MONTHLY REPORT

ECONVIEWS
ECONOMÍA Y FINANZAS

June 2022
Issue #216

Government coalition in **turmoil**

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Can **Argentina** become a **relevant mining player**?

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THE MONTH AT A GLANCE

RECENT DEVELOPMENTS

- After May's 41-year inflation record, at 8.6% year-on-year and 1% monthly, on June 15th the Federal Reserve reacted by hiking rates 75 basis points to a 1.5-1.75% range, its largest single increase since 1994. The hawkish shift managed to stop the bleeding in stocks markets, although the S&P 500 is down 22% YTD.
- A lack of coordination between the BCRA and state companies on the sale of public bonds sparked a meltdown in government peso securities, already under pressure due to fears of non-compliance on CER (CPI-adjusted) debt. On June 8th, CER bonds fell 14%, while Treasury Bills crashed 6%.
- On June 14th, the Treasury raised ARS 19.8 billion in the first auction after the CER-bonds affair, enough to cover its (small) maturities. All five instruments on auction matured in 2022, and rates were 4 points higher than in May. A debt swap on June 22nd cleared ARS 355 billion from June's remaining maturities.
- May's CPI print came in hot at 5.1% monthly, leaving the year-on-year rise at 60.1%, a 30-year record. Two days later, the BCRA hiked its Leliq policy rate by 300 basis points to 52%, the fifth increase so far in 2022.
- After initial 20% increases for gas and electricity tariffs in June, authorities announced plans to remove all energy subsidies for the top 10% of earners.

FIGURE OF THE MONTH

Yields on the T2X4 CER (inflation-adjusted) 2024 bonds jumped to

19.7%

up 16 points in the last month.

TO BE ALERT

In May, fuel imports soared

227%

year-on-year, a figure that is expected to worsen into the winter season.

WHAT'S COMING NEXT?

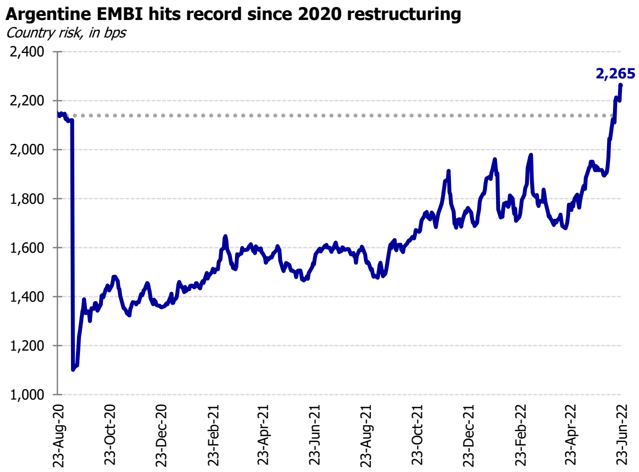
- The June FOMC dot-plot set out a +175 basis point path for rates in 2022, towards 3.25-3.5% by December. Fears of a new US recession are mounting, as house-builder and consumer sentiment dropped sharply this month. The Atlanta Fed's GDP nowcast had year-on-year growth at 0% for June 16th, although market consensus is closer to 3% for Q2-2022.
- ECB members held an emergency summit last week, as the widening spread between 10-year German and Italian bonds threatens to turn its scheduled rate hikes into a new debt crisis. The next policy meeting will be held on July 21st, with an expected 25-basis point rise.
- After the turmoil in mid-June, we do not see non-compliance on CER debt as a likely event, but we do believe the Treasury will find it harder to rollover maturities and as a result, will be more reliant on the Central Bank's assistance. BCRA liabilities could grow to 9.2% of GDP.
- Despite politics, construction of the Nestor Kirchner natural gas pipeline appears to finally be moving forwards. The pipeline should allow for a 25% capacity increase for Argentine gas. In the meantime, however, the country still not energy-sufficient. With prices at USD 6.7 per MMBTU, imports will pile up this winter, further complicating the BCRA's net reserve accumulation target after a very weak Q2-2022.

SUMMARY OF MAIN INDICATORS

	Last	Previous		Last	Previous
Economic activity			**Financial data**		
Economic activity (MoM s.a.)	-0.7%	1.2%	Inflation (monthly)	5.1%	6.0%
Consumer confidence (MoM)	1.6%	-3.2%	FX spread (21day avg.)	83.9%	76.8%
Industrial activity (MoM s.a.)	5.0%	-4.9%	Country risk (bps 21day avg.)	2,034	1,848
International accounts			**External data**		
Current Account (USD BN)	0.37	3.44	Soybean price (per ton, 21day avg.)	627.6	620.0
CB Reserves (USD BN 21day avg.)	41.52	42.32	Brazilian activity (MoM s.a.)	0.3%	-0.7%
Primary balance (ARS BN)	-162.41	-79.18	Financial Conditions Index	-14.4	2.7

Source: Econviews base on multiple sources - Based on working days only

GRAPH OF THE MONTH:



Source: Econviews based on JPMorgan

RECENT ECONOMIC DEVELOPMENTS

MAY 24th	MAY 27th	JUN 1st	JUN 4th	JUN 8th	JUN 16th	JUN 23rd
Econviews Monthly #215: Politics hit an already complex situation + special analysis on real income	Under pressure, Guzman **raises income tax's minimum base to ARS 281k,** a 25% increase in line with 2022's inflation.	**20% hike in gas and electricity in Buenos Aires,** private health insurance rises 10% and bus fares set to increase 40%.	**Minister of Production Kulfas resigns,** after clashing with VP Cristina Kirchner on key natural gas pipeline plan.	Fears of CER debt default in 2023 leads to **meltdown in local bond market,** with 10% fall in peso instruments.	BCRA reacts to May's 5.1% CPI print by **hiking Leliq rate 300 basis points to 52%**; Economy promises more tariff hikes.	**Econviews Monthly #216**

POLITICS

President Fernandez canned one of his key aides, Minister of Production Kulfas, at odds with VP Cristina Kirchner over the construction of an insignia gas pipeline. After his dismissal, the vice-president lashed out against social organizations aligned with Fernandez, feeding into rumours of a rupture in the coalition. On the Government's right flank, Congress leader Sergio Massa Is reportedly pressuring to relieve Guzman at Economy, with the minister taking heat for the turbulence in bond markets. A notch lower in volume, the opposition's squabbles pit Mayor of BA Larreta against ex-president Macri and his allies over the top spots in 2023, while far-right candidate Javier Milei has lost support in the latest polls.

IMF

After achieving the Q1-2022 targets without too many problems, albeit the controversy on accounting of income from inflation-adjusted bonds, the Government is hard-pressed to meet the goals for Q2. On June 8th, an IMF memo opened the door to "modifying intra-year quarterly targets for the primary fiscal deficit and reserve accumulation", to compensate for external shocks from the Ukraine War. An USD 4.03 billion disbursement will be received after completing this first review. Shifting targets between quarters doesn't make the annual goals much easier, as the second semester has negative seasonality. Argentina is now expected to buy 3 billion in reserves in Q3, when it had to sell 242 million in the same quarter of 2021.

ECONOMIC ACTIVITY

Official data confirmed 0.9% quarterly growth in Q1-2022, or 6% in year-on-year terms, although activity slumped 0.7% between February and March. Industrial production bounced back 5% monthly s.a. in April after shrinking 4.9% during March, led by the apparel and auto industries. Construction also started Q2 on the right foot with a 5.4% expansion in April, making up its 4% fall during March. Formal jobs in the sector rose by 17,000 to a total of 420,000, above pre-pandemic levels. Inflation is biting into wages and retail sales shrunk 3.4% year-on-year in May. Import restrictions will further hurt activity in coming months, but we expect 2022 to close with 3.5% GDP growth. However, we have lowered our forecast for 2023 to 1.5%.

