

November 2025
Argentina

Mining Outlook

Key messages



Mining is the base of the modern production chain, fundamental to sectors such as construction, the automotive industry, technology and, especially, the energy transition. Although its contribution to Argentina's GDP is currently less than 1%, its role is strategic in the global context of decarbonization..



While countries such as China, Australia and Russia concentrate most of the global mining production, Argentina possesses a geological wealth in key minerals such as lithium, copper and gold. Its challenge is to transform this under-exploited potential into a productive and export reality, in a context where global demand for critical minerals is booming.



Lithium is currently the main driver of mining growth in the country, with production growing exponentially. Argentina is a key player in the "Lithium Triangle" (along with Chile and Bolivia), which concentrates more than half of the world's brine reserves and is positioned as the world's third largest producer. It expands its key role in electromobility.



Despite its potential, Argentina has not produced copper since the closure of the La Alumbrera mine in 2018. However, today it has projects on a global scale such as Josemaría, Los Azules, Taca Taca and El Pachón that could reverse this situation with a combined estimated investment of between USD 15.6 billion and USD 19 billion. The Vicuña Project in the province of San Juan was recently announced, it would enter the Large Investment Incentive Regime (RIGI) with a investment of USD 15 billion.

Key messages



Gold and silver are the traditional basis of Argentine mining exports, accounting for 70% and 14% of the total mining exports in 2024, respectively.



Lithium is today the engine of Argentina's mining expansion. Its production has grown exponentially, positioning the country as a strategic global supplier. It is projected that Argentina could supply up to 20% of the global lithium supply by 2033, with projects in Salta, Jujuy and Catamarca.



Argentina has a robust portfolio of 119 mining projects in different stages. The new Incentive Regime for Large Investments offers favorable fiscal, exchange and regulatory conditions for 30 years, promoting investments in minerals critical to the energy transition.



Argentina's mining potential could multiply current exports by five, exceeding USD 25 billion per year. This leap would be led first by lithium and then by copper, which would position the country as a strategic player in the international trade of key minerals.

1. Global overview of the sector

Mining: scope and impact on other sectors

Mining is an activity that includes the exploration, extraction, processing and commercialization of minerals found in the earth's crust. Its essence lies in the transformation of a natural resource into a raw material with economic value.



As the first link in the modern production chain, its role is to supply **critical and basic inputs** to sectors as diverse as **construction**, the **automotive industry**, **high-tech** and the **energy transition industry**, making their development and innovation possible.



It contributes to economic development and infrastructure construction, but it must be managed sustainably to minimize environmental impact.



The giants of world mining are **China**, **Australia** and **Russia**, **but Argentina has geological potential to join that group**, thanks to its vast resources in strategic minerals such as lithium, copper and gold, especially because it is a global reserve of critical minerals for the world energy transition.

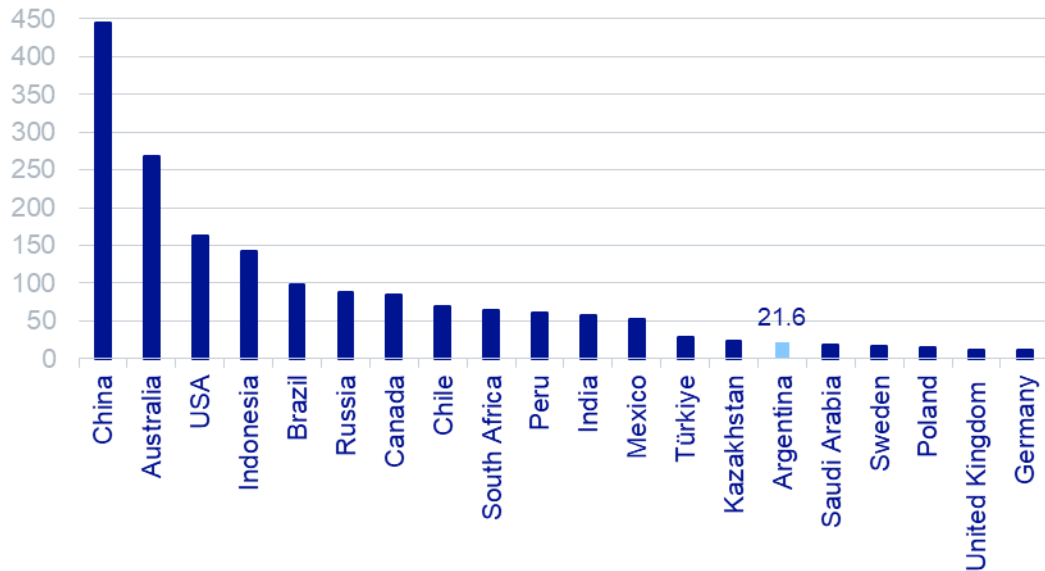


World's largest producers

50% of mining production is concentrated in 6 countries.

Mining WORLDWIDE

(MINING GDP OF MAJOR PRODUCERS, IN BILLIONS OF USD)

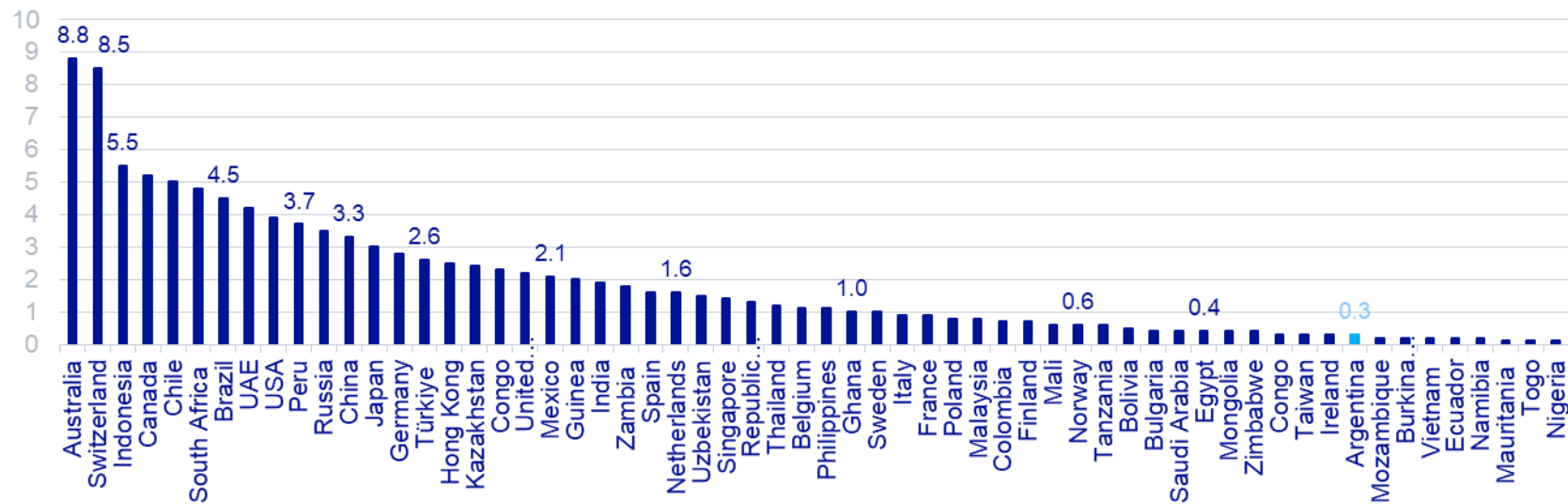


Source: BBVA Research based on TIVA OECD data, 2021-2023.

Who are the largest exporters of mining products?

SHARE OF WORLD EXPORTS OF MINING PRODUCTS

(IN PERCENTAGE; YEAR 2023)



Source: BBVA Research based on data from the Undersecretariat of Mining Development, of the Secretariat of Mining of the Ministry of Economy.

What minerals do the world's leading producers produce?

CHINA

It is the largest producer and consumer of minerals in the world. It produces a wide variety, including **coal, iron, gold, silver, zinc, lead, tin, molybdenum, aluminum, bismuth, manganese, mercury, vanadium, titanium** and, notably, leads the production of **rare earths** (more than 60% of world production).

AUSTRALIA

It stands out in the production of **bauxite, iron ore, lithium, coal, copper, gold, silver**, manganese, nickel, uranium and zinc. It has vast reserves of brown coal, lead, nickel, rutile, tantalum, uranium and zirconium.

USA

It produces **gold, silver, copper**, lead, zinc, molybdenum, phosphates, rare earth elements, uranium, bauxite, iron, mercury, nickel, potash, tungsten and others.

RUSSIA

It is a major producer of **nickel**, palladium, **diamonds, platinum, gold** and has significant reserves of coal, iron ore and aluminum.

CANADA

It is a major producer of more than 60 minerals and metals, including potash, uranium, cobalt, aluminum, tungsten, platinum group metals, **nickel, copper, gold, silver, zinc** and diamonds.

CHILE

Fifth exporter in the world and with the profile most similar to Argentina, since they share the mountain range and soils where copper and lithium are obtained, among more than 60 minerals. This geological profile makes it a key example to measure Argentina's mining potential.

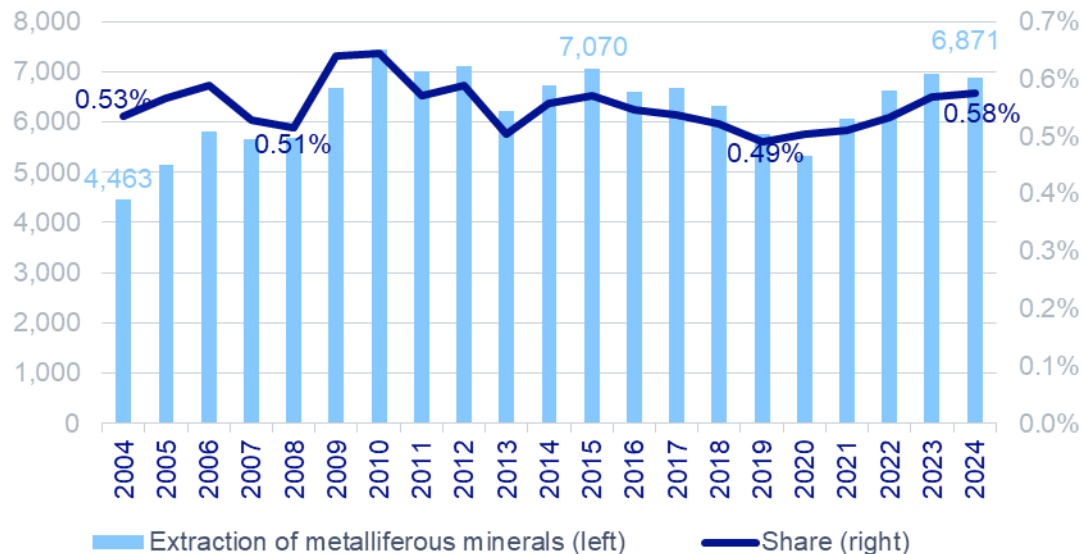
2. Overview for Argentina

Current state of mining in Argentina

1. Contribution of mining to GDP in Argentina

The contribution of mineral extraction to GDP today is less than 1%, well below other producers such as Canada (~4% of GDP), Chile (~14% of GDP) or Australia (~10%).

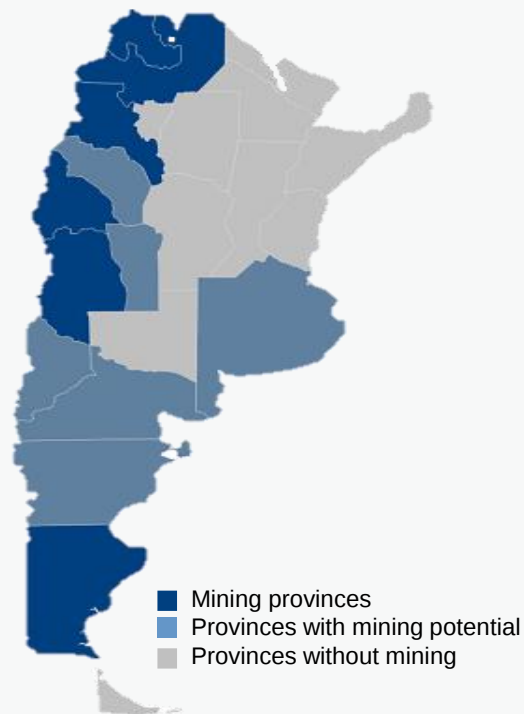
GROSS VALUE OF MINING PRODUCTION
(IN 2004 PESOS AND PERCENTAGE SHARE OF GDP)



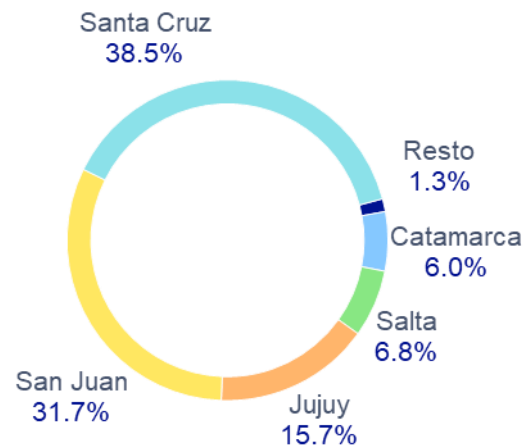
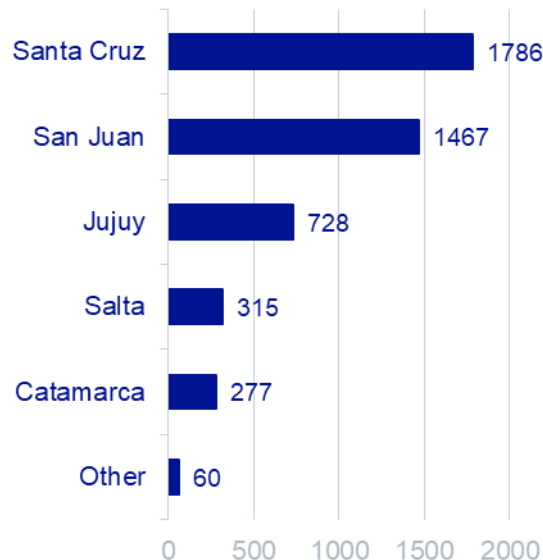
Source: INDEC and BBVA Research.

Current state of mining in Argentina

2. Map of the mining provinces



ORIGIN OF MINING EXPORTS BY PROVINCE 2024 (IN MILLIONS OF DOLLARS AND SHARE % OF ITS TOTAL EXPORTS)



Source: Secretariat of Mining and BBVA Research.

