

# MONTHLY REPORT

**ECONVIEWS**  
ECONOMÍA Y FINANZAS

**January 2022**

Issue #211



A **critical moment**  
of the **IMF Saga**

Page 4



The **Economics of Climate Change** and why  
it matters for Argentina

Page 6

## RECENT DEVELOPMENTS

- US inflation ended 2021 at 7% year-on-year, its highest mark since 1982. In the Euro Area, CPI is also at a historical 5%, mainly due to energy prices which are up 26%. The conflict between Russia and Ukraine threatens to drag out the pressure on natural gas supplies. Brazilian inflation closed the year at 10%, a 6-year high.
- Stocks had a solid 2021, with the S&P 500 up 27% over the year, Nasdaq 26.6% and Euro Stoxx 21%. Emerging markets less so, with the Asian MSCI down 4.9% and Brazil's down by 12%. Merval index recovered 12.6% in dollars, after three years of declines. Global markets fell sharply in the first weeks of 2022.
- The Central Bank raised its reference Leliq rate by 200 basis points to 40%, the first hike since November 2020. As rates remain negative in real terms, we expect further hikes to a 46% level. The CB also introduced a new 180-day instrument with a 44% rate, while it reduced 7-day reverse repos rates from 36.5% to 32%, in practice phasing them out.
- After the original three-month price freeze expired on January 8<sup>th</sup>, Secretary of Commerce Feletti closed a new deal where 1,300 basic staples should rise around 2% per month. Inflation jumped to 3.8% monthly in December (50.9% year-on-year), with food and beverages up 4.3% against November.

## FIGURE OF THE MONTH

New daily COVID cases reached

# 139,853

on January 14, the highest mark since the start of the pandemic.

## TO BE ALERT

Less than

# 2 months

remain to reach an agreement with the IMF and avoid entering arrears.

## WHAT'S COMING NEXT?

- In its December FOMC, the Federal Reserve seemed poised towards a 75-basis point hike in the Fed Funds rate this year, likely starting in March. Several Fed Governors are pushing for further rises if inflation does not abate, and the IMF warned emerging markets they must brace for Fed Policy Tightening. The next FOMC is scheduled for January 26<sup>th</sup>.
- Fears over inflation, Fed Funds and Omicron rocked stocks in the first weeks of January. The S&P 500 is -7.56% YTD, its worst start-off since 2016. Nasdaq is -11.96% since December 31<sup>st</sup>, with tech and growth stocks particularly affected by the jitters.
- March still looms as a deadline for the new Argentina-IMF deal, as net reserves are insufficient to meet a compound USD 4.8 billion maturity between the Fund and the Paris Club, after paying 1.9 billion to the organism in late December.
- The Central Bank has accelerated the official Peso's depreciation to 26% annualized, up from 11.5% in November. We believe an IMF program will push this rate further, with chances of a discrete jump in the exchange rate.
- Weak growth in Brazil (the last market forecast was at 0.29% for 2022) and lack of rainfall may weight on exports this year, which we estimate around USD 81.4 billion (+6.1%).

## SUMMARY OF MAIN INDICATORS

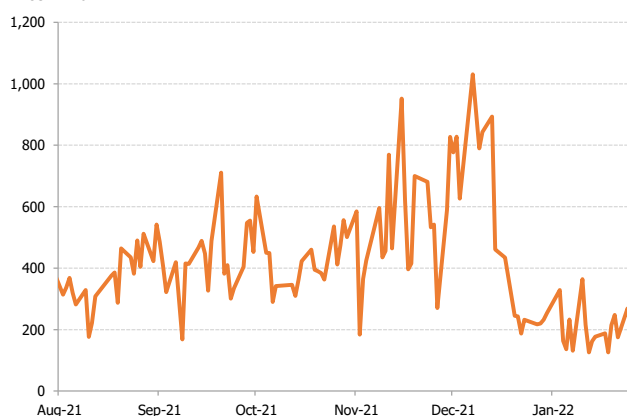
	Last	Previous		Last	Previous
<b>Economic activity</b>			<b>Financial data</b>		
Economic activity (MoM s.a.)	1.7%	-0.9%	Inflation (monthly)	3.8%	2.5%
Consumer confidence (MoM)	-4.9%	-1.3%	FX spread (21day avg.)	103.0%	108.0%
Industrial activity (MoM s.a.)	4.8%	-5.0%	Country risk (bps 21day avg.)	1,820	1,760
<b>International accounts</b>			<b>External data</b>		
Current Account (USD BN)	3.29	2.44	Soybean price (per ton, 21day avg.)	505.5	465.6
CB Reserves (USD BN 21day avg.)	39.22	41.36	Brazilian activity (MoM s.a.)	0.7%	-0.3%
<b>Primary balance (ARS BN)</b>	<b>-496.34</b>	<b>-134.65</b>	Financial Conditions Index	30.7	37.2

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

## GRAPH OF THE MONTH:


**FX Market volume is very low**

*In USD million*



Source: Econviews based on MAE



DEC	DEC	DEC	JAN	JAN	JAN	JAN
<b>20th</b>	<b>22th</b>	<b>28th</b>	<b>5th</b>	<b>6th</b>	<b>18th</b>	<b>26th</b>
<b>Econviews Monthly #210:</b> The legacy of 2021 and onwards + special analysis on the World in 2022	<b>Government pays USD 1.9 bn IMF maturity,</b> Fund publishes its ex-post evaluation of the failed 2018 Stand-By.	Authorities announce <b>17 to 20% hike in electricity bills for Buenos Aires, and gas bills</b> for all Provinces.	<b>Minister Guzmán calls differences with IMF</b> on fiscal consolidation path, in public conference with governors.	<b>Daily new Covid cases hit all-time record above 100,000</b> due to Omicron spread, but hospitalizations remain low.	<b>Cafiero met with State Secretary Anony Blinken</b> to ask for support on IMF agreement negotiations	<b>Econviews Monthly #211</b> 

## POLITICS

All attention is on the negotiations with the IMF. Due to Omicron, talks are mostly virtual, although Foreign Affairs head Cafiero flew to Washington to meet Secretary of State Blinken. In front of governors, Guzmán recognized he was waiting for political support from the US to close the IMF deal, aside from differences with the Fund on fiscal numbers. In its ex-post evaluation of the previous program, the Fund posits capital controls and “a debt operation” could have been implemented earlier, although defending austerity. Opposition figures are divided on the debt issue, with moderates backing the Government and hawks unsure on how much support to concede to a program that succeeds their failed 2018 SBA.

