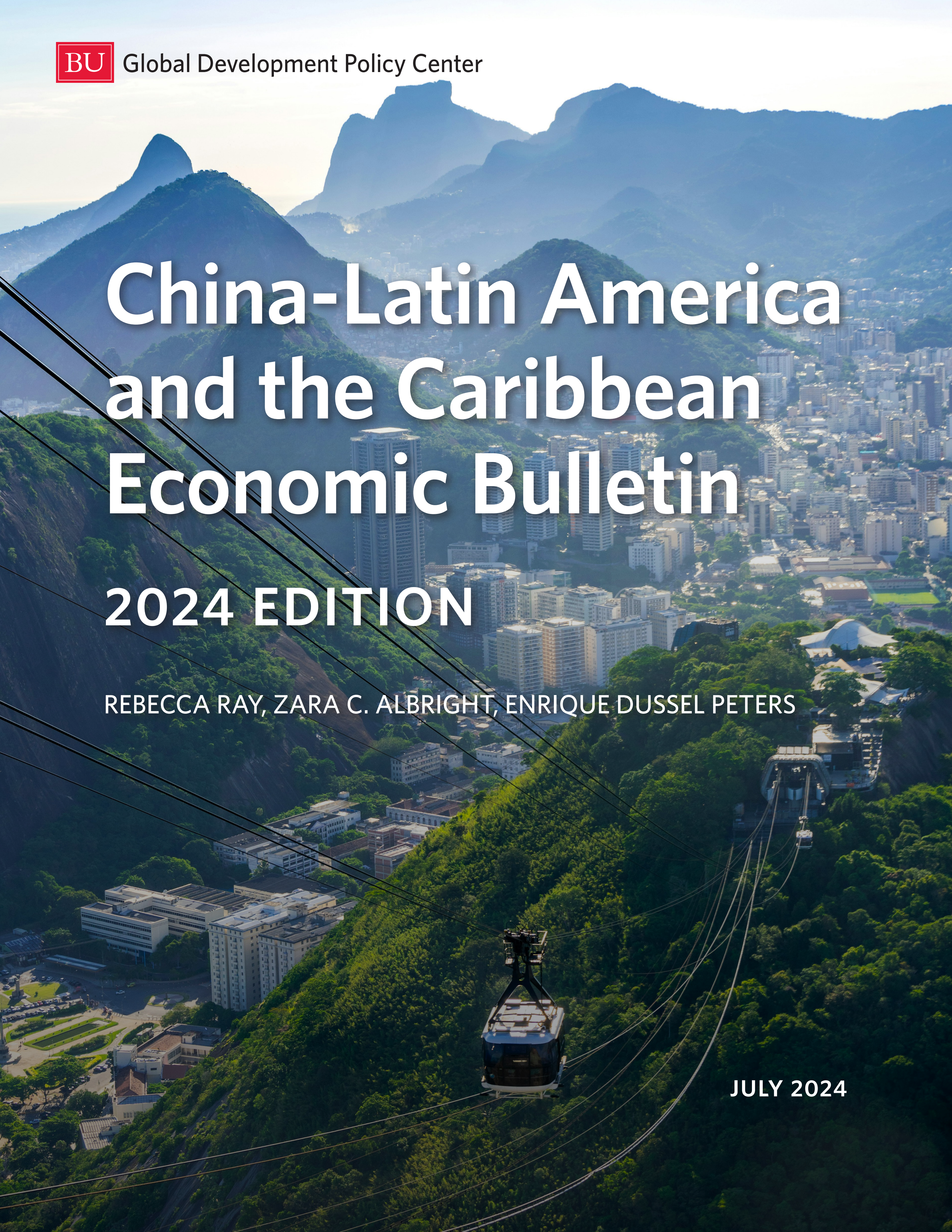

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2024 EDITION

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EXECUTIVE SUMMARY

In 2024, Latin American and Caribbean (LAC) governments took intentional steps forward in their relationships with China, with frequent visits to discuss the important emerging sectors, such as telecommunications and renewable energy supply chains. While lower-technology mineral and agricultural commodities continue to dominate LAC exports to China, Chinese firms operating in LAC have shown a broader array of interests, including automotive manufacturing in Mexico, energy in South America and transportation throughout LAC.

These are among the findings of the China-Latin America and the Caribbean Economic Bulletin, 2024 Edition. This report provides analysts and observers a reference to the ever-changing landscape of China-LAC economic relations, a landscape where data is not always readily accessible.

Key findings:

- A record eight LAC presidents visited China in 2023, after just one visit in 2022 and none in 2021 or 2020. Major topics covered in these presidential agendas included cooperation in renewable energy and transition minerals, telecommunications, and trade agreements regarding traditional export commodities, such as beef and petroleum.
- LAC exports to China rose to approximately $208 billion in 2023, while Chinese exports to LAC fell to approximately $242 billion amidst slower Chinese exports overall. As a result, LAC saw its merchandise trade deficit with China shrink to approximately $33 billion, or 0.5 percent of regional GDP.
- LAC minerals exports to China declined in 2022 amidst lagging Chilean copper output, but that trend partially reversed in 2023. China now accounts for 34 percent of LAC's mineral exports.
- For the first time since China became a major trading partner with LAC, beef entered the ranks of the top five regional exports to China in 2023. This change is due in part to falling prices of refined copper (the traditional fifth largest LAC-China export) but also to rising beef trade, which has doubled in volume in the last five years.
- Transition minerals continue to play a growing role in the LAC-China relationship. LAC-China exports now account for approximately half of global trade in the unprocessed forms of two major transition minerals: lithium carbonate and copper ores and concentrates.
- While raw commodities continue to dominate LAC-China exports, the same is not universally true for Chinese investment in LAC. New ("greenfield") Chinese investment projects in Mexico, Central America and the Caribbean have been predominantly concentrated in manufacturing (particularly automotive) sectors for the last 12 years. This trend continued in 2023 with Solarever investing $1 billion and Ningbo Xusheng Group investing $350 million in electric vehicle and vehicle part manufacturing in Mexico.
- Minerals continue to play an important role in Chinese investment in South America, where Chengxin Lithium Group and Zijin Mining Group invested $823 million and $600 million in Argentina's lithium sector, respectively.

- Chinese investment through mergers and acquisitions (M&As) in LAC were concentrated in energy sectors in 2023, with State Grid Corporation purchasing Enel Peru for $2.9 billion and PowerChina purchasing Brazil's Pontoon (and its Ceará solar plant) for $360 million.

- New to the 2024 China-Latin America and the Caribbean Economic Bulletin is consideration of trends in infrastructure contracts: trade in services for building or operating public infrastructure projects. Over the last four years, the most important sector for Chinese infrastructure in LAC has been transportation, particularly in long-distance cargo rail and urban light rail.

- Chinese development finance to LAC consisted of just $1.3 billion in new commitments in 2023, comprised of two loans from the China Development Bank to its Brazilian counterpart, Banco Nacional de Desenvolvimento Econômico e Social (BNDES).

- Public and publicly guaranteed (PPG) debt to China is concentrated in a few countries. Suriname, the LAC country with the greatest PPG debt stock to China, owed 14.6 percent of GDP to China in 2022. From 2024-2028, its PPG debt service payments to China are expected to amount to 2.5 percent of exports. However, no country in LAC – including Suriname – owes Chinese creditors more than it owes other major creditor categories, including bondholders, Paris Club creditors, multilateral development banks (MDBs) or other creditors. Thus, any significant debt restructuring negotiations with countries facing unsustainable debt burdens will need to include significant participation of all creditor classes.

- LAC-China exports have been relatively buoyed in recent years thanks to rising global commodity prices. However, those elevated prices are not expected to remain high. Thus, over the next few years, LAC is likely to see a rebound in its trade deficit with China unless it sees significant progress in diversification or significant increases in the volume of its commodity exports.

- As Chinese firms have gained experience operating in LAC, they have relied less on the intermediation of Chinese development finance institutions and instead opted for direct investment or direct provision of infrastructure contracts. Thus, it is unlikely for development finance to rebound to the levels of its peak years, 2009-2015. However, this shift is a sign of the maturation, rather than the weakening, of the China-LAC relationship.

- The shifts highlighted here – toward electric vehicles, rail transportation, renewable energy, transition minerals and agricultural commodities – together present mixed prospects for regional sustainable development. While electric vehicles and urban rail play a crucial role in decarbonizing transportation, beef and soy supply chains are drivers of deforestation and the loss of carbon sinks. Transition mineral extraction and renewable energy provision can play positive or negative roles in local sustainable development depending on their design and policy environment.

- Thus, the growth in government-to-government communication (including the record number of presidential visits to China) is an important precursor to ensuring that the China-LAC economic relationship is a "win-win" for both sides.

Buenos Aires, Argentina. Photo by Nestor Barbitta via Unsplash.

INTRODUCTION

In 2024, Latin American and Caribbean (LAC) governments took intentional steps forward in their relationships with China, with frequent visits to discuss the important emerging sectors, such as telecommunications and renewable energy supply chains. While lower-technology mineral and agricultural commodities continue to dominate LAC exports to China, Chinese firms operating in LAC have shown a broader array of interests, including automotive manufacturing in Mexico, energy in South America and transportation throughout LAC.

These are among the findings of the China-Latin America and the Caribbean Economic Bulletin, 2024 Edition. This report provides analysts and observers a reference to the ever-changing landscape of China-LAC economic relations, a landscape where data is not always readily accessible.

This brief introduction is followed by a section describing the record number of LAC presidential visits to China and the economic themes that were most important in these trips and which set the tone for the relationship, particularly telecommunications, commodity exports, infrastructure and renewable energy supply chains.

Next, the bulletin provides a comparison of the trends in trade, investment, infrastructure contracts and development finance. Rather than growing in tandem, China-LAC trade, investment and infrastructure have all continued to grow rapidly while Chinese development finance in LAC has receded dramatically. This shift may reflect a maturing of the relationship, as Chinese firms are more likely to work directly in the region rather than requiring the intermediation of Chinese development finance institutions (DFIs).

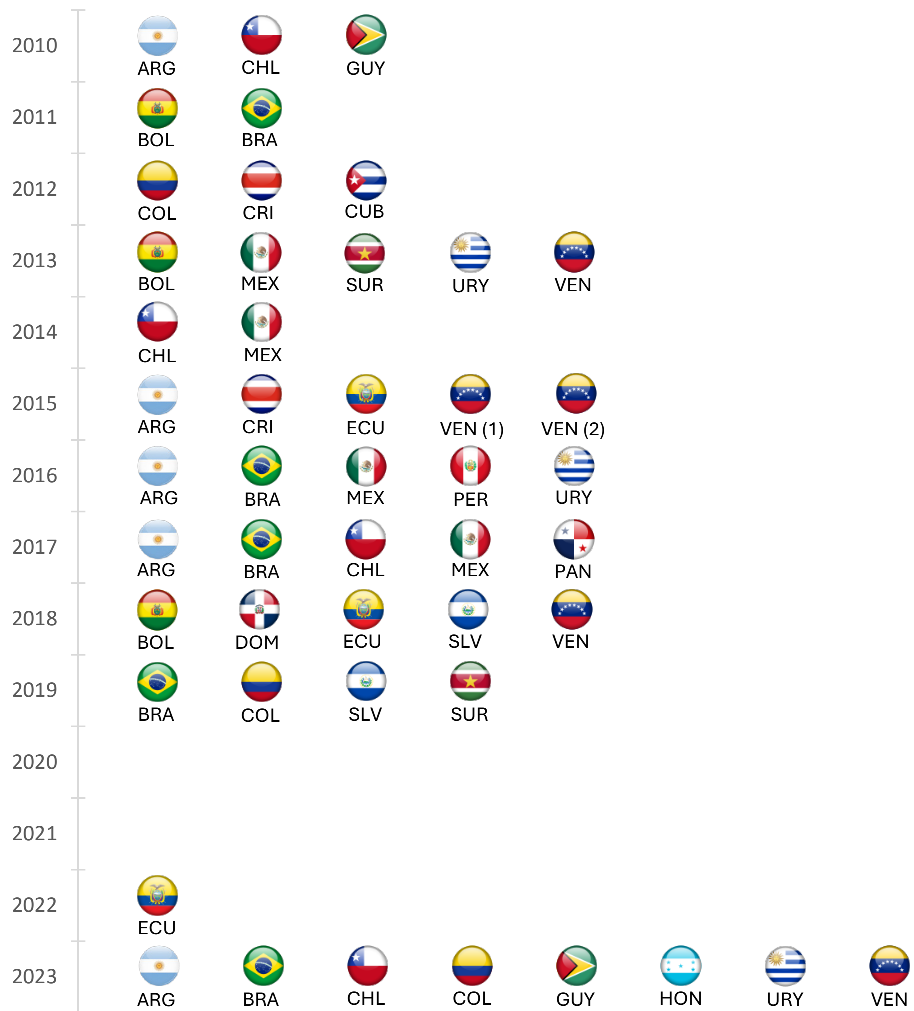
The bulletin then gives a detailed description of trends in each avenue individually: trade, investment, infrastructure and development finance, with emphasis on remaining debt to China from the past decade of borrowing.

Finally, the bulletin concludes with discussions of future prospects, including the continued strength of infrastructure and investment, and the implications of these shifts for sustainable development in LAC.

SETTING THE AGENDA: LAC PRESIDENTIAL VISITS AND AGREEMENTS IN CHINA

Recent editions of the China-Latin America and the Caribbean Economic Bulletin (China-LAC Economic Bulletin) have explored the investment, trade and finance goals of LAC countries in their relations with China. In 2023, more LAC presidents made official visits to China than in any previous year, as highlighted in Figure 1, providing a unique opportunity to assess the regional and country-level agendas with China. The presidents of Argentina, Brazil, Chile, Colombia, Guyana, Honduras, Uruguay and Venezuela highlighted a combination of traditional cooperation on infrastructure projects and primary products exports and emerging partnerships in renewable energy and sustainable development. In addition to several cabinet-level ministers and undersecretaries, most visits also included extensive private sector business delegations seeking investment and export opportunities.

Figure 1: LAC Presidential Visits to China, 2010-2023



Source: Author compilation.