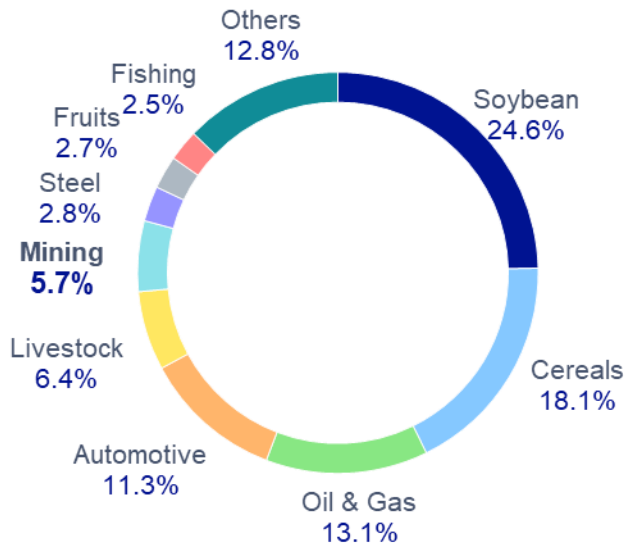
Current state of mining in Argentina

3. Contribution to the country's exports

According to INDEC, Mining ranked 6th as an export complex in 2024.

Note: In Export Complexes we exclude the Steel and Aluminum sector from Mining.

PARTICIPATION OF THE MAIN EXPORT COMPLEXES (AS % OF TOTAL)



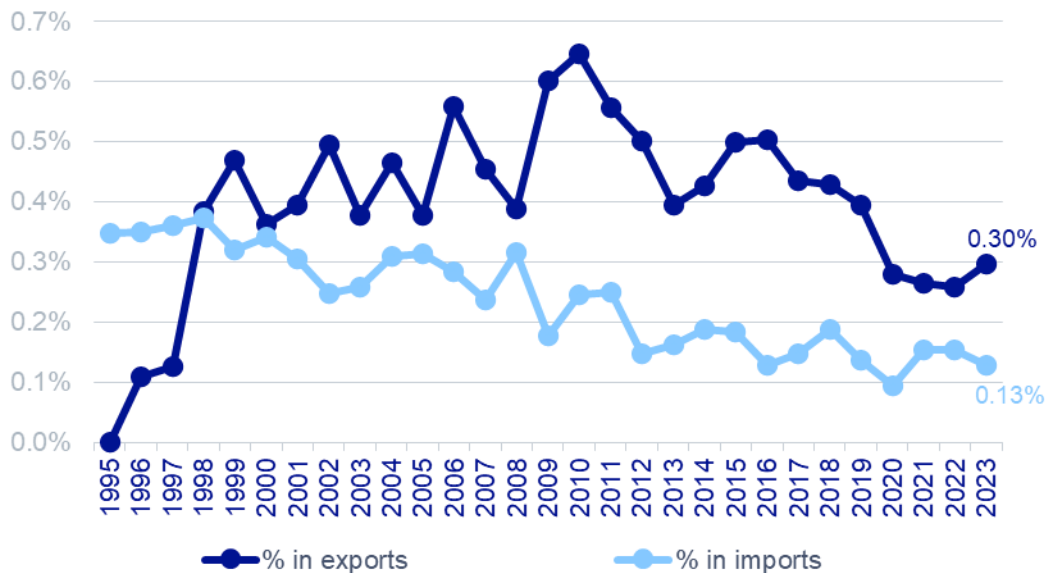
Source: INDEC and BBVA Research.

Current state of mining in Argentina

4. Share in international trade

Today, Argentina's share of total global mineral trade is less than 0.5%.

ARGENTINA'S SHARE OF WORLD TRADE IN MINERALS (% OF TOTAL)



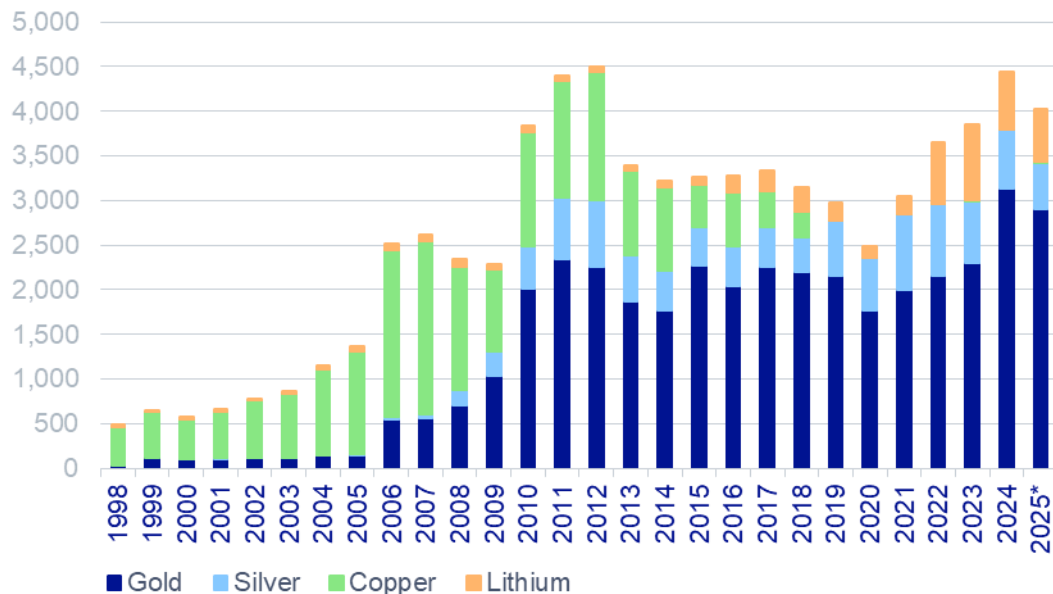
Source: BBVA Research.

Current state of mining in Argentina

5a. Redefining exports

The exponential growth of **lithium** redefines the panorama, taking over the leading role left by **copper** due to the drop in its exports as of 2018 (after the closure of La Alumbreira), while **gold** and **silver** consolidate as the traditional export base.

ARGENTINA'S MOST IMPORTANT METAL EXPORTS (IN MILLIONS OF DOLLARS)



Figures for the year 2025 cumulative as of September.

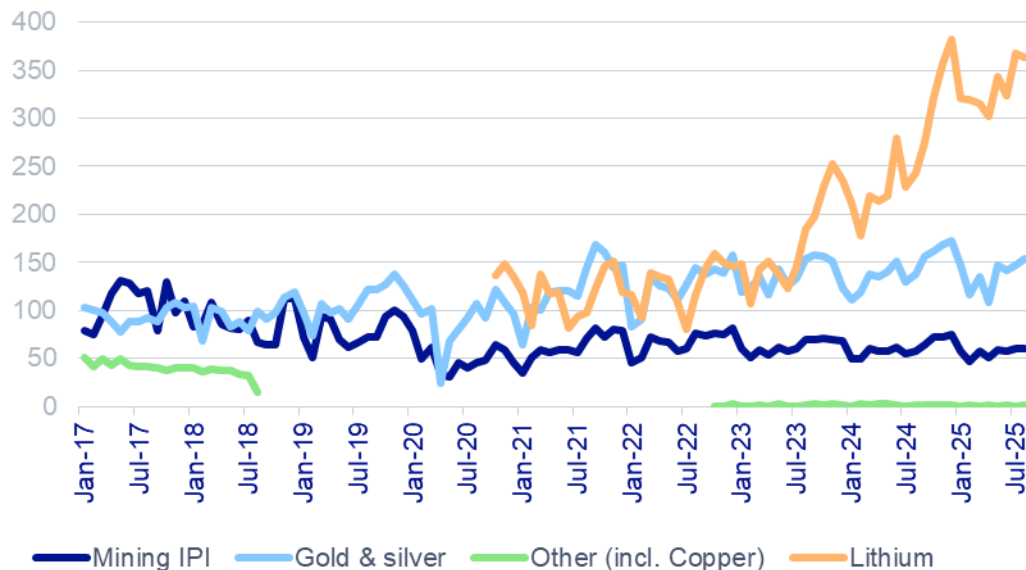
Source: Secretariat of Mining and BBVA Research.

Current state of mining in Argentina

5b. Redefining local production

The lithium boom is today the main driver of the growth of mining activity in the country, with gold and silver now in second place. Argentina today does not produce copper, despite its great potential, but projects are being initiated that involve a potential investment of USD 35 billion, considering the Vicuña Project and other smaller projects.

INDUSTRIAL MINING PRODUCTION INDEX – METALLIFEROUS MINERALS (BY GROUP) BASE 2016= 100



Source: INDEC and BBVA Research.

Responsible mining in a demanding environmental framework



- The **Glaciers Protection Act** (see annex) does not prohibit mining but it does geographically delimit where it can be carried out, requiring rigorous technical and environmental studies to demonstrate that the projects do not affect glaciers or their environment.
- This has implied higher standards, costs and evaluation times, but it has also promoted a new mining that is more transparent and technologically advanced, with environmental monitoring, traceable water management and low-impact operations.
- **Argentina has one of the world's largest geological potentials in minerals critical to the energy transition. The challenge is not to choose between development and preservation, but to develop a mining industry that is compatible with water, the environment and the country's energy future.**



3. Potential of the mining sector in Argentina



Argentina possesses world-class, historically underexploited mining potential, which is now at an inflection point thanks to a favorable global context and a new regulatory framework designed to catalyze large-scale investments.

Argentina's Mining Potential



Argentina is distinguished by exceptional geological conditions, whose attractiveness is magnified by an international context that positions it as a key producer of minerals for the **energy transition** and **the global demand for precious metals**. Its territory covers the eastern portion of the Andean Belt, where world-class deposits of gold, silver, copper and lithium are located, sharing this privilege with Chile and Peru.



In **copper**, Argentina has a portfolio of projects on a global scale such as Josemaría, Los Azules, Taca Taca, El Pachón and Vicuña. Together, these deposits host resources in the tens of millions of tons of contained copper. Although copper exploitation is still incipient, the geological potential is directly comparable to that of the large Chilean districts, representing one of the most significant development frontiers worldwide.



Argentina forms the "Lithium Triangle" with Chile and Bolivia, concentrating more than half of the world's brine resources. Jujuy, Salta and Catamarca concentrate first-class projects (Olaroz, Fénix, Cauchari) and dozens of developments in advanced stages. The combination of high-quality brines, low levels of impurities and competitive costs consolidates Argentina as the third-largest producer in the world, with enormous potential to scale its production.



In precious metals, San Juan and Santa Cruz lead the production of gold and silver. Deposits such as Veladero, Cerro Vanguardia and Lindero show the robustness of their geological potential, which is continuously reinforced by new discoveries and resource expansions in a context of record international prices.

Why Argentina?

Under-explored geological wealth.



Argentina shares the Andes Mountains with Chile and Peru, two of the world's largest mining powers. However, its territory has been explored in a much smaller fraction, so there is enormous potential to be discovered. The Argentine Geological Mining Service (SEGEMAR) estimates that the ratio between undiscovered potential and already known resources is 3.3 tons to be discovered (for each ton already discovered) for copper and 2 for gold, silver and lithium.

Global favorable context.



The transition to clean energy is mineral-intensive. An electric vehicle requires six times more minerals than a conventional one, and a wind farm needs nine times more than a gas plant. This has triggered demand and prices for critical minerals such as lithium and copper, in which Argentina has world-class resources.

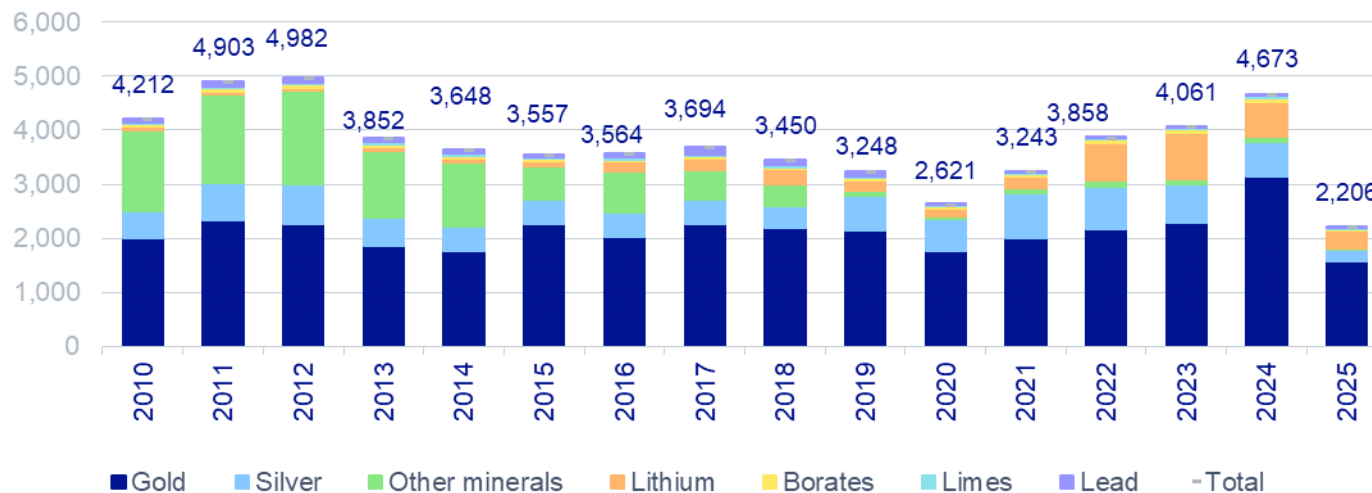
Portfolio of advanced projects.



This is not merely a theoretical potential. Argentina has a robust portfolio of 119 projects in various stages. Of these, several large one are already under construction or in advanced stages of feasibility, which guarantees a significant increase in production in the short and medium term.

Metalliferous minerals are the most important in Argentine exports

EXPORTS OF DIFFERENT METALS (IN MILLIONS OF DOLLARS)



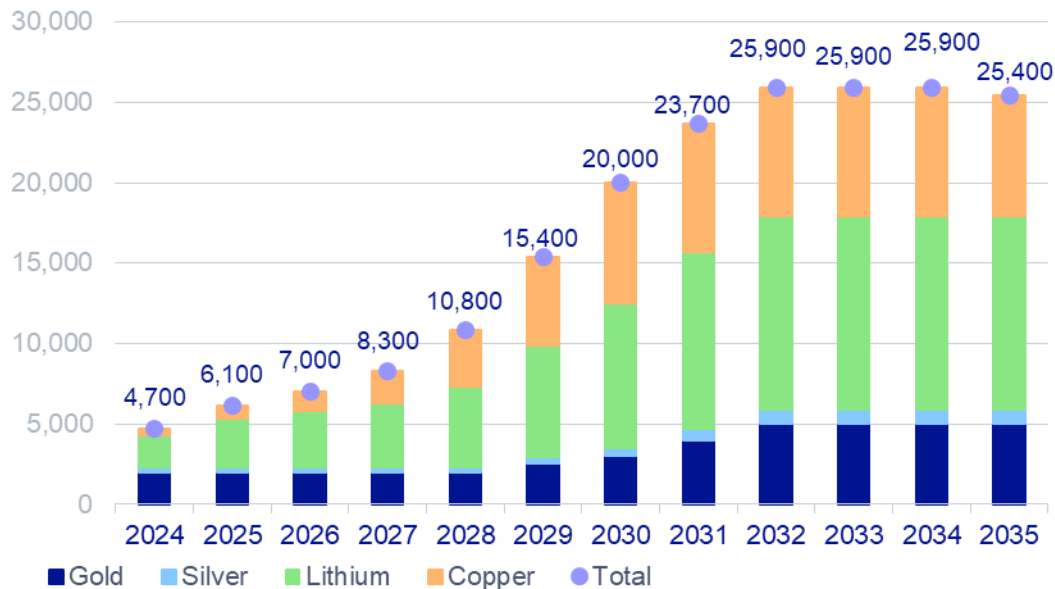
Figures for the year 2025 cumulative as of September.