## PANDEMIC

Omicron brought daily cases to 139,853 in early January, their highest since the start of the pandemic. In the last days, the curve appears to have peaked and experience from South Africa shows contagion could decline quickly in the next weeks. Deaths have risen slightly to an average of 173 per day, against 20 a month ago. With 76.2% of the population fully vaccinated, and 25.1% having received a booster shot, authorities are beginning to shift towards an “endemic Covid” focus. In response to business concerns about staffing shortages, isolation periods for positive individuals were lowered from 10 to 5 days, and asymptomatic close contacts are no longer required to quarantine.

## ECONOMIC ACTIVITY

After a 5% monthly s.a. slump in October, industrial activity rebounded 4.8% in November. Construction crept 0.4% forward; a 66.2% year-on-year surge in asphalt use shows public works are back on track. Overall activity suffered a 0.9% monthly s.a. contraction in October, but it recovered 1.7% in November. The economy will have grown 10% in 2021, practically reaching pre-pandemic levels. Credit subsidies and FX controls are making for an unusually strong summer for tourism, somewhat tarnished by the Omicron wave. Staff shortages will weigh on production in January. Fallout from the IMF deal could contract activity 0.9% q/q in Q1-2022, but we expect the economy to grow 3% across the year.

## INFLATION

In December inflation rose to 3.84%. The highest prints were seen in the items Restaurants & Hotels and Alcoholic beverages with 5.9% and 5.4% respectively. The controls over more than 1,400 prices, the low rate of depreciation, and the freezing of utility prices seem to have been not effective to bring down inflation. In this way, headline inflation ended 2021 with an increase of 50.9%, the second-highest record since 1991. The enormous monetary injection combined with the lack of an economic plan that allows expectations to be anchored were the main factors to explain this. But the most worrying figure was core inflation, which sets the trend: it reached 4.42% per month and closed the year at 54.9%.

## MONETARY SECTOR

The Central Bank raised its Leliq rate for the first time in 15 months, from 38 to 40%. A new 180-day Leliq was introduced, and 7-day reverse repos will be gradually eliminated, to encourage banks to go long term. With the policy rate still below inflation, further hikes are expected. The BCRA is moving the crawling peg faster, from 11.5% annualized two months ago to 26% today. However, with the BCS at ARS 228.87, the spread against the official rate is still 118.8%. Deficit monetization reached ARS 1.7 trillion last year, 1.2 trillion of which correspond to Q4. ARS 737 billion were raised through Treasury auctions, at a 122% rollover rate. The seasonal drop in money demand in the late summer may lead to policy tightening.

## FISCAL ACCOUNTS

The primary deficit was 3.07% in 2021, which is less than half of 2020's number. This achievement was driven by four facts. First, GDP growth of 10% allowed the government to increase its tax revenues. Second, the increase in inflation was useful to reduce the real value of some expenditures such as pensions that fell 5.3% in real terms. Third, there was a reduction in expenditures related to the pandemic. Finally, the contribution of the tax on large fortunes and the extraordinary export tax revenues given by the increase in commodities prices were also important to improve primary balance. Considering the interests paid, the fiscal deficit was 4.5%.

## I. A critical moment of the IMF Saga

All eyes are now focused on the IMF program. **The clock is ticking, and the bets are on whether Argentina and the Fund can reach an agreement by March 22<sup>nd</sup>.** The government has been sending clear signals that it wants to avoid a default with the Fund. Foreign Minister, Santiago Cafiero, traveled to Washington to appease the US government, in line with what Manzur, the Chief of Cabinet, has been saying. President Fernandez has repeatedly stated that Argentina will not enter in arrears with the Fund.

**Reaching an agreement requires more than statements.** It requires a program, as several officials of the IMF and the US government have said, and Argentina has not shown how it plans to turnaround the economy, especially regarding increases in reserves, reductions in the FX spread, restoring fiscal and debt sustainability as well as normal access to the FX market and reducing inflation.

**Given the large imbalances Argentina needs a plan and the bottom line is that ain't going to be easy.** The government has dug itself deeper into a hole last year with policies that created large distortions in relative prices by putting the brakes on the increases in the utility rates, the exchange rates and other regulated prices. The same government that enjoyed the political benefits of these unsound policies in the run up to the elections is now refusing to pay the costs of undoing them. They enjoyed the party, but they are not ready to accept the hangover. And this is the heart of the problem.

**Government officials say that they want a program, but they also say that they are not ready to accept the adjustment measures that such a program could entail.** Is it possible to have program without costly policy measures? No. Especially because Argentina has large macroeconomic imbalances which are extremely difficult to correct without some decisive policy measures.

**Time is running out.** A potential long-term default with the IMF is untenable and out of the question, because it would mean losing access to SDR facilities, losing voting rights and eventually being expelled from the IMF (the actions are spelled out in the January 21<sup>st</sup> weekly report). However, one cannot rule out being in arrears for a few months. Removing the arrears could be a difficult exercise, because Argentina would have to pay all of them before restoring a normal relationship with the Fund, and the amounts increase at the tune of 3.5 billion dollars per quarter. **But now this is a second order issue.**

**Many people think that the IMF cannot afford not to have a program with Argentina.** However, If there was no program, Argentina would suffer much more than the Fund. True, Argentina is the largest borrower from the IMF and the fact that in 2018 it recently granted a large loan to the Macri administration in a program that finally did not work could be a source of criticism. But the Fund would not suffer financially from an Argentine "default" because it does not borrow in the markets and hence it does not care about its credit rating (in contrast to the World Bank and the IDB) while it has enough capital to withstand arrears. In addition, as no middle-income country has ever remained in arrears for long, the risk

### Net and Liquid International Reserves

*In billion USD*

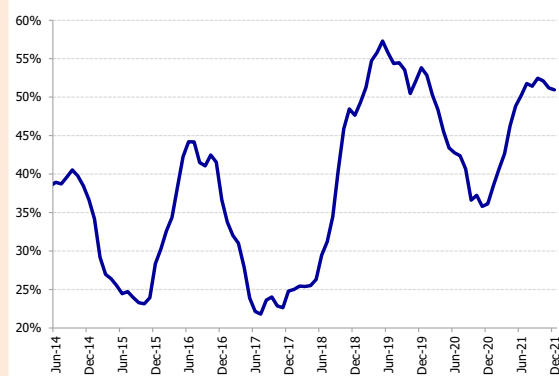
<b>Gross reserves</b>	<b>39.0</b>
Reserve requirements in USD	12.1
Swap with China	20.5
BIS & Repos	3.8
<b>Net reserves</b>	<b>2.6</b>
Gold	3.4
SDRs position	0.7
<b>Liquid net reserves</b>	<b>-1.5</b>

*Source: Own estimates based on BCRA and IMF*

*Up to Jan-24*

### Headline inflation

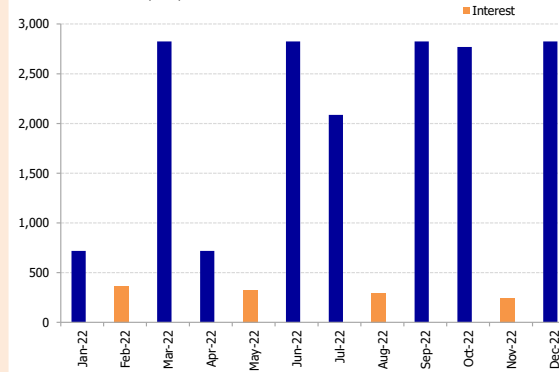
*YoY variation*



*Source: Econviews based on INDEC*

### Maturities with the IMF

*In billion USD - Includes principal and interest*



*Source: Econviews based on IMF*

of a protracted default appears to be minimal. The Fund knows it will get its money back one way or another.