Note: ARG: Argentina; BOL: Bolivia; BRA: Brazil; CHL: Chile; COL: Colombia; CRI: Costa Rica; CUB: Cuba; DOM: Dominican Republic; ECU: Ecuador; GUY: Guyana; MEX: Mexico; PAN: Panama; PER: Peru; SLV: El Salvador; SUR: Suriname; URY: Uruguay; VEN: Venezuela

LAC's economic relationship with China has historically been dominated by two aspects: exports of primary commodities, chiefly agricultural and mining products, and financing for major infrastructure projects, particularly in the energy and transportation sectors. The 2023 presidential visits demonstrated the continued importance of these areas. Brazil, Chile, Colombia, Honduras, Uruguay and Venezuela all signed new phytosanitary protocols for exports of meat, fruit and other foodstuffs. These exports may be bolstered by new or potential free trade agreements (FTAs) with Ecuador, Honduras, Nicaragua and Uruguay, drawing praise from agro-exporting industries and criticism over concerns for environmental degradation and further re-primarization, or return to concentration in low-technology commodity production (*Associated Press* 2024, Invima 2023, Embajada de Colombia en China 2023, *Kaieteur News* 2023a,b, MRE 2023, Poder Popular 2024, Presidencia de Uruguay 2023c, *Reuters* 2023, *Xinhua* 2023).

Telecommunications were also on the agenda during all of LAC's presidential visits, with Huawei figuring prominently in these discussions. Presidents Alberto Fernández (of Argentina), Luiz Inácio Lula da Silva (of Brazil), Mohamed Irfaan Ali (of Guyana) and Xiomara Castro (of Honduras) all visited Huawei's research and development center in Shanghai (Casa Rosada 2023b, *Kaieteur News* 2023, Planalto 2023b, Poder Popular 2024). Chile signed a memorandum of understanding (MOU) with Huawei for cooperation on digital literacy. Argentina, Chile, Colombia and Guyana all courted Chinese investors for their information and communications technology (ICT) sectors. Colombia, Uruguay and Venezuela signed MOUs to collaborate on communications and media projects. LAC countries are taking advantage of Chinese companies' expertise in this sector and the relatively low costs they offer for telecommunications infrastructure and technologies. Table 1 illustrates the main agenda items discussed on these visits in order of how many presidents addressed them on their visits.

Table 1: Agendas of LAC Presidential Visits to China, 2023

Agenda item	ARG	BRA	CHL	COL	GUY	HON	URY	VEN	Total
Telecommunications	✓	✓	✓	✓	✓	✓	✓	✓	8
Commodity exports		✓	✓	✓		✓	✓	✓	6
Infrastructure	✓			✓	✓	✓		✓	5
Renewable energy, transition minerals	✓		✓		✓	✓		✓	5
Diplomacy				✓		✓	✓	✓	4
Green development		✓		✓			✓		3
BRI Forum	✓		✓						2

Source: Author compilation.

Although specific projects were not announced, infrastructure finance was on the agenda for Argentina, Colombia, Guyana, Honduras and Venezuela (*Kaieteur News* 2023). For Honduras, financing for the next phase of the Patuca Hydropower project could add to the complex, with earlier stages having been built by Power Construction Corporation of China (PowerChina). In line with China's evolving conception of the Belt and Road Initiative (BRI) and its overseas financing commitments, LAC countries are unlikely to see major loans from

China for infrastructure projects like those of the previous decade (Ray 2023). However, new forms of infrastructure cooperation are possible, especially for renewable energy or telecommunications, two emerging priority areas in China-LAC relations.

The involvement of Chinese contractors in urban light rail projects may also reflect an expansion of the 'Green BRI' concept, the implications of which are explored in depth by scholars including Guo, Gallagher and Zhang (2023) and Albright et al (2023). In recent years, Chinese companies have won contracts for sections of Santiago, Chile's Metro Line 7 and Bogotá, Colombia's Metro Line 1, and the contract for Monterrey, Mexico's metro system (Dussel Peters 2024b). These projects aim to reduce urban congestion and improve sustainable transportation options in some of the region's largest cities. Chinese companies' success in these open and competitive bidding processes without accompanying financing from the China Development Bank (CDB) or Export-Import Bank of China (CHEXIM) indicates a continued evolution of China's contributions to LAC's infrastructure.

In more recent years, sustainability and renewable energy supply chains have taken on greater importance in the China-LAC relationship, a trend that was highly visible during 2023's presidential visits. All eight presidents discussed or signed agreements related to renewable energy and sustainable development. Argentina and Chile both emphasized investments in lithium extraction and production of value-added products, such as cathodes and batteries. Brazil, Colombia and Uruguay signed MOUs related to green and sustainable development, including for joint cooperation on green hydrogen projects. Guyana emphasized its desire to play a role in energy security, and China agreed to assist Venezuela with water conservation efforts. Honduras's Patuca hydropower project is an example of a shifting focus towards renewable energy in China's overseas energy cooperation. These developments demonstrate the convergence of LAC's and China's interests to support the energy transition and confront climate change.

The rest of this section details each president's specific agenda and priority areas.

In the first of the 2023 presidential visits to China, Brazilian President Lula's April visit included nine cabinet ministers and five provincial governors and aimed to revitalize Brazil-China relations as part of Brazil's more activist foreign policy agenda under President Lula (Planalto 2023a). The president also attended the inauguration of former President Dilma Rousseff as the head of the New Development Bank (NDB) and emphasized the growing role of the BRICS countries in the global economy (Prazeres 2023). Key agenda items for this visit were the resumption of Brazilian beef exports to China, an agreement to construct a sixth satellite and a potential peace plan for Russia's war in Ukraine (Boadle 2023, Planalto 2023a).

Three months after Honduras established diplomatic relations with the People's Republic of China in March 2023, President Castro visited China in June where she signed 22 agreements aiming to boost economic opportunities between the two countries (Presidencia de Honduras 2023b). In addition to an MOU joining the BRI, Honduras and China established a joint Trade and Investment Council (Presidencia de Honduras 2023a). Two major agenda items were also the negotiation of an FTA and potential investment for the next phase of the Patuca hydropower project (Cao and Lee 2023; Mistreanu 2023). Negotiations for an FTA began in July 2023, and in February 2024, Honduras and China signed an Early Harvest agreement for tariff-free shrimp exports; the government of Honduras anticipates conclusion of the FTA negotiations in 2024 (Poder Popular 2024).

In July, President Irfaan Ali of Guyana visited China with an agenda emphasizing Guyana's potential as a partner for China in food security, climate change cooperation and renewable energy (iNews 2023). Guyana has borrowed heavily from China in the past to complete major infrastructure projects, including the Demerara River Crossing and Cheddi Jagan airport expansion project (Kaieteur 2023a, Myers and Ray 2024). Building on this history, the two countries signed an MOU to create an Investment and Economic Cooperation Working Group focused on infrastructure, agriculture, health, energy and education (MFA 2023).

In his visit to China in September, Venezuelan President Nicolás Maduro and Chinese leader Xi Jinping upgraded the bilateral relationship between Venezuela and China to an All Weather Partnership, making Venezuela the first LAC country to be accorded this status (*Xinhua* 2023). The joint declaration also highlighted the conclusion of negotiations on a reciprocal investment agreement. Among the 31 additional agreements, the two countries agreed to cooperation in trade, education, tourism, science and technology, health and aerospace development (TeleSUR 2023). Maduro also announced the agendas for later visits of Venezuelan officials to China seeking investments in technology, petroleum development and agricultural projects (*Infobae* 2023).

Argentine President Fernández's October visit coincided with the Third Belt and Road Forum for International Cooperation, and the headline announcement from this visit was the extension of Argentina's central bank swap line to $6.5 billion (Casa Rosada 2023a, Fernández 2023). The leaders also announced nearly $10 billion in planned infrastructure financing, to supplement the previously announced $14 billion alongside Argentina's adhesion to the BRI in 2022. Lithium investment and renewable energy were also high on President Fernández's agenda. He met with five mining companies – Gotion Argentina, PowerChina, CST Mining, Tsingshan and Tibet Summit Resources – to discuss existing and potential investments in lithium extraction and processing and battery production (Casa Rosada 2023b).

After a campaign characterized by strong political rhetoric criticizing China, the election of President Javier Milei in December 2023 led to an initial cooling of the bilateral relationship between Argentina and China. Since January 2024, however, there have been signs that pragmatism may prevail for both sides. Argentina's Minister of Foreign Affairs Mondino travelled to China in April 2024, and China approved a yearlong extension of the $5 billion swap line in June 2024 (BRCA 2024, MRECIC 2024).

President Gabriel Boric of Chile attended the Third Belt and Road Forum for International Cooperation in October, continuing the tradition of Chilean presidents attending these forums. During the visit, the seven government authorities travelling with the president signed 13 agreements ranging from agriculture and aquaculture to education and digital literacy (MSGG 2023). President Boric also attended the opening ceremony of ChileWeek, Chile's annual export and investment promotion event in China. The agenda was dominated by cooperation for the energy transition, lithium investments and telecommunications, (Urdinez and Montt 2023) and during the visit, President Boric announced China Yongqing Technology Co. Ltd. as the second company selected under CORFO's lithium value-added tender (MEFT 2023). The $233 million investment will construct a lithium cathode production plant in Antofagasta and allow Yongqing to access preferential prices from Chilean lithium producer Sociedad Química y Minera (SQM).

Colombian President Gustavo Petro visited China just after the Belt and Road Forum, and though the two countries discussed infrastructure cooperation, particularly the Bogotá metro project, they did not sign an MOU for Colombia to join the BRI (Rodríguez 2023, Myers 2023). During the visit, 12 agreements were signed, including phytosanitary protocols for exports of Colombian beef and quinoa, the former of which had been under negotiation for nearly a decade (Cancillería 2023; Invima 2023). Alongside other agreements in trade, ecological development, the digital economy, agriculture, science, education and culture, Colombia and China also established a Strategic Partnership (Embajada de Colombia 2023; Declaración Conjunta 2023).

Uruguayan President Luis Lacalle Pou's visit in November featured the signing of 24 agreements, including one elevating the bilateral relationship to a Comprehensive Strategic Partnership (Presidencia de Uruguay 2023a). The two leaders also discussed progress on the negotiation of a potential FTA, covered in last year's edition of the China-LAC Economic Bulletin (Albright, Ray and Liu 2023, Presidencia de Uruguay in El País 2023). Eight other government officials travelled with President Lacalle Pou to China (Presidencia de Uruguay 2023b). The other agreements included easing trade through updated phytosanitary protocols for beef, sheep and goat meats, citrus fruits, and live seafood exports (*El País* 2023). The two countries also signed MOUs on green development and energy cooperation.

TRENDS IN THE LAC-CHINA ECONOMIC RELATIONSHIP

The China-LAC Economic Bulletin has been tracing this economic relationship for over a decade. In that time, the relative importance of trade with China and Chinese development finance, infrastructure and outbound foreign direct investment (OFDI) have shifted significantly, as Figure 2 shows. Figure 2 traces the importance of each of these pathways as a share of the LAC economy. It does so in four-year periods, ending with the 2020-2023 period, to reflect the significant changes in the global economy after the outbreak of the COVID-19 pandemic and subsequent economic turbulence.

Figure 2A follows the rising importance of merchandise trade with China. LAC's exports to China have roughly doubled as a share of LAC gross domestic product (GDP) in the last decade, while China's exports to LAC have risen by 70 percent[1]. Figure 2B extends the analysis to Chinese development finance, OFDI and infrastructure provision in LAC. These categories of activity have not grown in tandem but instead demonstrate a significant shift away from development finance and toward Chinese firms' direct provision of infrastructure in LAC. Chinese firms' infrastructure provision in LAC has more than tripled as a share of LAC GDP over this period, while development finance has fallen dramatically. Chinese OFDI in LAC has grown at a more moderate pace, rising by about one-third in importance.

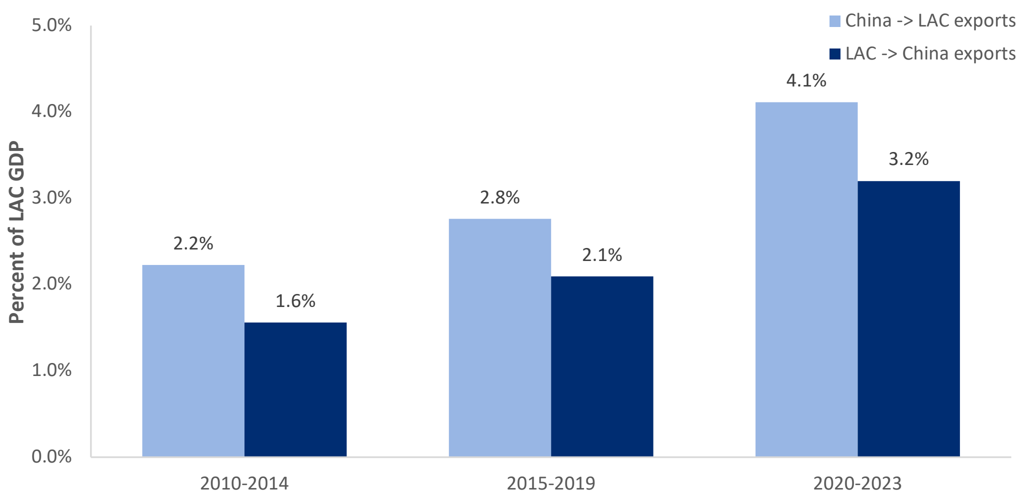
This shift from sovereign finance to direct provision of services may reflect a maturation of the China-LAC relationship. As Akhtar et al (2023) note, the levels and types of firm risk exposure differ greatly among these various approaches to project development. While sovereign finance carries repayment risk, direct infrastructure provision also carries project risks and equity investments carry risks all along the project lifecycle. Thus, as Chinese firms gain experience operating in the region, they have taken on more project risk and relied less on the intermediation of development finance institutions (DFIs), shifting toward contracting directly

[1] Except where otherwise specified, trade data is measured as reported by the exporting partner rather than the importing partner (for example, China's exports to LAC rather than LAC's imports from China). This choice highlights the value of the merchandise itself by excluding the costs of shipping and insurance, which are paid by importers and which can vary significantly with fuel costs.

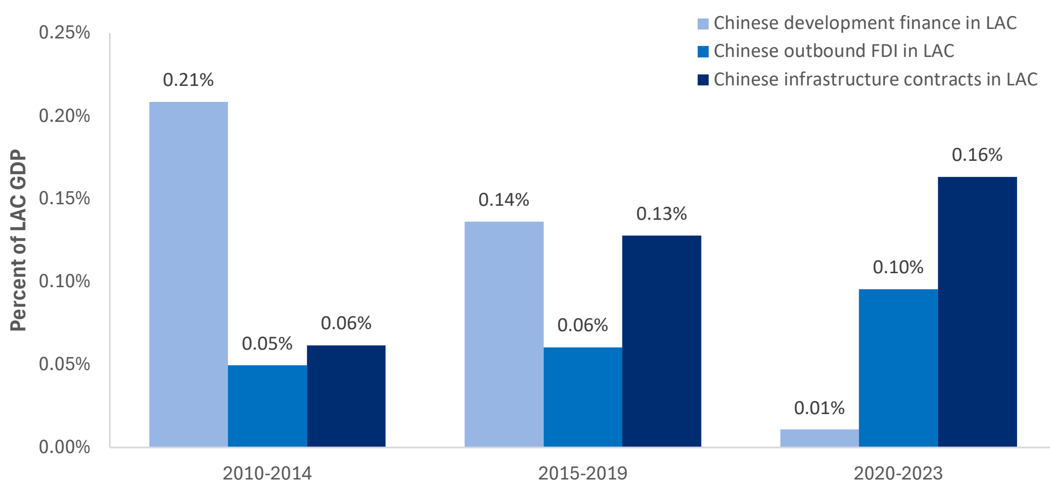
for infrastructure projects and taking on equity stakes through FDI. Each of the pathways of economic interaction shown in Figure 2 – merchandise trade, development finance, OFDI and infrastructure provision – is described in turn in the sections that follow.