Source: Secretariat of Mining and BBVA Research.

Copper and Lithium: Drivers of the expected export leap

Gold remains the stable basis for exports. Lithium drives the first major growth, while from 2028, with the entry into production of copper projects, it would become the major trigger for exports.

EXPORT PROJECTIONS BY METAL
(IN MILLIONS OF DOLLARS)

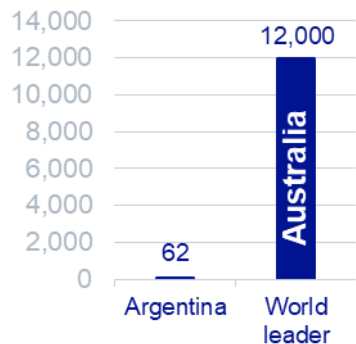


Source: Secretariat of Mining and BBVA Research.

Argentina could quintuple its mining exports by 2032

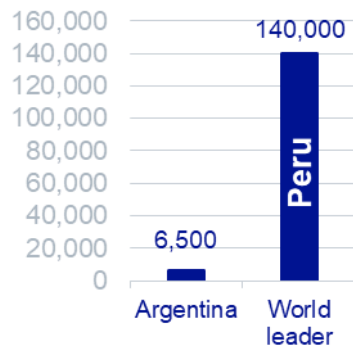
DECLARED RESERVES: GOLD AND SILVER IN TONS; COPPER AND LITHIUM IN MILLIONS OF TONS

GOLD



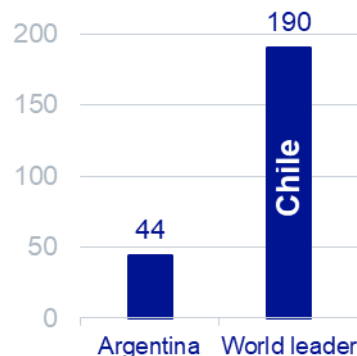
Source: USGS, Mineral Commodity Summaries

SILVER



Source: USGS, World Mining Data

COPPER



Source: USGS and Cochilco

LITHIUM (*)



Source: USGS, World Population Review

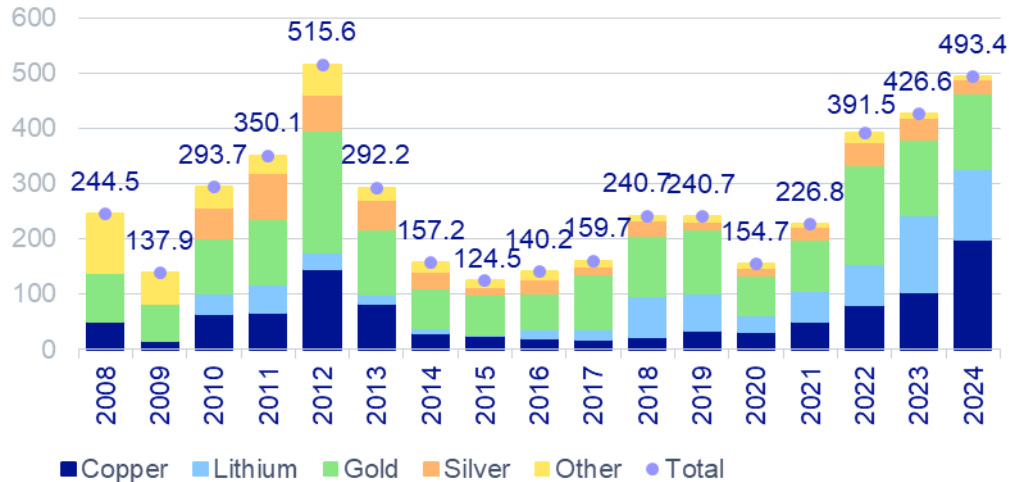
Mainly in lithium where it could account for 20% of the world's supply and copper which, with large projects, could take exports from 0 to USD 11.7 billion per year by 2033.

(*) Mineral resource is the estimated amount of ore identified but with no guarantee that it can be economically exploited under current conditions, while mineral reserve is the portion of the resource that is considered profitable and viable to extract under current conditions

Exploratory budgets have been showing a growing trend



EXPLORATION BUDGETS BY TYPE OF MINERAL (MILLIONS OF DOLLARS)



EXPLORATORY BUDGET

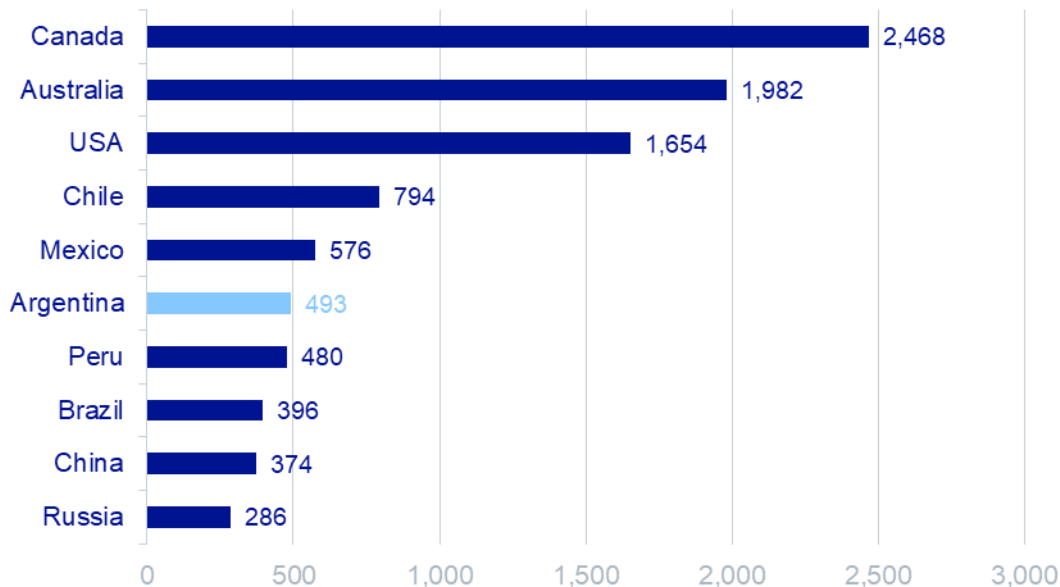
(MILLIONS OF DOLLARS)
YEAR 2024



Global ranking in exploratory investment

Argentina is positioned as a relevant player in mining exploration, surpassing neighbors such as Brazil and Peru, although still at a considerable distance from the regional leaders, Chile and Mexico.

EXPLORATORY BUDGETS IN MAJOR MINING COUNTRIES (IN MILLIONS OF DOLLARS)



Source: Secretariat of Mining and BBVA Research.

RIGI as a catalyst for mining investment



The Large Investment Incentive Scheme (RIGI) is a key tool to unlock Argentina's vast mining potential. It is designed to attract long-term capital by offering **tax benefits** (tax stability and predictability), **foreign exchange benefits** (access to foreign currency and flexibility in the repatriation of capital) and **regulatory stability** (a clear and lasting framework for 30 years).



RIGI seeks to transform the mining landscape, catalyzing multimillion-dollar investments that will boost economic growth, job creation, and position Argentina as a global supplier of critical minerals for the energy transition.



Minerals such as lithium and copper are key to the global energy transition. Demand for lithium could increase 12 to 42 times by 2040. With significant reserves and competitive costs, Argentina has a unique opportunity to consolidate itself as a strategic supplier of critical inputs for electromobility and clean energy.



Copper is strategic for Argentina because it has not yet had exportable production since the closure of Bajo de la Alumbrera in 2018, but the projects in development could reverse this and place the country among the main exporters in the next decade.



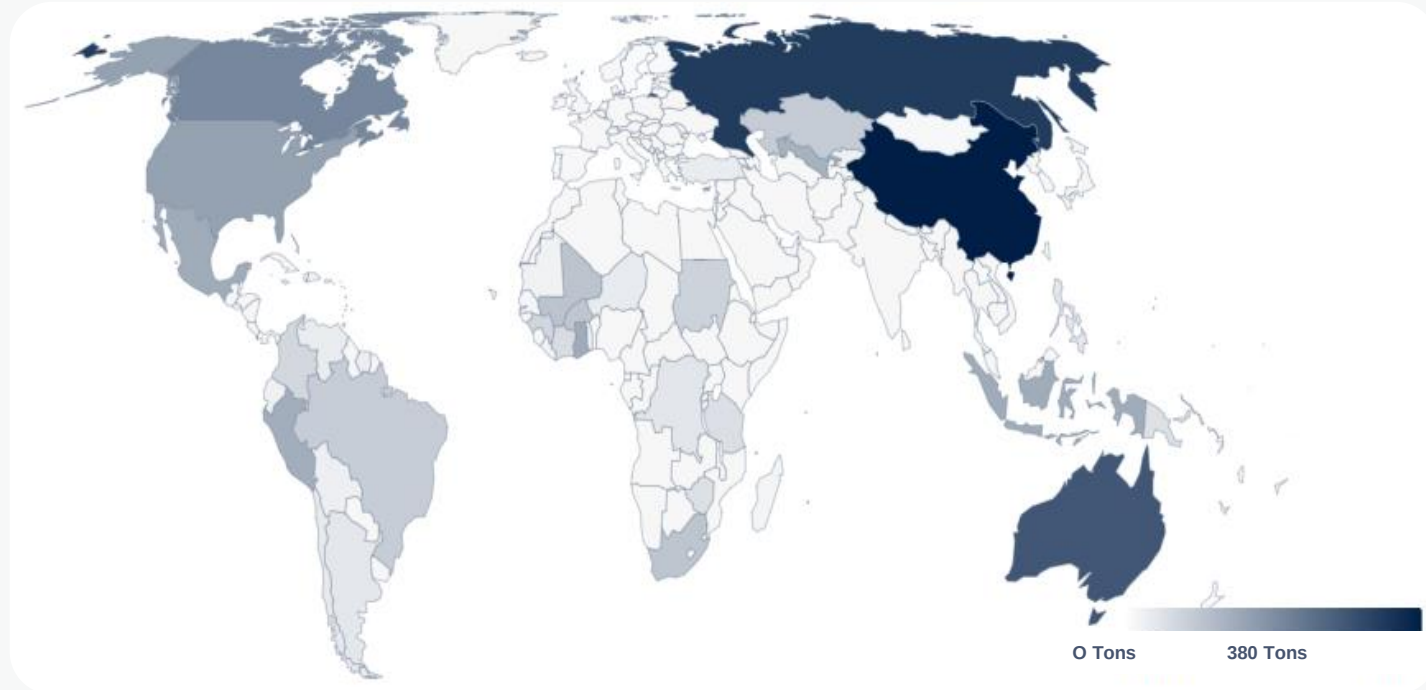
In addition to the above-mentioned benefits, the government has established a 0% rate for export duties on a large number of mining products (231 products). This measure seeks to boost investments in the sector, especially in copper, which is emerging as a key mineral.

Main minerals: Gold, Silver, Lithium and Copper

Gold

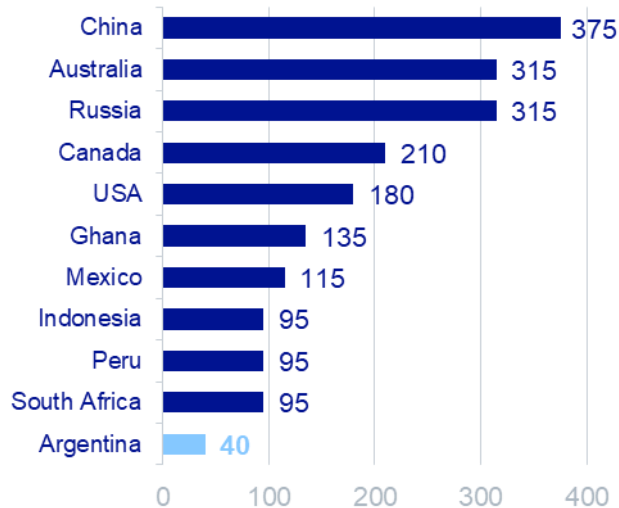


Gold producers, China leads in 2023



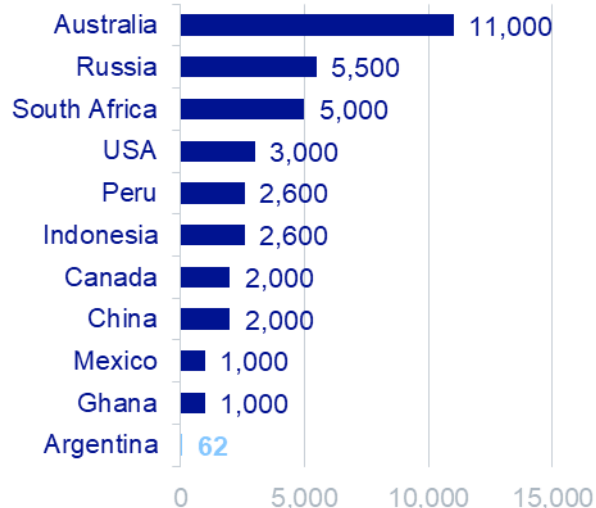
Argentina ranked 21st as a gold producer globally in 2023

GOLD PRODUCING COUNTRIES IN THE WORLD (IN TONS)



Source: USGS Mineral Commodity Summaries 2024 and BBVA Research.

MAJOR COUNTRIES WITH GOLD RESERVES (IN TONS)



Source: USGS, World Gold Council and BBVA Research.