**Argentina, on the other hand, in the case of a default faces the risks of being ostracized and suffering major financial turbulence.** This includes a steep depreciation of the currency in the parallel exchange, higher inflation and lack of international reserves that could strangle its economy, all the things the government in theory want to avoid. Recent concerns about the possibility of a failure in the negotiations have already put pressure on the blue-chip market and on the prices of sovereign bonds. The implications are clear. A failure to make the payments to the IMF in March will most likely imply a severe deterioration of economic conditions.

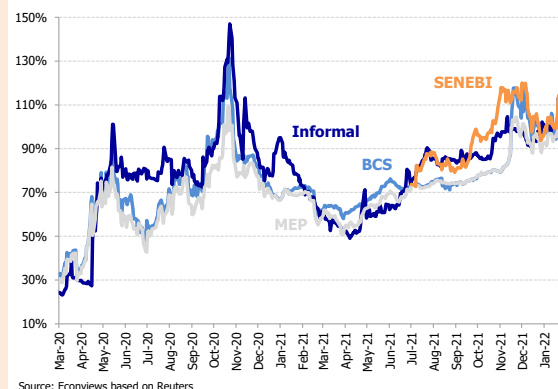
There is still a possibility that Argentina will not pay and argue that the IMF was asking for a severe adjustment. **What probably the government has not factored in is that the adjustment in the fiscal accounts, in the exchange rate and in utility rates is all but unavoidable, with or without a Fund program.** The difference is that with a program there can be an orderly adjustment, while without a program it will almost certainly be a disorderly one.

**Part of the government coalition understands the situation, wants an agreement and is ready to pay the costs.** But for the more radical group, including Cristina Kirchner, an agreement that includes adjustment policies would go against their entrenched views that those policies are unacceptable. The open question is whether at the end they will keep their “story telling” and accept the IMF agreement or not.

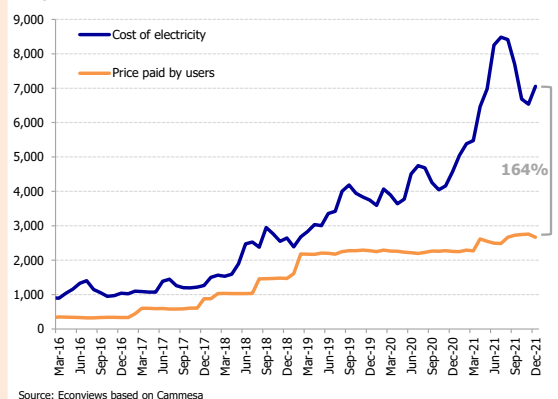
**The government should not expect that some fine tuning of the current policies will be enough to turnaround the macroeconomic situation.** Since the elections there were some changes in policies, but the big surprise was that they were only at the margin. The Central Bank, which was expected to start reversing the real appreciation that took place last year when inflation was 51% and the rate of depreciation less than 25%, has increased the depreciation only timidly to less than 3% per month, while inflation has remained well above that figure. Likewise, it has only increased interest rates on time deposits and on Leliqs (Central Bank notes) by two percentage points, which keeps interest rates also well below inflation. More surprising, it has not changed the one-day repo rate, which in most countries represents the policy rate. **This means that it is not clear whether interest rates have increased at all.**

Not surprisingly, the external situation continued to deteriorate as the spread between the official and parallel rates increased to around 110%, the Central Bank continued to lose reserves and the country risk escalated to over 1900 basis points. **Simply reaching an agreement with the IMF would be an indication that we should expect a better policy environment but is unlikely to be enough to change the dynamics of reserves drastically.** The big challenge for Argentina is not only to reduce the fiscal deficit, but the tougher challenge is to achieve the much-needed changes in relative prices (namely the exchange rate and utility rates and other regulated prices) without sparking inflation. This will eventually happen, sooner rather than later.

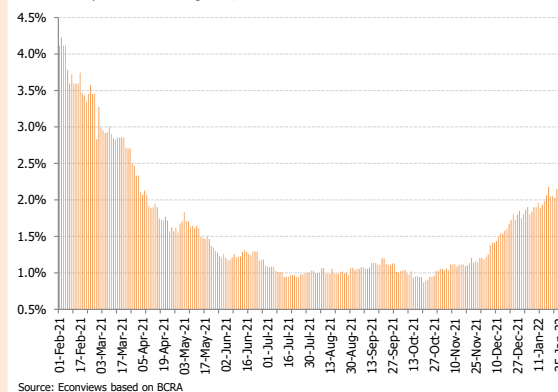
**FX Spread**  
Versus official exchange rate, in % - Bid-Ask Average



**Cost and price of electricity**  
in ARS



**Rate of depreciation**  
Accum. 30 days - Official exchange rate, Com. "A" 3500



**Argentina Risk Premium**  
In basis points



## II. The Economics of Climate Change and why it matters for Argentina

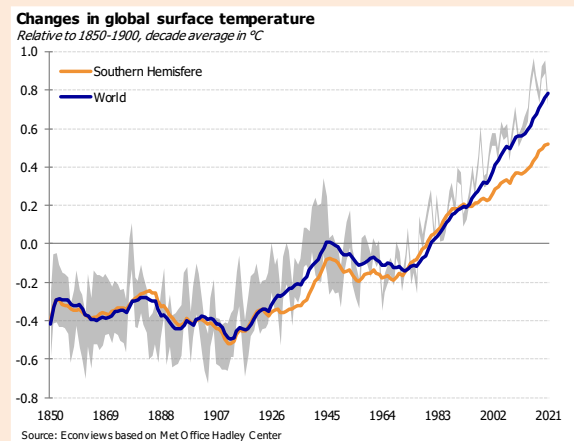
Climate change is now considered by many as the biggest threat humans face. The effects on environments and populations have been studied for years and different approaches have been put forward to deal with a warming climate. The world economy, in turn, will be deeply affected and global leaders are setting ambitious goals to avoid catastrophe. Strong measures have been proposed and are on development, which include turning to greener energies and a strong increase in regulations.