Figure 2: China-LAC Economic Activity Relative to LAC GDP, 2012-2023

2A. China-LAC Merchandise Trade Relative to LAC GDP, 2012-2023



2B. Chinese development finance, infrastructure contracts and OFDI in LAC, 2012-2024



Source: Author calculation from Dussel Peters (2024a,b), IMF (2024), Myers and Ray (2024), UN DESA (2024).

Bogota, Colombia. Photo by Random Institute via Unsplash.

TRENDS IN CHINA-LAC MERCHANDISE TRADE

Advances in Trade Agreements

The 2023 China-LAC Economic Bulletin outlined the state of several new and ongoing negotiations for FTAs between China and LAC countries (Albright, Ray and Liu 2023). Over 2023, important advances occurred in the FTAs with Ecuador and Nicaragua.

Ecuador and China had previously concluded formal negotiations in December 2022, and the agreement was officially signed by both countries in May 2023. In February 2024, Ecuador's National Assembly approved the FTA, paving the way for its entry into force later this year (*AP* 2024). The agreement allows 99.6 percent of Ecuadorian exports to enter China without tariffs immediately or within 10 years, and it excludes a number of Chinese products in sensitive sectors, chiefly textiles and clothing (MPCEIP 2023). Outstanding questions remain about the potential environmental effects of the agreement, which may lead to increased deforestation and overfishing to meet new demand for agricultural and aquaculture products (*AP* 2024).

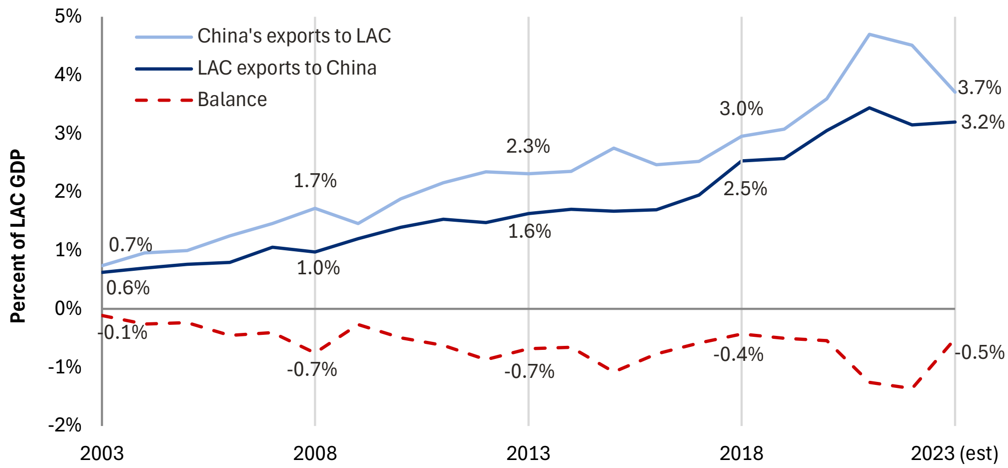
Negotiations between Nicaragua and China began in July 2022 and after a year of negotiations, the agreement was signed in August 2023 and entered into force on January 1, 2024 (*Xinhua* 2024). Within 10 years, 91 percent of Nicaraguan products will enter China with zero tariffs; many of these products are commodities and foodstuffs, such as meats, seafood and wood (*VOA* 2024). This agreement had been a priority for Nicaragua and comes two years after it re-established diplomatic relations with China in December 2021.

These are the first new FTAs between China and LAC countries to enter into force since Costa Rica and China's FTA did so in 2011. This brings the total of LAC countries with FTAs with China to five; Colombia, Panama and Uruguay still have ongoing or stalled negotiation processes. On his visit to China, Uruguay's President Lacalle Pou discussed the potential agreement with his counterpart, where the two leaders agreed to continue working towards an agreement (Presidencia de Uruguay in El País 2023).

Trends in Trade Flows

Overall, China's exports to LAC declined in 2023 in a reflection of the country's overall falling exports for the year, the first time since 2016 that China experienced declining exports (Tan 2024). This led to a contraction in the LAC region's overall merchandise trade deficit with China, to 0.5 percent of GDP, as Figure 3 shows.

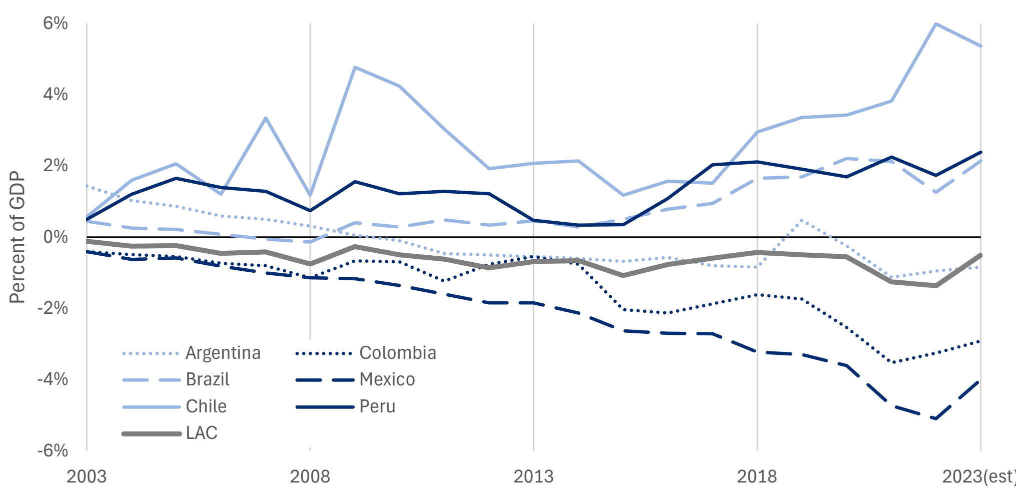
Figure 3: LAC Merchandise Trade Balance with China, 2003-2023



Source: Author calculation from IMF (2024), UN Comtrade (2024).

Due in parts to the dip in China's exports, most major LAC economies saw improving national trade balances with China, as Figure 4 shows. The exception to this pattern is Chile, which has the largest trade surplus with China among major LAC economies, but which saw a significant dip in its trade surplus in 2023, of over 0.5 percent of GDP. This decrease was largely due to a declining copper output for the year, which hit a 15-year low, a trend attributed by observers to water shortages and delays associated with new projects as the country considered potential constitutional changes (Azzopardi 2024, Cambero 2024).

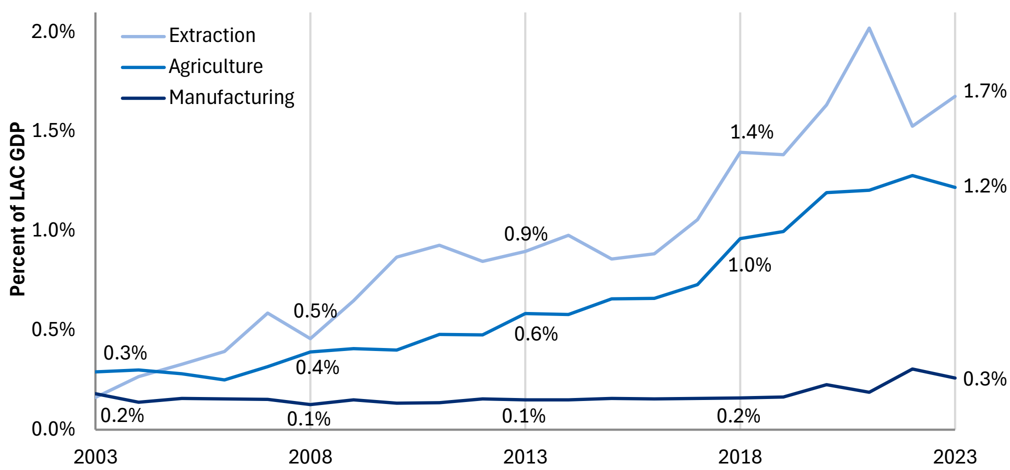
Figure 4: National Merchandise Trade Balances with China, 2003-2023



Source: Author calculation from IMF (2024), UN Comtrade (2024).

In fact, Chile's falling copper exports to China are not an isolated anomaly. As Figure 5 shows, LAC-China mineral exports began declining in 2022 in dollar value, amidst significant drops in the world prices of two major LAC-China mineral exports: iron (which saw a 25 percent drop in 2022) and copper (which had its own 5 percent drop). Figure 5 disaggregates LAC-China exports by sector, clearly showing the recent volatility in the value of minerals trade.

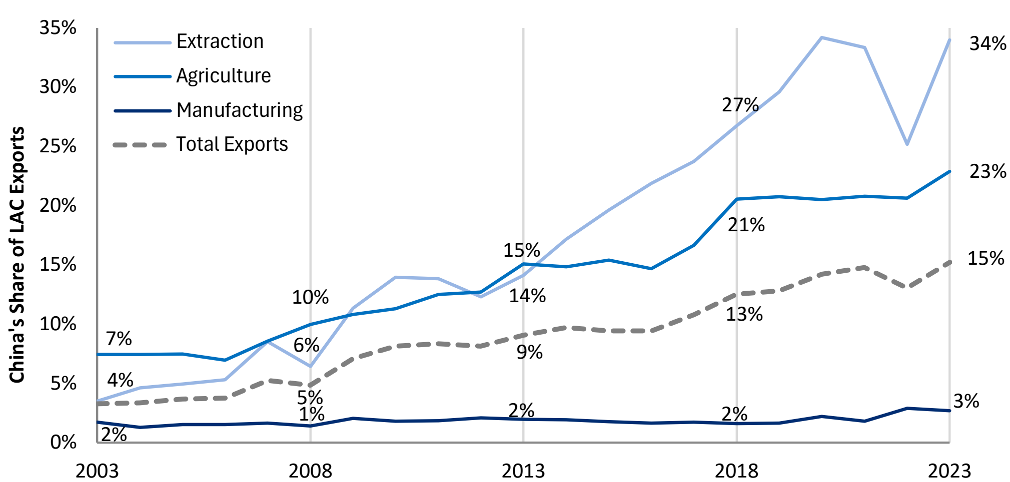
Figure 5: LAC-China Exports by Sector, 2003-2023



Source: Author calculation from IMF (2024), UN DESA (2024), UN Trade and Development (2024).

In contrast, exports of petroleum oil from LAC to non-China trading partners surged, particularly from newly tapped deposits in Guyana, as well as traditional exporters Brazil and Mexico (Parraga 2023). As a result, China's share of LAC mineral exports fell from a record of 34 percent in 2020 to 33 percent in 2021 and to 25 percent in 2022, before rebounding to 34 percent in 2023. Figure 6 shows the resulting volatility in China's share of LAC extractive exports.

Figure 6: China's Share of LAC Exports by Sector, 2003-2023



Source: Author calculation from UN DESA (2024), UN Trade and Development (2024).

Vulnerability to the type of dramatic volatility shown in Figure 6 is one danger of the high concentration of regional exports to China in a few raw commodities. As mentioned in past editions of the China-LAC Economic Bulletin, more than two-thirds of the region's exports are drawn from just five commodities: unrefined copper, soybeans, unrefined iron, crude petroleum oil and copper. In turn, each of these products comes predominantly from a few major sources. Table 2 shows more detail for each of these five products since 2020.

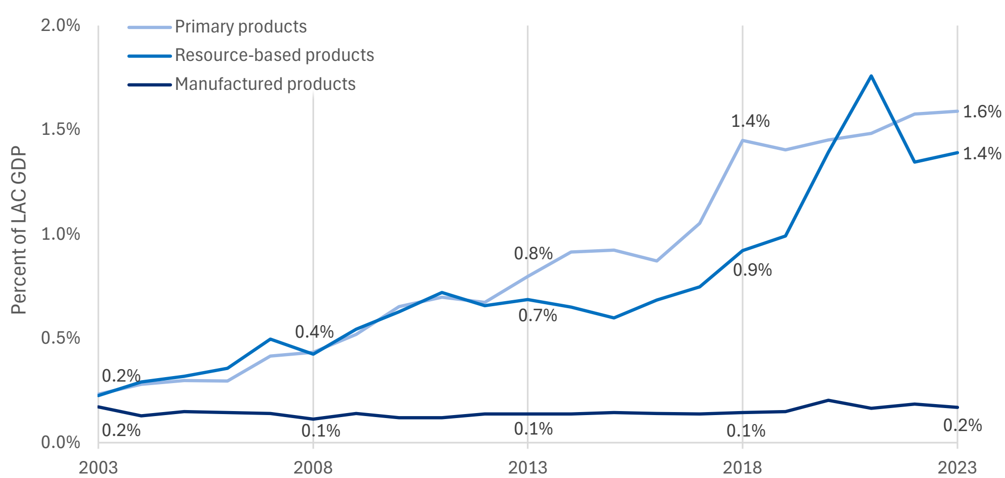
Table 2: LAC's Top Exports to China, 2020-2023

Product	Share of total	Major Suppliers
Copper ores, concentrates	18.6%	Chile (51%), Peru (33%), Mexico (10%)
Soybeans, other oilseeds	18.1%	Brazil (93%), Argentina (6%)
Iron ores, concentrates	14.1%	Brazil (86%), Peru (7%)
Crude petroleum oils	10.9%	Brazil (81%), Colombia (14%)
Copper	5.6%	Chile (83%), Peru (14%)
Total, top 5 products	67.2%	

Source: Author analysis of UN DESA (2024) data.

Scholars estimate that LAC's "China boom" in commodities occurred roughly between 2002-2011 (see for example Ray et al 2017, Dussel Peters and Armony 2015, Wise 2020). But as Figure 7 shows, LAC's exports to China in primary products (raw commodities with little to no local value added such as soybeans and crude petroleum oils) continued to accelerate in total value after 2012, even outpacing resource-based products (those with some limited local value added such as soybean oil and refined gasoline). Manufactured exports to China, by contrast, have continued to account for less than one-fourth of one percent of LAC GDP.

