



Chile

Driving Change

How EVs Are Reshaping China's Economic Relationship with Latin America

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THE ISSUE

Countries in Latin America and the Caribbean (LAC) are navigating a new geopolitical moment. Some LAC countries are benefiting from increased access to low-cost, high-quality electric vehicles (EVs) and new investment throughout the value chain from China that can help meet governments' climate and economic objectives. However, this comes with risks, as dependencies on Beijing may be exacerbated at a time when China's economy is underperforming and geopolitical competition with the United States is on the rise. Washington should find new ways to engage with the region to find solutions that address local demands and simultaneously mitigate U.S. geopolitical risk.

INTRODUCTION

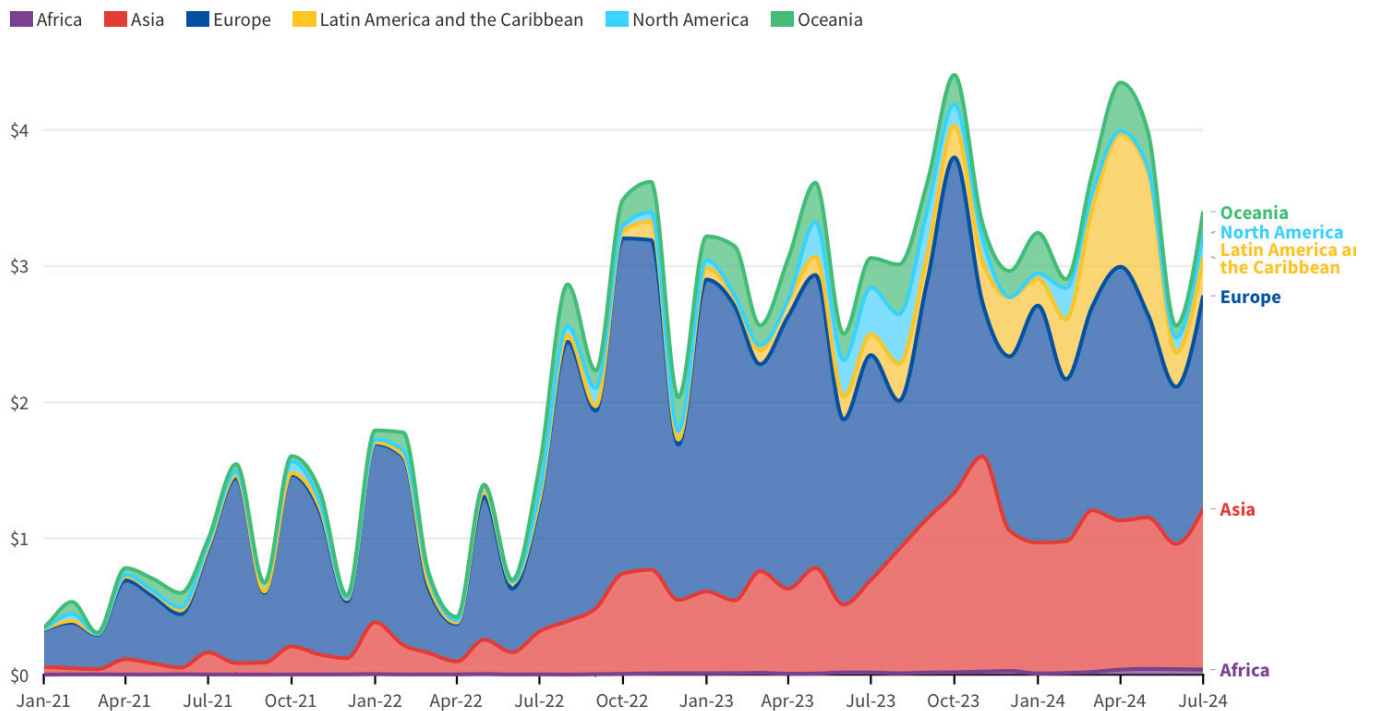
China's external economic engagement is evolving rapidly and is reshaping its relationship with countries in the developing world, including in LAC. Beijing's continued commitment to industrial policy and an export-driven economic strategy is causing increasing tensions with countries concerned about overcapacity and a second "**China shock**." However, China's growing exports and nascent overseas production of high-tech green products such as EVs are changing the country's offerings to regions such as LAC, which exports many critical raw materials, desires more value-added manufacturing investment, seeks to address climate change, and imports an increasing number of vehicles from China.

Growing tensions between the United States and China have raised concerns globally, but some countries in LAC see great power competition as an opportunity to position themselves as new nodes in this evolving trade and investment environment. Given LAC's **growing importance** to the

economic security strategy of the United States, the changing relationship of the region with China is worth analyzing more closely—especially with respect to the EV supply chain.

Beijing's high-profile Belt and Road Initiative (BRI) has shaped its relations with the LAC region for much of the last decade, but this is rapidly changing as the number of new Chinese-backed large-scale infrastructure projects declines. Instead, Chinese foreign direct investment (FDI) is becoming more common in the region. Although China's investments remain concentrated in the mining segment of the supply chain, there are signs of increasing interest from Chinese firms to expand their international presence in refining, assembly, and manufacturing, particularly in the EV supply chain. If this trend holds, it would represent a significant shift in Beijing's offerings to potential partners in the developing world. Crucially for LAC, this would allow China to answer a growing regional call for investment in higher-value segments of the local supply chain while also helping meet governments' climate goals. LAC is increas-

Figure 1: Chinese EV Exports by Region (USD, billions)



Source: General Administration of Customs of the People’s Republic of China. Please reference the interactive web version for specific values.

ingly a market for Chinese EVs as well, and although much smaller than Europe and Asia, it is growing quickly (see Figure 1).

There are several reasons why Chinese firms are considering investments beyond mining in LAC, and why the EV industry appears to be at the forefront of this trend. China’s **slowing economy** and high levels of competition are encouraging companies to seek new markets. This is particularly evident in the automotive industry, which has received **significant state support** over the years. Because economies of scale and acquiring more data are crucial to the innovation process and cost competitiveness in the EV industry, companies have a strong incentive to seek new customers globally.