For Argentina there are multiple implications. From a new carbon tax when exporting to the EU to the threat to Vaca Muerta, as energy requirements become greener. Expanding the agriculture frontier through deforestation may not be possible and there are serious threats to crop yields. Climate change also means new opportunities for green hydrogen, lithium among others. Given the poor state of infrastructure, working from scratch in climate-friendly infrastructure and smart cities may be possible, although it requires investment that Argentina can't finance today. In this report, we will assess how global warming might impact Argentina, what opportunities and costs the process may entail, and which sectors will have to adapt the most. Business as usual as we know it is dead.

In August 2021, the United Nations's panel on Climate Change published its sixth Assessment Report (IPCC-AR6), which raised consternation worldwide over its projected scenarios for global warming. In broad terms, the report describes a 0.8 to 1.3°C rise in world temperature between 1850 and 2019, mostly attributable to human action through greenhouse gasses (1, 2°C), partly compensated by human-driven aerosols (0, -0.9°C). As a result of this, rainfall has increased over the last 70 years, while melting ice caps and thermal expansion mean sea levels are on the rise (0.2 meters since 1900). Hot extremes, such as droughts or heatwaves are becoming more frequent, and tropical events such as cyclones are spreading to other areas.

The IPCC-AR6 report sets out five possible scenarios for global warming over the 21<sup>st</sup> century, depending on actions taken to reduce net CO<sub>2</sub> emissions. In all outcomes temperatures will continue to rise until at least mid-century. The two SSP1 scenarios which account for net-zero CO<sub>2</sub> emission thanks to public and private actions, either before or after 2050, entail a +1.5°C increase by 2040 and +1.6-2°C by 2060. In the worst case SSP5 scenario, increase in temperatures could hit +4.4°C by 2100. Due to variability in climate, discernible differences between scenarios become clear after 20 years. Extreme weather already occurs, but variability masks freak events from tendency changes.

According to IPCC-AR6, the South American Monsoon Region, which comprises Brazil, Bolivia, Paraguay, Uruguay, and parts of Northern Argentina, will see one of the highest increases in temperature for hot days, between 1.5-2 times the average for global warming. Around the world, both governments and business are bracing for climate change, seeking to adapt to greener production, distribution, and consumption patterns. Multilateral organizations such as the IMF are pushing a tax on



**IPCC-AR6 scenarios**  
Increase in global surface temperature, best estimate in °C

	Entails	Near term, 2021-2040	Mid-term, 2041-2060	Long term, 2081-2100
SSP1-1.9	Net-zero CO <sub>2</sub> emissions <b>before</b> 2050	+1.5°C	+1.6°C	+1.4°C
SSP1-2.6	Net-zero CO <sub>2</sub> emissions <b>around</b> 2050	+1.5°C	+1.7°C	+1.8°C
SSP2-4.5	Net-zero CO <sub>2</sub> emissions <b>after</b> 2050	+1.5°C	+2.0°C	+2.7°C
SSP3-7.0	CO <sub>2</sub> emissions <b>double</b> by 2100	+1.5°C	+2.1°C	+3.6°C
SS5-8.5	CO <sub>2</sub> emissions <b>double</b> by 2050	+1.6°C	+2.4°C	+4.4°C

Source: Econviews based on IPCC-AR6

carbon and other greenhouse gases and advocating for the elimination of energy subsidies (a prickly subject in Argentina).

**For the world, climate change is an important threat beyond science.** For armies, conflict hypotheses are often based on climate situations. Migrations, health issues, income distribution problems (rich always adapt better and sooner) are all part of the equation. Climate change requires global co-ordination and also being a top local priority. As Lord Nick Stern put it over a decade ago, the world must grow 1% less every year to adapt and mitigate climate change and this would be a profitable venture. Not doing would lead to much worse outcomes.

### I. A brief analysis on the climate impact in Argentina

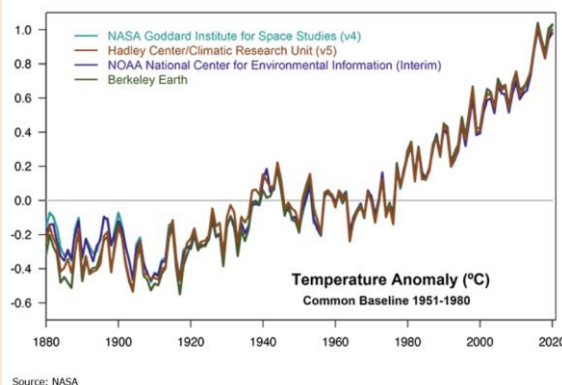
Latin America and the Caribbean are among the most vulnerable regions to climate change, while they possess one of the highest concentrations of biodiversity on Earth. Entire ecosystems will be affected, and people both in rural and urban areas will have to adapt to a changing climate. In the medium term, the strongest impact of climate change will be on populations and communities that depend on agriculture, tourism, and other economic activities that require the conservation of biological resources and ecosystems. **But either directly or indirectly, the whole world will be subject to the impact of a warming climate as we move to a low or zero carbon environment.**

**Argentina's geography is quite diverse.** It encompasses mountains, forests, coasts, arid or semi-arid regions and others. **This heterogeneity, in turn, means the country could be exposed to droughts, floods, deforestation, and other types of climate issues that are becoming more frequent every year.**

From a general perspective, the IPCC's last report concluded that **with an increase of global temperature of 1.5°C, there will be an increase in heatwaves, the hot seasons will lengthen, and the cold seasons will shorten.** While with an increase of the world temperature of 2°C the episodes of extreme heat would more frequently reach critical tolerance thresholds for agriculture and human health, not to mention the impact on rainfall patterns and thus hydric conditions. Will Mendoza be able to produce wine in 50-years? Will Argentina's soybean move to Rio Negro? What will happen to Patagonia's coastal cities? Nobody has precise answers, but it is not lunatic to think on these issues.