INFLATION

CPI decelerated for a second straight month, to a still very high 5.1% between April and May, helped by a slower increase in seasonal prices (3.4%), especially vegetables. Healthcare (6.2%) led the register after the Government approved insurance hikes, followed by transport (6.1%) and apparel (5.8%). A silver lining, food and drinks rose 4.4%, the lowest since December. Gas and electricity hikes will put pressure on June's print, which we estimate at 5.3%. In year-on-year terms, inflation hit 60.7%, a new high since the early 90s hyperinflation. We have adjusted our forecasts for 2022 and 2023 upwards to 80% and 85% respectively, as inertia, political uncertainty and external factors make a short-term slowdown unlikely.

MONETARY SECTOR

A surprise debt swap on June 22nd allowed the Treasury to clear ARS 355 billion of this month's maturities, trading instruments dated June 28th for bills that mature in October and November 2022. Together with a 300 basis point hike in the BCRA's Leliq policy rate, now at 52%, this allowed to relieve pressure in the bond markets. The downside is that Central Bank liabilities surpassed ARS 6 trillion: we believe they could grow from 7 to 9.2% of GDP this year, with the Treasury struggling to rollover debt and more interest payments. After the CER bonds meltdown, the parallel dollars perched around ARS 230, an 85% spread against the official FX rate of ARS 124. The BCRA has sped up the rate of depreciation to 65% annualized.

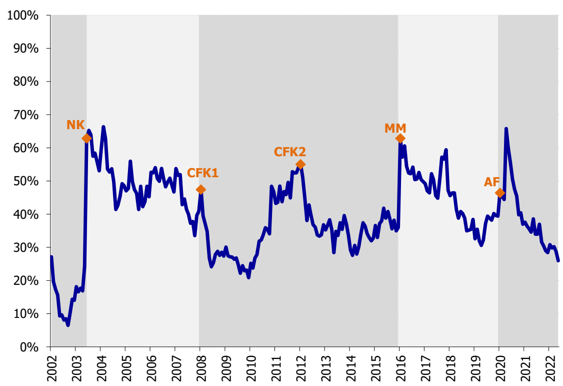
FISCAL ACCOUNTS

The public sector's primary deficit amounted to ARS 162.4 billion in May, doubling April's figure. Revenues grew 58.7%, below inflation. Income tax (+110%) had a strong performance, but export taxes (+30%) fell sharply in real terms, totaling ARS 116 billion, a tenth of total revenues. Primary expenditures soared 88.3% year-on-year, with a 95% increase in social expenditures, which make up 58% of the aggregate. Transport (+75%) and energy (+60%) subsidies kept growing, adding up to ARS 176 billion. Capital expenditure grew above inflation (+85%), mainly thanks to investment in public housing (+578%) and sewers (+219%). As the economic situation has worsened, we increased our primary deficit forecast for 2022 to 3.5% of GDP.

I. Government coalition in turmoil

The economic and political situation continued to deteriorate in recent weeks. Cristina Kirchner escalated the confrontation with Alberto Fernandez in two speeches in which she criticized once again the agreement with the IMF, and especially the effectiveness of the policies to preserve international reserves and to deal with inflation. Cristina believes in controls, and her main criticism was to the Central Bank and to the Trade Secretariat which, in her opinion, were not tough enough controlling imports and price increases.

Confidence in the Government



Econviews based on UTDT

Cristina's views regarding the policies that are needed to deal with inflation and the balance of payments differ drastically from the prescriptions that the IMF and more mainstream economist would recommend. For instance, there was no mention of the misalignment of the exchange rate nor of the links between fiscal deficits, money supply and inflation. **There is an important part of the government coalition that thinks along her lines, while Guzman, who is not an orthodox economist by any means, is more aligned with the IMF at this stage**.

Along the way Fernandez lost one of his most loyal Ministers. Production Minister Kulfas was forced to resign after his Ministry leaked an off-the-record report to the press arguing that there were some doubts about the biding and procurement process of the gas pipeline from Vaca Muerta. His replacement is Daniel Scioli, a former President candidate, who is seen as a neutral character in this fight, though he has political ambitious and will likely be a contender for the Presidential election next year.

Inflation - General CPI

Annual changes

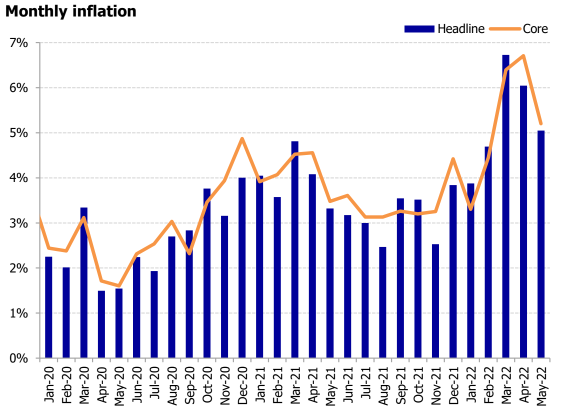
Source: Econviews based on INDEC

This episode cast doubts about the balance of power between Cristina and Alberto, about the governance that Alberto might be able to impose during the remainder of his tenure, and about who could be the next casualty. The main suspect is Martín Guzmán, who will be under significant pressure to deliver on the inflation and international reserves fronts, though it will not be easy in the current environment. Sergio Massa, the president of the lower House, is looking on the sidelines and he will probably have a say if Fernandez in the end concedes and looks for a replacement for Guzman.

Far from meeting the IMF targets: Does anyone care?

The economy is once again moving along troubled waters. Inflation is showing significant persistence and it seems to be stuck above 5% per month. International reserves are under pressure, as the Central Bank is failing to buy dollars in the market despite a good performance of agricultural exports. The main problem is the increase in energy imports due the higher prices of LNG since the beginning of the war in Ukraine and the leakages that take place due to the large and increasing spread between the official and the parallel rates. It is the worst kept secret that Central Bank will not be able to meet the target for reserves this year, the second semester is historically a period in which the trade balance deteriorates, and reserves go down.

Monthly inflation



Source: Econviews based on INDEC

As economic activity is concerned, there is a marked slowdown, which will be difficult to reverse. The three main reasons for this outlook are that the effects from the rebound from the pandemic are now fading away, that the government will be forced to reduce the fiscal deficit and reduce government expenditures, while the Central Bank is tightening credit policies in its efforts to stabilize inflation and the parallel exchange rates.

One of the big concerns is the evolution of the fiscal accounts, as expenditures are rising much faster than government revenues and as a result the primary deficit is widening. For the first five months of 2022, taking out the creative accounting gimmicks, the primary deficit was 0.9% of GDP, compared to around 0.2% of GDP last year. Only a miracle can bring down the primary deficit to the IMF target of 2.5% of GDP, while keeping it at 3.0% as it was last year will require significant discipline on the expenditure side (which we have not seen so far) and a big dose of good luck.

The government has recently issued an executive decree to try to contain government expenditures. The main change is that instead of targeting a reduction in energy subsidies (which does not seem to be politically viable currently) it is aiming for reductions in transfers to provinces and in public investment. It is still uncertain whether this initiative will work, and most likely will not be enough, but at least it is a move in the right direction.