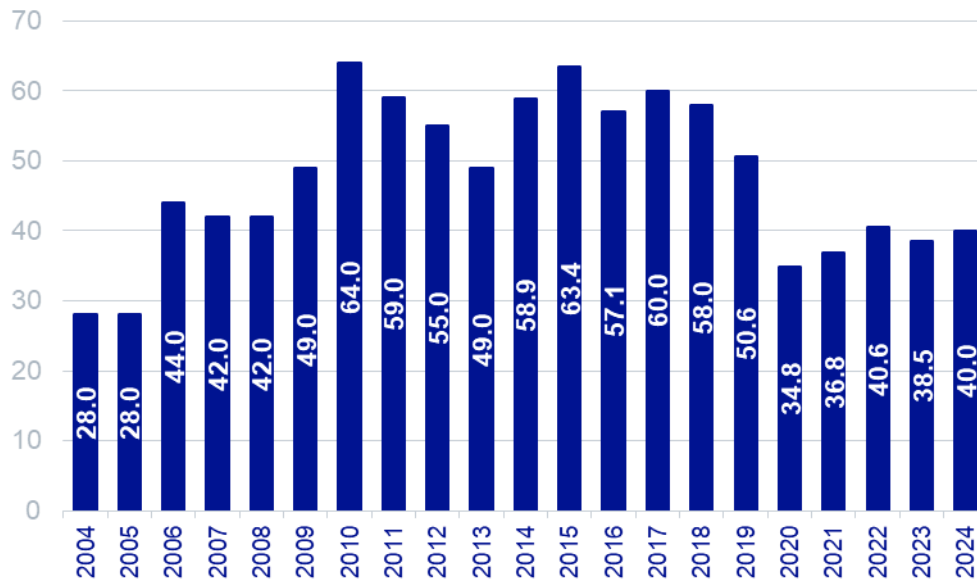
GLOBAL RESERVES
~ **59,000 TONS**

Argentina
(**0.1%** worldwide)

The challenge of boosting production again

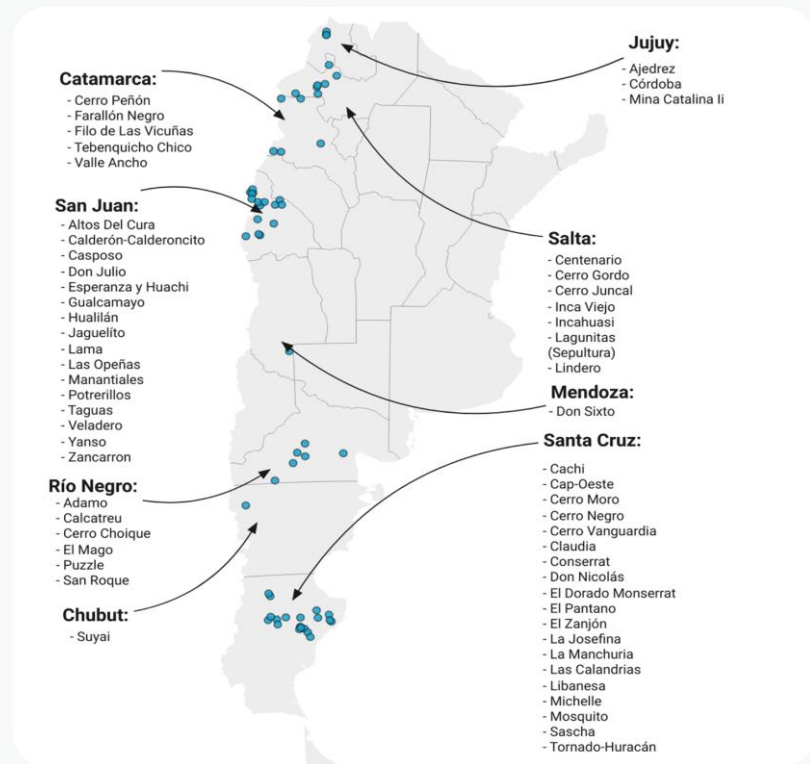
Gold production was already on a downward trend due to the natural maturation of the main deposits but the pandemic in 2020 acted as a catalyst that drastically accelerated the decline, bringing production to a “floor” from which it is now struggling to escape without the entry of new projects.

GOLD PRODUCTION IN ARGENTINA
(IN TONS)



Source: Secretariat of Mining and BBVA Research.

Distribution of gold mines in Argentina



- Gold production in Argentina is mainly concentrated in **Santa Cruz, San Juan and Catamarca**, which are home to most of the operational and developing deposits. These Patagonian and Andean provinces are fundamental pillars of the national gold mining activity, with projects of global magnitude that attract investment and generate local employment.
- The map shows a **rich diversity of deposits** distributed in several provinces, from **Jujuy to Tierra del Fuego**. This underscores the country's vast unexplored and underexplored potential, offering numerous opportunities for the exploration of new deposits and the development of existing projects.
- The Argentine gold sector presents attractive **opportunities for investment**, both in new exploration and in the development and optimization of mining projects. It is crucial that this growth is framed in a responsible and sustainable **mining model**, guaranteeing the economic, social and environmental benefit for communities and the country.

Opportunity for Argentina

In a context of high global uncertainty, gold is establishing itself as a **safe haven asset**, which drives its price to **record levels**, with projections to **remain at historically high levels**. This scenario not only increases the profitability of the mines in operation, but also improves the viability of new projects, becoming a magnet to attract the investments that the sector needs.

GOLD PRICE
(EN DOLLARS PER TROY OUNCE)



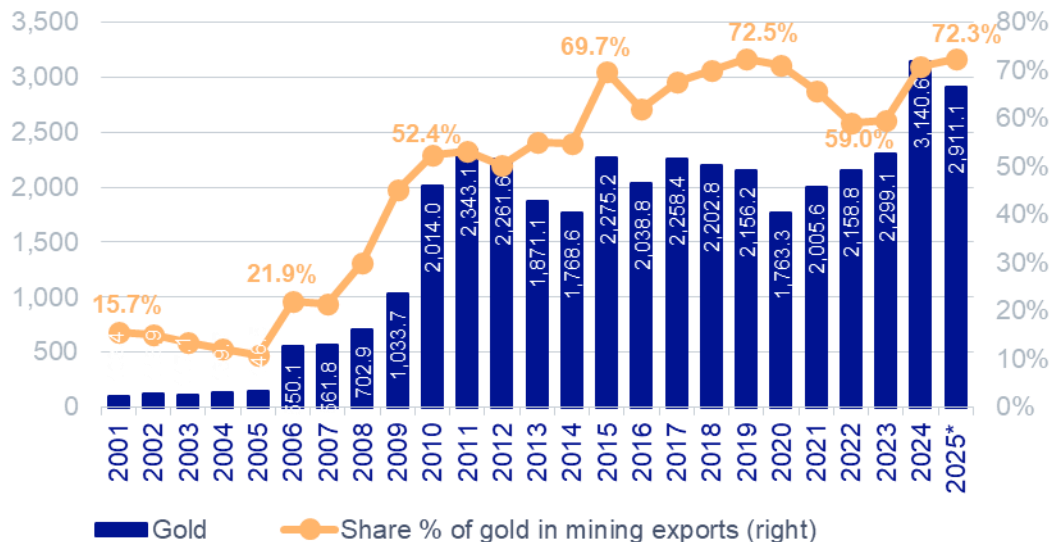
Source: Ministry of Mining and BBVA Research, Estimates of the Ministry of Mining.

The driver of mining exports

Gold not only leads, but dominates the mining export basket: in 2024, it accounted for 70% of all revenues in the sector, demonstrating its strategic importance for the economy.

The value of gold exports reached an **all-time high in 2024, exceeding USD 3.1 billion.**

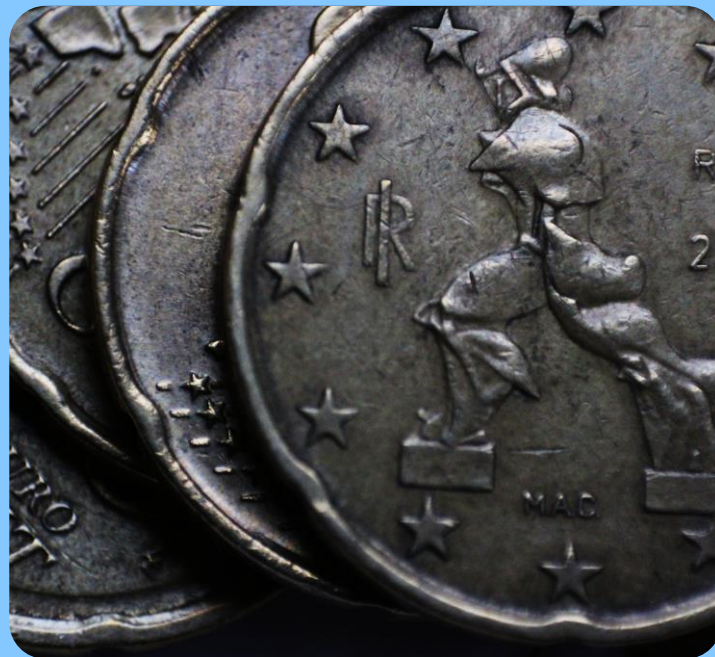
GOLD EXPORTS (IN MILLIONS OF DOLLARS)



Note: 2025 reaches the month of September.
The share is measured with respect to the total exports of the 4 most relevant products.

Source: Secretariat of Mining and BBVA Research.

Silver



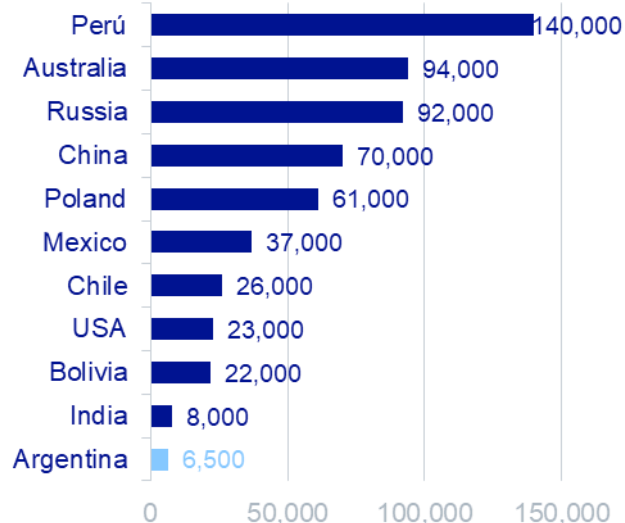
Argentina ranked 11th in the world as a silver producer in 2023

WORLD SILVER PRODUCING COUNTRIES (IN TONS)



Source: USGS Mineral Commodity Summaries, USGS Silver Statistics and BBVA Research.

MAJOR COUNTRIES WITH SILVER RESERVES (IN TONS)



Source: USGS Silver Statistics, World Silver Survey and BBVA Research.

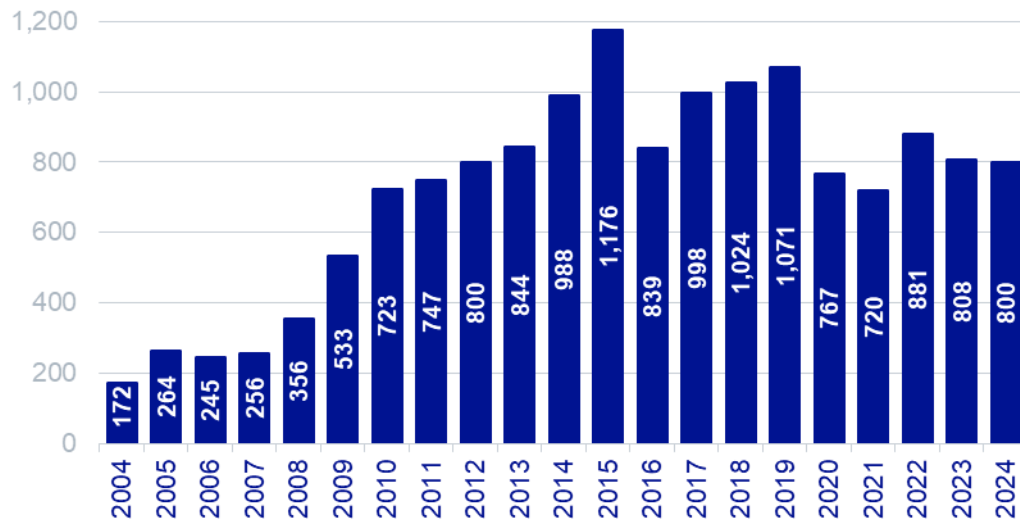
**GLOBAL
RESERVES
~ 640,000
TONS**

**Argentina
~ 1.0%
worldwide**

Argentina's silver production shows resilience

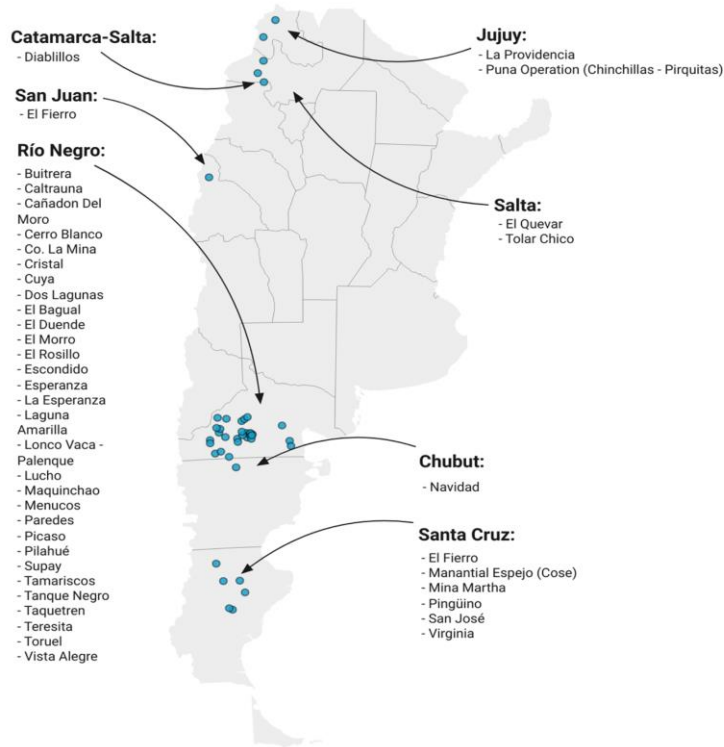
After a decade of growth that took it to its productive peak, silver production consolidated since 2012 on a **stable plateau**, consistently averaging close to 1,000 tons per year.

SILVER PRODUCTION IN ARGENTINA
(IN TONS)



Source: Secretariat of Mining and BBVA Research.

Distribution of silver mines in the country



- Silver production in Argentina is significantly concentrated in the provinces of **Río Negro and Santa Cruz**, which are home to the largest number of deposits and projects. This positions Patagonia as a key region for this mineral.
- The map illustrates a wide distribution of silver deposits throughout the country, including other provinces such as Catamarca-Salta, San Juan, Chubut, Jujuy and Salta. This diversity underscores Argentina's **great geological** potential for exploration and the discovery of new silver resources.
- Silver, in addition to its intrinsic value, is a key metal in various industries such as electronics, renewable energy, and jewelry. Argentina has the opportunity to not only be a primary producer, but to explore value-added chains that further boost its mining economy around this versatile metal.

Between value shelter and industrial metal

In times of uncertainty, silver acts in a similar way to gold, but at the same time its demand is linked to the pulse of the **global industry**. More than 50% of the world's demand for silver is tied to technology: Solar panels, batteries, electronics, and 5G networks ensure a growing demand for silver in the coming decades.

