, regulatory, and systemic levels, as well as fostering technical knowledge and human capital. Drawing from Korea's world-class leadership in this space, in 2019 a US\$500,000 project developed two knowledge-transfer courses. The first, delivered by the Korea Health Insurance Review and Assessment Service, explores value-based purchasing strategies, the use of algorithms to prevent fraud by health providers, big data analysis of medical payments, and quality improvements. The second, delivered by the globally certified Seoul National University



Bundang Hospital, explores digital hospital management and the use of health information technology to improve the quality of care and medical services.

A deeper look at the KIF

Complementing the KTFs, the KIF was created with a MOEF contribution of US\$900 million to accelerate infrastructure investment by co-financing sovereign guaranteed concessional loans. KIF resources are guaranteed by IDB borrowing member countries and ultimately strive to promote economic growth and poverty alleviation by co-financing soft and hard infrastructure investments. The fund also supports an array of institutional systems and policies related to financing, education, healthcare, disaster risk management, trade and integration, and the digital economy, among other topics.

The KIF, which is funded by the MOEF and managed by the IDB, has successfully served as the primary platform for co-financing operations between Korea and the IDB since its creation. To date, Korea has channeled US\$695 million into 16 projects through KIF co-financing.³⁶

In the KIF's first iteration, which spanned March 2015 through December 2017, the donor approved four projects for US\$100 million. In the second phase, running from January 2018 through December 2022, the KIF was replenished with an additional contribution to US\$300 million. In 2021, it was amended to include an additional contribution of US\$500 million, its largest replenishment over the last five years, which will enable the IDB to finance projects in areas including infrastructure, energy, health, and technology.

Despite the difficulties triggered by the Covid pandemic, the KIF has been more active since 2020 than it was in 2015 to 2019. Between 2020 and 2022, it financed nine projects for US\$465 million—twice the amount provided in the previous four years. These funds targeted sectors of mutual interest, including the Covid-19 response, digitalization, economic resilience, and energy. During this time, Korea worked to ensure that the KIF could respond quickly to country needs by using an efficient due diligence process. For example, in the case of a policy-based loan (PBL) to Paraguay in 2020, Korea approved the KIF project within a month.

The KIF contributed to policy reforms by actively supporting investment loans and PBLs. In the past three years, KIF resources leveraged investment loans totaling US\$215 million in five investment projects, as well as an additional US\$250 million in four PBL projects.

One example of the innovative projects supported by the KIF is the PBL approved in 2020 during the Covid-19 crisis in Paraguay. By designing and implementing effective, fiscally responsible policy measures, the project aims to promote the availability and timely execution of public resources to address the crisis, strengthen the countercyclical effects of fiscal policy through temporary measures to protect the income of vulnerable households, increase the liquidity of firms, and promote economic and fiscal recovery. Designed in March 2020 at the request of the Ministry of Finance of Paraguay, the project channeled US\$160 million and US\$50 million in IDB and KIF resources, respectively, to expedite the Covid-19 response and lay the foundations for the recovery.

As another example, the IDB approved a US\$800 million PBL to support sustainable and resilient growth in Colombia. The KIF co-financed US\$100 million, representing the largest contribution to a single project since its establishment. These funds were complemented by US\$228 million in co-financing from the French Agency for Development and US\$170 million from the German Development Bank. This massive project sought to support economic growth in the country during and after the Covid-19 emergency by (i) strengthening the government's capacity for planning, manag-

³⁶ This figure includes project DR-L1158 (Universal Sanitation Program in Coastal and Tourist Localities of the Dominican Republic), which is due to be approved by the IDB Board of Directors in October 2022.

ing, and financing climate action; (ii) promoting economic opportunities based on the sustainable use of natural capital and the development of circular economy models; and (iii) promoting energy transition.