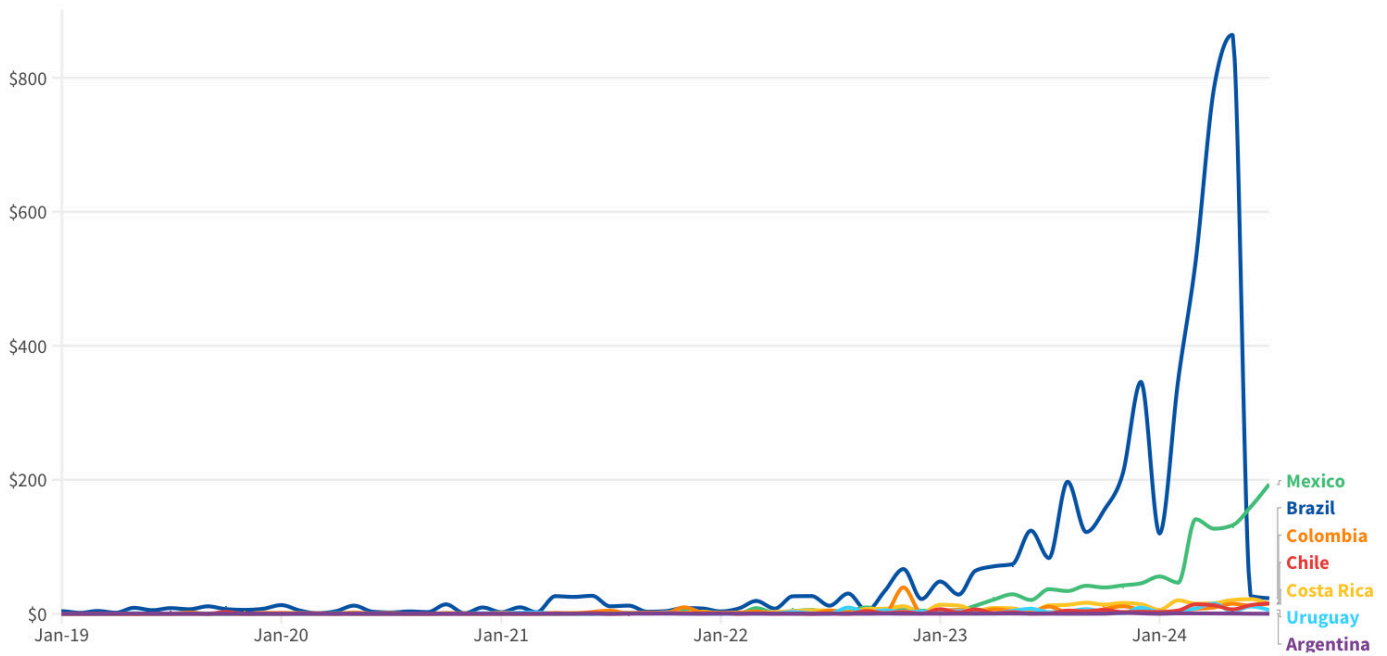
Recently, Chinese companies have been focusing more on developing markets, in part due to partial or complete closures of larger automotive markets such as Europe and the United States through tariffs. LAC countries, with their growing middle class, represent a desirable new market for Chinese EV companies to tap into. However, many emerging economies have their own industrial ambitions in this space. Take Brazil, which became a top importer of Chinese EVs before President Luiz Inácio Lula da Silva’s second tranche of tariffs came into force in the summer of 2024 (see Figure 2).

Lula’s government has also enthusiastically welcomed BYD—China’s and the world’s leading EV manufacturer—which is taking over an old Ford plant to build EVs in the country. This is one of three Chinese automotive companies with plans to make EVs in Brazil. Greater investment on the ground in LAC could allow Chinese firms to meet the region’s growing need for affordable EVs while also boosting the local economy through value-added manufacturing, especially if local workers are employed. It would also integrate the region further with China, both economically and technologically.

Another important driver is derisking policies in the United States itself. To comply with requirements in Inflation Reduction Act (IRA) and to avoid tariffs, for example, Chinese companies have been exploring opportunities to expand assembly and manufacturing in third countries, including in the LAC region. Indeed, the United States and other developed countries are putting in place incentives and restrictions that aim to onshore supply chains and direct companies to invest outside of China—especially in places closer to home, such as LAC. The IRA, with its EV tax credit requirements, represents one of the most ambitious **policies** so far when it comes to redirecting investment in third countries.

The rest of this paper will proceed by offering an overview of Chinese firms’ involvement in various segments of the EV supply chain in LAC and the implications for U.S.

Figure 2: Chinese Exports of EVs to Select Latin American Countries (USD, millions)



Source: China General Administration of Customs. Please reference the interactive web version for specific values.

strategy. Although the value chain can be quite complex (see Figure 3), this paper will focus on key minerals (i.e., lithium and copper), the production of battery cells and packs, and vehicle assembly.

MINING

The mining industry in LAC has attracted international attention as governments seek to transition to green technologies, which require critical minerals such as lithium, found in large quantities in the region. China is ahead of its competitors in forging partnerships and catalyzing investment in LAC's minerals space for use in the energy transition. China maintains outsized control over the mining of several critical minerals used in EV battery manufacturing, such as lithium and copper (see Figure 4). It does so by investing in **complete acquisitions** of local mines, purchasing **significant shares** in Western mining companies, and **partnering with local governments**.