SILVER PRICES
(IN DOLLARS PER TROY OUNCE)



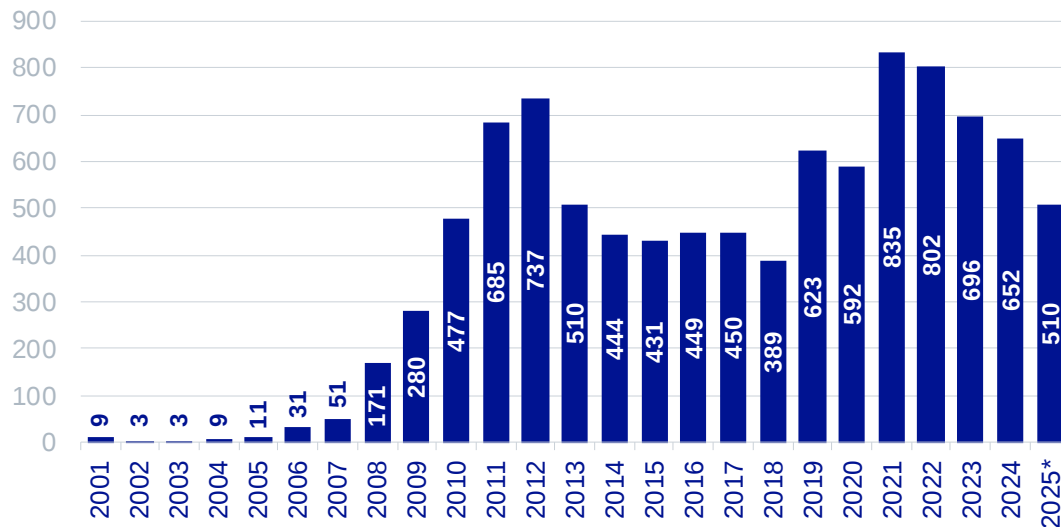
Source: Secretariat of Mining and BBVA Research.

Second pillar of mining exports

Silver accounted for 14.2% of mining exports in 2024, contributing more than USD 650 million.

After reaching a peak of exports of about USD 835 million in 2021, the value exported has shown a downward trend, although it remains a key foreign exchange income for the mining complex.

SILVER EXPORTS (IN MILLIONS OF DOLLARS)



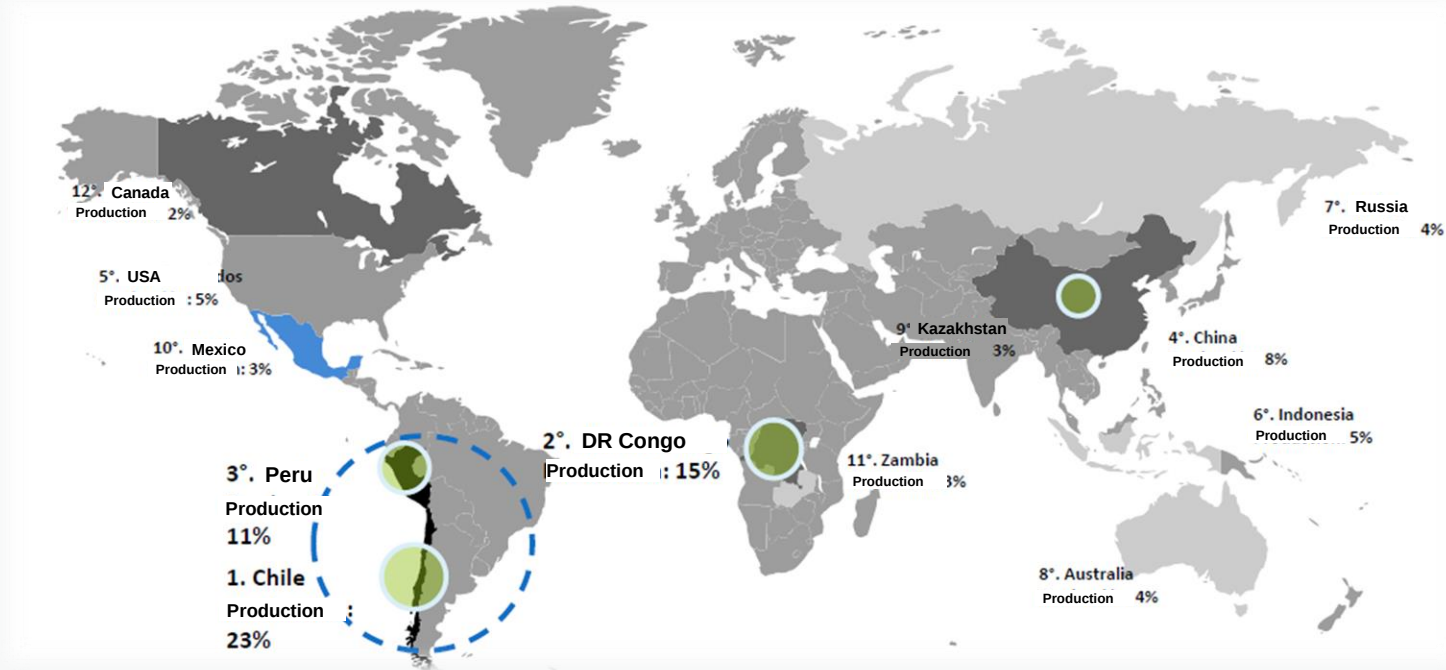
Source: Ministry of Mining and BBVA Research

Note: 2025 reaches the month of September

Copper



Top producers of copper In metric tons, 2024



Source: Chamber AEM, Cochilco, USGS and BBVA Research

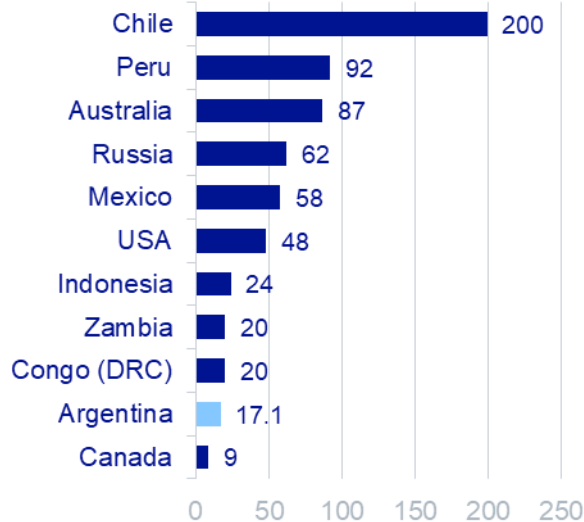
Argentina does not produce copper today, but it would be in the top 10 as investments mature

WORLD COPPER PRODUCING COUNTRIES
(IN THOUSANDS OF TONS)



Source: USGS Mineral Commodity Summaries, USGS Copper Statistics and BBVA Research.

COUNTRIES WITH THE LARGEST COPPER RESERVES
(IN MILLIONS OF TONS)



Source: USGS Copper Statistics, World Silver Survey and BBVA Research.

GLOBAL RESERVES
~890 M TONS

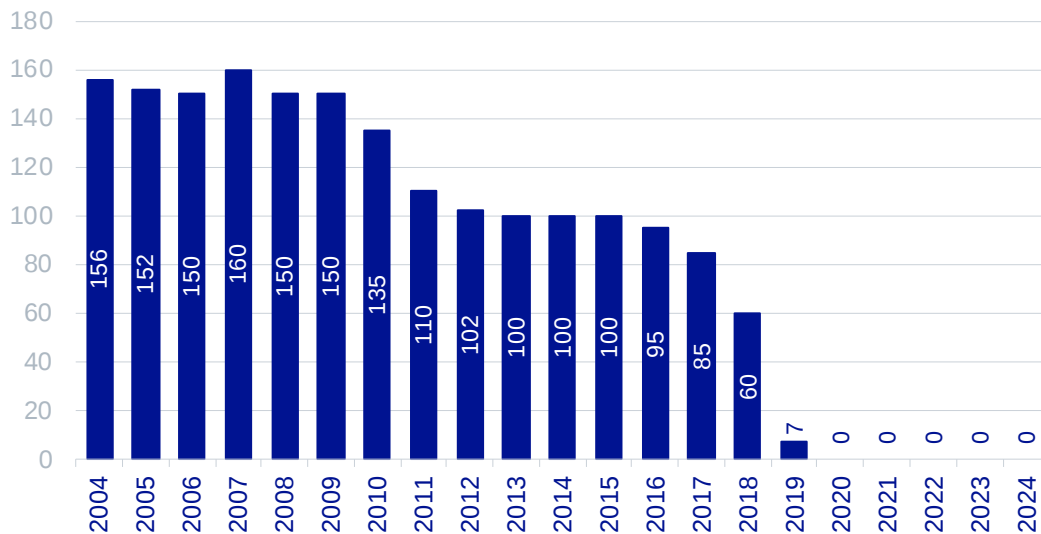
Argentina
~2%
worldwide

Copper Production in Argentina

Practically all of Argentina's copper production in recent decades came from a single giant mine: **Bajo de la Alumbra** (Catamarca). After its closing in 2018, Argentine production ceased.

The key fact for the future is that Argentina does have the **geological** potential to become a much more relevant producer, with several important projects such as El Pachón, Taca Taca and José María.

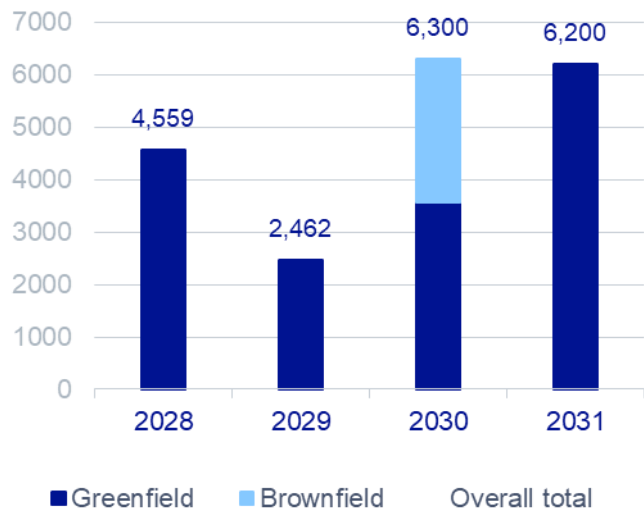
COPPER PRODUCTION IN ARGENTINA
(IN THOUSANDS OF TONS)



Source: Ministry of Mining, USGS and BBVA Research.

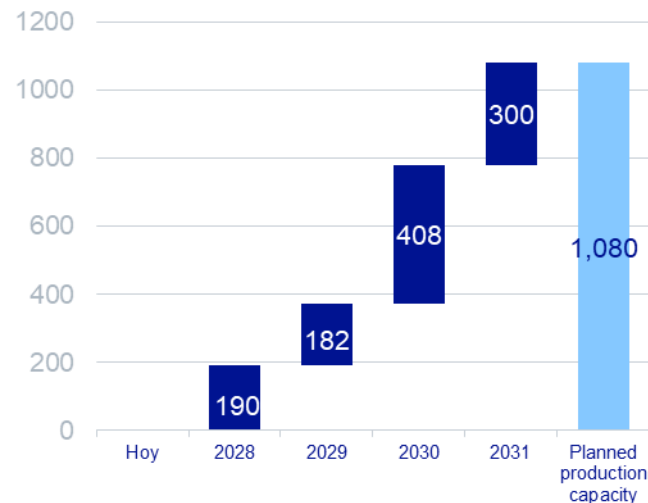
With a strong boost in investments, copper production capacity increases

PLANNED INVESTMENTS IN COPPER
(IN MILLIONS OF DOLLARS)



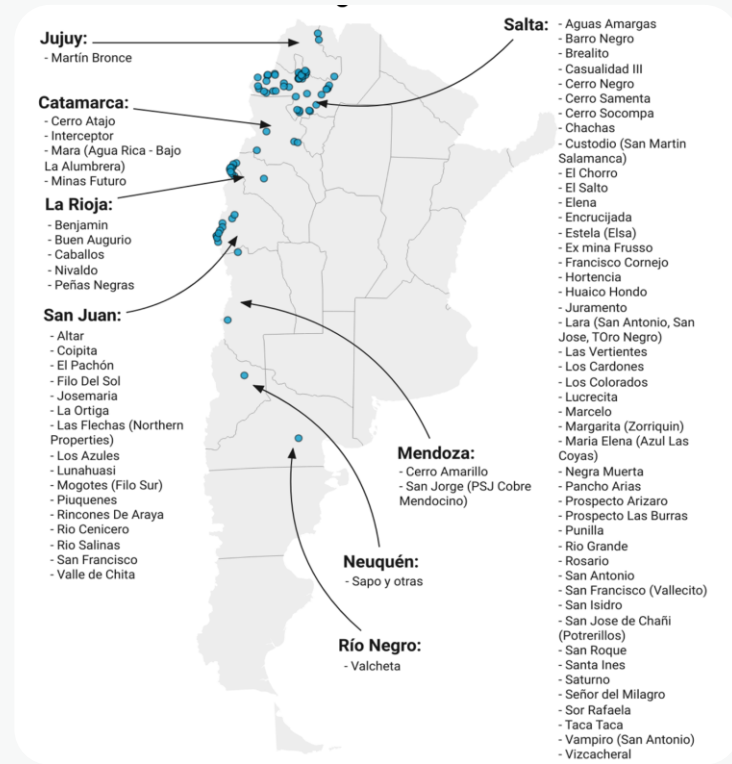
Source: Argentine Chamber of Mining Companies and BBVA Research.

COPPER PRODUCTION CAPACITY
(IN THOUSANDS OF TONS)



Source: Argentine Chamber of Mining Companies

Distribution of copper mines in Argentina



With the closure of Bajo la Alumbra in Catamarca, after having exhausted its reserves, large-scale copper production in the country ceased.

- Most of Argentina's copper potential and projects are located along the **Andes** Mountains, with a strong presence in provinces such as **San Juan, Salta and Catamarca**. This strip is geologically conducive to large-scale porphyry copper deposits.
- The map shows a significant number of copper deposits and prospects in different stages of development. This **variety of projects**, from early explorations to large deposits such as Josemaría or El Pachón in San Juan, underscores the considerable potential for future production.
- Copper is an indispensable metal for clean energy technologies, including electric vehicles, smart grid infrastructure, and renewable energy. This positions Argentina strategically to contribute to the **global demand for this critical metal**, attracting investments and encouraging the development of sustainable mining.

Solid price outlook

Demand assured by the momentum of the global energy transition and the development of new technologies and restricted supply due to the lack of new projects at the global level will drive sustained prices for the next decade despite possible short-term volatilities.

COPPER PRICES
(IN DOLLARS PER TON)



Source: Secretariat of Mining and BBVA Research.