Figure 7: LAC-China Exports by Technology Level, Percent of LAC GDP, 2003-2023



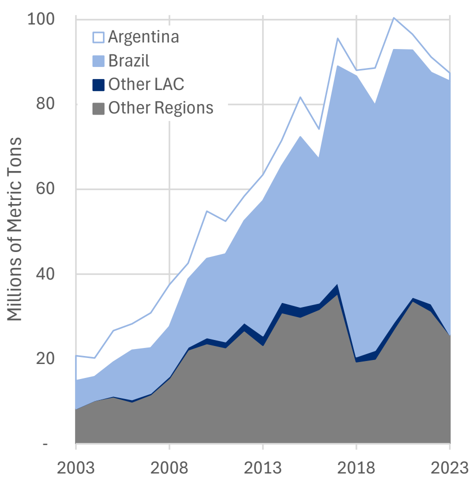
Source: Author calculation from IMF (2024), Lall (2010), UN DESA (2024).

Two new commodities have been growing particularly quickly among China-LAC exports: beef and lithium. Beef exports rank in sixth place among LAC-China exports for the 2019-2023 period, just behind the top five exports shown in Table 2. In 2023, they rose to fifth place, displacing copper. LAC-China beef exports have doubled in volume in the last five years and roughly quintupled in the last decade, now accounting for over three-fourths of China's beef imports. In contrast, lithium is still trading at relatively low levels as a newly important commodity in global trade, but LAC-China lithium exports are growing at an even faster rate than beef: LAC-China lithium carbonate exports have quintupled over just the 2020-2023 period.

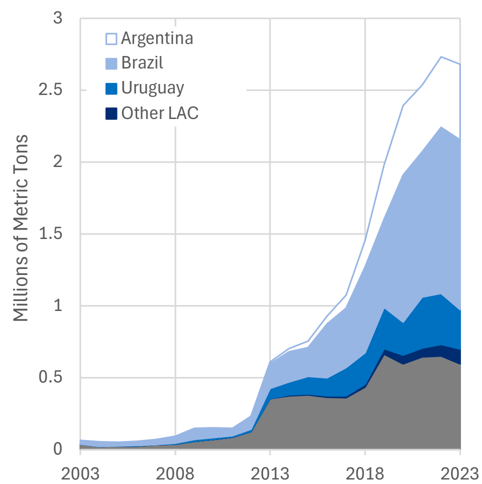
Figure 8 shows more detail for selected important agricultural LAC-China exports: soybeans and beef. In each case, LAC-China exports expanded dramatically beginning in 2018, when China increased tariffs on agricultural imports from the United States (Bown and Kolb 2024, Mullen 2021). China's beef imports from LAC were further bolstered starting in 2018 amidst China's struggle with African swine fever, which boosted meat imports (Ma et al 2021, You et al 2021). However, LAC-China exports of both soybeans and beef have remained strong in the last few years, indicating that they are likely to continue to take prominence in the relationship in the years to come.

Figure 8: China's Imports of Soybeans and Beef, by Source, 2003-2023

8A. Soybeans



8B. Beef, Frozen

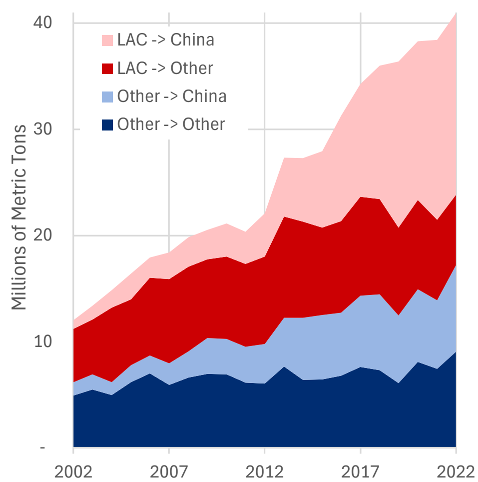


Source: Author analysis of UN DESA (2024) data.

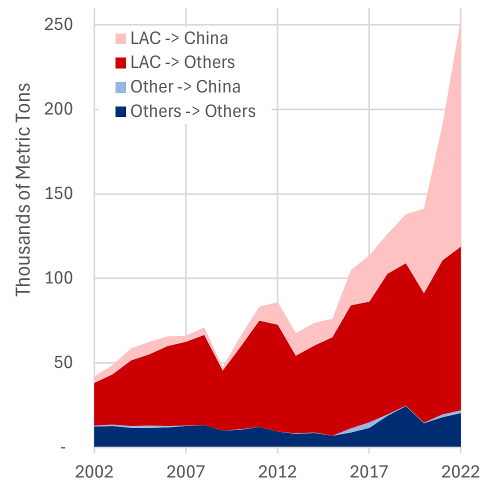
Figure 9 gives more detail about two important mineral exports: lithium carbonate and copper ores and concentrates. In these cases, LAC comprises not only the majority of China's imports but a majority of world trade overall. For this reason, Figure 9 shows total global trade divided into four categories: LAC-China exports, LAC exports to other partners, China's imports from other partners and trade among other countries. In each case, LAC-China exports now account for about half of world trade. Note that Figure 9 shows data only through 2022, as South Korea (a major minerals importer) had not yet published data for 2023 as of June 2024.

Figure 9: World Trade in Lithium Carbonate and Copper Ores and Concentrates, by Direction

9A. Copper Ores and Concentrates



9B. Lithium Carbonate



Source: Author analysis of UN DESA (2024) data.

TRENDS IN CHINESE OUTBOUND FOREIGN DIRECT INVESTMENT IN LAC

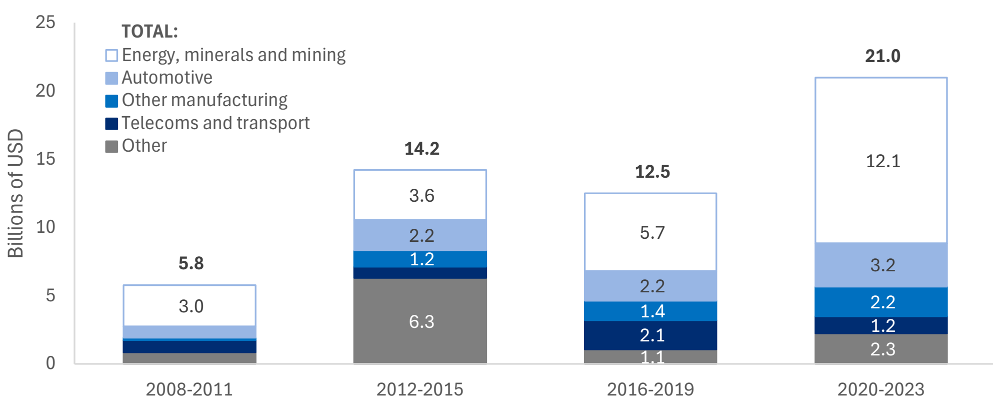
Previous editions of the China-LAC Economic Bulletin have included analyses of Chinese FDI data available through the private databases of FDIMarkets and DeaLogic (Albright, Ray and Liu 2023). The present edition draws from the *Red Académica ALC-China's* annual "Monitor of Chinese OFDI in Latin America and the Caribbean" (Dussel Peters 2024b). This choice allows for greater confidence in the resulting analysis, as the *Red Académica* data is manually verified, meaning that it excludes projects that have been announced but never materialized. Furthermore, the *Red Académica* data is recorded chronologically based on when activity begins rather than when investment intentions are initially announced, allowing for a more accurate representation of trends over time.

China-LAC OFDI trends are covered in detail in the *Red Académica* China-LAC OFDI Monitor (Dussel Peters 2024b). Nonetheless, several trends merit mention for their contrast with trade. While LAC-China exports are dominated by a few raw or processed commodities, China-LAC OFDI has very different profiles for different parts of the LAC region. For example, Chinese OFDI in South America is overwhelmingly concentrated in energy supply chains (including upstream stages of mining and drilling, as well as downstream stages of power generation and transmission). In contrast, Chinese OFDI in Mexico, Central America and the Caribbean is concentrated in manufacturing, particularly in the automotive sector (Mexico's share outweighs that of Central America and the Caribbean, but the overall trends remain the same across the entire sub-region).

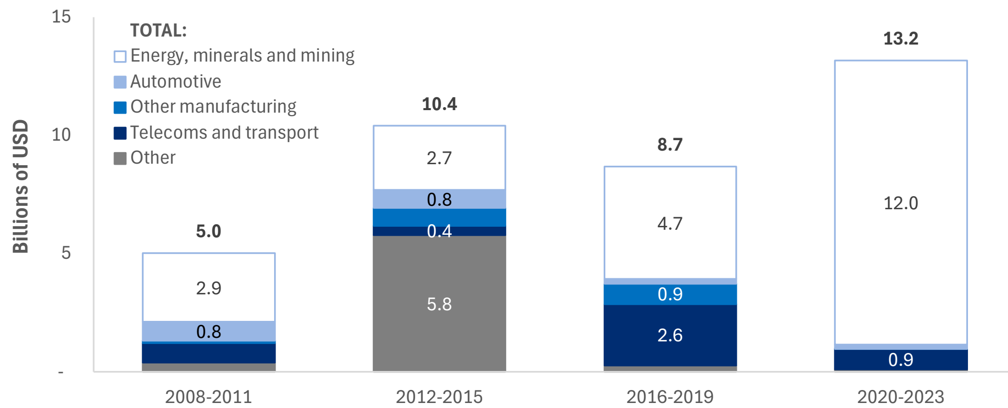
Figure 10 shows Chinese new ("greenfield") OFDI in LAC by sub-region and sector for the last 16 years. Notably, Figure 10 divides time into four-year periods rather than the more typical five-year periods, to allow consideration of the impact of the COVID-19 pandemic and subsequent economic turmoil.

Figure 10: New (Greenfield) Chinese FDI in LAC by Sub-region and Sector, 2008-2023

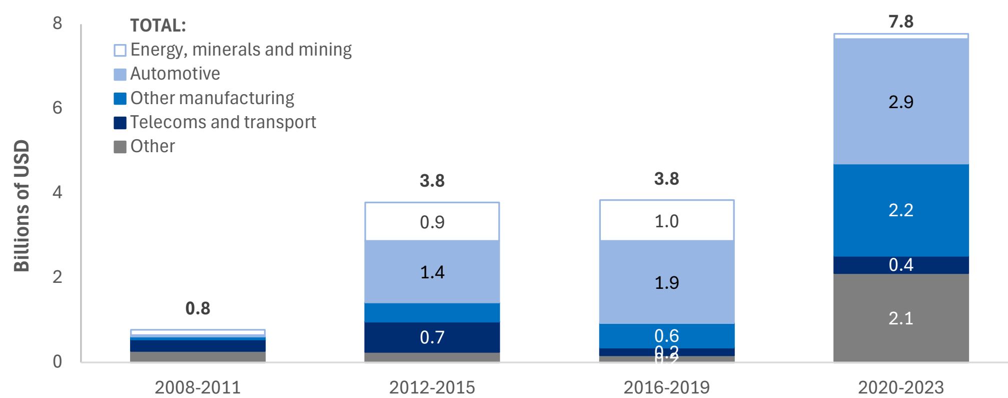
10A: LAC together



10B. South America



10C. Mexico, Central America and the Caribbean



Source: Author analysis of Dussel Peters (2024a) data.

The largest category in Figure 10, by far, is Chinese OFDI in the energy, minerals and mining sector in South America. The second largest sector shown in Figure 10 is Chinese automotive manufacturing OFDI in Mexico, Central America and the Caribbean. Chinese automotive investment has garnered international attention in the last few years, particularly since the recent imposition of US tariffs on vehicles manufacturing in China (CRS 2024, Ray 2024). However, as Figure 10 shows, this investment has not increased dramatically recently, but has grown at a relatively steady pace over the last 12 years. Indeed, the sector gained prominence in 2010 with Chery Automotive's investment of $400 million in Brazil. By 2015, the automotive industry was the top sector for Chinese greenfield FDI in Mexico, Central America and the Caribbean.

In 2023, the largest Chinese greenfield investments in LAC include:

- Solarever's $1 billion investment in electric vehicle manufacturing in Mexico.
- Chengxin Lithium Group's $823 million investment in the SDSA lithium project in Argentina.
- Huawei's $800 million investment in smartphone manufacturing in Brazil.

- Zijin Mining Group's $600 million investment in Argentina's Tres Quebradas lithium project.
- Ningbo Xusheng Group's $350 million investment in a new electric vehicle plant in Mexico.
- Minerals and Metals Group's (MMG's) investment of $350 million to expand its Las Bambas copper mine in Peru.
- BYD's investment of $290 million in a lithium cathode factory in Chile.

Figure 11 shows the sector distribution among Chinese mergers and acquisitions (M&A) OFDI in LAC. It shows much the same trend as Figure 10, with the exception that automotive manufacturing does not have the same major significance it has among greenfield investments, as M&As are not a common method for automotive OFDI. Instead, the most important sector for Chinese M&A OFDI in Mexico, Central America and the Caribbean has been non-automotive manufacturing. The largest purchase in that sector dates from 2016, when Qingdao Haier, a subsidiary of the Haier Group, purchased GE Appliances from General Electric for $5.4 billion, including its stake in Mexican appliance company Controladora Mabe.

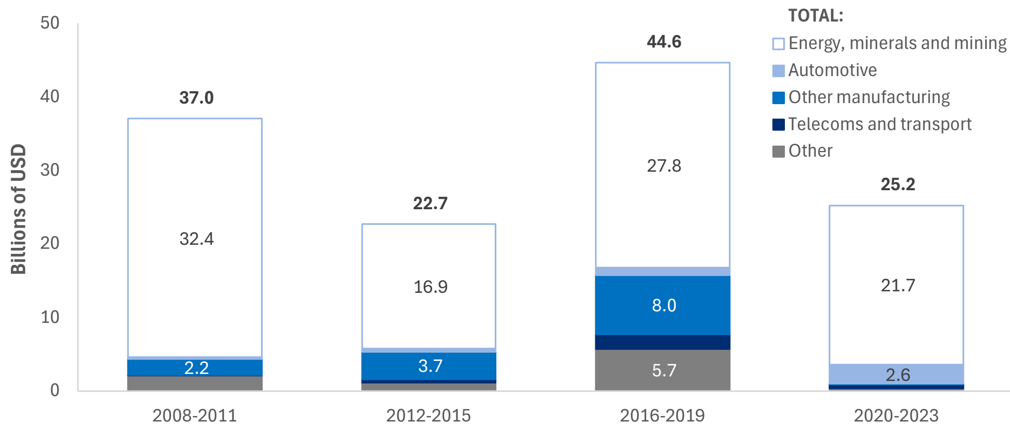
In 2023, the largest Chinese M&A investments in LAC include:

- State Grid Corporation of China's purchase of Enel Peru for $2.9 billion.
- PowerChina's purchase of Brazil's Pontoon and its Ceará solar plant project for $360 million.
- Midea Group's joint venture with Carrier in the Brazilian air conditioning manufacturing sector for $122 million.

