N° 47 - March 2019

Economic GPS

pwc

Volatility, the protagonist of 2019

Barely three months into the year, paradoxically the only certitude within the prevailing uncertainty is that 2019 will be marked by volatility.

During January and part of February, the exchange rate, which had been last year's protagonist, remained stable and with a tendency towards depreciation. This caused a decrease in the monetary policy rate from hitherto high levels. Further, the prospect of the entry of foreign currency from agriculture set off an alert of the possibility that a new period of carry trade appreciation could begin.

Inflation data for February raised concern. Nominal interest rates in pesos, albeit high, were dropping; the combination with high country risk and higher inflation than expected reversed the accounts and triggered a demand for dollars that led to the devaluation of the peso. Interest rates, which had been enticing in January, no longer seemed to cover for risks, and the outflow of funds began.

Although the Argentine Central Bank toughened monetary policy, committed itself to overcompliance with monetary base targets and caused a rapid rise in interest rates, the foreign exchange rate continued to climb.

This increase in the demand for dollars with the resulting volatility in its exchange rate seems to occur early, at the beginning of the year it was expected for mid-year, considering the ups and downs of an election year. Expectations are that the income from a very good harvest, together with the start of the Government auctions of the dollars borrowed from the IMF, set a limit to the depreciation of the peso; even so, volatility will still be fueled by the instability of demand, subject to the uncertainty of the political process.

In addition to the domestic scene, the changes in the external environment must be considered, as well. The US monetary authority's decision to curb the increase of interest rates was reassuring. However, factors like political uncertainty in Brazil (with former president Michel Temer arrested and the Congress rejecting the social security reform) or the policy of restricting inflow of capital to Turkey have generated pressure over emerging markets' currencies in general, among them the Argentine peso, which tends to overreact due to its characteristics.

In view of this context, the control capacity of Argentine monetary authority appears limited by the agreement with the IMF, as the non-intervention zone is not narrow enough to restrain temporal oscillations in the value of the foreign currency.

If more flexibility could be obtained in relation to the agreement with the IMF, the volatility factor would be more moderate. As mentioned above, the implementation of weekly auctions of the dollars loaned by the international monetary authority seems to go in this direction, although whether it will be enough remains to be seen.

In any case, a situation in which the IMF accepts a sudden appreciation of the real exchange rate is not in sight, as it would accumulate once more tensions in the external sector. Therefore, while high inflation persists, the foreign exchange rate will probably play along.

José María Segura
Chief Economist PwC Argentina

Tracking

Zero deficit at a closer look

One of the main macroeconomic objectives of the current administration, if not the most important, is to achieve fiscal balance during the current year, that is, a zero (primary) deficit. However, since the disclosure of the budget last year, to date, significant changes have occurred in the macro and policy variables that will force the Treasury to review the items of expenses and resources.

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Vaca Muerta is a resource extremely attractive to investors, with the possibility of booming exports, generating capital, employment and growth in Argentina. In view of this, this report will analyze the changes in the development and exploitation of the most emblematic Argentine formation in recent years, with current status and expectations and needs for development over the next decade.

Global Coordinates

How the weakening of the global economy could affect monetary policies of the leading central banks

A decrease in the balance sheet of the US Federal Reserve (the Fed), added to the end of the European Central Bank's quantitative easing program, could imply that these central banks start draining liquidity off the global economy for the first time since the mid-year world financial crisis. However, this toughening of monetary policy could take place at the same time as global growth decelerates and the volatility of financial markets increases, which makes us think that the process could take place over some time, with steps forward as well as backward.

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One of the main macroeconomic objectives of the current administration, if not the most important, is to achieve fiscal balance during the current year, that is, a zero (primary) deficit. However, since the disclosure of the budget last year, to date, significant changes have occurred in the macro and policy variables that will force the Treasury to review the items of expenses and resources.

The country has been in a situation of primary fiscal imbalance since 2010[1], as a result of expenditure growth over revenue since then (with the exception of 2017 and 2018). This imbalance, which was financed up to 2016 mainly through monetary issue and since then with debt, makes up one of Argentina's main challenges to be solved. Pursuant to the agreement with the IMF last year, through which Argentina will have the necessary funds to cover most of the financial needs of 2019, the commitment to achieve zero primary fiscal deficit has been set.