LITHIUM

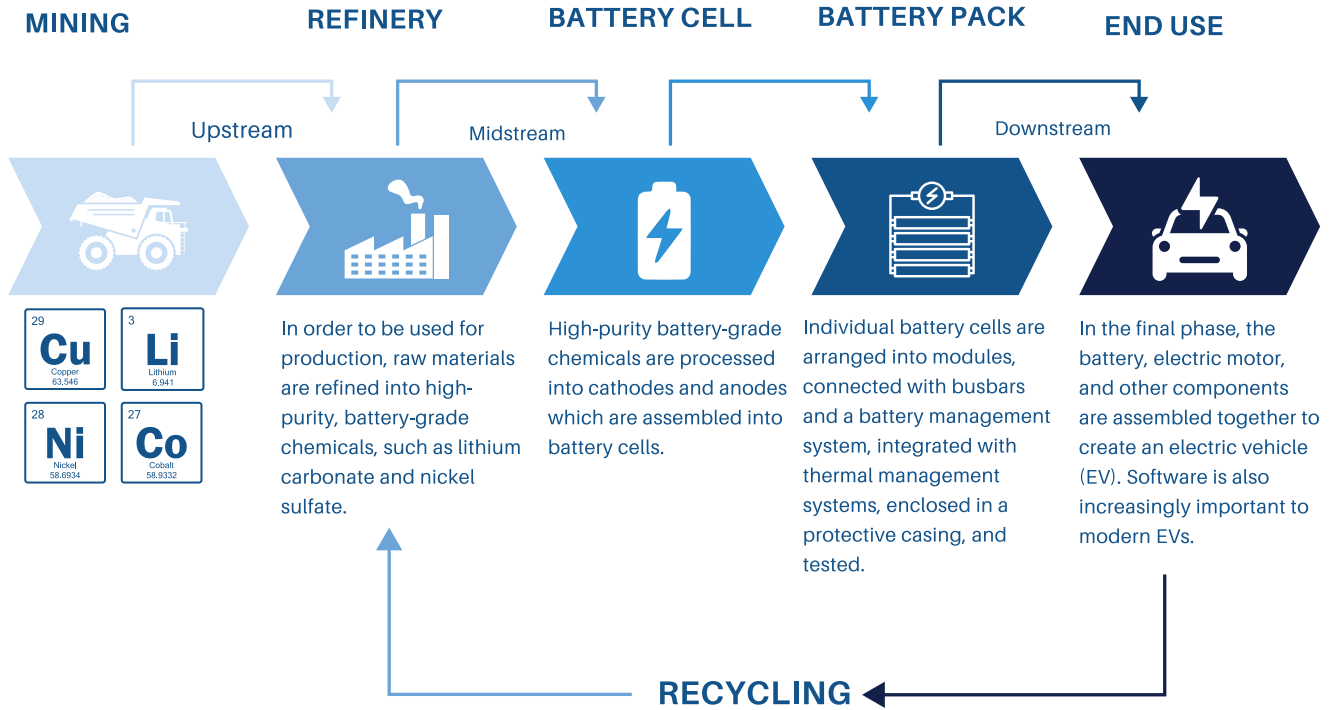
The importance of lithium carbonate, the key compound used in EV batteries, has increased tremendously in the last decade. While Australia is currently the world's largest lithium producer, LAC is home to the renowned lithium triangle—comprised of Argentina, Bolivia, and Chile—which is estimated to hold around **58 percent** of the world's lith-

ium reserves. These countries have become major exporters of the mineral to China (see Figure 5). However, lack of infrastructure, weak institutions, and water crises are only a few of the challenges the region faces as it seeks to turn its lithium mining potential into reality.

On paper, Bolivia has the world's **largest reserves** of lithium, at 23 million tons, followed by Argentina (22 million tons) and Chile (11 million tons). But Bolivia's efforts to capitalize on its resources remain mired in domestic politics—namely its effort to nationalize lithium starting in 2008 and the tight political control over the resource since exercised by the state-owned company YLB. In February 2019, President Evo Morales announced that his country would partner with China's **Xinjiang TBEA Group** to advance the industrialization of the Coipasa and Pastos Grandes salt flats. This agreement eventually fell apart, however, due to the political turmoil caused by Morales's election theft and subsequent flight from the country. The latest attempt to advance Bolivia's lithium production came in June 2023 with the announcement of a **\$1.4 billion partnership** with a consortium led by battery giant CATL to develop two lithium projects in the **Uyuni and Coipasa salt flats**. It remains to be seen if this venture will succeed.

Argentina has **positioned itself** ahead of Bolivia by retaining business-friendly policies that have attracted investment in its lithium mining sector. These policies have

Figure 3: Electric Vehicle Battery Supply Chain



Source: Authors' research.

propelled Argentina to become the fourth-largest producer of lithium in the world—after Australia, Chile, and China—generating around **5 percent** of the world's supply at three mines in the provinces of Jujuy, Salta, and Catamarca. According to some **estimates**, Argentina could overtake Chile as the largest producer in the lithium triangle by 2030.

Argentina's mining laws and regulatory landscape make it a more attractive partner. While the Bolivian government maintains full control of mining operations in its territory, Argentina's laws allow **local provinces** to negotiate mining agreements directly with the private sector and limit royalties owed to the provinces to 3 percent. These benefits, and the ability of foreign companies to buy and operate mines, have allowed Chinese mining companies to acquire lithium mining operations and buy a significant percentage of the shares of other lithium mining companies.

According to the Argentine government, there are currently **49 new lithium mining projects** under development in the country's northeast, **seven** of which are being developed by China. Of the seven lithium projects owned or partially owned by China, the Caucharí-Olaroz project has **started production** of lithium carbonate and the **Mariana** project has begun operations and is expected

to begin production soon. The rest of the projects are in **different stages of development**, with two in the construction phase, two in the feasibility stage, and one in advanced exploration.

Chile is currently the top lithium producer in South America and the second-largest producer in the world, though this position may soon be overtaken by Argentina. In 2022, Chile produced about one-third of the world's lithium and accounted for **89.5 percent of China's total lithium carbonate imports**, making it a key player in the industry.

Until last year, Chile's relatively open business environment attracted companies from the United States, Canada, and key Asian countries such as Japan. However, President Gabriel Boric's new **National Lithium Strategy**, a move characterized by some as **nationalization**, has quickly reshaped the business landscape and may alter investor sentiment. According to the strategy, private sector entities must gradually transfer control of lithium operations to state-owned company Codelco, in what some experts **argue** is an effort to position Chile higher up the value chain.

Until now, lithium extraction in Chile has been in the hands of two private companies, SQM and Albemarle.