Given that Argentina almost certainly will not meet the fiscal and the foreign exchange targets of IMF program, and that it will not meet the program objectives of having positive real interest rates and avoiding a real appreciation of the exchange rate, there is an obvious question: **what the IMF will do as it becomes clear that Argentina will not meet the targets?**

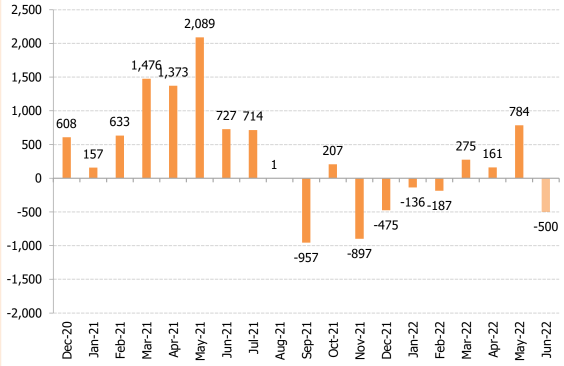
Will the IMF be willing to pull the plug as it did in December 2001 and run the risk of having a major economic and financial crisis? Will it be willing to accommodate any deviation from the targets regardless of how large they are and give waiver after waiver to maintain the program alive at almost any cost with the hope that it can negotiate a serious program in 2024?

There are two targets that are particularly important. First, the fiscal target, where the government has shown some willingness to correct the imbalance, and where the difference between the target of 2.5% of GDP and an actual figure in the range of 3.0 or 3.3 percent of GDP might acceptable and thus it is likely to give a waiver, if the government shows some willingness to correct the imbalance.

The more difficult question regards international reserves, where so far the numbers have disappointed, with net reserves dropping to around 3.0 billion dollars, when the target for the second quarter is 6.4 billion dollars, and 8.1 billion dollars for the year as a whole. This is a large deviation, and in contrast to the fiscal accounts the government has not put forward any policy measures to turnaround the situation. The typical policy response, which the IMF generally asks countries to implement, but this time does not even talk about, is a devaluation accompanied by a tightening in monetary policy, an option that does not seem to be in the cards.

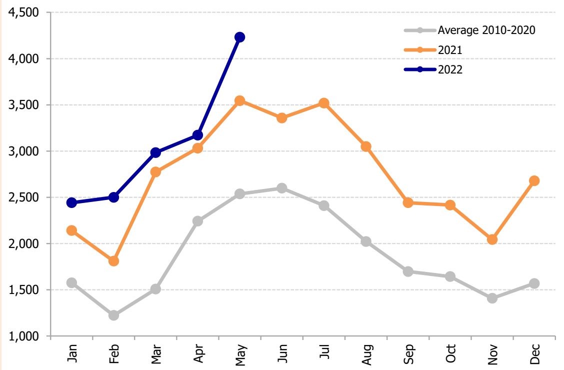
The government will probably go the route of tightening the fx restrictions, which is likely to negatively affect economic activity and

Central Bank reserves purchases
In million USD - Up to Jun-23



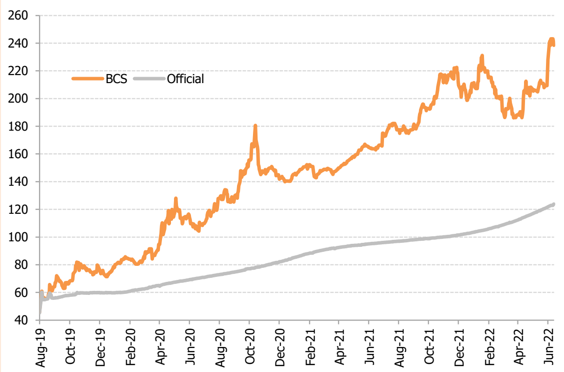
Soure: Econviews based on BCRA

Export proceeds of the oilseed and grain complex
CIARA-CEC - USD million



Source: Econviews based on CIARA-CEC

Exchange Rate
Pesos per US Dollar - Average B/A



Source: Econviews based on Reuters

inflation. But what happens if reserves continue to drop even with more controls and we quickly approach the dangerous zero level of net reserves? In that case the IMF will face a tough dilemma, it will have to choose between accepting no policy response to an unsustainable situation or consider the possibility of pulling the plug. And the answer is not obvious.

The domestic financial markets on fire

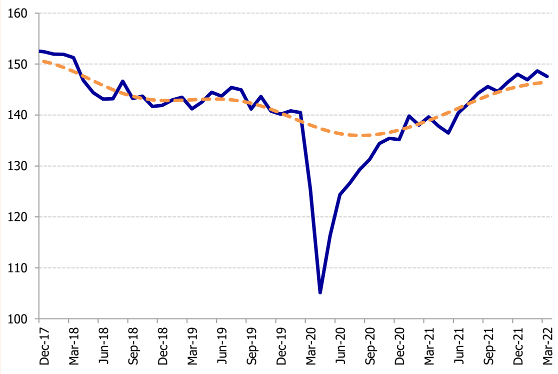
A few days ago, there were moments of great turbulence in the domestic financial markets, with sharp falls in the prices of CER bonds, significant outflows from mutual funds and great concerns regarding a possible new re-profiling of peso bonds. The worst part of the crisis appears to be over, mainly thanks to the intervention of the Central Bank, who acted as lender of last resort to stabilize markets, even at the risk of issuing an excessive number of pesos and pushing up an already very high rate of inflation. Although some calm has return to the market, the crisis has left deep scars on the functioning of the markets.

We believe that there is not going to be re-profiling of the domestic debt, mainly because the Central Bank will continue to intervene when necessary and provide liquidity. This will mean that there would be a reversal in the strategy of the Treasury of obtaining the bulk of its financing in the market and a return to the previous mechanism of relying on the Central Bank who would then sterilize the issuance of pesos with Leliqs. In a nutshell, **back to 2020.**

Investors will increasingly lean towards short term instrument (both in indexed and fixed rate bonds) and the rates are likely to continue to go up. The Treasury is reluctant to hike interest rates, but in this environment seems unavoidable. This is certainly a setback for the development of the peso market, though it is much better than re-profiling that would be the kiss of death. The bulk of the work will be left for the next administration.

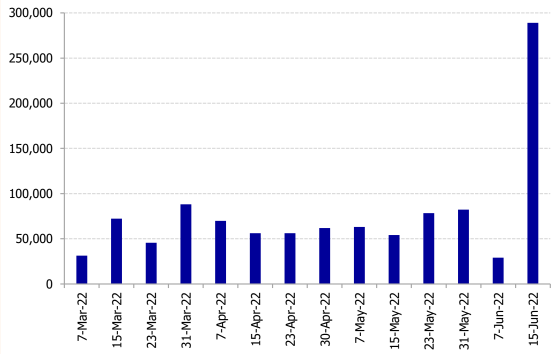
In an environment characterized by high and volatile inflation the inflation-linked bonds appear as the best option to develop the domestic capital market, especially for medium- and long-term maturities. It has the advantage over dollar denominated debt that does not becomes a burden each time that there is a real depreciation. Second, it has a natural hedge, because while it grows in line with inflation, it also true that tax revenues and GDP also increase in line with it, and as a result inflation does not affect the government's capacity to pay on CER bonds.