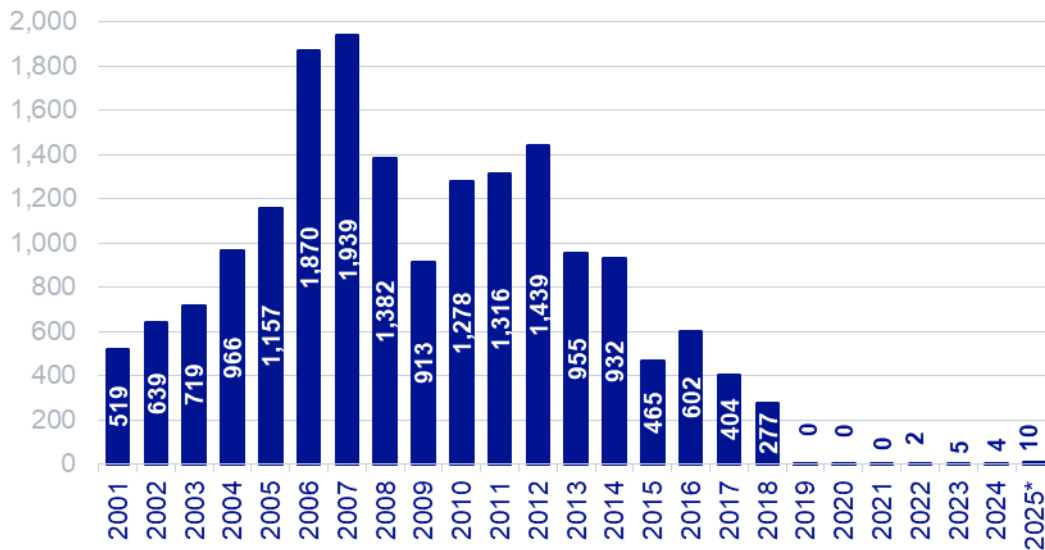
Copper exports at their lowest levels

With the closure of Bajo de La Alumbrera (Catamarca) in 2018, the export of this mineral was drastically reduced.

Today Argentina imports more refined copper for industry than it exports as a mineral.

However, the focus on the sector and the planned investments would allow it to make a 180-degree turn and position itself as a leading sector in exports.

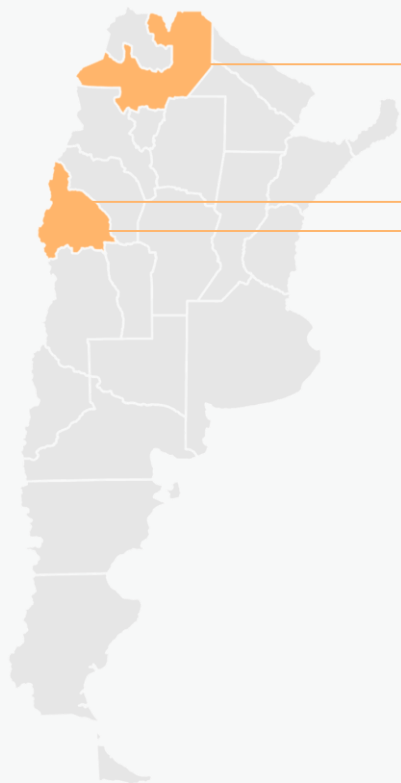
COPPER EXPORTS (IN MILLIONS OF DOLLARS)



Source: Secretariat of Mining and BBVA Research.

Note: 2025 reaches the month of September.

Mining projects under the RIGI: copper



SAN JUAN

Project	Los Azules
Enterprise	McEwen Copper
Investment	USD 2.7 billion
Stage under RIGI	USD 227 million for feasibility and exploration studies
State	Request for adherence in process
Term	Feasibility: 2025. Estimated construction from 2026

SAN JUAN / SALTA

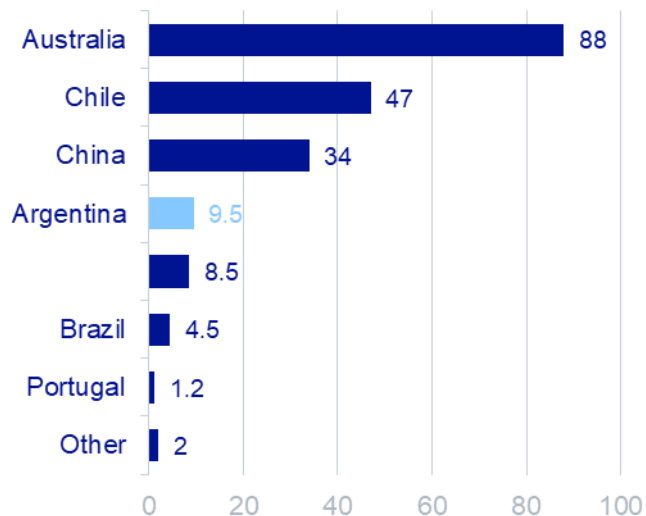
Projects	Josemaría, Taca Taca, Filo del Sol
Enterprise	Several
Estimated investment	Up to USD 20 billion (Includes Vicuña Project)
State	Various in advanced stage of pre-production and procedures for joining the RIGI
Term	Gradual commencement of construction from 2026 to 2027

Lithium



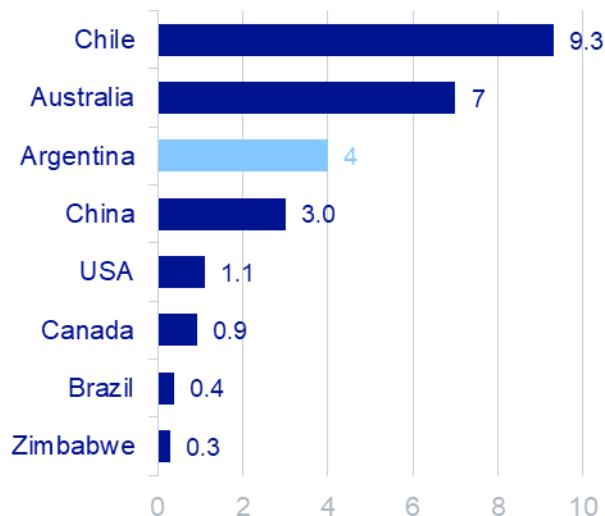
Argentina well positioned for lithium development

WORLD LITHIUM PRODUCING COUNTRIES
(IN THOUSANDS OF METRIC TONS)



Source: USGS Mineral Commodity Summaries, and BBVA Research.

MAIN COUNTRIES WITH LITHIUM RESERVES
(IN MILLIONS OF METRIC TONS)



Source: USGS Mineral Commodity Summaries, and BBVA Research.

**GLOBAL
RESERVES
(LCE)
~30 M TONS**

**Argentina
~13%
worldwide**

The lithium triangle: Argentina-Bolivia-Chile holds half of the world's resources

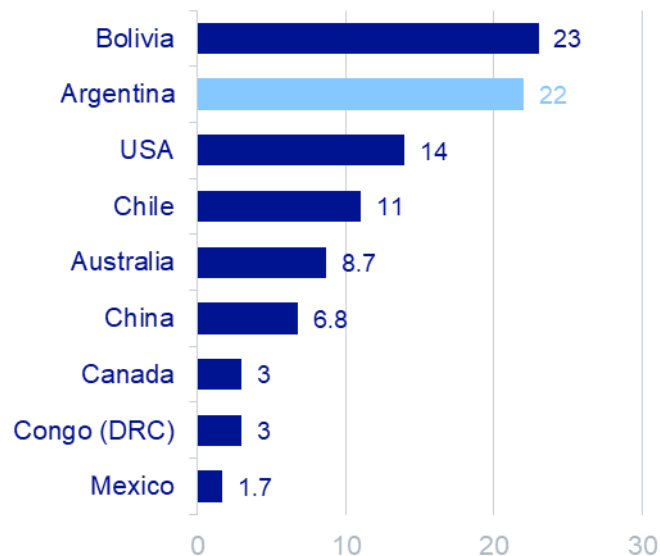
Every reserve is a resource, but not every resource becomes a reserve.

Resources refer to estimates of a mineral that exists in the ground in identified or estimated deposits but it is not assured that they are necessarily economically extractable.

Reserves are the proportion of resources that are considered economically extractable under current technical, legal and economic conditions.

High resources indicate great geological potential but **investment** in exploration, infrastructure and technology are needed and can lead to a large part of the resources being reclassified into economically exploitable reserves and eventually into production.

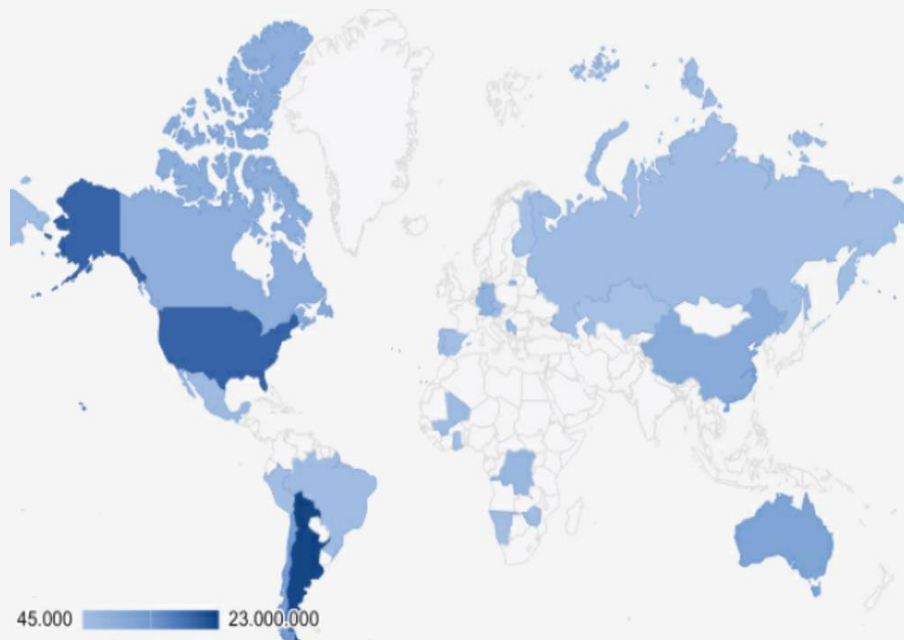
MAJOR COUNTRIES WITH LITHIUM RESOURCES (IN MILLION METRIC TONS)



Source: USGS Mineral Commodity Summaries, and BBVA Research.

Lithium resources, top countries

In metric tons of lithium content, 2024



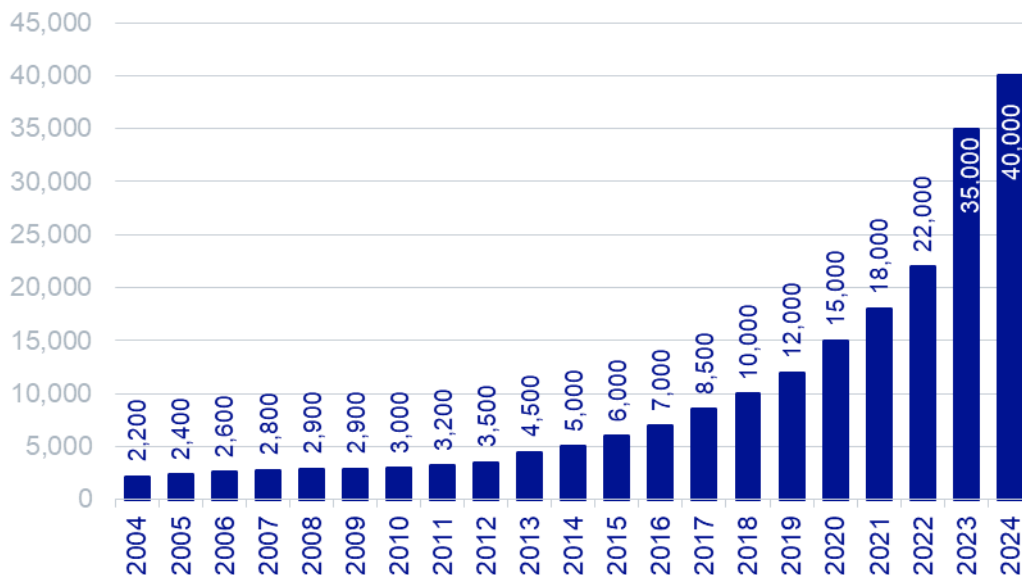
Source: Secretariat of Mining, USGS and BBVA Research.

The rise of lithium in Argentina

The exponential growth of production reflects the entry into operation of new projects and the consolidation of Argentina as one of the leaders of the "Lithium Triangle".

This volume positions the country as a key and strategic player to supply a critical mineral for the energy transition and electromobility at a global level.

LITHIUM PRODUCTION IN ARGENTINA
(IN TONS)

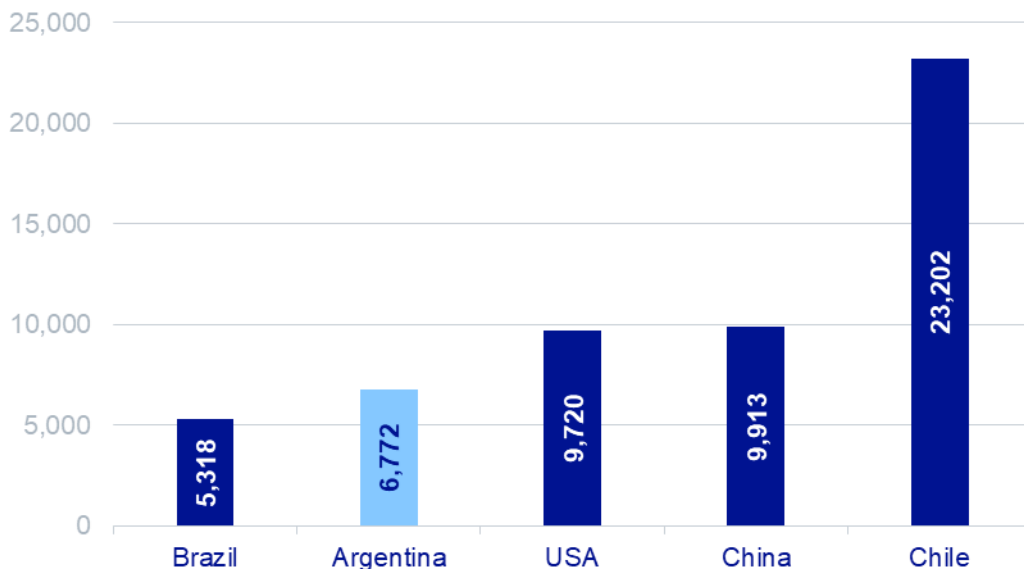


Source: Secretariat of Mining and BBVA Research.

Argentina remains competitive

The cost of production of lithium carbonate in Argentina is 3.5 times lower than in Chile. Bolivia, which has the world's largest lithium reserves, has an estimated cost of between USD 4000 and USD 8000 per ton.