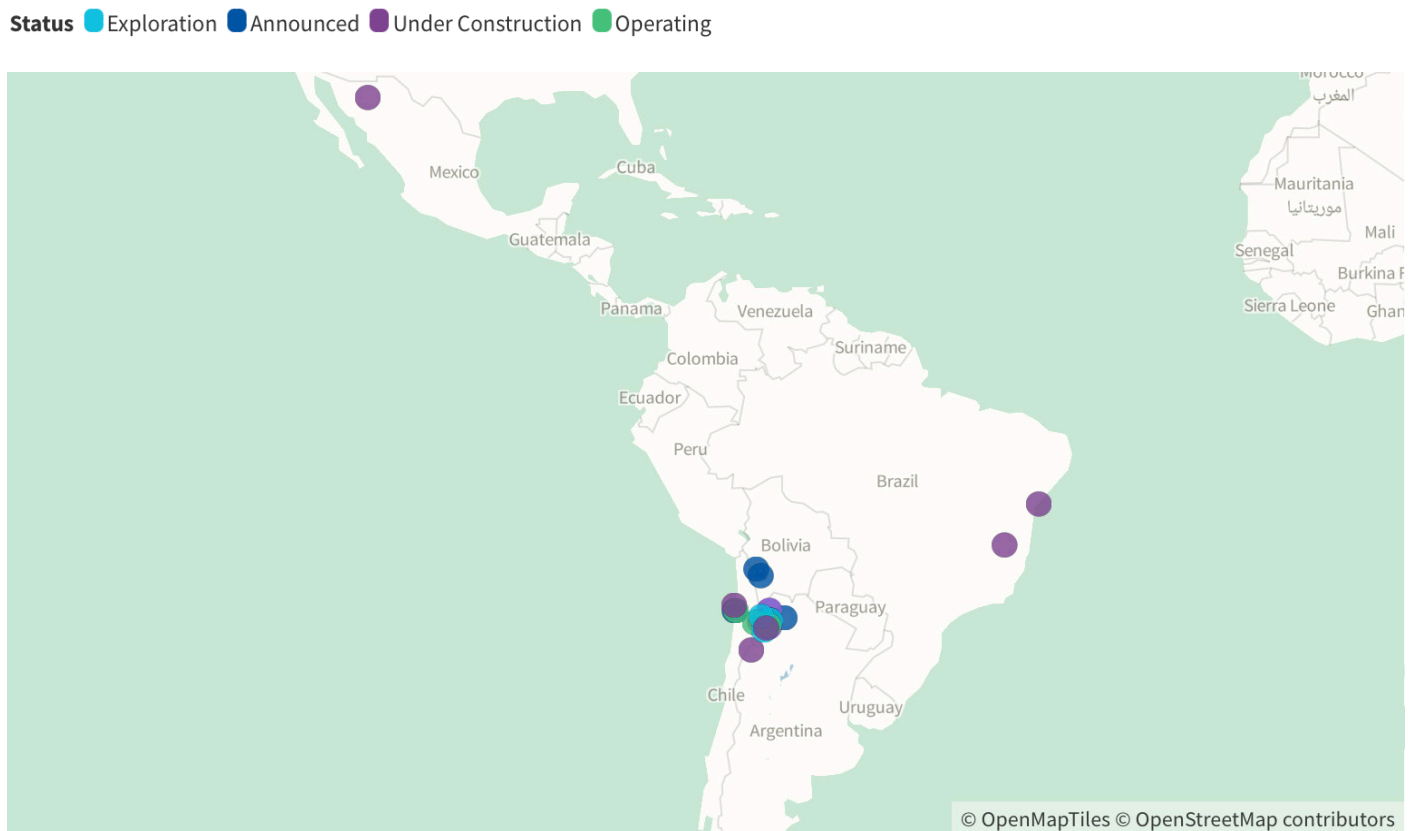
Albemarle is an American-based company, while SQM is a Chilean company in which China's Tianqi Lithium has a **22 percent stake**. It is unclear whether both SQM and Albemarle will **continue** their operations in the country past their contracts' sunset clauses in 2030 and 2043, respectively. Indeed, at the time of writing, Tianqi had **initiated** an appeal that could slow down SQM's planned partnership with Codelco. Chinese EV giant BYD was expected to invest **\$290 million** in a new lithium project that combines mining, refining, and a cathode factory, answering Chile's call for more local investment, but the project **was recently reported** as being on hold.

The challenges faced by Chinese companies in Chile should be contextualized in the overall strong bilateral economic relationship. Chile was the first country in LAC to sign a free trade agreement (FTA) with China, which it did in 2005, a time when China was growing at double-digit rates yearly and rapidly expanding its engagement with the region. Since then, Chile's trade with China has surpassed its trade with the United States. It remains to be seen if concerns over exposure to Chinese markets

and disputes over investments in Chile could lead Santiago to seek a more forceful economic diversification strategy.

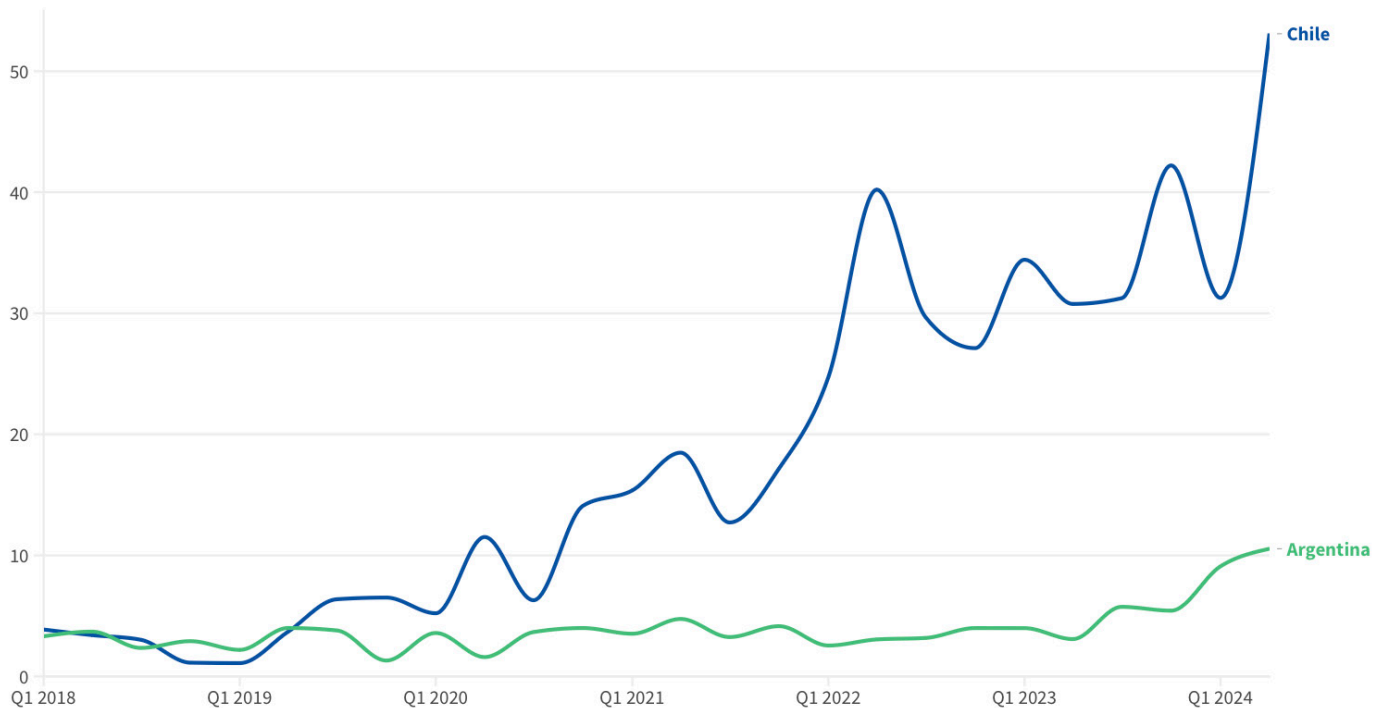
If Chile's lithium strategy has created some new challenges for Chinese companies, Mexico's policies on natural resources over the past few years have shifted the lay of the land for Chinese companies seeking to tap into Mexico's lithium reserves, estimated at **1.7 million tons**. In 2022, President Andrés Manuel López Obrador **ordered the creation** of a state-owned company, LitióMx, which would take over the exploration, exploitation, and refining of lithium in the country. This decree jeopardized major concessions in the state of Sonora given to Bacanora Lithium in 2009, **acquired** later by Ganfeng, and should they win arbitration, it would cover the largest deposit of lithium identified in Mexico. In June of 2024, Ganfeng filed an **arbitration case** against Mexico, and although President Lopez Obrador **has indicated** a desire to find an agreement with the company, the road ahead is one of legal limbo. The incoming president, Claudia Sheinbaum, a close ally of Lopez Obrador, is expected to maintain a similar approach to retaining government control