Economic Activity
INDEC -EMAE, seasonally adjusted series 2004=100



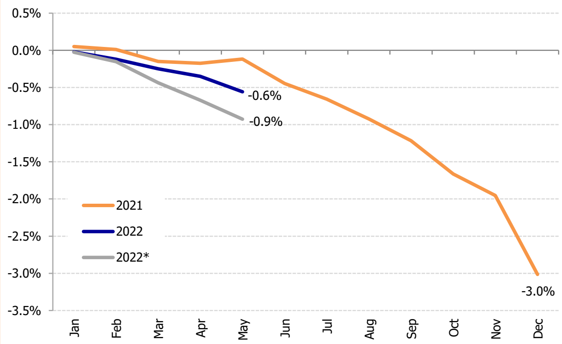
Source: Econviews based on INDEC

Public bond holdings of BCRA
Weekly variation - In millon ARS



Note: titles under Argentine legislation
Source: Econviews based on BCRA

Primary fiscal balance
Accumulated as % of GDP - National government, cash basis



2022* excludes rents from primary debt issue
Source: Econviews based on MECON & INDEC

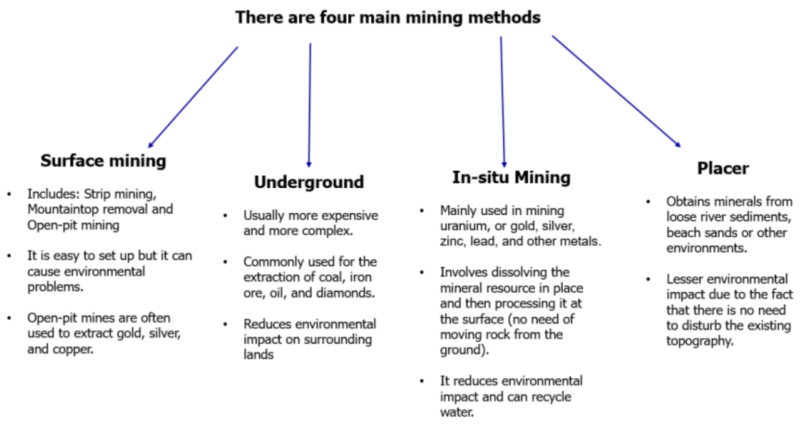
II. Can Argentina become a relevant mining player?

Can Argentina become a relevant mining player?

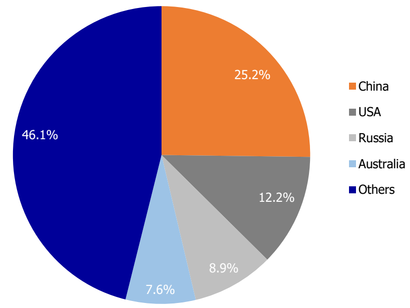
Mining is key in our daily lives and can be very important in the development of countries. Even if it is not the critical factor in modern economies with a large weight of services, its role in coming trends is crucial. By supplying materials for electric cars or renewable energies, just to name two hot sectors, the mining sector will be a leading player in the next decades. With lithium and copper as the shining stars in Argentina, there is potential for increasing production, exports, employment, fiscal revenues, and positive externalities on infrastructure. We are talking about USD 20 billion in investments and USD 10 million in annual exports in the next few years. Its development poses challenges as well, especially on the environmental side. In this report we aim to provide a quick overview of the mining challenges for Argentina.

China, the United States, Russia, and Australia are the biggest mining producers. **In Latin America, Peru and Chile stand out**. The biggest companies in the sector have different origins, such as the case of BHP Billiton (British/Australian), Vale (Brazilian, an important global iron ore and nickel producer), Rio Tinto (British/Australian), Anglo-American (based in Britain), Freeport-McMoRan (American) or Barrick Gold (Canadian). Argentina is not a strong player in the sector but wants to grow and has the potential to go up a few spots in the global league.

There are four main mining methods: underground, surface mining, placer, and in-situ mining. The method used depends on the type of mineral resource that is mined, and its location on or beneath the surface. Each mining method also has varying degrees of impact on the surrounding landscape and environment. Metalliferous mining is usually done on a large scale and, depending on the case, it can be open-pit/surface or underground (generally more expensive and more complex). In non-metalliferous mining, the scales are usually lower. On the other hand, Lithium production can be based on a different process, which is the extraction from brine pools.



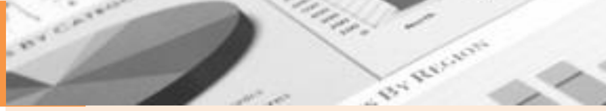
Total Minerals Production
Data for 2020



Source: Econviews based on World Mining Data

A mining process is long and presents various stages:

1	**Prospecting**
2	**Initial exploration**
3	**Advanced exploration**
4	**Preliminary Economic Evaluation**
5	**Pre-feasibility**
6	**Feasibility**
7	**Construction**
8	**Operation**
9	**Maintenance**
10	**Closing process**

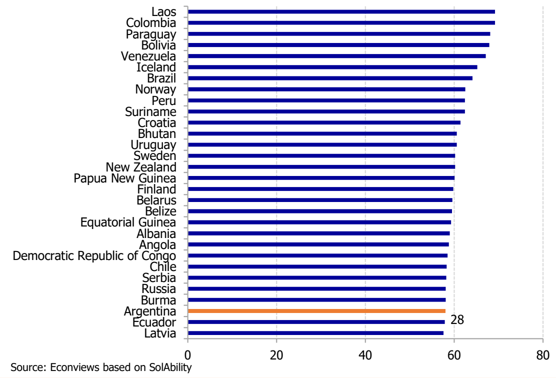


Mining in Argentina

Argentina is well-known for its natural resources, even though it is far from being one of the countries with the highest volume of natural resources, according to different rankings. In 2021, SolAbility, an independent think-tank and sustainable management consultancy, published the Natural Capital Index 2021 which is topped by Laos, followed by Colombia, Paraguay, and Bolivia. This Index seeks to analyze the existence of resources that allow a country to be completely self-sustaining. Even if many Latin-American countries were well-ranked, Argentina is spotted in the 28th position (out of 180). Canada is ranked 31st, the United States 39th and Australia 61st. Yet the possession of resources is not enough by itself, whereas the economic feasibility of their extraction in addition to a favorable macroeconomic and institutional environment are crucial elements for the development of mining activities. **And the process between the discovery of a location with potential mining resources and the beginning of production does not happen from one day to the other.**

Natural Capital Index

Based on the Global Sustainable Competitiveness Index-2021, first 30 positions

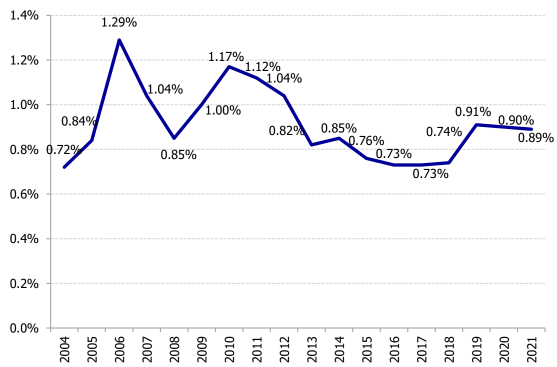


Source: Econviews based on SolAbility

Mining in Argentina dates to the years before the arrival of the Spanish colonizers. During the colonial era, the Jesuits carried out important explorations in northwestern Argentina in the hope of finding deposits like the silver deposits of Cerro Potosí (Bolivia) or the gold of Peru. **After the independence, however, mining development was poor compared to other sectors', especially those related to agriculture or cattle raising.** In some neighboring countries, such are Peru and Chile, mining was a matter of national interest from the very beginning.

Mining participation in the economy

As a % of GDP- At current ARS



Source: Econviews based on Secretary of Mining and INDEC

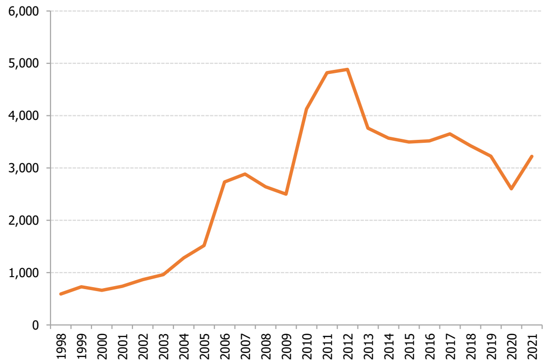
In recent years, the takeoff of mining in the Province of San Juan, the international interest in lithium, and the discovery of the productive potential of the sector in Patagonia (i.e., Province of Santa Cruz), have been some of the many examples that show the enormous capacity of the sector and have renewed interests. Argentina seems to be running from behind, although it is also not possible to ignore the social controversies that this activity rises, particularly regarding its environmental impact. Also, the lack of infrastructure in the areas where deposits are is another hurdle for the development.