In the first two months of the year the expected results were achieved, since a primary surplus of $23,384 million was recorded (compared to the previous year's deficit of $16,299 million), with revenue at 43.1% versus primary expenses growing at 31.2%, compared with the same period of the previous year, in current values. However, facing a scenario of increasing uncertainty and complexity, because of the delicate macro-financial balance recently reached and considering it is an election year; compliance with the primary fiscal objective of zero deficit could be at risk. In this scenario, it is necessary to consider how the different accounts of the public sector could behave, especially taking into consideration that many of the assumptions and premises contained in the National Budget Law for the current year would be altered and, with this, the achievement of objectives could be at risk.

There are two assumptions contained in the budget that, to date, one could argue that they are very difficult to attain. When we look at the inflation set for 2019, we note that the budget included a year-on-year rate, measured December 2019 vs. December 2018, of 23%, while the average rate was

[1]The primary deficit -without taking into account income from the BCRA and ANSES- began in 2010. According to official statistics -if these revenues are added- the primary deficit begins in 2012.

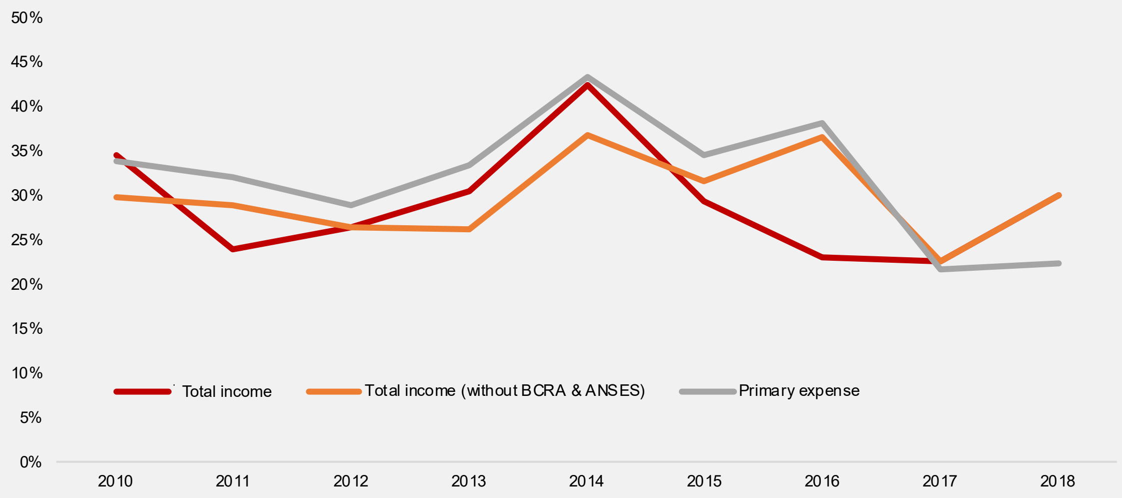
expected to reach 34.8%. However, considering only the communications of tariff increases in the first four months of the year (transport exceeding 60%, water 17%, gas over 30%, electricity over 40%) plus the indexation of certain items of the economy, it looks very unlikely that inflation will fall to levels of 1.2% per month between now and December to meet the budget guideline. The inflation rate is barely less than 30%, thus leading to an average annual calculation well above that established in the budget. Also, in the event of an acceleration in devaluation, the pass-through will also generate additional pressure on prices. In fact, the other seemingly underestimated variable in the Budget estimate is the quotation of the exchange rate projecting 40.1 pesos per dollar the close of 2019. Considering the current monetary policy, where the BCRA has set intervention and nonintervention bands. A low average exchange rate for all of 2019 indicated at least above 41 pesos per dollar. All which suggests that, if the exchange rate is above the lower limit due to electoral uncertainty, the deviation from the budget will be even greater.

Given the expenditure structure of public sector accounts, lagging inflation and devaluation directly and almost mechanically affect the line of expenditure, due to the fact that it has indexed components and sundry stated in dollars. Therefore, if revenue does not grow in greater proportion, the possibility of reaching the zero deficit objective will not be met, if other measures are not taken.

In figures, three items account for 80% of primary expenditure. Social benefits account for 57% of the total expenditure and are comprised by retirements and pensions, non-contributory pension plans, family and child allowances, services of National Institute of Social Services for Retirees, Pensioners (INSSJP), and other programs (Progresar, Emergencia Social, among others), would result in a 14% account for expenditure on salaries while 10% on subsidies.