Figure 4: Chinese Investment in Lithium Mining and Refining in LAC



Source: Authors' compilation of news reports and corporate statements. See web version for interactive map.

Figure 5: China's Imports of Lithium Carbonate from Chile and Argentina (kilograms, millions)



Source: China General Administration of Customs. Please reference the interactive web version for specific values.

of mineral resources and has been vocal about her desire to expand Mexico's position as an active player in the EV value chain, including in lithium.

COPPER

Though not categorized as a critical mineral by the United States until 2023, copper is essential for EV production and is used in components ranging from batteries to wires. This makes LAC a pivotal player, as it produces about **40 percent** of the world's copper and contains the largest deposits of the ore, primarily located in Chile, Peru, and Mexico. China is a leading importer of copper, and its companies have made key investments in LAC to secure access to the resource.

Chinese companies such as Minmetals (MMG), Guoxin, and Citic are important players in Peru's mining sector. As a share of Peru's total copper exports, sales of copper ore and copper concentrate to China have grown from 41 percent in 2012 to 76 percent in 2022, according to UN Comtrade data. Peru is an important case given its favorable business environment, which enabled Chinese companies to acquire two of the country's largest copper mines, Las Bambas and Toromocho, though political instability in the country has **caused a slowdown** in investment.

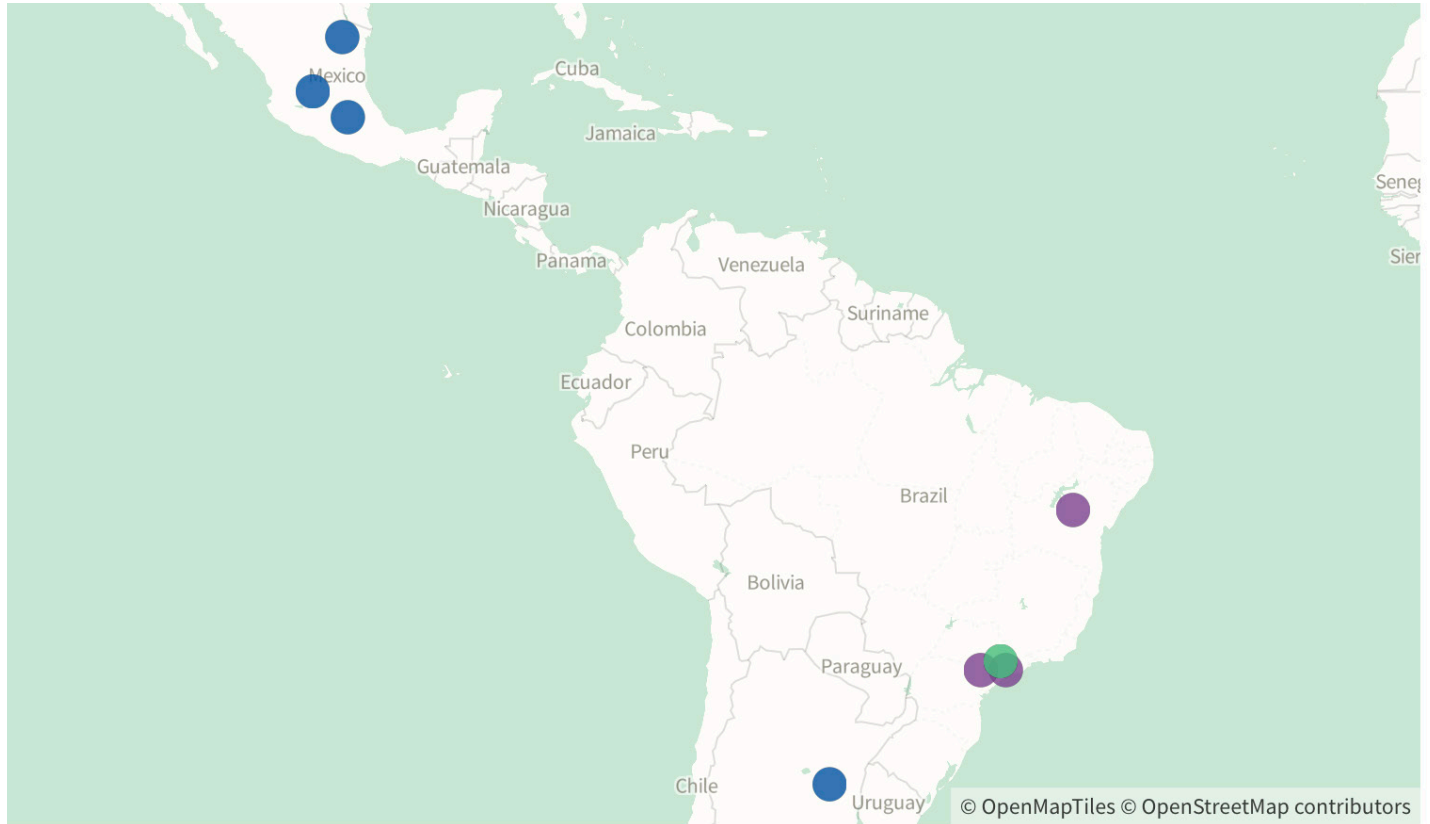
Yet Chile is undoubtedly the largest player in the copper industry, which accounts for **over half** of Chile's total exports. Copper is a key commodity in the thriving Chile-China economic relationship. In 2022, out of the \$22.8 billion in copper ore that Chile exported, **\$15.6 billion** went to China, followed by Japan at \$4.0 billion and South Korea at \$935 million.