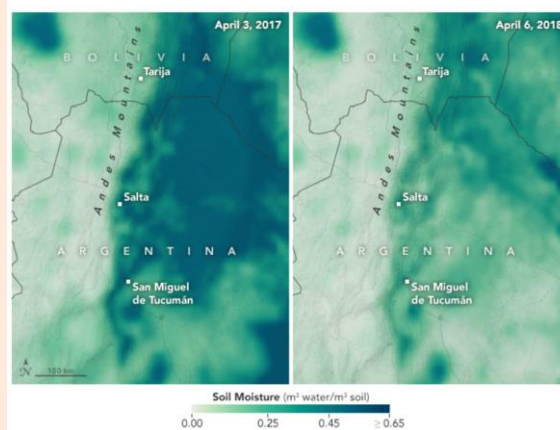
**Extreme rainfall events, highlighting floods and droughts, dominate Argentina's risk profile of natural disasters.** The IPCC global climate models and emissions scenarios for Argentina show a negative relationship between precipitation and changes in temperature. Results express that a low increase in temperature often generates an increase or a moderate reduction in precipitation and a large increase in temperature often implies a reduction in precipitations. Although this shows a tendency to droughts in the face of temperature increases, it also implies changes in rainfall patterns, with more intense rains in and in a shorter period of time, making them less predictable. And the combination of dry soils and strong rainfalls leads to floods. **In turn, agriculture, arguably Argentina's most important activity, could be deeply affected by this.**

Rising temperatures



Source: NASA

The effect on soil moisture of the 2018 drought



April 3, 2017 - April 6, 2018

Source: NASA

According to research done by World Bank, floods in Argentina have been responsible for causing economic losses worth around USD 22.5 billion as well as being responsible for 58% of all economic losses caused by natural disasters between 1966 and 2015. Even though it is hard to estimate a concrete macroeconomic effect of future floods, the damage on physical capital, whether it is private or public infrastructure, or the impact on the transport network, results in costly disruptions in the economy as it affects different parts of the supply chains. The research conducted by the World Bank Water team in Argentina yields interesting results, as it estimates that the asset losses per year represent approximately 0.2% of GDP and 0.3% in well-being losses, at a national level.

When it comes to droughts, through the years, the impacts have been very costly for the Argentine economy, and it is projected that droughts might become more frequent and even costlier in the future. For instance, in 2018, it is estimated that the drought was responsible for a 2.5% decrease in GDP -partially offset by growth in other sectors- with a direct impact on agricultural production and exports. In relation to this, World Bank research concluded that by 2050, compared to a scenario with no climate impact, droughts could account for a reduction of 2 to 5% of the GDP annually.

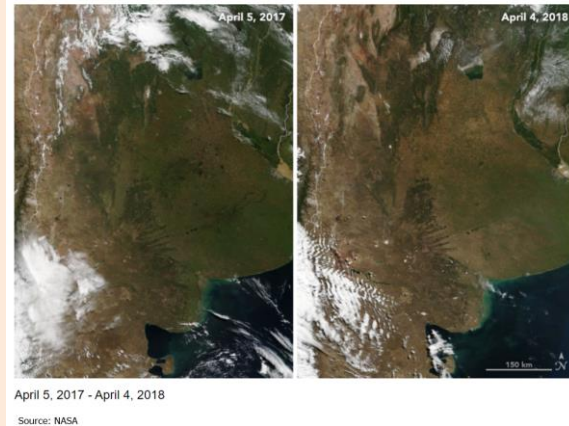
During the last decades, changes were identified in the east and north of the country with respect to the frequency of extreme temperatures, fewer frosts and more frequent heatwaves. In turn, the number of days per year with heatwaves doubled, particularly in the regions near the city of Buenos Aires. According to the World Meteorological Organization, 2021 was one of the seven warmest years in global history, as global average temperature grew 1 °C. For Argentina, 2021 was the fifth warmest year on record, considering that the warmest years are registered since 2010, the rise in temperatures in the last decades is evident.

This situation is quite relevant for Argentina due to its economic reliance on agriculture. Most research done on the topic shows that most crops would face annual yield losses in 2050 under various scenarios. Wheat, corn, and soybeans seem to be particularly exposed to changes in climate. At a national level, the worst potential yield loss in 2050 could reach 10% for sunflower, 30% for corn and wheat, and up to 50% for soybean.

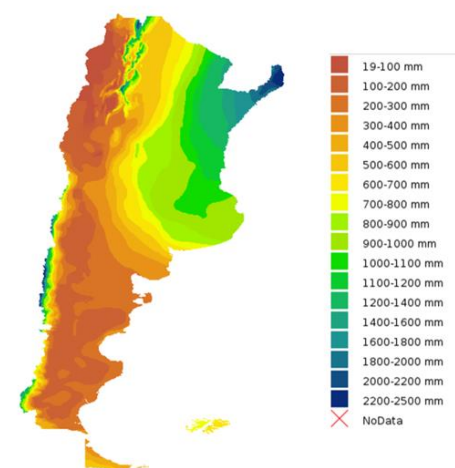
Studies show that precipitation increased in semiarid regions such as Southern Buenos Aires or La Pampa, while the Andes Provinces are getting drier. Dry seasons (defined as consecutive days without rain) are also getting longer in the North and West, increasing risk of fires.

For example, more rainfall between December and January could increase soy and corn yields in the semiarid regions. However, a dryer winter-spring season means less wheat productivity in Cordoba, Santa Fe and Northern Buenos Aires. The Andes Provinces will be hit the hardest, as shrinking river basins due to less rainfall are already increasing water costs. As a result, the wine and fruit industries in Mendoza and San Juan's margins may fall significantly. The 2019 report suggests deep-water reserves' desalinization as an alternative, but such a procedure requires costly investment. GRAZE projections show bovine production could fall in the Northern Pampean region but rise in the Western Pampean region. Overall, the Argentine agricultural sector will sustain productivity in its

The effect of the 2018 drought



Average precipitations in Argentina



Source: INTA



heartland, the Pampean region, but under greater duress from extreme events such as droughts, heatwaves, or floods.

**Energy is another sector to look at.** So far, average annual temperature tendencies have had little impact on electricity demand in Argentina, in the long term. Economic -especially industrial- growth and population income levels are the main determinants for demand. However, an increase in extreme events such as heatwaves does pressure on existing infrastructure, leading to recurrent power cuts. **Hydroelectric generation in the Andes, Comahue and Patagonia regions is at risk in the long term,** due to reduced precipitation and less water from snow. In other areas, the tendency towards increased rainfall can also damage electricity distribution networks.

**Risks are clear and almost inevitable.** Argentina is poised to face different threats that include greater difficulty in accessing water in some populations, impacts due to flooding and contamination of drinking water, increase in heat waves and rainfall, increase in forests and rural fires, acceleration of desertification processes, high risk of transmission of diseases such as dengue, losses in crops and greater stress in livestock, negative impacts on mountain and winter tourism activities, coastal erosion and sea-level rise, among others, that will vary according to the area of the country where they take place. **Adapting to the changing climate and minimizing our impact will be crucial in coming years.**

## II. Regulatory impact of climate change: the carbon border tax is on the way

**Carbon dioxide or CO<sub>2</sub> is the main greenhouse (GH) gas emitted through human activities.** Market-based solutions for dealing with GH emissions have long been discussed and in some cases implemented, but a far-reaching proposal is on the way.