GRAPHIC 1

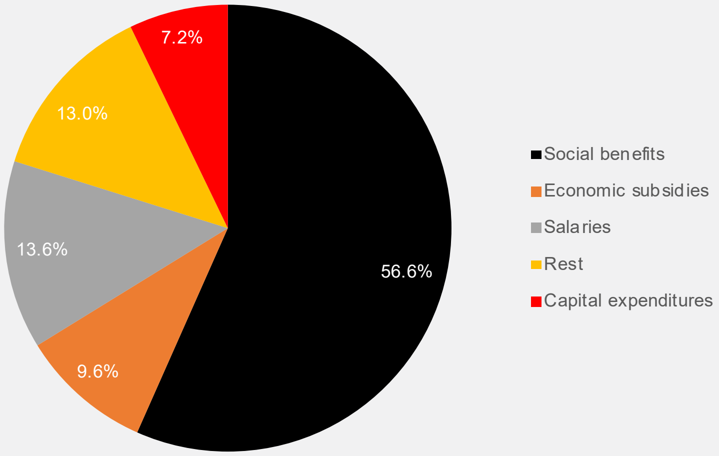
Year-on-year variation in primary expenditure and total income, percentage



Source: Prepared by the authors based on Ministry of Finance

GRAPHIC 2

Participation in primary expenditure, %



Source: Prepared by the authors based on Ministry of Finance

Social benefits have a strong index-adjusting component, as they are adjusted quarterly based on a mobility formula (established by law) which contemplates 70% of the quarterly variation recorded by the price index of INDEC and 30% of changes in the same period of RIPTE (Average Taxable Compensation of Stable Employees)[2], with delays of six-months. In 2019, these expenses are tied to the performance of prices and salaries in the second half of 2018 and to what happens with these variables in the first six months of 2019. As the estimate of these expenses was made with inflation premises unlikely to be confirmed, the expenses related to these items will be higher.

Something similar occurs with allowances. The announcement and subsequent publication in the Official Gazette of a 46% increase in March causes the underestimation of this amount once more in the Budget.

Adjustment to social benefit items, then, could be increasing the expenditure initially budgeted by 0.8% of the GDP. This value is above 0.3% of GDP, which is the deviation, accepted of the tax goal provided that it relates to social expenditure, recently established in the agreement with the IMF.

Subsidies is another item affected by these variables, primarily due to the level of the exchange rate, grouped in two captions: energy and transport. From 2011, the expenditure in subsidies was above 3% of GDP, and started decreasing participation in 2017 with the current administration along with the tariff adjustments. In this sense, for the current year, a real term drop of subsidies was expected to drop to 1.6% of GDP. However, a greater devaluation to that estimated will exert pressure on the cost of these items. The dilemma faced by Government in this case would be the transfer of that higher cost to tariffs, with the consequent short-term effect on inflation as well as bearing the cost of social rejection in a year of elections, or else increase the expenditure on subsidies. If we analyze what happened last year when the exchange rate strongly depreciated, Government increased its expense in pesos of this item in relation to that estimated, keeping relatively stable the amount expensed in US dollars. Thus, following the same behavior as last year a proportion of this incremental cost could be absorbed. Again, an increase in the expenditure not previously considered between 0.1% and 0.2% is likely.

[2] The formula is based on the variation of the Average Taxable Compensation of Stable Employees (RIPTE)

TABLE 1

Primary expenses

	2018	2019 Budget	2019 with adjustment
	2,939,547	3,721,261	3,893,498
Current expenses	2,729,251	3,506,228	3,678,465
Social benefits	1,664,987	2,264,266	2,409,004
Contributory retirement and pension plans	1,170,423	1,632,696	1,705,641
Allowances (family and child)	184,910	234,178	275,748
Non-contributory pension plans	121,255	160,276	176,703
INSSJP Services	129,062	174,285	188,080
Other Programs (Progresar, Argentina Trabaja, etc.)	59,337	62,831	62,831
Economic subsidies	281,237	287,302	314,801
Salaries	400,835	530,928	530,928
Rest	382,191	423,732	423,732
Capital expenditure	210,296	215,033	215,033