In Chile, 72 percent of copper mines are **owned and operated** by private companies; the other 28 percent are operated by Codelco, the state-owned enterprise, which gives China less latitude to invest in copper mines in the country or to buy them outright. While Chinese-owned firms play a smaller role in Chile than in Peru, China still maintains a strong investment presence in the country.

Altogether, Chinese companies remain important in the Latin American mining industry, but local conditions matter. Resource nationalization and especially political volatility can lead to declining investment overall, as epitomized by Bolivia's challenges, and could have long-term impacts on the sector. However, tighter controls on the exploitation of natural resources by host governments can be beneficial, among other things, in ensuring more diversified sources of investment and in negotiating greater local benefits. Finally, some countries, such as Bolivia and

Figure 6: Chinese Investments in EV Manufacturing in Latin America

Status ● Announced ● Under Construction ● Operating



Source: Authors' compilation of news reports and corporate statements. See web version for interactive map.

Mexico, may see Chinese investment as the most realistic pathway to developing domestic resources and tapping into a growing export market.

REFINING

While investment in mineral extraction is a clear strategic goal, less intuitive are the forces behind a surge in interest in lithium refining in South America. One important driver of this trend is U.S. government policy. Per IRA rules, an EV qualifies for tax incentives if it is assembled in North America and the battery meets a series of requirements regarding mineral sourcing and the ownership of the companies involved throughout its value chain. All of these rules aim to incentivize lower levels of Chinese control over the supply chain and provide incentives for production outside of China. The result has been an immediate interest in countries that have FTAs with the United States (e.g., Chile) and those that may be able to secure sectoral agreements (e.g., Argentina).

Currently, the processing of critical minerals is **con-**

centrated in China, with some experts estimating that the country refines around 90 percent of the world's rare earth minerals and 60-70 percent of lithium and cobalt. This has raised global concerns about the potential for disruption, price manipulation, and weaponization of highly concentrated supply chains. China's 2023 decision to **introduce export controls** on graphite, germanium, and gallium has further fueled economic security concerns around minerals. Finally, as the United States makes historic investments in the energy transition, policymakers have tried to restrict how much of those financial incentives benefit Chinese companies.

Among other things, China's position as the top smelter and refiner has long gone unchallenged because of the highly polluting and energy-intensive nature of those industries, though recent efforts by China to open new refining capabilities in LAC and Southeast Asia may signal a shift in this trend. In the case of lithium, for example, the raw material must undergo a series of chemical processes to produce lithium carbonate. With current technology, this process is very energy intensive and involves vast amounts

of water, which in places such as Chile and Argentina can prove to be a significant challenge.

Another driver for Chinese companies to invest in refining capacity in LAC is the policies of countries in the region, most notably Chile. Despite having well-established copper refining operations, Chile's lithium refining industry is still underdeveloped relative to its mining. With its new strategy, Chile seeks to position itself as the **fourth-largest lithium** refiner in the world to complement its sizable production of the mineral and, following protests about wealth inequality and development, ensure that more of Chile's mineral wealth delivers local benefits. In October 2023, President Boric announced an investment of **\$233 million** by Chinese giant Tsingshan Holding Group in Mejillones (located in the Antofagasta region) for a refining plant. Boric and his economic minister **linked the deal explicitly** to the country's national strategy, which seeks to facilitate knowledge transfer and generate more value added. The Tsingshan deal followed the now-uncertain commitment by Chinese EV manufacturer BYD to build a refining facility in Chile.

Lithium refining is gaining momentum in Argentina as well, with several projects in various stages of development. In 2022, China's battery giant Gotion High-Tech signed a **joint venture** agreement with Jujuy's state-run mining company. Additionally, in 2021, Tsingshan signed a **\$1.7 billion** joint venture with French firm Eramet, aiming to produce **24,000 tons** of refined lithium carbonate. Questions remain in Chile and Argentina over the vast water requirements of the industry, which has sparked debates about the long-term viability of their lithium industries. The introduction of direct lithium extraction technology by Chinese companies" could ameliorate some of these concerns, though it is liable to raise costs.

Domestic policies play an important role in attracting investment in segments of the industry with higher value added. Governments are attempting to leverage access to their natural resources (an example set by Indonesia with its rules in the **nickel industry**) and their commercial links to larger markets such as the United States, as well as potential growth in their own markets. Access to the U.S. market and compliance with IRA tax credit requirements appear to be important factors, especially for Chile, which has an FTA with the United States. (Argentina is hoping for an exception to IRA rules, much like the one granted to Japan and the European Union, in order to qualify for IRA tax credits.) **Long-awaited rules** by the Department

of the Treasury and the Internal Revenue Service—as well as the Department of Energy's **Foreign Entity of Concern (FEOC) rule**, which sets ownership standards as low as 25 percent to qualify for tax credits—have raised some challenges for Chinese companies hoping to qualify for tax credits.

BATTERY MANUFACTURING

While there may be nascent signs that Chinese and LAC companies are interested in expanding lithium refining, the Latin American lithium-ion battery industry remains less dynamic. The industry overall is limited to a handful of factories throughout the continent. The only Chinese investment related to battery manufacturing appears to be a **BYD plant** in Manaus, Brazil, which started production in 2020. It is unclear if the facility can produce battery cells; it appears to be mainly focused on **battery pack assembly**.