In 2021, mining production represented 0.89% of Argentina's GDP (at current prices). At the beginning of the series in 2004, it represented 0.72% of the country' s GDP, reaching a peak of 1.29% in 2006. A relatively small weight compared to other areas of the economy. **And stagnated.**

According to the National Survey of Mining Activity carried out in 2017, 90% of the mineral extracted in Argentina corresponds to open-pit mining, and it is followed, far behind, by underground, sediment, and underwater mines. The proportion is similar worldwide. **When it comes to the type of mined resources, Argentina places an important emphasis on metalliferous and lithium mining**. Metal and lithium mining accounted for 85% of mining sales in 2019, while non-metalliferous just 15%.

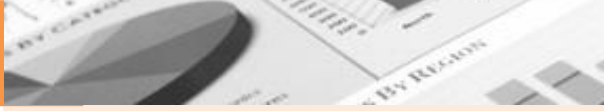
Mining exports

In million USD-FOB



Source: Econviews based on Secretary of Mining

According to data presented by the Mining Secretariat, **Argentina exported minerals for USD 3.22 billion, thus accounting for 4% of the exports of goods in 2021. Gold was the most exported ore in 2021**, with USD 2 billion (62.3% of the total), followed by silver for USD 835 million (25.9%) and lithium USD 208 million (6.5%); the rest of the minerals



amounted to USD 172 million (5.3%), where borates, lime and zinc stood out. **Santa Cruz was the province with the highest exports, representing de 50.1% through its production of gold and silver. It is followed by San Juan, which represented 26.6% of the total exports**, being mainly gold and lime its main products, and then by Jujuy (11.2%) having silver, lithium, and zinc on the podium.

In 2021, 27% of our mining exports were destined to Switzerland (mainly gold, silver and lithium), while in second place came United States with 24% of the total exports, followed by India (16%), Canada (11%), Belgium and South Korea; all 6 together explain more than the 85% of our mining exports.

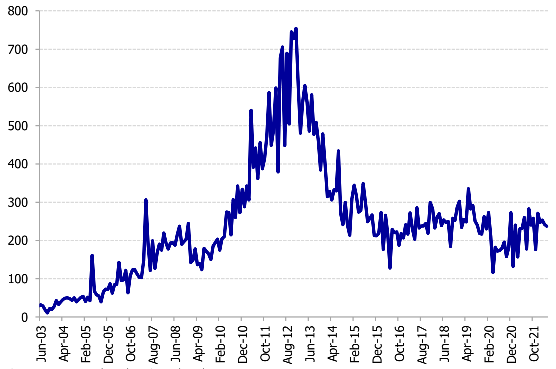
Imports of mineral products in 2021 reached USD 612 million, meaning thar Argentina has a sizeable trade surplus in the sector. **The most imported product was iron ore, which represented 33.5% of the total mining imports (USD 205 million),** followed by zinc (USD 110 million), calcium phosphates (USD 37 million) and uranium (USD 24 million). These minerals are usually imported by industries not necessarily related to the mining sector. Such is the case of iron ore and zinc, which are demanded by local steel companies, or the calcium phosphates, very much used in agriculture. **The imports mainly come from Brazil (53% of the total), highlighting iron, zinc and tin. Followed by Peru (8% of the total) and Chile (7%).**

Mining has consistently presented a trade surplus, according to Central Bank FX data which is measured on a cash basis. As of April 2022, the surplus was **USD 237.5 million.** The largest surplus was recorded in 2012, in line with the highest registered exports for USD 4,833 million.

The sector also provides stable, high-paying jobs. By the end of 2021, the Argentine Chamber of Mining Entrepreneurs estimated that **there was a total of 83,000 jobs throughout the whole value chain and there were 1,029 mining companies** with registered employment. Last February, **the sector registered 34,551 direct formal employees.** Santa Cruz is the province that has the largest amount of direct formal employment with 9,318 employees (27% of the total), followed by San Juan (14.4%), Buenos Aires (11.8%), Jujuy (7.6%), and Salta (7.4%). These five provinces make up more than 65% of the total employment in the sector. The sub-sectors that contain the largest number of jobs are "metalliferous production" with 10,684 positions, followed by "mining services & related activities" (6,581 positions) and "application rocks" (5,153). **According to INDEC, labor formality rates are around 95% in metalliferous mining, and remunerations in the sector are higher than the average of the formal salaried sector.** In February, adjusting for seasonality, the average gross wage in the private sector was of ARS 130,474, while the average wage in the mining sector was of ARS 408,746. **In the last 10 years mining wages have consistently averaged 3 times the average private-sector formal wage.**

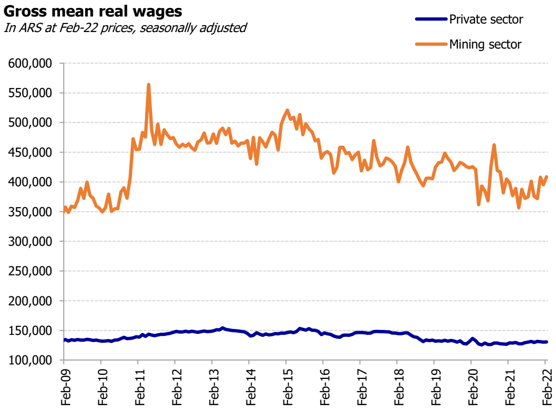
When it comes to the country´s portfolio, 119 projects were registered in 2021. **62 were in Advanced exploration, 13 in Preliminary Economic Evaluation, 6 in Pre-feasibility, and other 6 in Feasibility, 8 were under Construction, 18 were Production, 5 were in Maintenance while 1 was Inactive**. The province of San Juan contains the largest number of projects (30), Salta has 23, and both Catamarca and Santa Cruz possess 20 each. It

Exchange Balance
In million USD



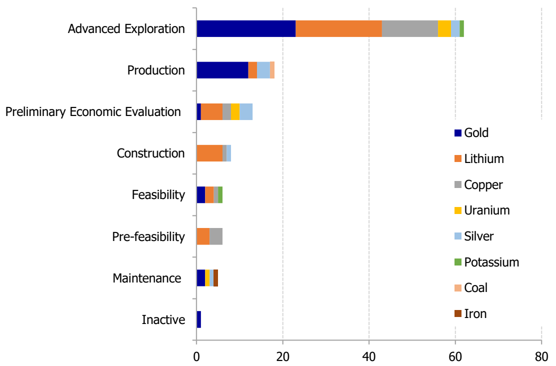
Source: Econviews based on Central Bank

Gross mean real wages
In ARS at Feb-22 prices, seasonally adjusted



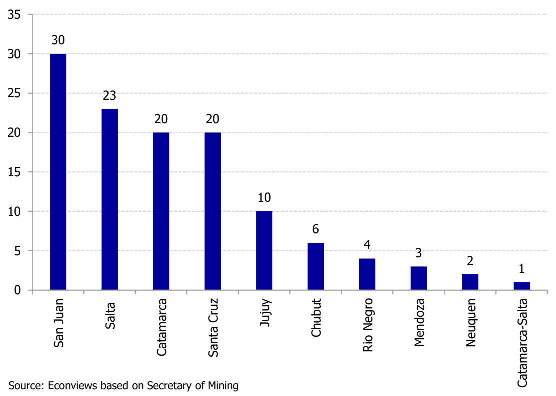
Source: Econviews based on Min. of Economy and Min. of Labor

Stages of Mining Projects
Amount of projects in 2021



Source: Econviews based on Secretary of Mining

Mining Provinces
Amount of projects by provinces

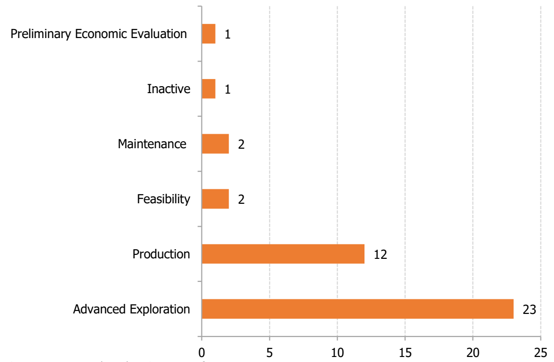


Source: Econviews based on Secretary of Mining must be said that the Sal de Oro project for lithium that is under construction is shared between Catamarca and Salta. Jujuy has 20 projects, Chubut 6, Río Negro 4 and Neuquén 2.