Source: Prepared by the authors based on Ministry of Finance

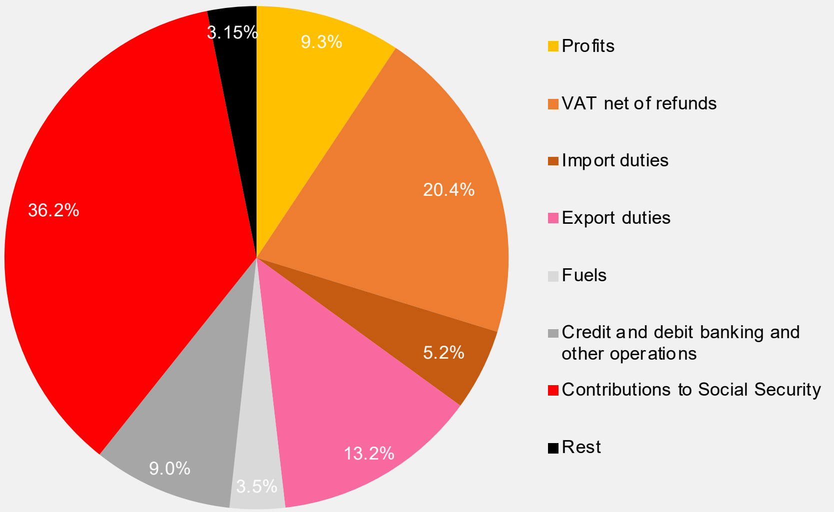
Considering this scenario, the way to offset these higher expenses would be by reducing other expenses, as the public employment or capital expenditure. Or else higher revenue than that originally estimated is essential to offset increased expenditure.

In the case of revenue, 89% account for tax revenue, among which are seven taxes whose revenue amounts approximately to 97% of the total. Nominal income is mainly affected by two variables: inflation and level of activity, (also by the efficiency in tax revenue, but we understand that in the short-run it is a minor effect).
In the current macroeconomic context with prices on the rise, the total of revenue could increase in relation to that previously considered to estimate the budget; although the drop in the economic activity and employment could play conversely.
In turn, while revenue is affected by expected inflation, a significant portion of expenses will be adjusted for past inflation (largely social security). In a scenario of lowering inflation as would be expected, expenses would grow at a rate greater than income (as opposed to what happened in the first two-month period) and, therefore, the alternative would be to reduce certain items of public expenditure to offset those increased for the above reasons.

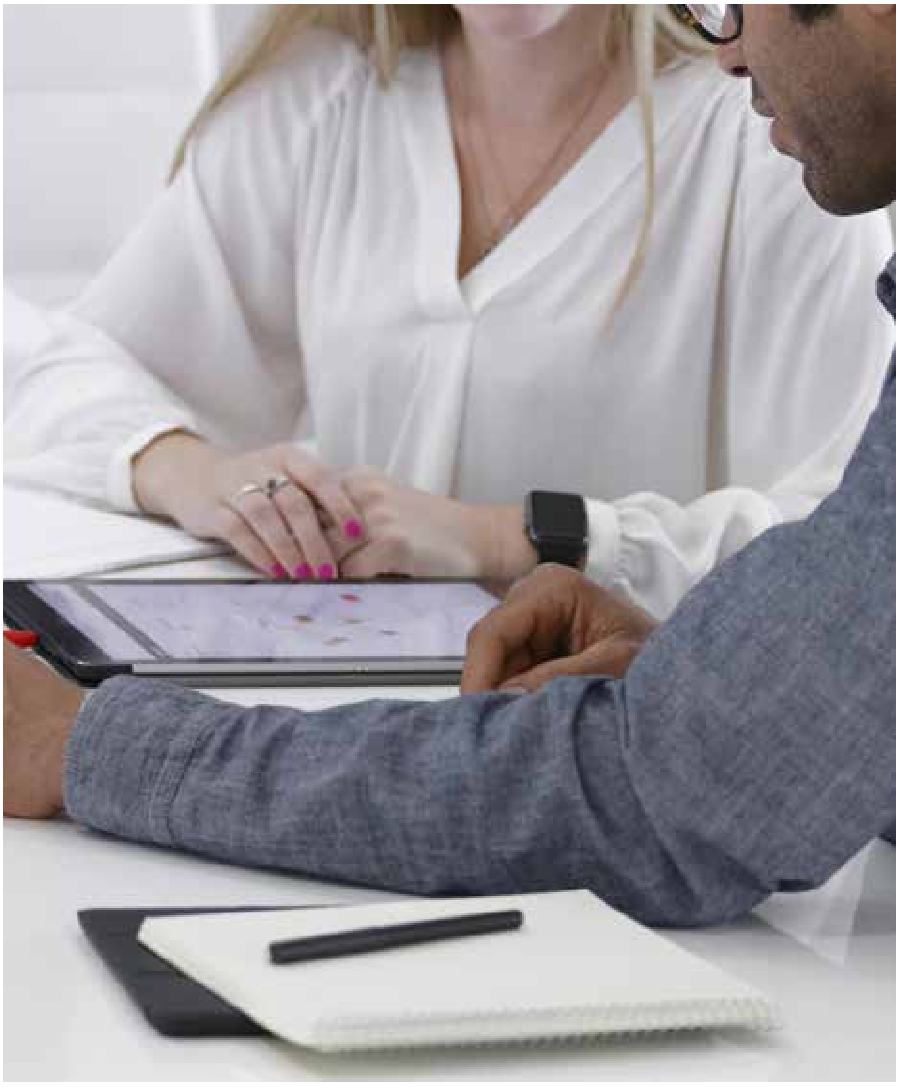
Given the current expenditure structure, the items related to capital expenditure, remunerations, subsidies and others, could be subject to a reduction to reach the deficit goal; although not all of them would have the same impact in terms of efficiency and productivity.