BYD is largely known for its vehicles, but the company is a leading battery manufacturer and supplies other automakers as well. The Manaus plant, however, appears to be primarily dedicated to producing batteries for BYD buses made at the Campinas plant near São Paulo, which opened in 2015 in southeastern Brazil. This may change as BYD's new auto factory in Camaçari, in eastern Brazil, comes online in 2025 and increases demand for batteries. BYD also produces solar panels in the country, which are increasingly installed alongside stationary battery storage worldwide. It is not immediately clear if the batteries that support the solar plants are produced by BYD or whether they may be produced locally at the Manaus plant in the future.

BYD's battery production in Brazil is likely aimed primarily at fulfilling local demand and supporting the company's automotive production in the country, which is the largest market in LAC. Indeed, given current transportation costs and the large investments taking place within the United States, it seems unlikely that Chinese-led battery production in Brazil could be aimed at the export market. This is very different from the dynamic observed in refining and mining, where Chinese firms are tapping into LAC natural resources for export to China or are establishing refining facilities to better access markets in third countries such as the United States.

There have been at least two other high-profile Chinese battery plant projects that have received news coverage without making any significant progress. Chery, a Chinese automotive manufacturer that is a significant player in

the internal combustion engine (ICE) and EV industries, **announced** a large project in Argentina in early 2023. Although some reports suggest that the proposed manufacturing complex would feature battery manufacturing capacity, this seems unlikely, since the company does not produce its own batteries. Regardless, the project seems to have stalled in the past year and a half.

The second project that has failed to come to fruition is a CATL factory in Mexico, **first reported in 2022**, which could have potentially supplied Tesla's factory in Texas. However, the plan has been on pause since the **fall of 2022** after the IRA was made law. CATL has since pursued a licensing agreement with **Ford** to make lithium iron phosphate batteries in Michigan.

CATL's pivot to the U.S. market reflects a general challenge to building batteries (and EVs) in LAC. The incentives offered by the IRA have led to a surge of investments in the United States by some of the world's leading battery manufacturers (BYD being a notable exception). The IRA has also helped to drive more refining investment in countries that have FTAs with the United States, including Chile, as well as more manufacturing investment in Mexico, but it has complicated the position of Chinese firms that would otherwise be the biggest players in these sectors. Moreover, given the incentives available in the United States—expected to remain the largest EV market in the Americas for the foreseeable future—there is less reason for battery manufacturers to make investments in other countries.

EV MANUFACTURING AND ASSEMBLY

When it comes to the manufacturing of EVs and their components, two countries stand out: Brazil and Mexico (see Figure 6). This makes sense, as they are the largest markets in LAC, as well as the most sophisticated manufacturing bases—including in the automotive sector. Yet there are significant differences between the two countries and in the types of investments that Chinese firms are making. The biggest variable appears to be Mexico's special trading relationship with the United States, epitomized by the United States-Mexico-Canada Agreement (USMCA). Indeed, Mexico benefits significantly from the IRA, which allows companies in the country to qualify for the same credits as those making vehicles and batteries in the United States. However, this also means that Mexico has been under pressure to be **more cautious** in its approach to Chinese invest-

ment, as such investment is viewed as a **direct pathway** to the U.S. market.

As a result of these dynamics, there have been no overt investments in Mexico by Chinese EV manufacturers to date, despite significant news coverage. Although BYD has **signaled interest** in opening a plant in Mexico and is reportedly in discussions with state governments, **reports suggest** that the project is on pause until at least the outcomes of the 2024 U.S. elections and Mexico's judicial reforms are known. Similarly, Chery's subsidiary Jetour **announced** its interest in investing in a \$3 billion facility with a local partner to assemble vehicles, including EVs, in Mexico in 2023, but no progress has been made even in identifying the location. Finally, Foton, a Chinese manufacturer of commercial vehicles that has a plant for ICE vehicles in Mexico, **also announced** its plans to build an EV factory in the country in 2023. However, no progress has been reported.

One reason why announcements may have not led to actual investments is that Mexico City has made clear that it will not offer financial incentives to Chinese firms looking to establish facilities in the country, leaving Chinese firms requesting such incentives from **state governments** with fewer resources. Additionally, only a few state governments are likely destinations for Chinese auto manufacturers, meaning that only a small subset of states would be likely to receive local benefits in the absence of federal incentives.

This contrasts with the rapid expansion of **Chinese investments** in Mexico (most prominently in Nuevo León) in less sensitive sectors that can more easily export products to the United States, including furniture and automotive components. New restrictions on connected vehicles using Chinese software and equipment are expected once the U.S. Department of Commerce completes its security review, likely precluding Chinese companies from exporting to the United States from Mexico. This means that it is increasingly likely that any investments in Mexico by Chinese EV makers would predominantly aim to serve the local market and demand from countries in Central and South America. This is consistent with the strategy pursued in other emerging markets ranging from Thailand to Brazil. Chinese firms may believe that locating themselves in Mexico would allow them to take advantage of its strong automotive manufacturing base and the common language throughout much of the region.

Investments in Brazil are even more clearly aimed at the domestic and regional markets. In 2023, the Brazilian automotive market reached **2.3 million vehicles**, which although by far the largest in South America is much smaller than the **15.5 million** sold in the same year in the United States. Yet Brazil's sizable population—**216 million** in 2023, according to the World Bank—makes it a potentially lucrative market as its middle class continues to grow. Most leading automotive companies have an established presence in the country.

Brazil's existing industrial infrastructure, combined with a **growing market**, has likely been a draw for Chinese firms. Demand for EVs in Brazil has **outpaced expectations**, surging from 1 percent to almost 5 percent of sales between April 2023 and April 2024. Of the battery electric and plug-in hybrid models sold in the country, the majority are Chinese brands with highly competitive prices.

Great Wall Motor (GWM) took over a Mercedes-Benz plant in Iracemápolis in 2021 and is expected to start production of hybrid models there in 2024. BYD, to great fanfare, began revamping a former Ford factory in Bahia in the same year, part of a large EV manufacturing hub that could help meet President Lula's green industrial policy objectives. If BYD starts production in 2025 as planned, this would be its third factory in the country, after the Manaus battery facility and the Campinas bus-manufacturing facility. Finally, CAO A Chery, a joint venture between CAO A, a Brazilian company, and Chery, which owns two plants in the country, is **reportedly aiming** to start production of two EV models in 2025.