Argentina produces copper, gold, lithium, silver, uranium, coal, iron ore, and potassium. The last 4 are the least important minerals but with existing projects in the country. There is 1 public company (*Yacimientos Carboníferos Río Turbio*) that exploits coal the mineral in Santa Cruz. For iron ore, there is only one project, *Sierra Grande*, which is in the maintenance stage and located in Río Negro, owned by a Chinese firm. There are two projects for potassium that has not yet reached the production stage in Mendoza and Neuquén. Uranium has 6 projects, in Chubut (4) where mining is prohibited, Río Negro (1) and Salta (1), all at initial stages: 3 in Advanced exploration and 2 in Preliminary Economic Evaluation. **The tables below provide detailed information on the most important minerals.**

Gold Projects

By stages



Source: Econviews based on Secretary of Mining

Main minerals in Argentina

Most important characteristics

	Copper (Cu)	Gold (Au)	Silver (Ag)	Lithium (Li)
Price (May-22)	USD 9,377.15 per metric tons	USD 1,848.5 per troy ounce	USD 21.91 per troy ounce	USD 68,655 per metric ton
Identifiable resources	66.5 million tons	14.3 million ounces	928.1 million ounces	100.3 million tons
Potential additional production*	Cu 1,219 kt/year Au 702 koz/year Ag 15 Moz/year Mo 18 kt/year	Au 481 koz/y Ag 13.3 Moz/y	-	328,500 tons per year
Amount of projects	13 in Advanced Exploration 2 in Preliminary Economic Evaluation 3 in Pre-feasibility 1 in Feasibility 1 in Construction	23 in Advanced Exploration 1 in Preliminary Economic Evaluation 2 in Feasibility 12 in Prodiuction 2 in Maintenance 1 Inactive	2 in Advanced Exploration 3 in Preliminary Economic Evaluation 1 in Construction 3 in Production 1 in Maintenance	20 in Advanced Exploration 5 in Preliminary Economic Evaluation 3 in Pre-feasibility 2 in Feasibility 6 in Construction 2 in Production
Location	San Juan Catamarca Salta Mendoza	San Juan Catamarca Salta Río Negro Mendoza Neuquén Santa Cruz Jujuy Chubut	Salta Jujuy San Juan Santa Cruz Chubut	Jujuy Salta Catamarca San Juan

*Mt: millions of tons- Moz: millon of ounces-kt: thousands of tons- koz: thousand of ounce

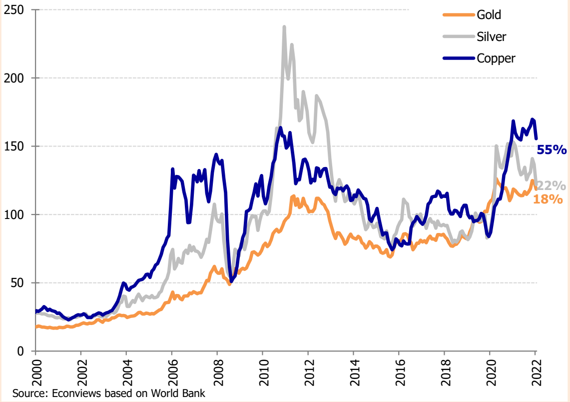
Source: Econviews based Secretary of Mining

Gold has the largest number of projects: 23 in Advanced exploration, 1 in Preliminary Economic Evaluation, 2 in Feasibility, 12 in Production, 2 in Maintenance and 1 Inactive. It is the main mineral in the country in terms of exports. Copper Was during many years the main exported mineral, but the only operating mine located in Catamarca ("Bajo La Alumbrera") ceased operations in 2018. There are ongoing investment projects that allow to foresee an increase in copper exports on the second half of the decade. It has 13 projects in Advanced exploration, 2 in Preliminary

Economic Evaluation, 3 in Pre-feasibility, 1 in Feasibility and 1 under Construction. For Silver, 10 Projects are identifies, 2 in Advanced exploration, 3 in Preliminary Economic Evaluation, 1 in Construction, 3 in Production and 1 in Maintenance. Lithium has 38 projects underway, 20 in Advanced exploration, 5 in Preliminary Economic Evaluation, 3 in Pre-feasibility, 2 in Feasibility, 6 under Construction and 2 in Production. The six projects that are in a state of construction can increase capacity by 144 thousand tons.

The international prices of minerals are an important factor for the sector. As with almost every commodity, after the conflict between Russia and Ukraine plus the effects left by the Covid-19 pandemic**, prices have been on the rise.** In May, the price of gold was of USD 1,848.5 per troy oz, an increase of 18.4% compared to January 2020. Silver also showed an increase of 21.9%, going from USD 17.97 (per troy oz) in Jan-2020 to USD 21.91 last May. In the same period, iron prices increased a 37%, while copper's 55.5%. As for coal, it went from USD 82.1 (mt) in Jan-2020 to USD 280 last May (+241%).

Mineral prices
Index Jan-20=100



Source: Econviews based on World Bank

Mineral prices
In current US dollars

	jan-10	jan-15	jan-20	jun-21	may-22	Increase vs Jan-20
Coal	86.9	59.3	82.1	112.9	**280.0**	241%
Potassium	389.4	279.5	245.0	202.5	**562.5**	130%
Iron ore	125.7	68.2	95.8	214.4	**131.2**	37%
Copper	7,386.3	5,830.5	6,031.2	9,631.5	**9,377.2**	55%
Gold	1,118.0	1,250.8	1,560.7	1,834.6	**1,848.5**	18%
Silver	17.7	17.2	18.0	27.0	**21.9**	22%

Coal, Potassium and Copper: USD/mt. Gold and Silver: USD/troy oz. Iron: USD/dmtu.

Source: Econviews based on World Bank

Lithium prices have skyrocketed since last year: a metric ton jumped from USD 10,000 in early 2021 to more than USD 60,000 in 2022. In Argentina, AFIP established reference values for lithium carbonate exports with a witness price of USD 53,000 per metric ton, in order to avoid the under-invoicing of exports.

Incentives

The mining activity is part of an investment regime that seeks to adapt the general tax regime to its needs and characteristics. The Mining Investment Law (n° 24,196) is the main expression of this. Until the 1990's, the main mining activities were under the Government's control, and many of the companies relied on local capitals, so with the implementation of this law in 1993, the country began to receive foreign direct investment, and with it more advanced technologies. In many ways, it stopped being the ugly duckling of the economy. Far away from being as important as energy or agribusiness, it nonetheless generated some highflying projects such as *Bajo La Alumbrera* (copper and gold), which opened for business in the late nineties and not long ago reached the end of its economic life.

The law launched a regulatory framework that allowed the sector to receive investment and be open to the global market, by establishing a series of fiscal and tax benefits. It includes benefits such as:

- **Fiscal stability for a term of 30 years**, from the moment of the presentation of the study of the feasibility, maintaining the tax conditions established even if there is a change in tax laws.