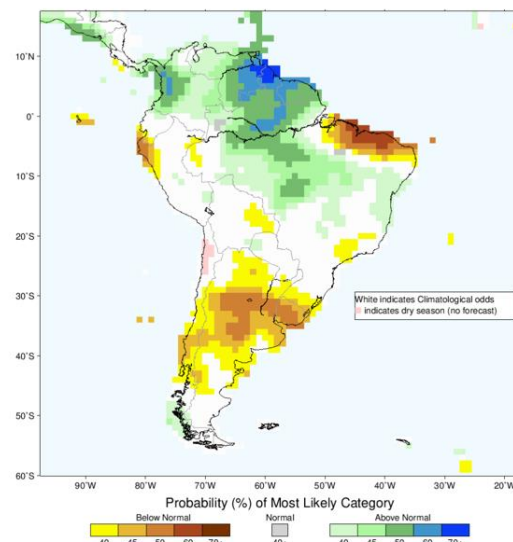
In July last year, the European Commission revealed its plans to make importers and non-EU manufacturers **pay for the carbon emissions associated with the goods they sell within the borders of the European Union.** Such measure, which has long been discussed is known as a “**carbon border adjustment tax**”, or simply, “**carbon tax**” and will be put fully in place starting January 2026, four years from today, but the process has been set to begin this year: up to December 2025, importers of carbon-intensive products will have time to calculate their emissions but won't be paying for the tax until it is fully in place.

Local European producers have already been paying for their carbon and other GH gas emissions for more than a decade through the Emissions Trading System, which sets an annual emission cap and gives place to a market for trading of emissions permits, from which the carbon price is derived. **But increased costs derived from carbon pricing have given place to increased imports from countries with less strict climate rules.** The carbon border tax intends to tackle this issue, increasing the cost of imports that do not account for carbon emissions.

**The carbon border tax will initially apply to imports of cement, iron and steel, aluminum, fertilizers and electricity.** The specifics of the tax are to

### A new drought is expected this year

Rainfall forecast for February-April



Source: IRI



**Agriculture, forestry, and land have a much higher impact on GH emissions, explaining 18.4% of them.** Livestock and manure emit 5.8% of global GH, as methane (a much more harmful GH gas than CO<sub>2</sub>) is generated during the digestion process of cattle.

And while the proposed carbon border tax aims mainly for CO<sub>2</sub> and will be limited to a few industries at first, **discussions are already in place regarding methane emissions. If other countries follow suit, global trade could be completely altered in coming years -and Argentina will also have to adapt.**

**Naturally, countries with the highest CO<sub>2</sub> emissions will be the most affected.** China is currently the main responsible for CO<sub>2</sub> emissions, with nearly 10,500 metric tons emitted in 2019. The United States comes second but measured per capita it outranks China. India, Russia, and Japan emissions finish the top 5 of the ranking, but their emissions are in the range of 1,000 to 2,600 tons -and differ significantly when adjusted by population. China, the US and Russia are the main exporters to the European Union, so the impact of a carbon border tax could be profound.

**Latin-American countries will also need to adapt, but the good news is that CO<sub>2</sub> emissions have grown at a much slower rate in recent years and even declined in some cases.** Analyzing the past 60 years, CO<sub>2</sub> emissions in Argentina grew at a fast rate between 1948 and around 1980, outpacing other Latin economies like Mexico, Brazil and Chile. Between then and the mid 2000's there was some growth, but it was irregular and in part related to cycles of economic growth and recessions.

**In Argentina, CO<sub>2</sub> emissions have declined in recent years, after peaking in 2008: in 2019 they were 20% lower, adjusted by population, and 26% lower in 2020 due to the pandemic. However, this figure only accounts for CO<sub>2</sub> emissions, and does not include other greenhouse gases like methane, which in 2016 accounted for a quarter of total GH emissions, according to data from the World Resources Institute.**

In any case, maintaining a downwards path will depend on the transition to cleaner sources of energy, **and foreign investment and credit will be crucial -and Argentina has a lot of homework to do for this to happen.**

**The impact of the European carbon border tax on Argentina would be limited at first, at least from a macro viewpoint.** Although the region is the second importer of Argentine products (12.6% in 2021 but in the line of 15% in non-pandemic years), they are mostly comprised of food products that would not be levied. But sectors like aluminum producers who export to the EU could face complications if they don't adapt to the coming regulations.

In view of the enormous impact of energy use and generation on GH emissions and therefore climate change, **international organizations - particularly the IMF- are calling for a global reduction of energy subsidies, especially on fossil fuels.**

**On this matter, Argentina is not on the right course.** The previous administration managed to bring down energy subsidies as part of a broader strategy to reduce the fiscal deficit. But the current one has reversed this, freezing tariffs and subsidizing energy consumption: in

### Ranking of carbon emissions: 2019

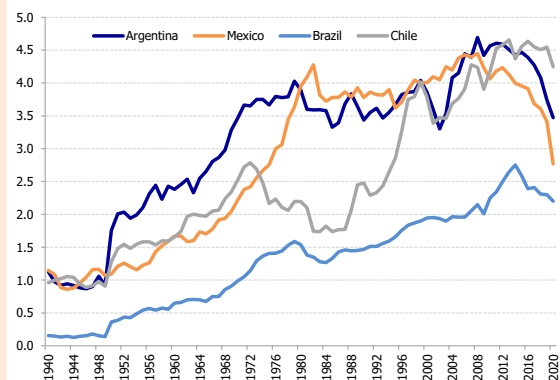
Top 10 countries, CO<sub>2</sub>\* Mtons

	CO <sub>2</sub>	CO <sub>2</sub> per capita
China	10,489.99	7.32
United States	5,255.82	15.97
India	2,625.97	1.92
Russia	1,679.45	11.51
Japan	1,105.93	8.72
Iran	733.37	8.85
Germany	711.43	8.52
Indonesia	660.59	2.44
South Korea	648.03	12.65
Saudi Arabia	622.41	18.16