Table 6. IDB Projects Supported by the KIF Facility.

| Project number | Title | Country | Approval year | Total cost (millions of US\$) | KIF amount | Status |
|----------------|---|-------------|---------------|-------------------------------|------------|------------|
| NI-L1090 | Broadband Program | Nicaragua | 2015 | 50 | 25 | Disbursed |
| EC-L1160 | Investment Plan to Support the Transition of the Energy Matrix in Ecuador | Ecuador | 2016 | 160 | 25 | Disbursed |
| NI-L1094 | Geothermal Exploration and Transmission Improvement Program under the PINIC | Nicaragua | 2016 | 103 | 25 | Disbursing |
| BO-L1191 | Program to Expand and Improve Water Supply Sustainability and Resilience in Cities | Bolivia | 2017 | 75 | 25 | Disbursing |
| CO-L1233 | Program for the Improvement of Connectivity and Digitalization of the Economy | Colombia | 2018 | 350 | 50 | Closed |
| HO-L1207 | Central District Water and Sanitation Services Reform Program | Honduras | 2019 | 60 | 30 | Closed |
| PR-L1164 | Program to Rehabilitate and Maintain Agro-industrial Corridors | Paraguay | 2019 | 235 | 50 | Disbursing |
| PR-L1175 | Program for Strengthening Public Policy and Fiscal Management for the Response to the Sanitary and Economic Crisis Caused by Covid-19 in Paraguay | Paraguay | 2020 | 210 | 50 | Closed |
| GU-L1171 | Infrastructure for the Rural Electrification Program of Guatemala | Guatemala | 2020 | 120 | 60 | Approved |
| GU-L1175 | Program for the Digital Transformation of Guatemala for Inclusive Access to Connectivity | Guatemala | 2021 | 70 | 25 | Approved |
| ES-L1145 | Social Digital Connectivity Program | El Salvador | 2021 | 85 | 35 | Approved |



| Project number | Title | Country | Approval year | Total cost (millions of US\$) | KIF amount | Status |
|----------------|--|--------------------|---------------|-------------------------------|------------|----------------|
| DR-L1146 | Power Sector Sustainability and Efficiency Program III | Dominican Republic | 2021 | 250 | 50 | Approved |
| CO-L1264 | Sustainable Growth and Resilient Program | Colombia | 2021 | 1,198 | 100 | Closed |
| CR-L1147 | Toward a Green Economy: Support to Costa Rica's Decarbonization Plan II | Costa Rica | 2022 | 407 | 50 | Approved |
| EC-L1253 | Program for the Improvement of the Tax and Customs Administration | Ecuador | 2022 | 92 | 35 | Approved |
| DR-L1158 | Universal Sanitation Program in Coastal and Tourist Localities of the Dominican Republic | Dominican Republic | 2022 | 200 | 60 | To be approved |

The Korea Knowledge Sharing Program

Although Korea is an important source of development funding in the region, knowledge sharing is another critical aspect of development cooperation with the IDB. A key channel for this is the Knowledge Sharing Program (KSP), which draws on the development experience and knowledge Korea has cultivated over several decades as part of its remarkable transition from an impoverished country to an advanced, knowledge-based economy. Through the KSP, Korea offers support to developing countries through practical policy alternatives and an integrated approach that combines research, consultation, and institutional capacity-building.

Box 4. Knowledge Sharing Program

The Knowledge Sharing Program (KSP) was launched by Korea's Ministry of Economy and Finance in 2004 alongside three coordinating and executing agencies: the Korea Development Institute, the Export-Import Bank of Korea, and the Korea Trade-Investment Promotion Agency.

The program consists of three types of cooperation:

- 1. Bilateral cooperation**, which includes policy consultations, practitioner-focused capacity-building workshops, and the deployment of policy advisors for in-depth, practical policy consultations.
- 2. Multilateral cooperation**, which was established in 2011 and draws on partnerships with international organizations to carry out joint consulting activities. These bilateral efforts combine Korea's development experience with the expertise of regional international organizations.
- 3. Case studies about Korea's development experience**, which strive to capture the unique policies, institution-building processes, and projects that contributed to economic development in Korea.



The IDB became a KSP program partner in 2011. Since then, 58 joint consultancy projects have been carried out for a total of US\$16.9 million, making the IDB KSP's most active partner among international organizations. Major sectors of focus have been science and technology (23%), transportation (15%), and public-sector modernization (15%).

To date, LAC countries have benefited from 180 KSP projects, accounting for 27% of the 668 projects implemented by the KSP, making the region second only to Asia in this regard. The number of KSP projects in LAC grew substantially after 2011, following the launch of joint consultancy projects with international organizations. The partnership has not slowed down, with the IDB playing an important role as a KSP partner over the last three years. In this time, the partners have jointly implemented 13 projects worth US\$5.4 million.