- **Income tax deduction of 100% of the amounts invested** in the processes required to complete what was defined in the feasibility study.

- **Accelerated amortization regime for capital investments** focused on new mining projects or on the expansion of the productive capacity of the existing mining operations.

- **VAT refund for the purchase of goods or services under exploration**.

- **Exemption from the payment of tariffs for the importation** of capital goods and supplies.

- **Special provision for the care of the environment**, deductible from income tax equivalent to up to 5% of the operating costs of extraction and benefit.

Expanding the activity should be in the authorities' interest. In 2019, a study showed that the major contributions of mining companies to the government were done through **export rights, corporate income tax and social security contributions**.

In terms of royalties, chapter 6 of the law establishes that the **provinces that adhere to the regime of this law may not charge a percentage greater than three percent (3%)** on the "pit-head" value of the mineral (meaning the mineral extracted, transported and/or accumulated prior to any transformation process).

The distribution of royalties varies according to each province. **In 2021, the province of San Juan received royalties for ARS 2.73 billion** (at current prices), implying 1.7% of the total current revenues. In this province, the local regulations establish that out of the total royalties charged to the mining activity, 70% will go to the provincial coffers, 20% to the municipalities where the activity takes place, and 10% to the Provincial Ministry of Mining. It also has a benefit for those mining companies that invest in infrastructure. In these cases, firms can compensate the value of their investment with mining royalties to be paid. **Salta received mining royalties for ARS 247.2 million in 2021.** It changed its regulations in 2021, and the distribution of royalties went from 50% to 11.25% for the municipality where the mining production originates, 6.25% for the rest of the producing department and 2.5% to the other municipalities of the province, while 70% of the income remains in the provincial coffers, and the remaining 10% should be destined for a special mining incentives fund.

Catamarca reported mining royalties for ARS 458.3 billion in 2021. In this case, 35% goes to for the sub-provincial region (department) where the deposit is (if it includes more than 1 department, that 35% will be distributed among them in equal parts), a 5% will be share with other departments that provide water resources, and the remaining 60% goes to the province. **In Jujuy's case in the accumulated of the three first quarters of 2021 it had collected ARS 311.8 million for mining royalties.**

Although royalties are important for the provinces and it is key how they reach the municipality where the activity takes place, **mining is fundamental in the development of nearby communities to the project that are usually isolated and have little infrastructure**. When a new project is settled, mining companies usually make sure to deliver the electricity network, water access, proper routes or even gas pipelines that the project may require, which some point has a positive impact on the local communities.

Regulations

Mining policy is contradictory in Argentina, as the regulatory powers are distributed between the National State and the provinces. In some provinces metalliferous mining is prohibited, in others, it is encouraged and this might create confusion when deciding on investing. **Currently, there are seven provinces that have prohibited open-pit mining and these are: Tucumán, Mendoza, La Pampa, San Luis, Tierra del Fuego, Córdoba and Chubut.**

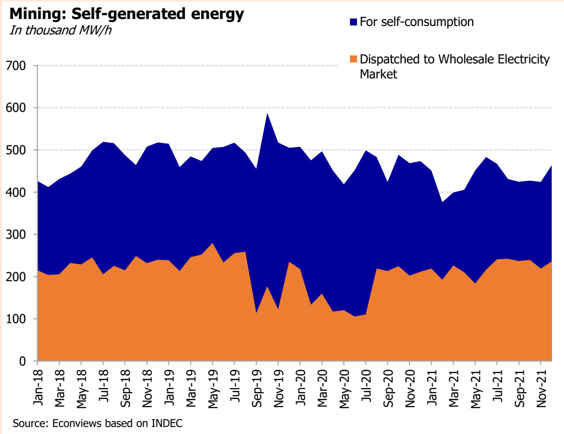
In the case of Chubut, it had been prohibited for some years but in 2021 the local authorities changed regulations and accepted mining activities in the province, allowing them to happen in the middle of the province where almost nobody lives. The decision was met with a massive (and violent) revolt from environmental groups, and legislators changed their minds again. One of the projects that were nonetheless authorized is *Natividad*, one of the most important silver projects in the world that today is in the preliminary-economic exploration stage and is controlled by Pan American Silver with investment plans for USD 1 billion.

In Mendoza mining is prohibited since 2007, and yet there are still 3 projects underway: *Don Sixto* (in Advanced Exploration), *San Jorge* (Pre-feasibility) and *Potasio Rio Colorado* (Feasibility), all of them with difficulties during their process of approval. *Potasio del Rio Colorado* is a project that was owned by Rio Tinto, then Vale bought it, and is now semi-paralyzed.

From a national perspective, the Mining Code is the one that regulates the activity by establishing rights, obligations or procedures related to the acquisition, exploitation and utilization of mineral substances. The Code includes a part of environmental protection but apart from this, mining activity is not exempt from following all national laws for environmental protection (Ex.: Law n°25,675). **These national regulations merely end up relying on the provinces or even the local authorities who also establish their own regulations** (respecting the national boundaries), with the objective of defining the rules and controls in terms of mining concessions, production, transit guides, local ordinances, approval of environmental impact studies and mining controls.

Environmental impact

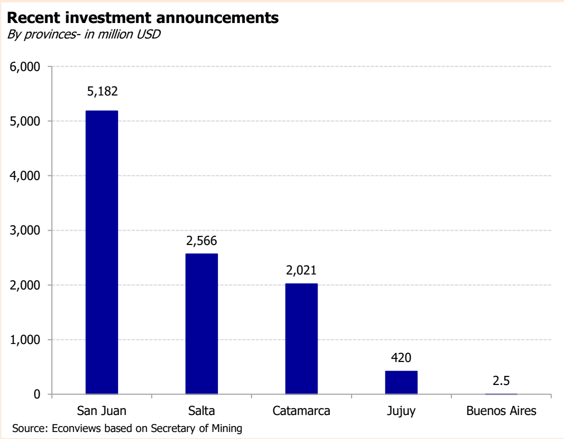
Mining generates controversy among the population, particularly due to its environmental impact. For some decades now, the environmental control on the activity has been evolving and now **there are controls and methods for mining that, when well applied, should not generate sizable negative impacts on the environment.** Some of these practices include: recirculating the water to avoid the generation of effluents, solid waste should be stored and managed according to its category, dust generation is monitored and tries to be minimized, and the closing stage when operations are finished is key.



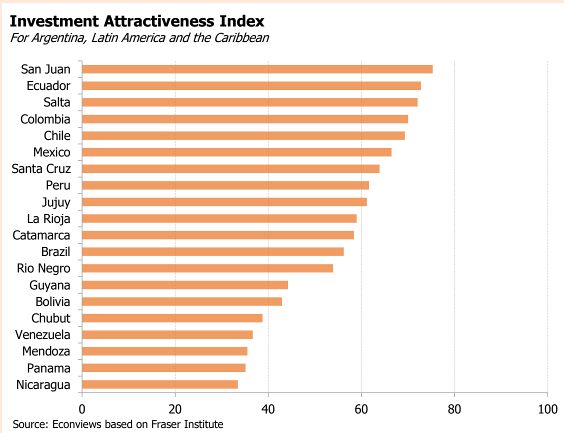
Mining activities need a permit for the use of water granted by the water authority. No company can use more water than authorized and although it requires a lot of water, recirculation in closed circuits helps to reuse it while only what evaporates must be replaced; **mining ends up consuming a very low amount compared to other activities. The fact that it generates part of the energy it consumes does not deny the fact that it is an energy-intensive sector,** basically due to the constant movement of transport equipment that requires fuels and because the mineral concentration and refining processes require abundant electricity.