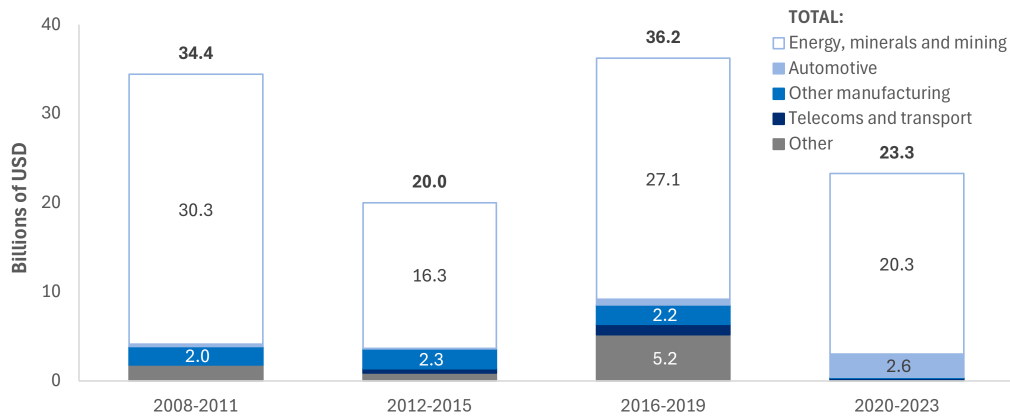
Finally, previous editions of the China-LAC Economic Bulletin have noted the rising prominence of private Chinese enterprises relative to the traditionally important Chinese public-sector investors. Figure 12 shows this trend in more detail. Public-sector Chinese investors still represent the majority of Chinese OFDI in LAC overall, with private firms accounting for approximately 40 percent of all Chinese OFDI in LAC in the last four years. However, Figures 12B and 12C – which differentiate between sub-regions of LAC – show that private Chinese enterprises have been the driver of Chinese investments in Mexico, Central America and the Caribbean for the last eight years and accounted for approximately three-fourths of this investment in the last four years.

Figure 11: Chinese M&A Investment in LAC by Sub-region and Sector, 2008-2023

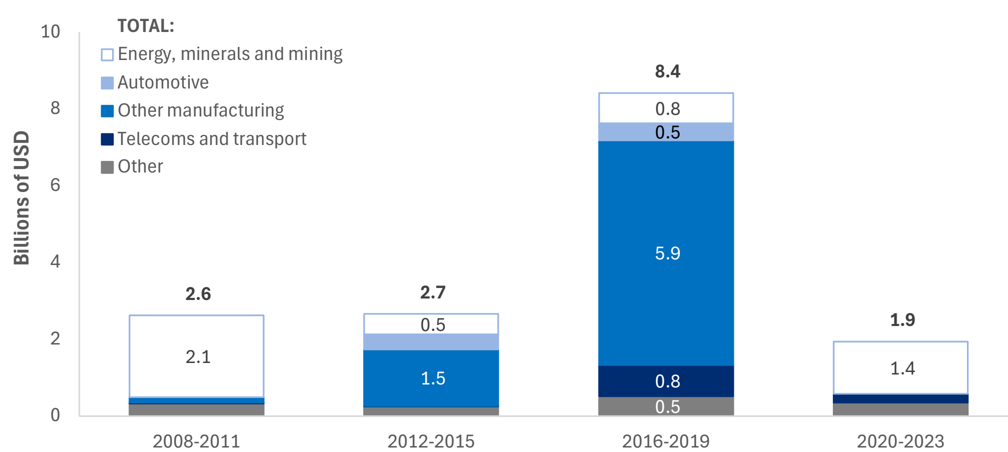
11A. LAC together



11B. South America



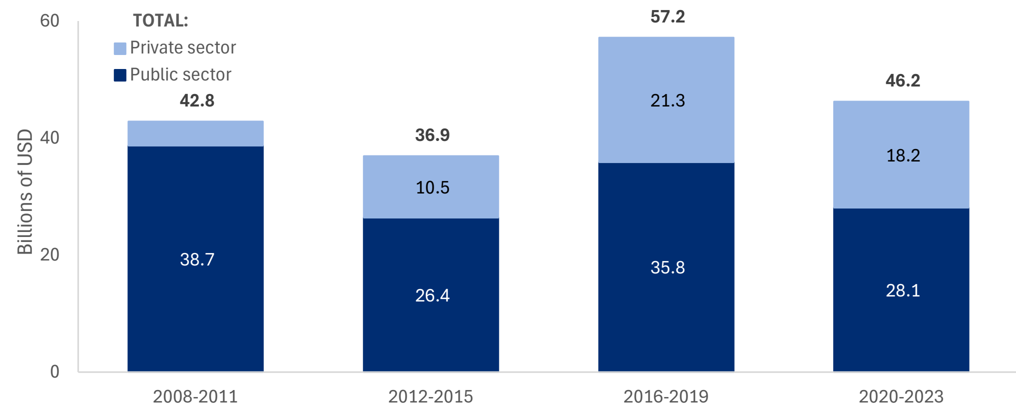
11C. Mexico, Central America and the Caribbean



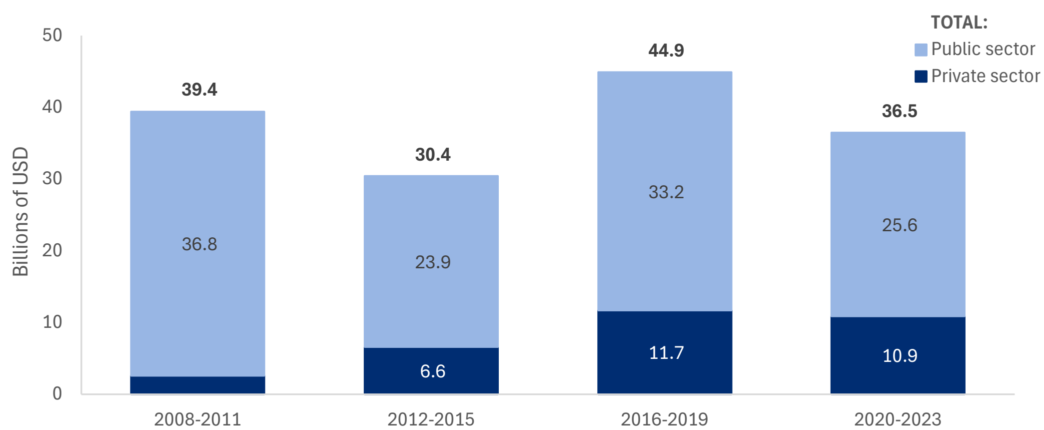
Source: Author analysis of Dussel Peters (2024a) data.

Figure 12: China-LAC Investment by Sub-Region and Chinese Firm Ownership, 2008-2023

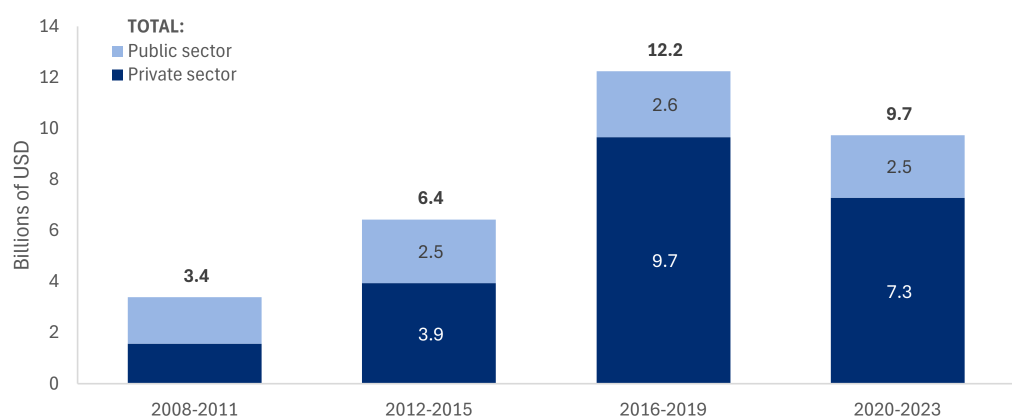
12A. LAC together



12B. South America



12C. Mexico, Central America and the Caribbean



Source: Author analysis of Dussel Peters (2024a) data.

Montevideo, Uruguay. Photo by Drone 5 via Shutterstock.

TRENDS IN CHINESE INFRASTRUCTURE IN LAC

New to the 2024 edition of the China-LAC Economic Bulletin is consideration of Chinese firms' participation in LAC infrastructure contracts, as reflected in the *Red Académica ALC-China's* annual "Monitor of Chinese Infrastructure to LAC" (Dussel Peters 2024b). These projects are service contracts to build and/or operate infrastructure projects, separate from FDI projects in which Chinese firms take equity stakes in projects (such as State Grid Corporation of China's purchase of Enel Peru's energy transmission infrastructure).

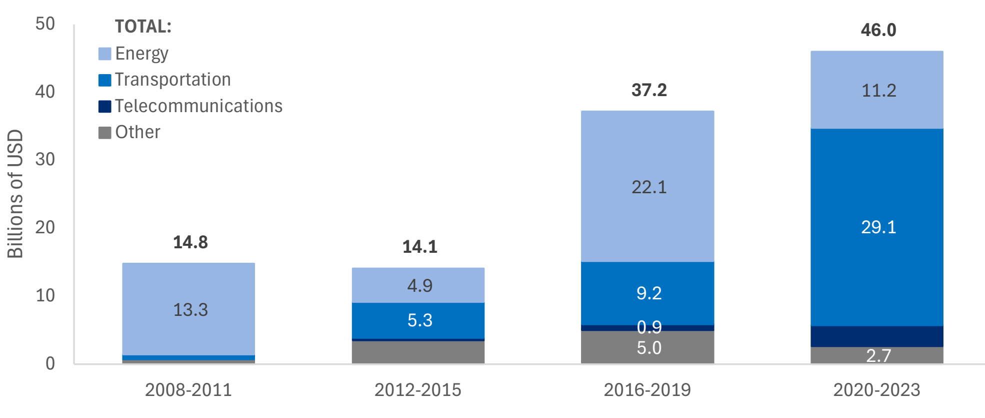
As highlighted in the annual Monitors of Chinese Infrastructure to LAC (Dussel Peters 2024b), an infrastructure project is understood as a service between a client and a supplier through a contract-usually the result of a bidding process, although the process can be by direct designation in which the ownership belongs to the client. This definition is important in order to distinguish infrastructure contracts from OFDI transactions which do not include a client and a supplier (as they are usually intrafirm decisions), do not include a contract and the ownership is always of the firm. This definition allows for a clear distinction in the registration of OFDI and infrastructure projects.

Some projects may also be included as development finance, if the contracts are financed through loans from CDB or CHEXIM. For example, Ecuador's Coca-Codo Sinclair hydropower plant involved both an infrastructure contract (with Sinohydro, a subsidiary of PowerChina) and financing from CHEXIM. Other projects, such as Nicaragua's Punta Huete airport, received lending from Chinese commecial entities (in this case, CAMC Engineering). Still other projects, such as the Puerto Peñasco solar power plant in Sonora, Mexico, do not involve Chinese financing, but a Chinese firm is involved as a contractor.

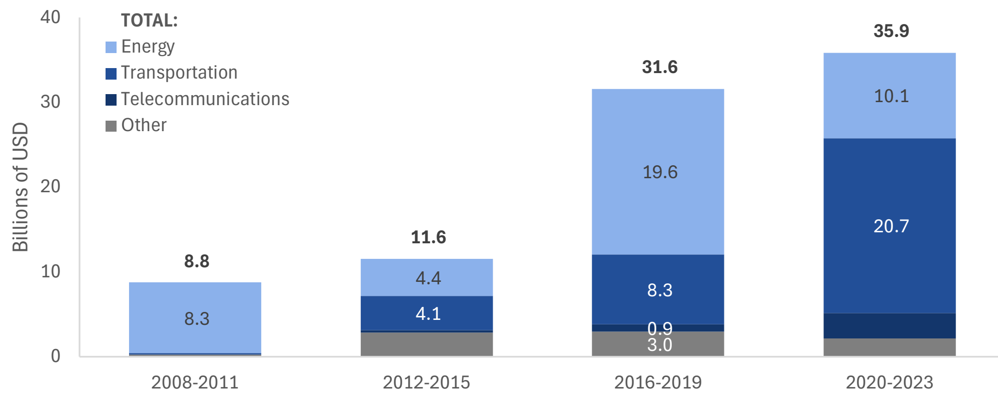
Figure 13 shows the resulting infrastructure trends by sector and LAC sub-region. In the last four years, transportation projects have risen to become the most important sector in the China-LAC infrastructure relationship. This is true in South America, as well as the broader LAC region. Transportation projects have mostly included rails, including long-distance cargo routes in Argentina and Brazil, as well as urban passenger rail in Colombia and Mexico. This trend reinforces the pattern discussed regarding China-LAC OFDI: a South American concentration on commodities for export to China and a focus elsewhere in LAC on urban areas, including manufacturing and urban transport.

Figure 13: Chinese Infrastructure in LAC by Sub-region and Sector, 2008-2023

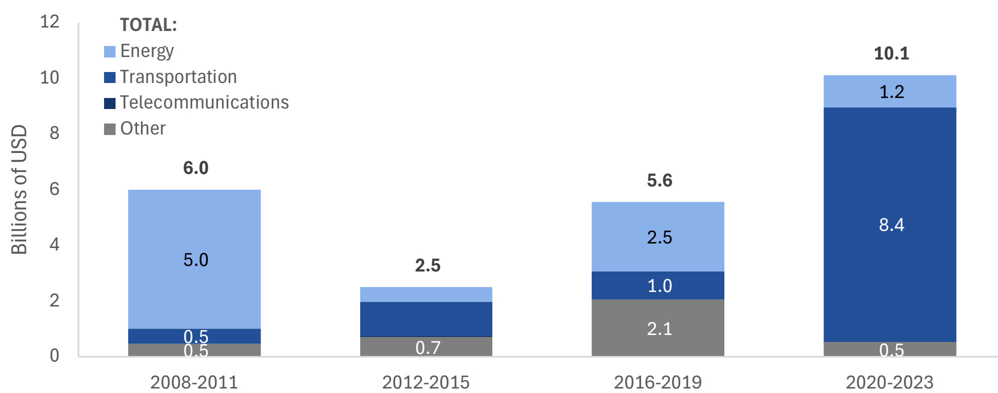
13A. LAC together



13B. South America



13C. Mexico, Central America and the Caribbean



Source: Author analysis of Dussel Peters (2024b) data.