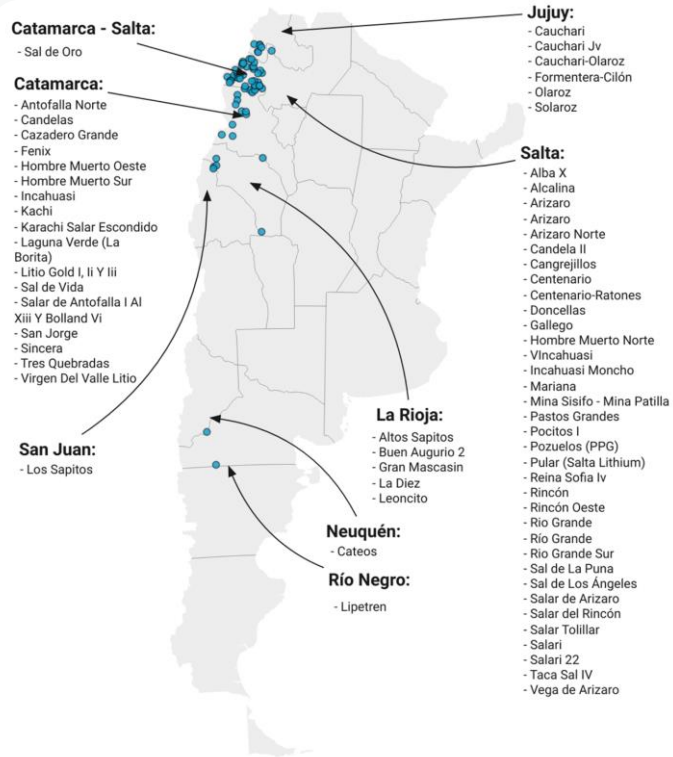
LITHIUM CARBONATE PRODUCTION COSTS USD / TON (LCE*)



Note (* Lithium Carbonate Equivalent).

Source: Secretariat of Mining and BBVA Research.

Distribution of lithium mines in Argentina

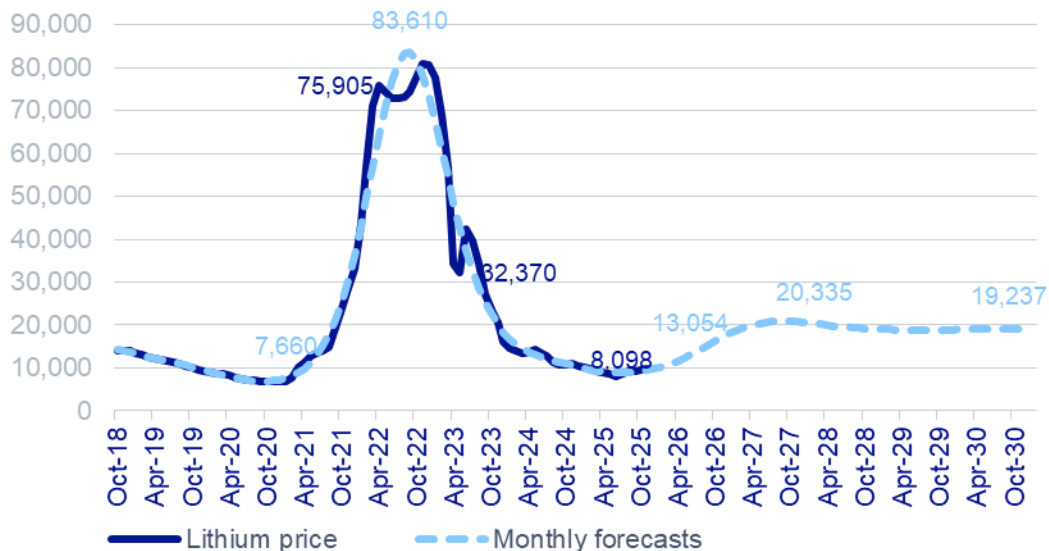


- The production and the main potential of lithium in Argentina are predominantly concentrated in the **Northwest Argentina**, specifically in the provinces of **Salta, Jujuy and Catamarca**. This region is part of the famous "Lithium Triangle", one of the largest reserves in the world.
- The map highlights the presence of **numerous salt flats with lithium** projects at different stages (from advanced exploration to production). This underscores the country's geological wealth in lithium brine resources, essential for the global energy future.
- Beyond extraction, the growing demand for lithium for batteries (electric vehicles, energy storage) positions Argentina in a strategic place. The country has an opportunity to develop a **more integrated and sustainable value chain**, attracting investments in processing and manufacturing to fully take advantage of this critical resource.

From the peak to the new normal

Future projections indicate that the price will remain stable. The **huge amount of new supply** that will enter the market (from Argentina and other countries) will limit large increases, but the **solid and growing demand** for electromobility will give a firm floor to prices.

LITHIUM (LCE) PRICES
(CIF ASIA DOLLARS PER TON)



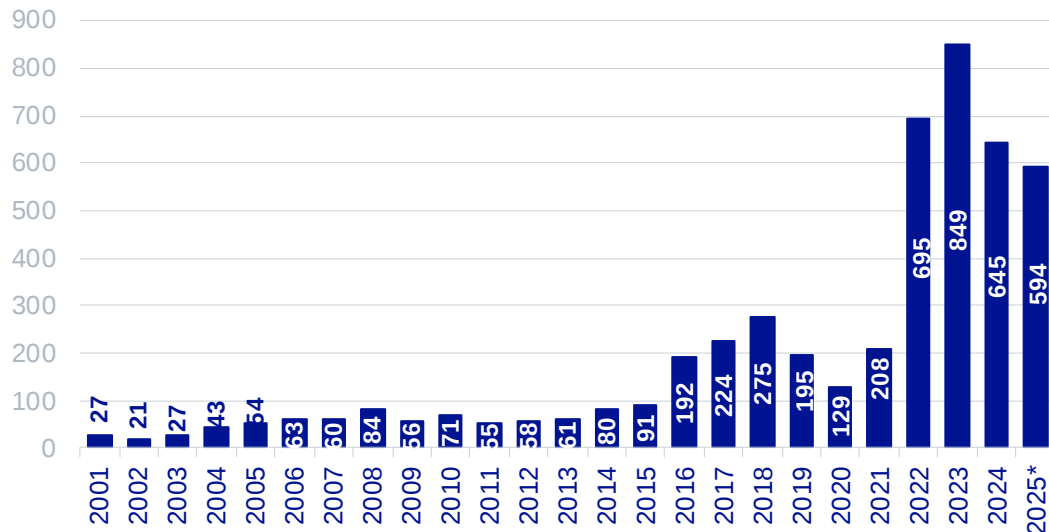
Source: Secretariat of Mining and BBVA Research.

Productive leap ensures record exports

In 2023, exceptionally high international prices boosted exports, while by 2024 this situation was reversed as prices normalized as there was no drop in production.

The **entry into operation of new projects** will generate a significant leap in volume. By 2024, it had already surpassed silver exports, accounting for 14.4% of total mining exports.

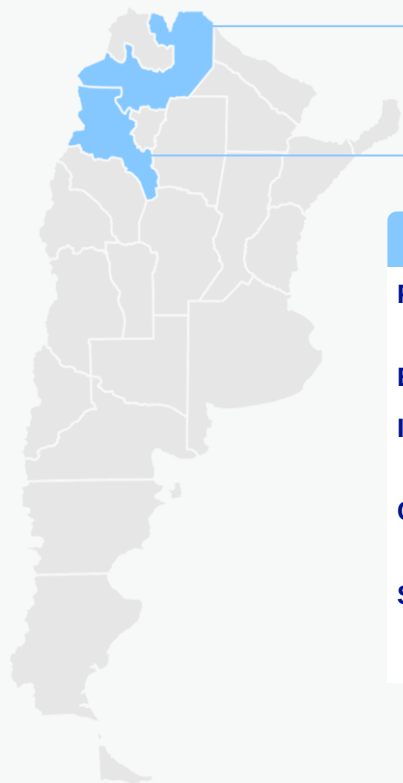
LITHIUM EXPORTS (IN MILLIONS OF DOLLARS)



Source: Secretariat of Mining and BBVA Research.

Note: 2025 reaches the month of September.

Mining projects under the RIGI: lithium



CATAMARCA

Project	Sal de Vida	Hombre Muerto Oeste
Enterprise	Rio Tinto	Galan Lithium
Investment	USD 638 million	USD 200 million to 208 million
Capacity		20,000 tons per year.
State	Request for adherence in process	Request for adherence in process

SALTA

Project	Rincon	Sal de Oro	Mariana
Enterprise	Rio Tinto	Posco	Ganfeng
Investment	USD 2.7 billion	USD 800 million	USD 273 million
Capacity	53,000 to 60,000 tons per annum of battery-grade lithium carbonate	25,000 tons per year of lithium hydroxide (initial phase)	Lithium chloride production and solar park
State	Estimated start of production in 2028	Request for adherence in process	Request for adherence in process

Potential global demand for copper and lithium: opportunity for Argentina



The total demand potential for copper and lithium shows a significant escalation towards 2040, driven by the intensification of the energy transition.



In a **conservative** scenario, **copper** demand is projected to reach 34.1 million tons by 2040, representing a growth of 37.5% compared to the values recorded in 2024. However, in a more **ambitious** scenario, demand would soar to almost 39.5 million tons in 2040, which translates into a growth of 47.8% compared to 2024.



Lithium will have an even greater potential demand than copper. While in the conservative scenario for 2040, demand is expected to be around 1.2 million tons (+485.6% compared to 2024), in an optimistic scenario this would climb to 1.5 million tons (+654.2% compared to 2024).

Explanatory note: the **conservative** scenario is defined as one that assumes compliance with **the policies announced by the governments so far**. On the other hand, in an **ambitious** scenario, it is assumed that the world is on a path compatible with **reaching net-zero emissions by 2050**, which implies much greater deployments of renewable energies.

With demand on the rise and insufficient supply, the energy transition faces a bottleneck



The **International Energy Agency(*)** identifies significant gaps between supply and demand for copper and lithium by 2040. The estimated supply with the projects announced so far would not be enough to compensate for the strong growth in demand expected for the coming years.



According to the Agency, the structural deficit of **copper** by 2040, considering the evolution of supply and demand, could reach 30% while for **lithium** it would reach up to 40% in a conservative scenario. For both minerals, the excess demand would be greater than these values if we consider an ambitious scenario in which demand grows even more to achieve the energy transition that allows zero emissions by 2050.



The combination of rising demand for these products and a supply gap highlights the opportunity for well-located mining projects, such as those in Argentina, as well as the need to accelerate investment and diversify supply chains.



Mining activity in Argentina generates a strong knock-on effect, activating hundreds of local suppliers and creating more than 100,000 jobs with salaries 2.6 times higher than the average. It is the fifth largest export complex in the country and its growth is shaping up to be significant in the coming decades.

(*) "[Global Critical Minerals Outlook 2025](#)"

Threshold of return in the energy transition

The threshold price is crucial because it establishes the "incentive price" required to justify million-dollar investments in new critical mineral mines, and sets the "market floor" by determining which high-cost producers should stop production under low-price scenarios.

In "global averages" the incentive price (break-even) to start a new investment in copper is in the range of USD 10,000 - USD 11,000 per ton, while for lithium it is between USD 10,000 - USD 18,000 per ton.

It is crucial to understand that break-even prices are "averages" but each project and each country has a unique real break-even. Local factors such as deposit quality (ore grade or brine purity), infrastructure costs, taxes and permits can cause the breakeven point to vary significantly between different projects despite sharing geographic proximity.

Comparison of mining profitability in Argentina

Evaluation of costs versus export prices for Argentina of the main ore deposit

Mineral	Deposit	All-in Sustaining Cost (AISC)	Unit of measurement	Current Price	Current profitability
Gold	Veladero	1,340	USD (per oz)	3,668	Very high
Silver	Cerro Moro	19.69	USD (per oz)	42.8	High
Lithium	Olaroz / Sal de Vida	8,000	(USD per tn LCE)	9,360	Moderate but sensitive
Copper	Josemaría	3,417	(USD per ton)	9,984	High (with the help of RIGI)

Given the high cost diversity between the different projects per mineral in Argentina, we have chosen to use the All-in Sustaining Cost (AISC) of the main producing mine or the most advanced project as the breakeven reference for this analysis. The AISC values for each deposit were those published by the parent company. The export prices were obtained from the National Mining Secretariat.

Other minerals

Argentina seeks to diversify:

it has a vast potential of industrial and critical minerals to do so



Argentina is at a strategic juncture to redefine its mining profile, transcending the historical dependence on commodities such as gold, silver, copper and lithium. Argentina has considerable potential in non-traditional and industrial minerals that, despite being underexploited, is crucial for the global energy transition and various industries.



Recent government policies, such as the elimination of export withholdings for lime and the implementation of the Incentive Regime for Large Investments (RIGI), seek to catalyze investment and improve the competitiveness of the mining sector as a whole. Significant progress has been observed in uranium exploration, with key findings and considerable investment in projects. Likewise, lime production is experiencing projected growth, driven by its essential role as an input in the growing lithium and copper industry.



Despite these opportunities, logistics infrastructure continues to be a structural challenge that limits export efficiency. However, there are improvement projects under development that promise greater connectivity and cost reduction. The adoption of innovative technologies, such as smart mining, bioleaching and in **situ leaching**, is an imperative for more efficient, sustainable and environmentally friendly mining, especially in low-grade or geologically complex deposits.

Uranium positions Argentina with a key development capability

SIGNIFICANT RESOURCES

Argentina has 33,780 tons of uranium identified, concentrated mainly in Chubut, Mendoza and Río Negro. Recent findings have been confirmed, such as that of Fomicruz in Santa Cruz in May 2025, which reaffirm the region's potential.

EARLY-STAGE INVESTMENT AND DEVELOPMENT

Most of the country's 17 uranium projects are in the prospecting and exploration stages. However, the Eurnekian Group's investment of US\$160 million in the Ivana uranium project in Río Negro stands out, demonstrating an interest in the mineral.

GLOBAL DEMAND ON THE RISE

Uranium is a key mineral for the generation of electricity in nuclear power plants and for the production of radioisotopes. Global demand for nuclear power and uranium is growing, driven by the world's commitment to triple nuclear capacity by 2050.

POTENTIAL TO BECOME A KEY SUPPLIER

Given the growing global demand, Argentina has the capacity to position itself as a relevant supplier in the uranium market.

LOW-IMPACT EXTRACTION TECHNOLOGY

In-situ leaching (ISR), a promising technology with a low environmental impact that allows uranium extraction without the need for excavation, is being explored. Blue Sky Uranium is using this technology in its projects in Mendoza.

LACK OF PRODUCTION

Despite significant resources and potential, there is currently no uranium production in Argentina, with projects still in the early stages of development.

Borate export potential as limes sustain copper and lithium mining

BORATES: SIGNIFICANT RESOURCES

Argentina is among the world's top five producers of borates.

They are used in the ceramics industry, agriculture (as micronutrients), glassmaking, and cosmetics.

EARLY-STAGE INVESTMENT AND DEVELOPMENT OF BORATE

Most of the production, between 80% and 90%, is destined for export.