Investments and opportunities

Since 2020, investments for USD 10.2 billion have been announced. **San Juan is the province most chosen by investors**, with announced investments for USD 5.2 billion. *Josemaría* copper project, which is under construction, can be highlighted as Lundin Mining is investing USD 4.2 billion. **The second province to receive more investments is Salta** (USD 2.56 billion), especially due to the announcements of investments done by Posco (South Korean) for USD 831 million in the lithium project *Sal de Oro* (shared with Catamarca and is under construction). Other lithium projects, like *Mariana* (construction) and *Lindero* (production), received announcements of investments for a total of USD 900 million. **Catamarca is expecting investments for USD 2.2 billion**, highlighting Livent´s investment for USD 1.1 billion with views on expanding the lithium production in *Salar del Hombre Muerto*.



Investments announcements for lithium amounted USD 4.26 billion and are only second to copper-related announcements for USD 4.61 billion. The companies that are planning to invest the most in Argentine projects come from: Canada, China, United States, South Korea and Australia.



According to the annual survey of mining companies carried out by the Fraser Institute, a Canadian think-tank that measures the competitiveness of the sector in different parts of the world, out of a list of 84 destinations ordered by attractiveness for investment, San Juan is the country's best ranked province, located in the position 22, followed by Salta (27), Santa Cruz (40), Jujuy (44), La Rioja (47), Catamarca (48), Río Negro (55), Chubut (73) and Mendoza (77). **Even if San Juan (1st) and Salta (3rd) are on the regional podium of the index, Argentina is clearly not one of the most attractive regions for mining investments.** If we focus on the quality of infrastructure, 32% of those surveyed did not deem it as a deterrent to investment while 31% considered it a mild deterrent. When it comes to trade barriers, 34% see it as a strong deterrent to investment and 27% believes is a mild deterrent, while 10% of the surveyed would not pursue investment due to this.

Infrastructure related to the mining activity entails some challenges. It is true that a project's investment usually includes some investment in the required infrastructure, but the mining activity needs access to ports, trains, good railways, reliable power system, or mineral-pipelines, to give some examples. Argentina has some struggles in these aspects, for instance this year, the restrictions on gas and coal, two important inputs of the activity, are generating inconvenience in the sector. In the longer term, a developed railway network could greatly benefit the business.

Copper Porjects in Argentina

Main projects and mines

	Current Status	Location
Josemaría	Construction	San Juan
El Pachón	Feasibility	San Juan
Proyecto Mara (Agua Rica-Bajo La Alumbrera)	Pre-feasibility	Catamarca
San Jorge		Mendoza
Filo del Sol		San Juan
Taca Taca	Preliminary Economic Evaluation	Salta
Los Azules		San Juan
Interceptor	Advanced Exploration	Catamarca
Río Grande		Salta
Altar		San Juan
La Coipita		San Juan
Cordón de las Pichireguas		San Juan
La Ortiga		San Juan
Las Flechas		San Juan
Prospecto Río Salinas		San Juan
Proyecto Piuquenes		San Juan
Rincones de Araya		San Juan
Río Cenicero		San Juan
San Francisco		San Juan
Valle de Chita		San Juan

Source: Econviews based Secretary of Mining

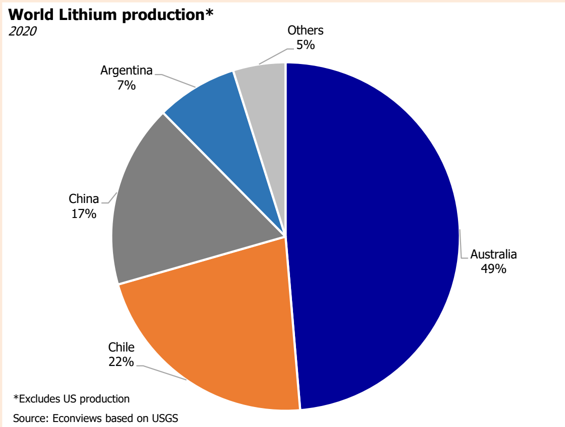
Heading forward

Argentina is geographically close to two important countries for the mining sector such are Peru and Chile, where its weight on their GDP is much larger. For instance, to Chile in 2020, mining represented 11.8% of GDP. Exports of the sector are also much bigger in these countries compared to ours; in 2021 Peru's mining exports reached USD 39,637 million and Chile's were of USD 56,755 million (17 times more than the Argentine´s one). By seeing these numbers, it is impossible not to think why this is not possible in Argentina.

Argentina's mining sector has a lot of potential, and good opportunities ahead if things are done correctly. The shining stars for the coming years are mainly lithium and copper.

Why copper? Although this mineral is used in many economic processes, **demand is expected to increase in the following years due to its fundamental role in renewable energy production.** For instance, it is estimated that a power station requires about 1 ton of copper to produce 1 MW of electricity, while both wind and solar farms need between 3 and 5 tons per MW. So according to recent studies, based on Wood Mackenzie, CRU and Cochilco's projections, by 2030 a consumption of between 28.9 and 27.7 million tons of refined copper is estimated, between 4.9 and 3.8 million tons more than that recorded in 2019. When it comes to copper, after the project in Catamarca that was closed in 2018, **there are 20 projects in different stages that will begin production in the coming years, giving the mining exports a great possibility of expansion**.

Lithium is another big opportunity for the country and is in fashion. Although it can be used for many things, its potential in electric car batteries is the key. Argentina is the 4th lithium producer in the world and has the opportunity of being one of the main countries of the lithium industry in the coming years, **having 38 lithium projects on the way**.



*Excludes US production

Source: Econviews based on USGS

The country is planning to develop the mining sector in the coming years. Projections are based on the projects that are already underway and some other potential projects in the country's portfolio, which could mean expected investments for USD 20 billion in the next years. **With this in mind, exports have a great possibility of reaching USD 10 billion for 2030, which would be almost three times more than 2021's exports**, and mining could end up representing 2% of GDP. This is far from being Peru

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or Chile's numbers, but it could be important for the country. For achieving this, the international context and prices of the minerals must help, but also the projects that are already underway for lithium and copper should start working with no limitations.

So here comes the irony, while some believe that mining encounters social reluctance due to its environmental impact, others believe that for fighting climate change, mining is fundamental. What's to come is difficult to foresee, and Argentina has the immense task of consolidating a mining model that translates into sustainable development, and even if it is not a savior for the country, we can't deny the potential that it could have.

Base Scenario

	2019	2020	2021	2022 F	2023 F
Inflation (eop)	53.8%	36.1%	50.9%	80.0%	85.0%
Exchange rate ARS/USD (eop)	59.9	84.1	102.8	169.6	286.6
Exchange rate ARS/USD (eop, YoY)	58.4%	40.5%	22.1%	65.0%	69.0%
Real exchange rate ARS/USD (eop, Dec-01=100)	151.5	158.3	137.1	133.7	128.3
Paralell exchange rate ARS/USD (eop)	74.6	140.3	203.1	305.2	515.8
Spread with official exchange rate (eop)	24.6%	66.8%	97.7%	80.0%	80.0%
Gross reserves (USD billion, eop)	44.8	39.4	39.5	41.7	40.5
Net international reserves (eop, in thousands of M USD)	12.6	3.8	2.3	5.2	5.2
Policy rate (eop)	55.0%	38.0%	38.0%	60.0%	62.0%
GDP (YoY)	-2.0%	-9.9%	10.3%	3.5%	1.5%
Formal wages in real terms (aop, YoY)	-6.0%	-1.9%	0.4%	-0.5%	0.5%
Primary surplus (% GDP)*	-0.2%	-6.4%	-3.3%	-3.5%	-3.0%
Public net debt (% GDP)	43.6%	52.7%	41.7%	39.6%	41.8%
Current account (% GDP)	-0.8%	0.9%	0.7%	0.5%	0.6%

Source: EconViews

*Excludes rents from primary debt issuance in 2022

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