\*Only CO<sub>2</sub>, doesn't include other GH gases

Source: Econviews based on Our World in Data

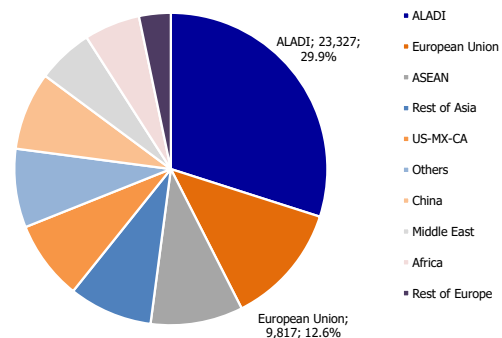
### CO<sub>2</sub> emissions per capita



Source: Econviews based on Our World in Data

### Exports by economic zone

2021 - FOB exports, USD million



Source: Econviews based on INDEC

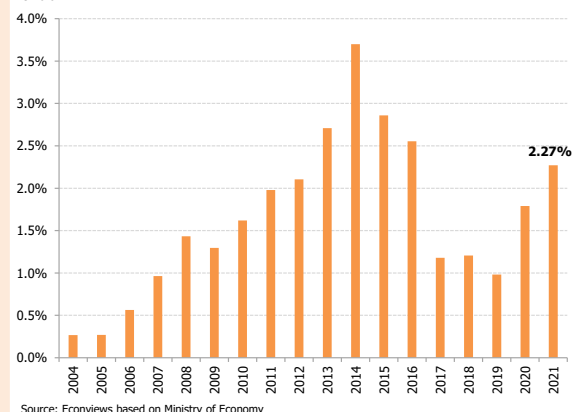
2021, energy subsidies reached 2.27% of GDP. Reducing these subsidies will undoubtedly be part of the agreement with the IMF, and the benefits of doing this would be triple: reducing the fiscal deficit, reducing the demand for dollars, and reducing the negative impact on the environment.

### III. Adapting to climate change: the case of Argentina

As part of the 2015 Paris Agreement, in 2019 Argentina presented its own adaptation and mitigation plan for global warming. A goal of getting local GH emissions below 483 million metric tons of equivalent CO<sub>2</sub> by 2030 was set, but the goal was updated to 349 million metric tons in 2019. GH gas emissions in 2018 were estimated at 366 CO<sub>2</sub>-equivalent metric tons by Argentina's 2021 bi-annual climate report, but alternative estimates point to a much higher figure.

A set of mitigation policies has been adopted, and Argentina's latest official report identifies currently implemented measures with the greatest degree of advancement. Mitigation policies include a transition to cleaner sources of energy, both for offer and demand, the reduction of transport GH emissions, and the reduction of the agricultural and land-use impact on GH gas emissions -like forestation of native forests.

**Energy Subsidies**  
As % of PBI



**Mitigation measures with the highest degree of progress**

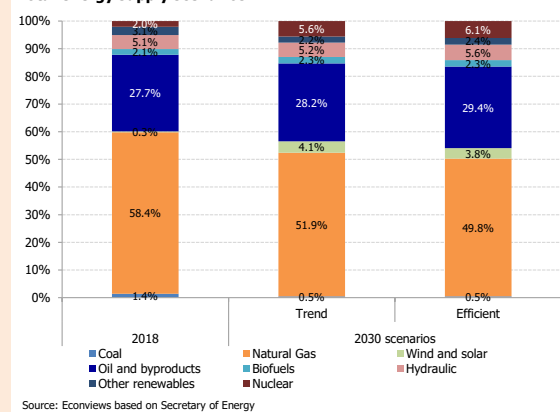
Sector	Strategic line	Measure
Energy	Energy transition	Generation of electricity from non-conventional renewable sources connected to the network.
		Distributed electricity generation.
		Cutting with biofuels.
		Hydroelectric generation.
		Nuclear generation.
		Electricity generation isolated from the network.
		Street lighting.
Transport	Sustainable transport	Construction and expansion of rapid transit bus systems.
Agro Native forests	Agriculture, Livestock, Fishing and Forests	Forestation
		Avoided deforestation of native forests.
		Sustainable management, conservation, restoration and recovery of native forests, and prevention of forest fires

Source: Econviews based on the Ministry of Environment

But despite having made some progress in recent years, Argentina's energy matrix is geared towards non-renewable sources. Based on a report prepared by the Secretary of Energy in November 2019, in 2018 87.5% of the total energy supply was originated from fossil fuels, while the remaining was divided between solar, wind, hydraulic, nuclear, and biofuels. Based on this situation, the study proposes different scenarios for 2030, which show a reduction of around 8 percentage points in gas, oil, and coal, giving rise to more environmentally friendly sources.

Despite the reduction of gas and oil's share in the energetic matrix, the same study proposes two different scenarios in which the production of such hydrocarbons increases. In both cases, a decrease in conventional production and a surge in non-conventional production is observed, due to the exploitation of Vaca Muerta resources. In the case of gas, it is supposed that it is possible to export the supply excess as it is very difficult

**Total energy supply scenarios**



and costly to store it. In that way, the production would almost double that one of 2018 going from 129.5 MMm3/d to more than 200 depending on the scenario. The case of oil is similar as the production of daily barrels would go from 489,300 to 898,700 in the case of the medium prices scenario or 1,104,600 for the high prices scenario. Of course, all forecasts include assumptions about the necessary investment to achieve these figures. Regarding the trend scenario, there would be needed approximately USD 83,500 million up to 2030, while in the efficient scenario would be USD 80,500 million.

**But this seems at odds with proposals for a greener economy:** a reduction of fossil fuel dependency is promoted, yet greater exploitation of Vaca Muerta is included in all scenarios. If the world turns greener and renewable energies become more efficient and less costly, this may result in less demand, lower prices and lower profitability -implying less investment. **But fossil fuels won't be gone any time soon.**

**If we focus exclusively on electricity, the picture is similar.** In 2006, renewable generation sources represented only 1.8% of the total and reached a floor of 1.2% in 2011. The turning point is observed in 2018, the moment from which clean energy sources began to gain ground over the rest, although they still have low participation (12% in December 2021). Here, the Law for the Promotion of the use of Renewable Sources in the production of Electric Energy played an important role given that it establishes a series of minimum within total electricity consumption. So far today, these goals have not been met in any year, but they do seem to have served as a guide.

Currently, Argentina has 120 renewable energy plants for commercial operation. Of the total, 11 generate energy from biogas, 9 from biomass, 25 from solar panels, 36 from wind, and 39 from water. Given the favorable geographical characteristics of the country and the little development of sustainable energies, we see that **there is still plenty of room for them to continue growing, which in turn serves as a boost for other related activities.**

For example, in the north of the country, more specifically in the provinces of Salta, Jujuy, and Catamarca, Argentina has the third-largest lithium reserve in the world, behind those of Australia and Chile. **Lithium is used in the manufacture of batteries that allow the storage of energy that comes from sustainable sources.** Additionally, these batteries are used by electric cars, helping to reduce CO2 emissions.