Fittingly, the most active Chinese contractors in LAC have been major state-owned entprises in the communications and transportations sectors. Table 3 shows the 10 most active firms in the region. China Communication Construction Company (CCCC) has done the most in the last four years, as well as over the entire 16-year period considered, with over $16 billion in infrastrucure contracts (despite its name, CCCC is mostly active in transportation sector). However, newly active firms such as China Railway Construction Corporation (CRCC) and China National Nuclear Corporation (CNNC) have risen sharply in prominence as rail and nuclear energy projects have been developed.

Table 3: Top 10 Providers of Infrastructure Services in LAC, 2012-2023 (Billions of USD)

	2012-2015	2012-2015	2016-2019	2020-2023	TOTAL
China Communication Construction Co. (CCCC)	0.6	1.4	6.9	7.4	16.3
Power Construction Corp. of China (PowerChina)	4.7	2.3	2.5	4.1	13.6

	2012-2015	2012-2015	2016-2019	2020-2023	TOTAL
China Railway Construction Corp. (CRCC)	0.1	0.8	2.5	8.1	11.6
China National Petroleum Corp. (CNPC)	5.0	0.0	3.2	0.0	8.2
China National Nuclear Corp. (CNNC)	0.0	0.0	0.0	7.9	7.9
China National Machinery Industry Corp. (Sinomach)	1.6	4.1	0.5	1.2	7.4
China Energy Engineering Group (CEEC)	0.8	0.3	4.7	1.5	7.3
State Grid Corp. of China (SGCC)	0.0	0.7	4.4	0.0	5.1
CRRC Group Corporation (CRRC)	0.0	0.0	0.4	4.5	4.9
Huawei Technologies Co. Ltd.	0.0	0.0	0.2	3.0	3.2

Source: Author analysis of Dussel Peters (2024b) data.

Note: Projects with multiple Chinese contractors are excluded from this table.

In 2023, the largest Chinese infrastructure projects in LAC include:

- Metro lines and trains in Monterrey, Mexico, provided by China Railway Construction Corporation (CRCC) for $1.2 billion.
- The second stage of the Puerto Peñasco solar plant in Sonora, Mexico, provided by China Energy Engineering Group (CEEC) for $800 million.
- The Camaraçi Industrial Park in Bahia, Brazil, provided by BYD for $620 million.
- The Mesopotanian branch of the Urquiza railway in northern Argentina, provided by CRRC for $550 million.

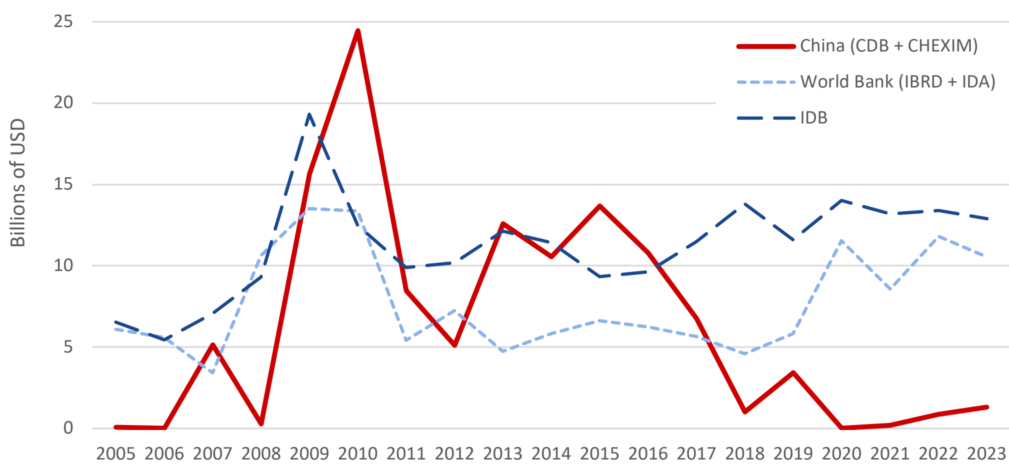
DEVELOPMENT FINANCE AND DEBT

As Chinese firms have gained exerience operating in LAC, they have relied less on China's DFIs, CDB and CHEXIM, to initiate and finance new activities. This finding is reflected in the low levels of sovereign finance shown in the 2024 update to the Chinese Loans to Latin America and the Caribbean Database, produced by the Inter-American Dialogue and Boston University Global Development Policy Center (Myers and Ray 2024, Ray and Myers 2024).

In 2023, Myers and Ray (2024) note that Chinese DFIs extended just two sovereign loans, both by the CDB to its peer in Brazil, the Banco Nacional de Desenvolvimento Econômico e Social (BNDES). These included an $800 million loan for long-term investments and a $500 million loan for short-term investments, such as trade finance.

Figure 14 shows Chinese development finance to LAC from 2005-2023. Whereas Chinese DFIs committed about as much as – or more than – the World Bank and the Inter-American Development Bank (IDB) from 2009-2016, a rapid decline began in 2017 and has continued since.

Figure 14: Chinese Development Finance in LAC, 2005-2023



Source: Myers and Ray 2024.

Note: IBRD: International Bank for Reconstruction and Development; IDA: International Development Association. IDB commitments include only sovereign operations.

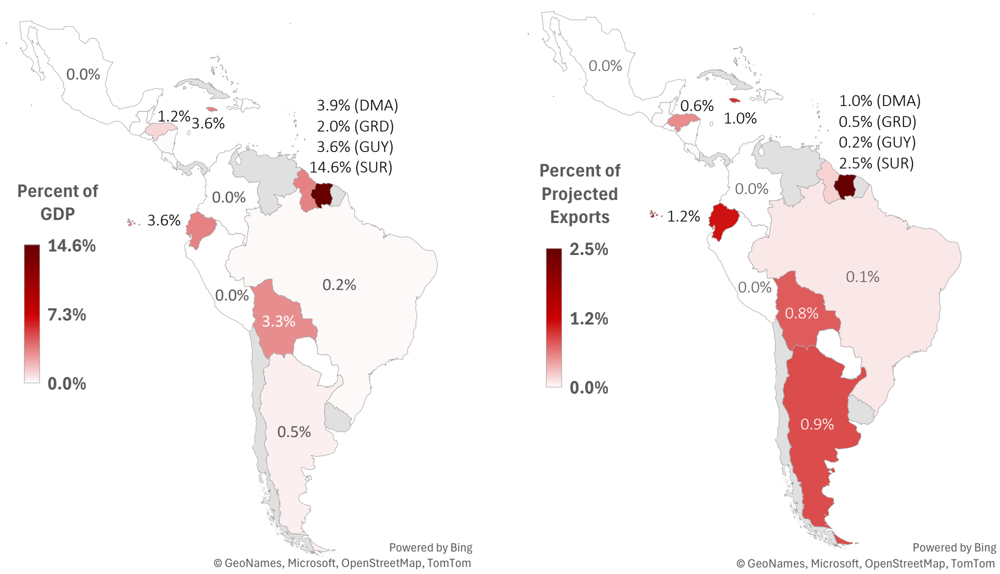
After years of strong sovereign borrowing, it is important to consider the remaining levels of debt to China across the LAC region. Figures 15 and 16 explore various aspects of LAC countries' debt to China. Figure 15 maps LAC debt to China in two ways: Figure 15A shows each country's debt stock as a share of GDP and Figure 15B shows near-term (2024-2028) debt service payments to China as a share of projected exports.

Notably, Figures 15 and 16 are limited to countries that report debt through the World Bank International Debt Statistics. Countries may be excluded either because they are higher-income countries (as in the cases of Antigua and Barbuda, the Bahamas, Barbados, Chile, Panama, St. Kitts and Nevis, Trinidad and Tobago, and Uruguay) or for lack of robust public debt data (as in the cases of Cuba, St. Lucia, St. Vincent and the Grenadines, and Venezuela). Venezuela's absence is particularly noteworthy: as Myers and Ray (2024) indicate, Venezuela accounted for nearly half of Chinese development finance commitments in LAC between 2005-2023. Nonetheless, Figures 15 and 16 demonstrate the most robust data available for public and publicly guaranteed (PPG) debt to China in the remainder of the LAC region.

Figure 15: LAC External Public and Publicly Guaranteed (PPG) Debt to China

15A. PPG Debt to China, 2022
(Percent of GDP)

15B. PPG Debt Service to China, 2024-2028
(Percent of Projected Exports)



Source: Author calculation from Boston University Global Development Policy Center (2024), Ray and Simmons (2024).
Note: PPG: Public and publicly guaranteed. Grey territories indicate no available data. Includes PPG debt to commercial creditors.

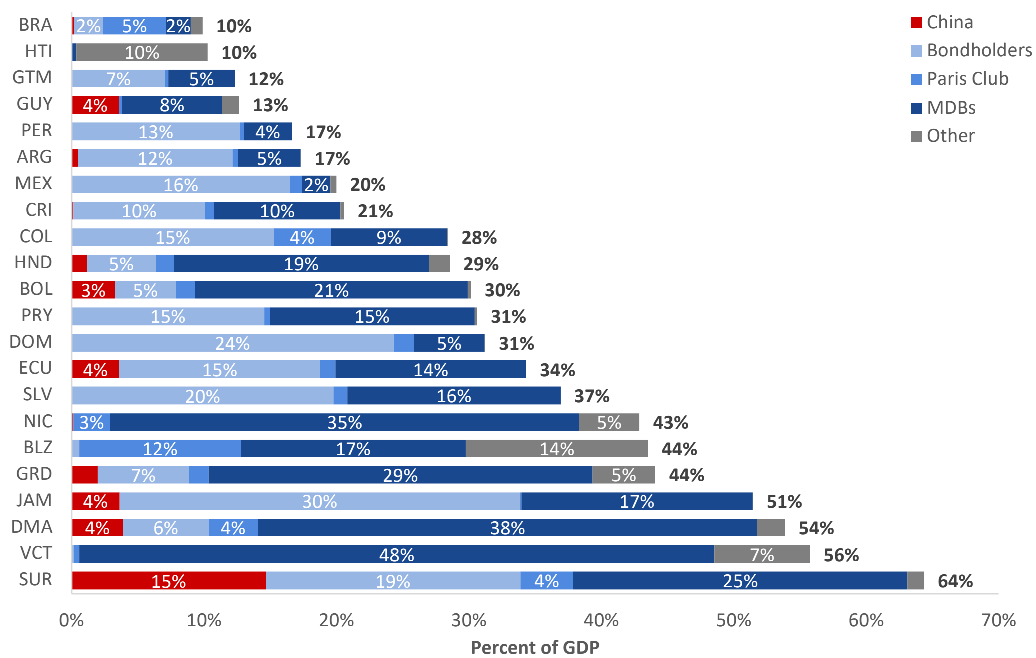
As Figure 15A shows, Suriname stands out among LAC countries as having by far the highest PPG debt to China: 14.6 percent of its GDP and over three times higher than any other LAC country with publicly available data. No other LAC country has publicly-reported PPG debt to China exceeding 4 percent of GDP. Five countries – Bolivia, Dominica, Ecuador, Guyana and Jamaica – all owe China between 3-4 percent of GDP and the remainder of LAC countries owe China less than 2 percent of GDP.

Figure 15B explores LAC debt through near-term (2024-2028) repayment burdens. Suriname once again stands out as owing China more than any other LAC country: 2.5 percent of projected export revenue over the 2024-2028 period. Ecuador is in a distant second place, owing 1.2 percent of the value of its projected exports to China from 2024-2028. No other country with public data in the region is expected to owe more than approximately 1 percent of its export revenue in debt service payments to China over the next five years.

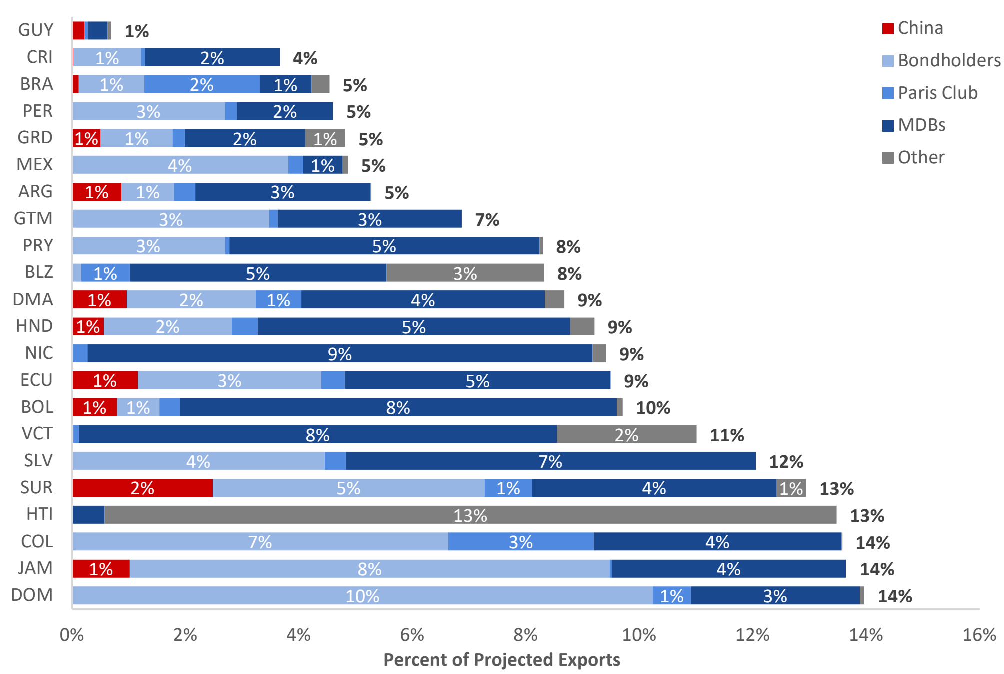
Among the four largest classes of creditors worldwide (bondholders, China, Paris Club and multilateral creditors), China plays a relatively minor role as a LAC creditor. Chinese creditors are not the largest creditors for any LAC country. Figure 16 shows LAC countries' external PPG debt to China in comparison to four other creditor classes: bondholders, Paris Club creditors, multilateral development banks (MDBs) and other creditors. Figure 16A compares debt stock across creditors, while Figure 16B does the same for debt service. In each case, China plays a relatively minor role overall and in most countries.

Figure 16: LAC External PPG Debt, by Creditor Class

16A. Exernal PPG Debt Stock, 2022 (Percent of GDP)



16B. Exernal PPG Debt Service, 2024-2028 (Percent of Projected Exports)



Source: Author calculation from Boston University Global Development Policy Center (2024), Ray and Simmons (2024).
Note: PPG: Public and publicly guaranteed. Includes PPG debt to commercial creditors.