Although the Brazilian market is potentially attractive, GWM and BYD are likely looking beyond the country's borders in the long term. Brazil could easily serve as an export hub for the region if demand in LAC countries grows—especially if Chinese manufacturing in Mexico becomes too controversial or does not take off. However, exports to the United States are unlikely at this stage because these factories are not yet operational and will likely be producing vehicles for a different market—at least initially. Regulation of software and data collection capacity through connected vehicles, the subject of an ongoing probe at the U.S. Department of Commerce, may also restrict the ability of Chinese auto manufacturers to export to the United States for the foreseeable future.

CONCLUSION

Chinese investments in the EV value chain in LAC appear to remain highly concentrated in mining, although more investments are observable in the refining and assembly segments. Market demand, local government policies, and U.S. market access requirements are likely to determine whether investment continues to expand in the industry. Another crucial factor worth watching will be the successes and challenges faced by the Chinese companies that are undertaking these novel types of investments; their experiences will inform decisions by other firms, as well as Beijing's own strategy of engagement with countries in the region.

The trends outlined in this paper suggest that LAC countries may find new opportunities to meet their own development targets and potentially accelerate their transitions to low-emissions transportation sectors. However, for many countries, deepening dependency on China will present risks, especially at a time when the country is unlikely to experience the high growth rates of previous decades. While Chinese investments could offer a welcome path to economic and FDI diversification in some sectors for some countries (e.g., battery and vehicle assembly in Brazil), they may lead to further concentration of critical resources under Chinese-controlled firms in others (e.g., Argentina or Peru). This points to a fragile balance that governments will need to strike to both meet their own goals and maintain a **productive relationship** with the United States. Indeed, growing geopolitical tensions between Washington and Beijing are unlikely to soften in the short term and could have some negative spillover effects for countries in LAC.

This context is important for U.S. policymakers as they evaluate the risks and opportunities that emerge from China's engagement with LAC in this space. In many ways, U.S. policy shapes how these investments and supply chains develop. IRA clauses that catalyze investment around the world, including in LAC, can help diversify supply chains and could generate growth in LAC countries. This could help strengthen ties to the United States and should be further explored as a tool that can create mutual benefits with partner countries.

Ultimately, however, the United States will need to use its political capital carefully. In some situations, Washington may want to **discourage specific Chinese investments**, should they be a threat to national security. However, encouraging countries to reject Chinese

FDI altogether would damage U.S. relationships. This is especially true at a time when the United States is experiencing historic influxes of FDI in the battery and EV industry domestically.

If the United States pursues a policy of limiting Chinese investments that threaten national security, identifying the real risks to U.S. national security in China's new outbound investment surge will be crucial. What emerges from the case of EV value chains in LAC, for example, is a significant variation in the nature and objectives of the investments, as well as in host countries' policies to attract investment and manage trade. Although a large number of projects fall under Chinese FDI, their implications and risk levels vary.

Current U.S. economic security strategy is coalescing around the objective of building more resilient and diversified supply chains for critical resources. This points to the importance of tracking Chinese investments in the mining industry in LAC. It is critical to follow which companies are investing where and how those investments fit in the context of the host country, as well as to identify choke-points and policies that can ameliorate risks. For example, one productive approach could include working with LAC governments to develop policies that ensure more local government control over resources and encourage the cultivation of a diverse set of economic actors. This could include using new technologies to help enforce stricter environmental, social, and governance standards, as well as improving transparency on the part of companies that invest in the region.

LAC countries could consider new policies that would support their own economic targets as well as U.S. supply chain diversification objectives. For example, they could pursue policies that incentivize Chinese companies to share technology and invest more in value added sectors, such as through joint ventures. Governments could also take more direct action by providing targeted seed funding to universities and companies to encourage them to move up the value chain in key industries. These firms would need markets, and to this end LAC governments could seek reciprocity with China in value-added sectors and diversify exports. Finally, governments should continue to ensure that all investments meet the highest environmental standards. Strong implementation will continue to be important as the mining and refining of critical minerals expands in the coming years.

Chinese manufacturing investment aimed at supply-

ing the non-U.S. market is clearly less of a direct security challenge for the United States, but it may remain a significant challenge for U.S. companies operating in LAC. Mexico's proximity to the United States puts it in a **special position** and earns it extra scrutiny. In fact, it is likely that concerns over Chinese investments in Mexican manufacturing will have a deleterious impact on the 2026 USMCA review.

The LAC manufacturing question points to the bigger issue of U.S. competitiveness. Although Chinese firms in the EV and battery space have benefitted and continue to benefit from large state subsidies, they have also reshaped the automotive industry and raised the bar significantly in terms of performance and affordability for EVs—with affordability often being the decisive sales factor in developing regions such as LAC. An affirmative strategy to incentivize U.S. companies to produce better products for non-U.S. markets would likely have better long-term results than solely focusing on market protection tools. Indeed, competition with Chinese companies may in some cases help U.S. firms engage with cutting-edge technology and improve their offerings.

Although this study has limited itself to analyzing investments in the EV manufacturing value chain, two connected industries will likely become more important in the coming years as EV adoption grows in LAC: (1) software and data managements, and (2) EV charging. Software and data management is an area where more cooperation with places such as the United States, which is hampered by the lack of comprehensive national regulation, and the European Union, which has one of the most developed data protection regimes globally, would be beneficial for LAC stakeholders. Concerns over connected vehicles powered by Chinese software are increasing, and more research would be beneficial to evaluate risks and technical solutions. Without a concerted effort on software and data management issues, Chinese firms could continue to dominate in those industries as they do in LAC's **digital infrastructure and information and communications technology networks**.

In terms of EV charging, Chinese state-owned companies control significant **electricity transmission infrastructure** in Peru and Brazil. The increased demand for electric charging infrastructure may provide more opportunities for Chinese companies, which could benefit from significant vertical integration despite the existence of

strong international competitors. In this sector, as in the others analyzed, the United States would benefit from careful analysis of real risks and alternative pathways to encourage more diversification. ■

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