**So far, in Argentina, there are two lithium active mines and in process of expansion, to which are added 21 more projects are in advanced stages.** Most of the development companies are foreign-owned, although a company created by the Jujuy government called JEMSE has a stake in two projects (one active and the other under construction). Added together, the two active mines can produce 37,500 tons per year, a number that could be multiplied by 10 if all the advanced projects complete their development. This would have a positive impact on exports, since a large part of the production is destined for the foreign market. In addition, since the mines are in poor regions, this activity would contribute to improving the quality of life of its citizens.

## Natural gas production

In MMm3/d

	2018	2030	
		Trend	Efficient
Conventional	83.8	57.1	57.1
Non-Conventional	45.7	171.8	153.4
<b>Total</b>	<b>129.5</b>	<b>228.9</b>	<b>210.5</b>

Source: Econviews based on Secretary of Energy

## Oil production

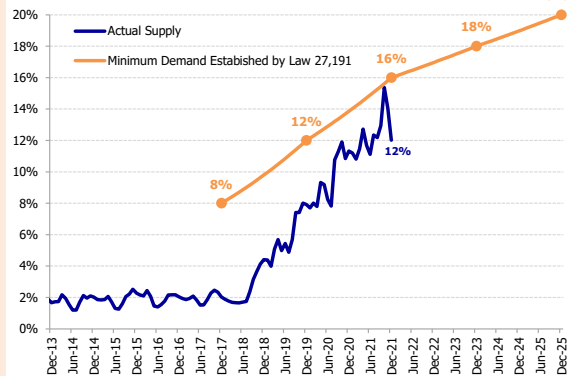
In thousand barrels per day

	2018	2030	
		Medium prices	High prices
Conventional	423.4	284.0	284.0
Non-Conventional	65.8	614.7	820.6
<b>Total</b>	<b>489.3</b>	<b>898.7</b>	<b>1,104.6</b>

Source: Econviews based on Secretary of Energy

## Renewable Electrical Energy

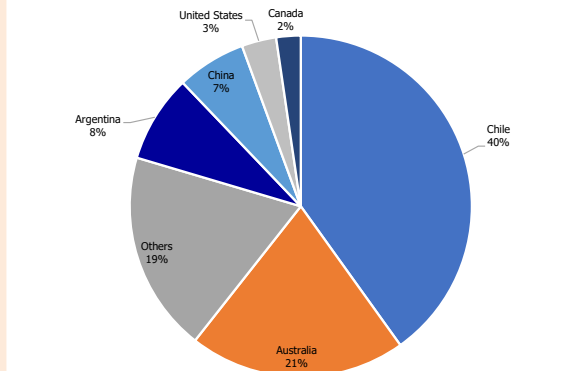
As % of total





Source: Econviews based on CAMESA

## World Lithium reserves

Share in %



Source: Econviews based on USGS



**Another activity that can be favored by the proliferation of non-renewable energies is that of green hydrogen.** It consists of obtaining hydrogen from the electrolysis of water, a process by which hydrogen molecules are separated from oxygen molecules. The key to being "green" is that the energy used in this process comes from renewable sources. The main advantage of green hydrogen is that it does not generate gases that are harmful to the environment, which is why it is presented as an increasingly important alternative to replacing energy from fossil fuels.

**At the end of last year, the Australian company Fortescue Future Industries announced investment plans for USD 8.4 billion in the province of Rio Negro.** This amount includes the creation of a port, a wind farm, and a power plant. This province had previously commissioned a pre-feasibility study from the Fraunhofer Institute for Energy Economics and Energy System Technology. In summary, the results found indicate that both the availability of winds, water, and solar radiation in the area make it an exceptional place for the manufacture of green hydrogen. Although in the first phase the production will be completely exported, being able to start supplying local consumers is part of the plans of the province.

**In sum, Argentina is currently implementing measures to mitigate the impact on climate change, but they are riddled with inconsistencies.** The government proposes turning to greener energies while fostering the development of Vaca Muerta. The introduction and growth of an electric car market is promoted, while conventional automobile production is promoted too, and many other examples can be found. **Eventually, either path will have to be chosen, and none will be free from costs. But something is sure, climate change means the status quo will not be maintained forever.**

## Base Scenario

	2019	2020	2021 F	2022 F	2023 F
Inflation (eop)	53.8%	36.1%	50.9%	58.0%	38.0%
Exchange rate ARS/USD (eop)	59.9	84.1	102.8	174.7	239.3
Real exchange rate ARS/USD (eop, Dec-01=100)	150.8	158.3	137.1	154.1	158.8
Paralell exchange rate ARS/USD (eop)	74.6	140.3	201.1	270.7	370.9
Spread with official exchange rate (eop)	24.6%	66.8%	95.7%	55.0%	55.0%
Gross reserves (USD billion, eop)	44.8	39.4	39.5	45.5	48.5
Policy rate (eop)	55.0%	38.0%	38.0%	44.0%	33.0%
GDP (YoY)	-2.0%	-9.9%	10.0%	3.0%	3.0%
Private consumption (YoY)	-7.3%	-13.8%	9.7%	3.1%	3.0%
Primary surplus (% GDP)	-0.4%	-6.5%	-3.0%	-2.5%	-2.0%
EMBI Argentina (spread in bps, eop)	1,744	1,350	1,600	950	750
Public net debt (% GDP)	43.6%	53.3%	42.9%	39.5%	40.2%
Soybean price in USD per ton (annual average)	327	350	510	460	460
Exports of goods (USD billion)	65.1	54.9	76.8	81.4	85.9
Imports of goods (USD billion)	49.1	42.4	62.4	67.8	73.2
Trade balance (USD billion)	16.0	12.5	14.3	13.6	12.7
Current account (% GDP)	-0.8%	0.9%	0.6%	0.4%	0.3%

Source: EconViews

\*Includes SDRs in 2021

**Miguel A. Kiguel**  
Director

[mkiguel@econviews.com](mailto:mkiguel@econviews.com)

**Andrés Borenstein**  
Chief Economist

[aborenstein@econviews.com](mailto:aborenstein@econviews.com)

**Víctor Ruilova**  
Guest Economist

[vruilova@econviews.com](mailto:vruilova@econviews.com)

**Isaías Marini**  
Economist

[imarini@econviews.com](mailto:imarini@econviews.com)

**Alejandro Giacoia**  
Economist

[agiacoia@econviews.com](mailto:agiacoia@econviews.com)

**Melina Sommer**  
Economist

[asommer@econviews.com](mailto:asommer@econviews.com)

**Rafael Aguilar**  
Analyst

[raguilar@econviews.com](mailto:raguilar@econviews.com)

(+54 11) 5252-1035  
Carlos Pellegrini 1149  
Buenos Aires

[www.econviews.com](http://www.econviews.com)

[www.facebook.com/econviews](https://www.facebook.com/econviews)

Twitter: @econviews