In 2024, borates constituted 4.8% of the mining export basket of the Argentine Northwest (NOA).

GLOBAL DEMAND FOR BORATES ON THE RISE

The global borate market projects sustained growth of around 3% per year between 2025 and 2033.

THE USE OF LIME

Lime is a critical industrial input for lithium and copper mining. It is used to separate impurities in lithium carbonate production and to adjust pH in copper mining.

BOOST TO LIME EXPORTS

In an attempt to boost production and competitiveness, the Argentine government eliminated withholdings on the export of lime as of August 7, 2025, establishing a rate of 0%.

GROWTH POTENTIAL IN LIME

There are eight lime projects under construction or expansion that seek to increase production capacity from 40,000 to more than 200,000 tons, reflecting projected growth in line with the momentum of lithium and copper mining.

Other critical minerals with potential

NICKEL

Increasing demand for its use in electric vehicles, batteries and stainless steel. Argentine reserves are less than 10,000 tons (San Luis, Catamarca, La Rioja, Salta and Mendoza). Demand for nickel is estimated to increase 6.5-fold between 2020 and 2040.

COBALT

Demand growing exponentially due to the strong adoption of electric vehicles and clean energy technologies. Argentine reserves are less than 5,000 tons. (La Rioja, Salta, San Luis, Catamarca and Mendoza). The demand projection is multiplied by 6.4 between 2020 and 2040.

RARE EARTHS

This group of 17 elements has significant potential in Argentina. Currently without local production, but with 190,000 tons of reserves (Salta, Jujuy, San Luis, Santiago del Estero, San Juan, Cordoba and the continental shelf of Buenos Aires). Neodymium demand ~8,000 tons in 2030. Rio Tinto is evaluating investment in rare earths.

GRAPHITE

The demand for graphite is on the rise for its use in rechargeable batteries and electrolytic polymer (PEM) fuel cells. Argentina does not produce graphite but has registered reserves of 37,500 tonnes in La Rioja, San Juan and Mendoza. Demand for graphite is projected to increase 7.7-fold between 2020 and 2040.

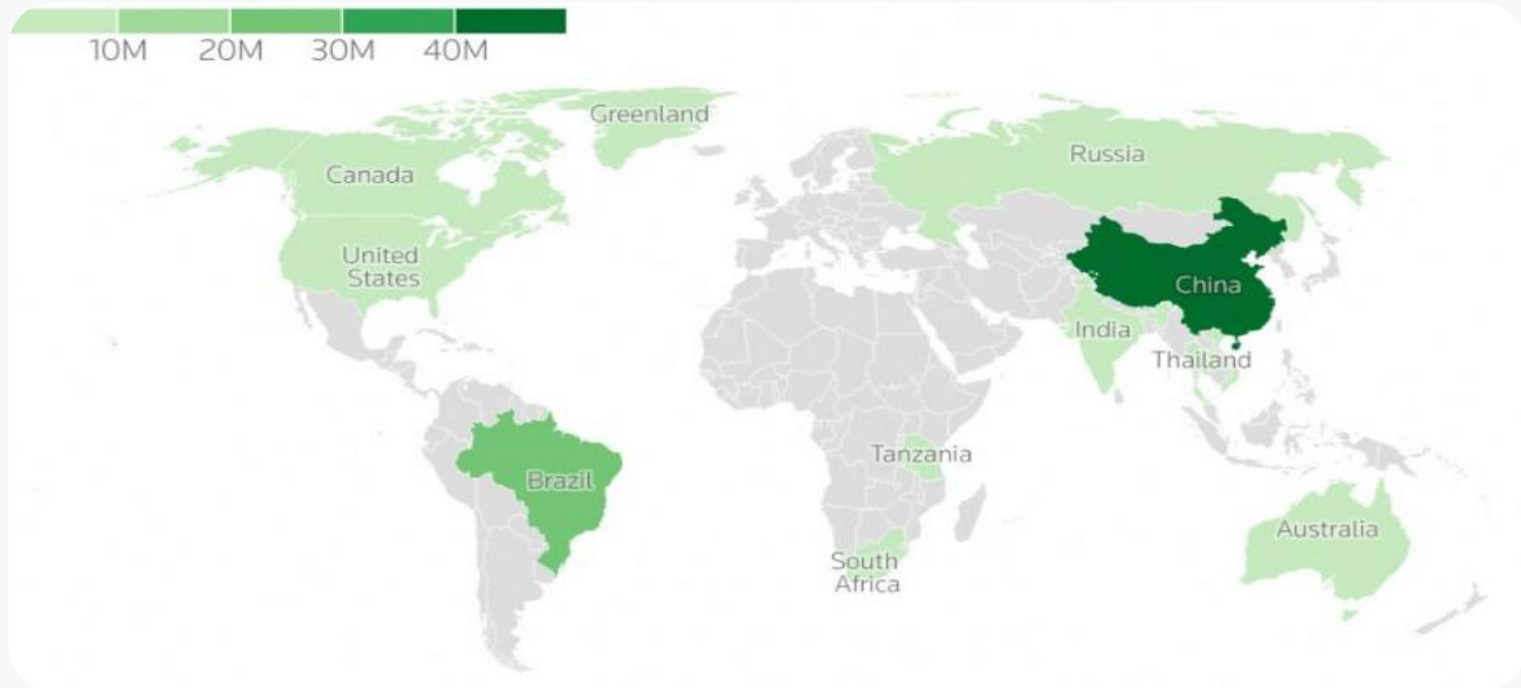
MANGANESE

Mineral in demand in ferroalloys (for the automotive and pipeline industries) and batteries (cathodes). The country has reserves of 440,000 tons. (Mendoza, Salta, Neuquén and Córdoba). The importance of the social license for mining projects was evidenced by the rejection of a manganese project in Chile (Los Pumas) for not meeting formal requirements, including indigenous participation.

ZINC

In demand in the renewable energy industry, especially for the manufacture of wind turbines. Historically, Argentina was a zinc producer, but its production has declined following the closure of the Aguilar mine, with 14,876 tons produced in 2019. The country has 7 million tons of zinc resources. Projects such as La Providencia in Jujuy have zinc as one of their commodities, and SSR Mining's Puna project in Jujuy produces zinc concentrates.

Rare Earth reserves around the world

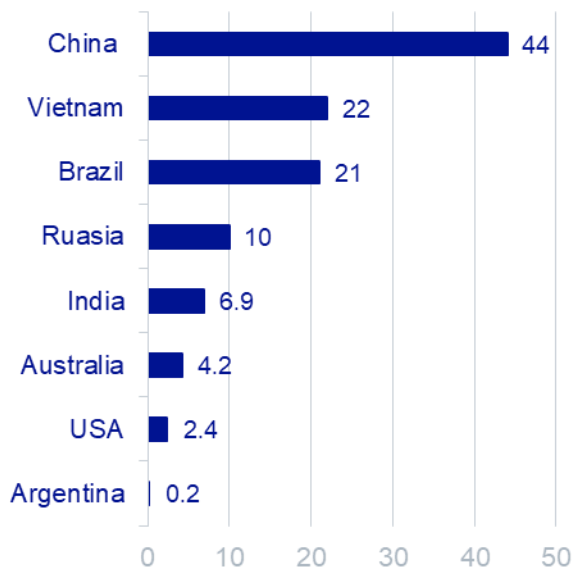


Source: USGS, January 2025 and BBVA Research.

Note: Argentina's values are very low and are not represented on the map.

Rare earths in Argentina have potential but far from China's leadership

RARE EARTH RESERVES (IN MILLIONS OF METRIC TONS)



RARE EARTHS IN ARGENTINA

The world's economically exploitable reserves are about 110 million tons, with China accounting for 40% of the total.

Argentina has a potential of 3.3 million tons estimated, although only about 0.2 million tons are quantified as technical resources, barely one-twelfth of the U.S. reserves. This contrasts sharply with Chinese hegemony, which outstrips the U.S. by a ratio of 18 to 1.

The importance of Rare Earths lies in the fact that they are essential to modern technology

Rare earths are at the center of the global stage because they are key to energy transition and advanced technology.

Rare earths are a group of 17 chemical elements with electrical, magnetic, and thermal properties. They are essential for the production of electronic products and became indispensable for the advancement of AI.

They are found in many parts of the planet, although in low concentrations and difficult to separate, which makes their production more expensive. **In Argentina they are located in San Juan, Mendoza and Chubut.**

In geopolitical terms, they are strategic because:

Concentration of supply.
Technological competence
National and energy security.

They are used in industries such as electronics and renewable energy, automotive, defense and aerospace, health and optics and catalysts, to name a few.

Growing international interest as the U.S. and other countries want to diversify their supply away from China, which controls 70% of the world market due to its high processing capacity.

The necessary debate will be on balancing economic benefits with the protection of the environment and local communities.

Conclusions

Final conclusions

Strategic value of mining today

STRATEGIC PILLAR

Mining is the first link in the modern production chain, essential for sectors such as construction, the automotive industry, high technology and, fundamentally, the global energy transition.

GLOBAL POTENTIAL

Argentina has vast geological potential for strategic minerals such as lithium, copper and gold, positioning itself as a global reserve of critical minerals for the energy transition.

LITHIUM BOOM

Lithium is the main driver of current mining growth, with an exponential increase in production. Argentina is a key player in the "Lithium Triangle", projecting significant growth in export volume.

Growth horizon and opportunities

REBIRTH OF COPPER

After ceasing production in 2018, Argentina has geological potential comparable to Chile's large districts, with advanced projects that could generate up to USD 11.7 billion annually between 2033 and 2035.

INVESTMENT AND PROJECTS

A robust portfolio of more than 100 projects, several under construction or in advanced stage, together with the new Large Investment Incentive Regime (RIGI), are catalyzing significant investments in lithium and copper.

EXPORT GROWTH

Argentina's mining potential could increase current exports fivefold by 2032, exceeding USD 25 billion and strategically positioning the country in global demand for critical metals.

Annexes

Overview of RIGI Mining Projects

Project	Province	Mineral	Investment (USD million)	Estimated annual production capacity	RIGI Status	Estimated start of operations
Rincon (Salar del Rincon)	Salta	Lithium	2.700	~60,000 t LCE	Approved	2028
Dead Man West	Catamarca	Lithium	228	~20,850 t LCE	Approved	--
Sal de Oro (Posco)	Salta/Catamarca	Lithium	1.000	Stage I ~25,000 t LCE	Under evaluation	--
Mariana (Ganfeng)	Salta	Lithium	273	~20,000 t	Rejected	--
Sal de Vida (Rio Tinto)	Catamarca	Lithium	638	~15,000 t LCE	Under evaluation	--
Los Azules	San Juan	Copper	2.672	--	Approved	2026-2027
Several copper projects	Several	Copper	~ 20.000	--	In progress	2027 onwards
Gualcamayo	San Juan	Gold	1.000	~120,000 oz gold/year	Under evaluation	--
Vicuña (copper)	San Juan	Copper	15.000	--	Pending/planning to apply	--

Glacier Law (Law No. 26.639)



Main Objective of the Law: Preserve glaciers and the periglacial environment as strategic freshwater reserves, sources of water recharge and providers of ecosystem services (biodiversity and climate regulation). This is essential in the arid and semi-arid regions of the country, especially in the mountain range.

Key definitions: Glaciers are masses of perennial, stable, or slow-flowing ice, with or without interstitial water. Periglacial Environments are areas with frozen soils, including permafrost and buried ice bodies, which act as water regulators.

Inventory: The Law instructs IANIGLA (Argentine Institute of Nivology, Glaciology and Environmental Sciences) to carry out the National Inventory of Glaciers.

Prohibitions: **IANIGLA** also prohibits activities in glaciers and periglacial environments: 1) Release, dispersion or disposal of chemical substances or waste (including mining waste). 2) Installation of infrastructure that alters the glacier or its periglacial environment. 3) Mining and hydrocarbon exploration or exploitation.

Other key non-traditional minerals in Argentina

Mineral / Category	Main Type	Reserves/Resources (tons)	World Reserves (approximate)	% of Argentina/World Reserves	Current Output (Yes/No, Status)	Key Industrial Uses
Borates	Non-Metalliferous	~70 MT	~1,300 MT	5.40%	Yes, 80-90% exported	Ceramics, agriculture (micronutrients), glass, cosmetics
Lime	Non-met./Industrial minerals	< 200,000 T	N/A	-	Yes, expanding	Key input for lithium and copper
Uranium	Metalliferous	33,780 T identified	~6.3 MT	0.54%	No	Nuclear fuel, radioisotopes
Nickel	Metalliferous	<10,000 T	102 MT	0.01%	No	Electric vehicles, batteries, stainless steel
Cobalt	Metalliferous	<5,000 T	8.3 MT	0.06%	No	Electric vehicles, batteries
Rare Earths	Metalliferous	~190.4 T	~110 MT	-	No	Clean technologies (wind), electronics
Graphite	Non-Metalliferous	37,500 T	320 MT	0.01%	No	Rechargeable batteries, fuel cells
Manganese	Metalliferous	440,000 T	1,500 MT	0.03%	Not specified, but potential	Ferroalloys, batteries
Zinc	Metalliferous	7 MT	250 MT	2.80%	Yes, in decline (14,876 metric tons in 2019)	Wind turbines
Chromium	Metalliferous	<500 T	~12.6 MT	-	No	SOFC batteries, land turbines, stainless steel
Silicon	Non-metallic	N/A	N/A	-	Not specified, but potential	Photovoltaic solar energy
Potassium, Vanadium, Antimony, Tungsten	Metalliferous	N/A	N/A	-	Not specified, but potential for exploration	Various industrial uses

Notes: **T**= Tons; **MT**= Millions of Tons; **N/A**= Not available

Investments and announcements in Non-traditional Mining

Mineral	Project / Company	Type of Announcement	Investment (USD)	Announcement Date	Province	Project Status	Key Impact
Uranium	Proyecto Ivana (Grupo Eurnekian)	80% Acquisition	160 million	Implicit 2024	Río Negro	Exploration	Strengthens Argentina's role as a uranium exporter
Uranium	Hallazgo Fomicruz	Discovery	N/A	may-25	Santa Cruz	Exploration	Reaffirms potential for new uranium discoveries
Uranium	Anuncio SMR y desarrollo reservas (Gobierno Nacional)	Policy/Investment	N/A	dec-24	National	Production and export development	Boosts national nuclear development and export capacity
Uranium	Blue Sky Uranium	Exploration	N/A	jun-25	Mendoza	Exploration	Promising results with low-impact ISR technology
Cales	Removal of export taxes (National Government)	Policy	N/A	07/Aug/2025	National	Implemented	Drives investment and increases the competitiveness of the lime sector
Cales	8 projects under construction or expansion	Investment	N/A	2024-2025	National	Construction / Expansion	Capacity increase from 40,000 to >200,000 tons
Cales	Grupo Calidra	Investment	N/A	2024	National	Production increase plan	Reflects confidence in rising lime demand

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