As Figure 16A shows, 11 countries owe MDBs more than any other creditor class, eight owe the most to bondholders and one (Brazil) owes the most to Paris Club creditors. Over the next five years, Figure 16B shows that MDBs play an even greater role, with 13 countries owing more in debt service payments to MDBs than any other creditor class. Thus, for LAC countries undergoing debt restructuring, participation of bondholders as well as mutilateral creditors, in addition to China, will be crucial for finding meaningful relief.

FUTURE PROSPECTS

This edition of the China-LAC Economic Bulletin has highlighted the rise in Chinese firms' participation in infrastructure contracting amidst a dramatic fall in development finance. For its part, Chinese OFDI to LAC has fluctuated strongly in the last decade, growing to represent 10.6 percent of all inbound FDI in LAC from 2020-2023, but falling in absolute terms since the COVID-19 pandemic. Chinese infrastructure projects present stronger growth: with almost $46 billion for the most recent period 2020-2023, Chinese infrastructure projects reflect an important upward tendency. While both OFDI and infrastructure projects are likely to continue to grow in importance, infrastructure shows the strongest growth potential.

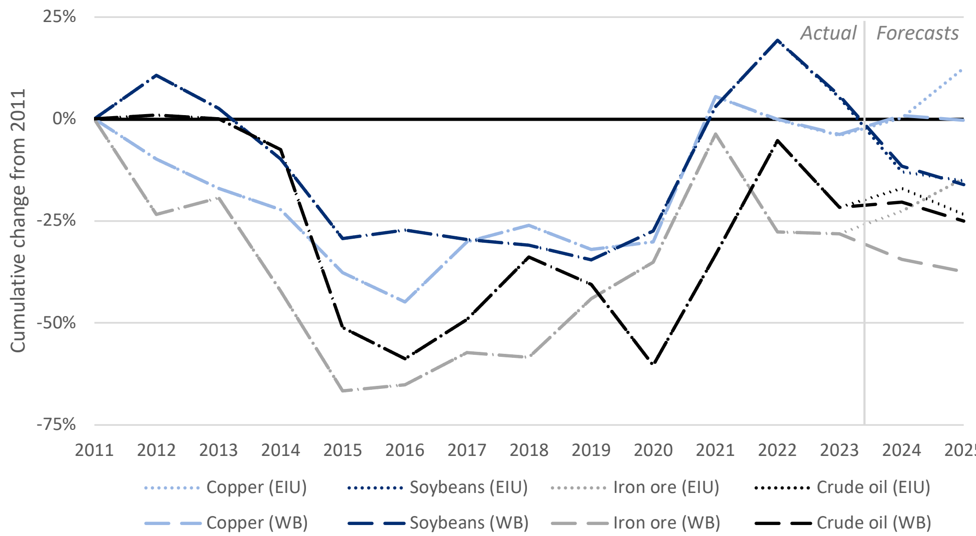
As Chinese firms become increasingly experienced operating in LAC, they are likely to engage through investment and through infrastructure contracts independent of the intermediation of China's DFIs. Thus, development finance is likely to continue to lag in comparison to other forms of economic engagement. In countries with a tradition of expanding infrastructure through FDI, such as Peru, this activity is likely to come through equity investment, such as the $1.8 billion Chancay port, which was developed by China Ocean Shipping Group Company (COSCO) in 2019 and is expected to be inaugurated at the November 2024 Asia-Pacific Economic Cooperation (APEC) summit in Peru (Sihue 2024). In other countries with a tradition of public ownership of infrastructure, such as Nicaragua, this will likely be through government infrastructure contracts, such as the Punta Huete airport, financed through a commercial Chinese firm (CAMC Engineering).

Future prospects for commodity trade

Figure 17 shows global prices for the four top LAC-China export commodities since 2011, including forecasts for 2024 and 2025 by the Economist Intelligence Unit (EIU) and the World Bank. All four of the top commodities in the LAC-China export relationship (copper, soybeans, iron and petroleum) lost significant ground in their global prices in the decade after their peak years, but mostly returned to peak levels in 2021 or 2022.

However, the recent returns to peak prices are unlikely to stick, as they emerged from supply-chain complications due to the uneven return to economic activity after the initial years of the COVID-19 pandemic, as well as Chile's lull in copper production and Russia's war in Ukraine (UN DESA 2023). By 2025, most of these top four commodities – with the exception of copper – are expected to return to lower price levels. Thus, trade balances are likely to worsen for countries other than the top copper exporters (Chile and Peru), unless increased volumes make up for the difference.

Figure 17: Global Prices of Major LAC-China Export Commodities, 2011-2025



Source: Author calculation from EIU (2024a, b) and World Bank (2024).

Prospects for future sustainabile development

Significant shifts in the China-LAC relationship will shape the prospects of the relationship's impact on LAC's sustainable development. This is particularly true for the growing importance of a few sectors: automotive manfuacturing (particularly electric vehicles), rail and renewable energy infrastructure, and trade in beef, soy, lithium and copper. Together, these sectors create a mixed portrait of the implications for sustainable development in LAC.

Chinese electric vehicle manfuacturers and urban rail builders are undoubtedly contributing to reducing the carbon intensity of transportation in the LAC region. LAC's hybrid and electric vehicle market are relatively new but growing quickly, and are expected to more than double by the end of the present decade (Statista 2024). Observers including Myers (2024) and Tobin (2024) note the crucial role that Chinese firms have played in this growth, through both trade and investment. Urban rail is another crucial element in sustainable transit. Monterey, Mexico ranked among the 10 most congested cities in the world in 2022, making the expansion of urban rail crucial for quality of life as well as air quality (INRIX 2023).

Renewable energy, as well as its mineral inputs such as lithium and copper, are crucial for reducing global carbon emissions. The local sustainability impacts of these projects – on social, environmental and economic fronts – depend in large part on their design and governance. Albright et al (2023) explore the policy challenges posed by these nascent supply chains in Latin America, finding that the vast majority of environmental, social, economic and traparency governance needs have yet to be filled either by policy or by academic research to support policy. LAC has made significant strides in recent years, including the ratification of the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (commonly known as the Escazú Agreement) by 16 countries. Nonetheless, building specific policies and procedures to embody these principles will require ongoing attention from national governments (Chinese as well as LAC), civil society and academic researchers (ECLAC 2024).

Trade in South American beef and soy is associated with significant environmental and social risks, which will need significant collaboration if they are to be managed successfully. Ermgassen et al (2020b) trace the deforestation risk from Brazil's global beef exports and find that China's demand carries the greatest exposure to deforestation risk among Brazil's trading partners (between 15,900 and 23,000 hectares per year). On soy, the prospects are more positive and point to areas for potential future collaboration to limit environmental risks. Ermgassen et al (2020a) note that the Chinese meat industry has adopted a zero deforestation commitment (ZDC) for its purchases of Brazilian soy and that Chairman Jun Lyu of Chinese agricultural giant COFCO Corporation has called for the expansion of the Soy Moratorium (a voluntary industry agreement to end purchase of soy from the Amazon biome) to also include the Cerrado, the surrounding tropical savannah (Lyu 2019). Such an extension could have a significant impact on the sustainability of the soy industry, as the Cerrado is home to most Brazilian soy production.

Across all of these sectors, international collaboration is crucial for ensuring that the China-LAC relationship benefits – or at least does not harm – local economies and ecosystems. The increase in 2023 LAC presidential visits to China are a positive sign for the strengthening of government-to-government dialogue. Mobilizing those avenues of dialogue for sustainable and inclusive development will remain a crucial agenda item for the coming years, particularly as transition minerals continue to play a growing role in the LAC-China relationship and the global energy transition.

Santiago, Chile. Photo by Diego Machiaveli via Unsplash.

REFERENCES

Albright, Zara C., Alex Clark, Juan Luis Dammert Bello and Rebecca Ray. 2023. "How to Stop a Boom from Busting: A Policy-Orientd Research Agenda for Capitalizing on China's Demand for Transition Materials in Latin America." Boston and Lima: Boston University Global Development Policy Center and Universidad del Pacífico Centro de Estudios Sobre China y Asia Pacífico. https://www.bu.edu/gdp/2023/10/30/how-to-stop-a-boom-from-busting-a-policy-oriented-research-agenda-for-capitalizing-on-chinas-demand-for-transition-materials-in-latin-america/.

Albright, Zara, Rebecca Ray and Yudong (Nathan) Liu. 2023. "China-Latin America and the Caribbean Economic Bulletin: 2023 Edition." Boston: Boston University Global Development Policy Center. https://www.bu.edu/gdp/2023/04/20/china-latin-america-and-the-caribbean-economic-bulletin-2023-edition/.

Akhtar, Muhammad, Nadeem Ahmad Mufti, Sajjad Mubin, Muhammad Qaiser Saleem, Sadaf Zahoor and Sanna Ullah. 2023. "Identification of Various Execution Modes and Their Respective Risks for Public–Private Partnership (PPP) Infrastructure Projects." *Buildings* 13:8, 1889. https://doi.org/10.3390/buildings13081889.

AP. 2024. "Asamblea de Ecuador aprueba Tratado de Libre Comercio con China." *Associated Press*, 7 February. https://apnews.com/world-news/general-news-3aa7ab593a9c275dbaffbc1b49c0a047.

Azzopardi, Tom P. 2024, "Chilean Copper Output Expects Fast Recovery After a 15-year Low in 2023." *S&P Global*. https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/metals/011524-chilean-copper-output-expects-fast-recovery-after-a-15-year-low-in-2023.

BCRA (Banco Central de la República Argentina). 2024. "El BCRA y el PBOC renuevan la totalidad del tramo activado del swap de monedas hasta julio de 2026." *Banco Central de la República Argentina*. 12 June. https://www.bcra.gob.ar/Noticias/El-BCRA-y-el-PBOC-renuevan-la-totalidad-del-tramo-activado-del-swap-hasta-julio-2026.asp.

Boadle, Anthony. 2023. "Brazil's Lula Puts Ukraine Peace on his Agenda in China." *Reuters*, 11 April. https://www.reuters.com/world/americas/brazils-lula-puts-ukraine-peace-his-agenda-china-2023-04-11/.

Boston University Global Development Policy Center. 2024. Sovereign Debt and Environment Profiles (SDEP) Database. Retrieved from http://www.bu.edu/gdp/sovereign-debt-environment-profiles-database.

Bown, Chad P. and Melina Kolb. 2023. "Trump's Trade War Timeline: An Up-to-Date Guide." Washington, DC: Peterson Institute for International Economics. https://www.piie.com/blogs/trade-and-investment-policy-watch/2018/trumps-trade-war-timeline-date-guide.

Cambero, Fabian. 2024. "Chile Copper Miner Codelco's 2023 Production Declines, but Recovery Seen This Year." *Reuters*. https://www.reuters.com/markets/commodities/chile-copper-miner-codelcos-2023-production-declines-recovery-seen-this-year-2024-02-07/.

Cancillería. 2023. "Colombia y China suscribieron 12 instrumentos de cooperación." *Cancillería de Colombia*. https://www.cancilleria.gov.co/newsroom/news/colombia-china-suscribieron-12-instrumentos-cooperacion.

Cao, Ella and Liz Lee. 2023. "China's Xi says willing to begin free trade talks with Honduras." *Reuters*. https://www.reuters.com/world/chinas-xi-says-will-firmly-support-honduran-development-2023-06-12/.

Casa Rosada. 2023a. "Alberto Fernández: 'El segundo tramo del swap nos permite potenciar nuestras reservas y llevar tranquilidad al sistema financiero.' Press release, 18 October. https://www.casarosada.gob.ar/informacion/actividad-oficial/9-noticias/50233-alberto-fernandez-el-segundo-tramo-del-swap-nos-permite-potenciar-nuestras-reservas-y-llevar-tranquilidad-al-s-istema-financiero.

Casa Rosada. 2023b. "El presidente mantuvo reuniones con representantes de empresas mineras y de energías renovables en Shanghai." Press release, 15 October. https://www.casarosada.gob.ar/slider-principal/50221-el-presidente-mantuvo-reuniones-con-representantes-de-empresas-mineras-y-de-energias-renovables-en-shanghai.

CRS (Congressional Research Service). 2024. "Section 301 of the Trade Act of 1974." Washington, DC: CRS. https://crsreports.congress.gov/product/pdf/IF/IF11346.

Declaración Conjunta entre la República Popular China y la Republica de Colombia sobre el Establecimiento de la Asociación Estratégica. 2023. *Cancillería de Colombia*. https://www.cancilleria.gov.co/newsroom/news/declaracion-conjunta-republica-popular-china-republica-colombia-establecimiento.

Dussel Peters, Enrique. 2024. "Monitor of Chinese OFDI in Latin America and the Caribbean 2024." Mexico City: Red Académica ALC-China. https://www.redalc-china.org/monitor/images/pdfs/menuprincipal/DusselPeters_MonitorOFDI_2024_Eng.pdf.

Dussel Peters, Enrique 2024b. "Monitor of Chinese Infrastructure in Latin America and the Caribbean 2024." Mexico City: Red Académica ALC-China. https://www.dusselpeters.com/385.pdf.

Dussel Peters, Enrique and Ariel C. Armony, Eds. 2015. *Beyond Raw Materials: Who are the Actors in the Latin America and Caribbean-China Relationship?* Mexico City: Red Académica de América Latina y el Caribe sobre China; Pittsburgh: University of Pittsburgh Press. https://www.redalc-china.org/redalcchina_2015_actores.pdf.

EIU (Economist Intelligence Unit). 2024a. "World Commodity Forecasts. Food, Feedstuffs, and Beverages." Online database, accessed 14 June 2024.

EIU (Economist Intelligence Unit). 2024b. "World Commodity Forecasts. Industrial Raw Materials." Online database, accessed 14 June 2024.

El País. 2023. "Educación, ciencia, comunicación y alimentos: ¿qué dicen los 24 acuerdos que firmaron Uruguay y China?" *El País Uruguay*. https://www.elpais.com.uy/negocios/noticias/que-dicen-los-24-acuerdos-que-firmaron-uruguay-y-china-en-el-marco-de-la-visita-de-lacalle-pou.

Embajada de Colombia en China. 2023. "Encuentros de Alto Nivel Colombia – China." Online database, accessed 14 June 2024. https://china.embajada.gov.co/colombia/encuentros_alto_nivel.

Fernández, Alberto. 2023. "Palabras del presidente de la Nación, Alberto Fernández, en el III Foro de la Franja y la Ruta para la Cooperación Internacional, en Beijing, China." Casa Rosada, 18 October. https://www.casarosada.gob.ar/informacion/discursos/50231-palabras-del-presidente-de-la-nacion-alberto-fernandez-en-el-iii-foro-de-la-franja-y-la-ruta-para-la-cooperacion-internacional-en-beijing-china.