An example of a successful KSP-IDB project is Designing a Smart City Strategy for La Ceiba, Honduras (2020–2021). The project sought to improve the administration of city affairs and revitalize the local economy by supporting La Ceiba's transition to becoming a smart city and promoting its sustainable growth. To this end, the project promoted ICT-powered smart city services with a focus on tourism, transportation, and safety, and identified the actions that needed to be taken. The project draws from the K-City Model, or Korea's experience in urban development, as well as the knowledge of Korean ICT experts. It also strengthened economic cooperation with Honduras by providing La Ceiba with smart city policy consultancy services tailored to the city's specific characteristics and needs.

Table 7. IDB–KSP Joint Consultancy Projects.
2020–Present. US\$.

| Year | Project title | Country | Amount |
|------|--|-------------|---------|
| 2020 | Transforming the Education System Through Technology | El Salvador | 400,000 |
| 2020 | Designing a Smart City Strategy for La Ceiba | Honduras | 420,000 |
| 2020 | Designing 12 Mini-Grid Systems for Indigenous Territories | Panama | 440,000 |
| 2020 | Strengthening the Institutional Framework for Productive Development and Innovation | Costa Rica | 420,000 |
| 2020 | Developing a Framework for Establishing an Effective Cloud-Based Data System | Paraguay | 440,000 |
| 2021 | Strengthening Public Internet Access to Overcome Digital Divides | Guatemala | 300,000 |
| 2021 | Developing Measures to Effectively Deploy and Protect ICT Critical Infrastructure | El Salvador | 300,000 |
| 2021 | Conducting a Feasibility Study and Designing a Platform Based on Business Reengineering Processes and Information Strategic Planning | Costa Rica | 500,000 |
| 2021 | Establishment of a Smart City Master Plan for Lima | Peru | 500,000 |
| 2022 | Water Resource Management Investment Plan to Support Resilient, Sustainable Development in the Pilcomayo Basin | Argentina | 500,000 |
| 2022 | Supporting a Net Zero-Emission Strategy for the Uruguayan Energy Sector | Uruguay | 500,000 |
| 2022 | Designing an Urban Mobility Data Observatory and Improving Public Transport Management in São Paulo | Brazil | 340,000 |
| 2022 | Promoting Air Transport Policies for Investment and Management of Secondary Airports | Colombia | 300,000 |



Partnerships with Korean institutions

The IDB is collaborating with many Korean institutions in various fields, which often involves the signature of partnership agreements and the development and negotiation of robust action plans. Key partners include Korean ministries, public institutions, universities, and private firms.

An example is the MOU with the Ministry of SMEs and Startups of Korea (MSS), which was signed in April 2022 to enhance cooperation with Korea in SME-related sectors. The goal of the agreement is to revitalize cooperation to support innovative, high-potential startups in LAC. As the number of technology-based joint ventures between Korea and IDB evolves, MSS and the IDB have an opportunity to build on this momentum and expand cooperation. That is why, in addition to sharing Korea's innovative startup policies and creating joint venture funds with IDB, the MSS is also planning to actively pursue ODA projects with LAC countries.

Other Korean partners of the IDB's include: the Ministry of Economy and Finance (MOEF), the Ministry of Employment and Labor (MOEL), the Ministry of Science and ICT (MSIT), the Ministry of Land, Infrastructure, and Transport (MOLIT), the Ministry of Health and Welfare (MOHW), the Ministry of Trade, Industry, and Energy (MOTIE), the Ministry of Personnel Management (MPM), the Ministry of the Interior and Safety (MOIS), the Ministry of SMEs and Startups (MSS), the Korea Customs National Tax Service, the Korea Customs Service, Korea Statistics, the National Health Insurance Service (NHIS), the Korea Research Institute for Human Settlements (KRIHS), the Korea Trade-Investment Promotion Agency (KOTRA), the Korea Fiscal Information Service (FIS), the Korea Gas Corporation (KOGAS), the Korean Development Institution (KDI), the Korea Education and Research Information Service (KERIS), the Korea Transport Institute (KOTI), the Green Technology Center Korea (GTCK), the Korea Expressway Corporation (KEC), the Korea Water Resources Corporation (K-water), the Export-Import Bank of Korea (KEXIM), the Korea Internet and Security Agency (KISA), the National Information Society Agency (NIA), the Korea Land and Housing Corporation (LH), Korea Environmental Industry and Technology Institute (KEITI), NH Investment and Securities, Aju University, and soon the Korea Institute of Advancement of Technology (KIAT).³⁷

³⁷ Agreement to be signed during the 6th Korea-LAC Business Summit