IMF (International Monetary Fund). 2024. "World Economic Outlook, April 2024 Edition." Online database, accessed 14 June 2024. https://www.imf.org/en/Publications/WEO/weo-database/2024/April.

iNews. 2023. "President Ali for Official Visit to China Next Month." iNews, 30 June. https://www.inewsguyana.com/president-ali-for-official-visit-to-china-next-month/.

INVIMA (Instituto Nacional de Vigilacia de Medicamentos y Alimentos). 2023. "Colombia y China suscribieron 12 instrumentos de cooperación." Press release, 25 October. https://www.cancilleria.gov.co/newsroom/news/colombia-china-suscribieron-12-instrumentos-cooperacion.

Infobae. 2023. "El dictador venezolano Nicolás Maduro se reunió con Xi Jinping en el marco de su visita oficial a China." *Infobae*. 13 September. https://www.infobae.com/venezuela/2023/09/13/el-dictador-venezolano-nicolas-maduro-se-reunio-con-xi-jinping-en-el-marco-de-su-visita-oficial-a-china/.

Kaieteur News. 2023a. "Guyana, China to Increase Collaboration in Trade and Infrastructure." Kaieteur News., 2 August. https://www.kaieteurnewsonline.com/2023/08/02/guyana-china-to-increase-collaboration-in-trade-and-infrastructure/.

Kaieteur News. 2023b. "President Ali meets with President Xi Junping." Kaieteur News, 29 July. https://www.kaieteurnewsonline.com/2023/07/29/president-ali-meets-with-president-xi-junping/.

Lall, Sanjaya. 2010. "The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-98." *Oxford Development Studies* 28:3, 337-369. https://doi.org/10.1080/713688318.

Lyu, Jun. 2019. "We Can Feed the World in a Sustainable Way, But We Need to Act Now." *COFCO International*, 24 January. https://www.cofcointernational.com/newsroom/we-can-feed-the-world-in-a-sustainable-way-but-we-need-to-act-now/.

Ma, Meilin, H. Holly Wang, Yizhou Hua, Fei Qin and Jing Yang. 2021. "African Swine Fever in China: Impacts, Responses, and Policy Implications." *Food Policy* 102. https://doi.org/10.1016/j.foodpol.2021.102065.

MEFT (Ministerio de Economía, Fomento y Turismo). 2023. "Gobierno anuncia en China segunda empresa seleccionada como productor especializado de litio." Press release, 16 October. https://www.economia.gob.cl/2023/10/16/gobierno-anuncia-en-china-segunda-empresa-seleccionada-como-productor-especializado-de-litio.html.

MFA (Ministry of Foreign Affairs of the People's Republic of China). 2023. "Xi Jinping Meets with Guyanese President Mohamed Irfaan Ali." Press release, 28 July. https://www.fmprc.gov.cn/eng/gjhdq_665435/3447_665449/3498_665088/3500_665092/202307/t20230730_11119835.html.

Mistreanu, Simina. 2023. "Honduran President Begins First Visit to China Since Breaking Off Ties with Taiwan." *Associated Press*, 9 June. https://apnews.com/article/china-honduras-taiwan-castro-xi-23b34eee5a2180950c1c97054fd8ef33.

MPCEIP (Ministerio de Producción, Comercio Exterior, Inversiones y Pesca). 2023. "Lo que debes saber del Acuerdo Comercial Ecuador – China." https://www.produccion.gob.ec/wp-content/uploads/2023/05/Preguntas-Frecuentes.pdf.

MRE (Ministerio de Relaciones Exteriores, Gobierno de Chile). 2023. "Chile y China firman 13 acuerdos de cooperación que buscan modernizar la agenda bilatera." Press release, 17 October. https://www.minrel.gob.cl/noticias-anteriores/chile-y-china-firman-13-acuerdos-de-cooperacion-que-buscan-modernizar-la.

MRECIC (Ministerio de Relaciones Exteriores, Comercio Internacional y Culto de la República Argentina). 2024. "Mondino y el Canciller chino acuerdan potenciar la relación política y comercial." Nota de Prensa 229/24. 30 April. https://cancilleria.gob.ar/es/actualidad/noticias/mondino-y-el-canciller-chino-acuerdan-potenciar-la-relacion-politica-y-comercial.

MSGG (Ministerio Secretaría General de Gobierno, Gobierno de Chile). 2023. "Visita de Estado a China: Autoridades realizan positivo balance." Press release, 18 October. https://msgg.gob.cl/wp/2023/10/18/visita-de-estado-a-china-autoridades-realizan-positivo-balance/.

Mullen, Andrew. 2021. "US-China Trade War Timeline: Key Dates and Events Since July 2018." *South China Morning Post*, 29 August. https://www.scmp.com/economy/china-economy/article/3146489/us-china-trade-war-timeline-key-dates-and-events-july-2018.

Myers, Margaret. 2023. "China-Colombia Relations are Growing, if Slowly." Washington, DC: United States Institute of Peace. https://www.usip.org/publications/2023/11/china-colombia-relations-are-growing-if-slowly.

Myers, Margaret. 2024. "China's EV Drive Accelerates in Latin America." *East Asia Forum*, 21 June. https://eastasiaforum.org/2024/06/21/chinas-ev-drive-accelerates-in-latin-america/.

Myers, Margaret and Rebecca Ray. 2024. "Feeling the Stones: Chinese Development Finance to Latin America and the Caribbean, 2023." Washington, DC: Inter-American Dialogue. https://www.thedialogue.org/wp-content/uploads/2024/06/Chinese-Development-Finance-in-Latin-America-and-the-Caribbean-2023-Update-Final.pdf.

Parraga, Marianna. 2023. "Guyana's Oil Boom Grabs Bigger Share of European Market." Reuters, 23 August. https://www.reuters.com/markets/commodities/guyanas-oil-boom-grabs-bigger-share-european-market-2023-08-23/.

Planalto. 2023a. "Brazil's President Lula Makes Third State Visit to China." Press release, 10 April. https://www.gov.br/planalto/en/latest-news/2023/04/brazil2019s-president-lula-makes-third-state-visit-to-china.

Planalto. 2023b. "Lula Meets with Business Persons in Shanghai in Search of Partnerships and Innovation." Press release, 13 April. https://www.gov.br/planalto/en/latest-news/2023/04/lula-meets-with-business-persons-in-shanghai-in-search-of-partnerships-and-innovation.

Poder Popular, Gobierno de la República de Honduras. 2024. "Ceremonia de Firma del Acuerdo de Cosecha Temprana entre Honduras y la República Popular de China." Press release, 6 February. https://www.poderpopular.hn/vernoticias.php?id_noticia=7720.

Prazeres, Leandro. 2023. "Os recados que Lula deu durante sua viagem à China." *BBC*, 14 April. https://www.bbc.com/portuguese/articles/c9w79393dlgo.

Presidencia de Honduras. 2023a. "En el marco de la visita de Estado de la presidenta Castro se desarrolla el Primer Encuentro Empresarial de Alto Nivel entre China y Honduras." Press Release, 11 June. Available from: https://www.presidencia.gob.hn/comunicadoscp.php.

Presidencia de Honduras. 2023b. "Primer Ministro de China reconoce esfuerzos de la presidenta Xiomara Castro, para impulsar el desarrollo en Honduras." Press Release, 12 June. Available from: https://www.presidencia.gob.hn/comunicadoscp.php.

Presidencia de Uruguay. 2023a. "Lacalle Pou encabezará visita de Estado a la República Popular China." Press release, 16 November. https://www.gub.uy/presidencia/comunicacion/noticias/lacalle-pou-encabezara-visita-estado-republica-popular-china.

Presidencia de Uruguay. 2023b. “Lacalle Pou partió a la República Popular China para encabezar visita de Estado.” Press release, 18 November. https://www.gub.uy/presidencia/comunicacion/noticias/lacalle-pou-partio-republica-popular-china-para-encabezar-visita-estado.

Presidencia de Uruguay. 2023c. “Los Presidentes Xi Jinping y Lacalle Pou acuerdan en Beijing acelerar la construcción de una Asociación de Libre Comercio.” Press release, 23 November. https://medios.presidencia.gub.uy/tav_portal/2023/noticias/AL_674/reunion.pdf.

Ray, Rebecca. 2023. “‘Small is Beautiful’: A New Era in China’s Overseas Development Finance?” Boston: Boston University Global Development Policy Center. https://www.bu.edu/gdp/2023/01/19/small-is-beautiful-a-new-era-in-chinas-overseas-development-finance/.

Ray, Rebecca. 2024. “Consumer Products from China: Safety, Regulations, and Supply Chains: Testimony before the U.S.-China Economic and Security Review Commission.” Washington, DC: U.S.-China Economic and Security Review Commission, 1 March. https://www.uscc.gov/sites/default/files/2024-03/Rebecca_Ray_Testimony.pdf.

Ray, Rebecca and B. Alexander Simmons. 2024. “Now or Never: Mobilizing Capital for Climate and Conservation in a Debt-Constrained World.” Boston: Boston University Global Development Policy Center. https://www.bu.edu/gdp/2024/02/02/now-or-never-mobilizing-capital-for-climate-and-conservation-in-a-debt-constrained-world/.

Ray, Rebecca and Margaret Myers. 2024. “Chinese Loans to Latin America and the Caribbean Database.” Online database, accessed 17 June 2024. https://www.thedialogue.org/map_list/.

Ray, Rebecca, Kevin Gallagher, Andrés López and Cynthia Sanborn, Eds. 2017. *China and Sustainable Development in Latin America: The Social and Enviromental Dimension*. London: Anthem Press.

Reuters. 2023. China’s Xi Says Willing to Begin Free Trade Talks with Honduras.” *Reuters*, 12 June. https://www.reuters.com/world/chinas-xi-says-will-firmly-support-honduran-development-2023-06-12/.

Rodríguez, Mario Alejandro. 2023. “Gustavo Petro llegó a China: esta será su agenda, que incluye encuentro con Xi Jinping.” *Infobae*, 23 October. https://www.infobae.com/colombia/2023/10/23/gustavo-petro-llego-a-china-esta-sera-su-agenda-que-incluye-encuentro-con-xi-jinping/.

Sihue, Marco. 2024. “Megapuerto de Chancay se inaugura en noviembre: ¿cuál es su avance y cómo luce el terminal portuario?” *La República*, 15 June. https://larepublica.pe/economia/2024/06/15/megapuerto-de-chancay-se-inaugura-en-noviembre-cual-es-su-avance-y-como-luce-el-terminal-portuario-economia-atmp-521850.

Statista. 2024. “Electric Vehicles – LATAM.” Online database, accessed 26 June. https://www.statista.com/outlook/mmo/electric-vehicles/latam.

Tan, CK. 2024. “China’s Annual Exports Drop for First Time in Seven Years.” *Nikkei Asia*. https://asia.nikkei.com/Economy/Trade/China-s-annual-exports-drop-for-first-time-in-seven-years.

TeleSUR. 2023. “Venezuelan President Maduro Takes Stock of His China Tour.” *TeleSur*, 14 September. https://www.telesurenglish.net/news/Venezuelan-President-Maduro-Takes-Stock-of-His-China-Tour-20230914-0004.html.

Tobin, William. 2024. “Brazil is Buying Lots of Chinese EVs. Will That Continue?” Washington, DC: Atlantic Council. https://www.atlanticcouncil.org/blogs/energysource/brazil-is-buying-lots-of-chinese-evs-will-that-continue/.

UN DESA (United Nations Department of Economic and Social Affairs). 2023. "Economic Consequences of the Lingering War in Ukraine." Monthly Briefing on the World Economic Situation and Prospects, March 2023. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/MB170.pdf.

UN DESA (United Nations Department of Economic and Social Affairs). 2024. UN Comtrade Database. Online database, accessed 14 June 2024. https://comtradeplus.un.org.

UN ECLAC (United Nations Economic Commission for Latin America and the Caribbean). 2024. *Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean*. https://www.cepal.org/en/publications/69163-regional-agreement-access-information-public-participation-and-justice.

UN Trade and Development. 2024. "Classifications." Accessed 11 June 2024. https://hbs.unctad.org/classifications/.

Urdinez, Francisco and María Montt. 2023. "Boric Needs to Tread Smartly on First Visit to China." *Americas Quarterly*, 12 October. https://www.americasquarterly.org/article/boric-needs-to-tread-smartly-on-first-visit-to-china/.

VOA. 2024. "Pacto comercial entre China y Nicaragua entra en vigor." *Voice of America*, 2 January. https://www.vozdeamerica.com/a/entra-en-vigor-tratado-de-libre-comercio-de-china-con-nicaragua-/7421409.html.

World Bank. 2024. "Commodity Markets Outlook: Price Forecasts, April 2024." Online database, accessed 14 June 2024. https://www.worldbank.org/en/research/commodity-markets.

Wise, Carol. 2020. Dragonomics: How Latin America is Maximizing (or Missing Out on) China's International Development Strategy. Yale University Press.

Xinhua. 2023. "Texto Íntegro de la Declaración Conjunta entre la República Popular China y la República Bolivariana de Venezuela." *Xinhua*, 14 September. https://spanish.news.cn/20230914/957224dc51d84638b772e29225534508/c.html.

Xinhua. 2024. "Tratado de libre comercio China-Nicaragua entra en vigor." *Xinhua*. 4 January. http://www.chinacelacforum.org/esp/zgtlmjlbgjgx_2/202401/t20240105_11219091.htm.

You, Shibing, Tingyi Liu, Miao Zhang, Xue Zhao, Yizhe Dong, Bi Wu, Yanzhen Wang, Juan Li, Xinjie Wei and Baofeng Shi. 2021. "African Swine Fever Outbreaks in China Led to Gross Domestic Product and Economic Losses." *Nature Food* 2, 802-808. https://doi.org/10.1038/s43016-021-00362-1.

Zu Ermgassen, Erasmus K. H. J., Ben Ayre, Javier Godar, Mairon G. Bastos Lima, Simone Bauch, Rachael Garrett, Jonathan Green, Michael J. Lathuilliére, Pernilla Löfgren and Christina MacFarquhar. 2020a. "Using Supply Chain Data to Monitor Zero Deforestation Commitments: An Assessment of Progress in the Brazilian Soy Sector." *Environmental Research Letters* 15, 035003. https://doi.org/10.1088/1748-9326/ab6497.

Zu Ermgassen, Erasmus K. H. J., Javier Godar, Michael J. Lathuilliére, Pernilla Löfgren, Toby Gardner, André Vasconcelos and Patrick Meyfroidt. 2020b. "The Origin, Supply Chain and Deforestation Risk of Brazil's Beef Exports." *Proceeds of the National Academy of Science* 117 (50), 31770-31779. https://doi.org/10.1073/pnas.2003270117.

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