GRAPHIC 3

Share of taxes in the total tax revenue of the national non-financial public sector, %



Source: Prepared by the authors based on Ministry of Finance



Industry Roadmap

SMEs: Moderate Optimism for 2019

By Pablo Boruchowicz, partner of PwC Argentina in charge of the SMEs area.

For Argentine small and medium Enterprises, 2018 was a tough year and, clearly, they understood what resilience means.

Argentina is home to more than 850,000 companies in the sector that generates more than 70% of formal employment. The adverse economic context of recent months, the fall in consumption benchmarks and the recession that has lasted longer than expected, have strongly impacted the activity in sectors such as textiles, viticulture and metalworking, among others. These companies had to combine strategies to go with the flow and attract a consumer who took precautions to moderate consumption and line his pockets, changing buying habits and turning to secondary brands.

The Expectativas Pyme Survey, by PwC Argentina and launched at the end of last year, revealed that 40% of businessmen surveyed confirmed that the results of the first six months of 2018 had declined from the previous year, mainly due to the uncertainty and lack of predictability that the economy went through from April onwards. Just 3 out of 10 said they had done better. The 70% had delayed payments to suppliers, or had financed with their own capital. Only 45% estimated ending 2019 in a better position than 2018.

The survey also looked at the issues that most concerned businessmen. The 80% considered inflation, volatility in the exchange rate, tax pressure and financing, as the most worrying issues of recent months, having become a real barrier that prevents them from maintaining profitability.

The survey also revealed that 86% are not thinking about accessing the Capital Market during the current year, as they await a greater boost from the SME Law to reduce tax pressure, renewing and/or adjusting some tax relief measures.

Nonetheless, the managers were cautiously optimistic for the current year, and they tend to agree that the recovery will be slow and uneven between the different sectors but will come essentially from the hand of agriculture, which will betray certain items like agroindustry and exports and other related services in the interior. Even so, 18% anticipate a decrease in staffing in the first six months to get around the decrease in activity.

Although it is true that measures are insufficient to mitigate the urgencies, the increase of the non-taxable minimum for the employer's contributions of the workers in the case of the regional economies, the implementation of the electronic invoice as of this year for certain MSMEs (which will allow them to finance themselves more simply by early collection of credits), and the recent announcement of new credit lines in public and private banks at rates ranging between 25 and 29%, is good news to begin the year and ease the transition.

What determines the success or failure of an SME? How to accelerate the rate of contagion to the rest of the industry if there are no encouraging signs on the side of investment? Argentina needs a framework of greater predictability in the medium and long term. The key will be, among others, the gradual lowering of the interest rate and inflation that hold any opportunity back from growth or access, for example, the possibility of allying with other companies by expanding the inclusion in the value chain of large organizations to generate competitive advantages, just to mention one.

Although understandable the anxiety to have quick results, businessmen know that they also must be prepared for new technologies if they want to avoid stagnation and continue in the race. In an election year where it will be difficult to evaluate recovery for each particular industry, so that it will affect the pocketbooks of consumers and therefore have a favorable impact on an expected recovery.

Zooming

Vaca Muerta's potential

Vaca Muerta is a resource extremely attractive to investors, with the possibility of booming exports, generating capital, employment and growth in Argentina. In view of this, this report will analyze the changes in the development and exploitation of the most emblematic Argentine formation in recent years, with current status and expectations and needs for development over the next decade.

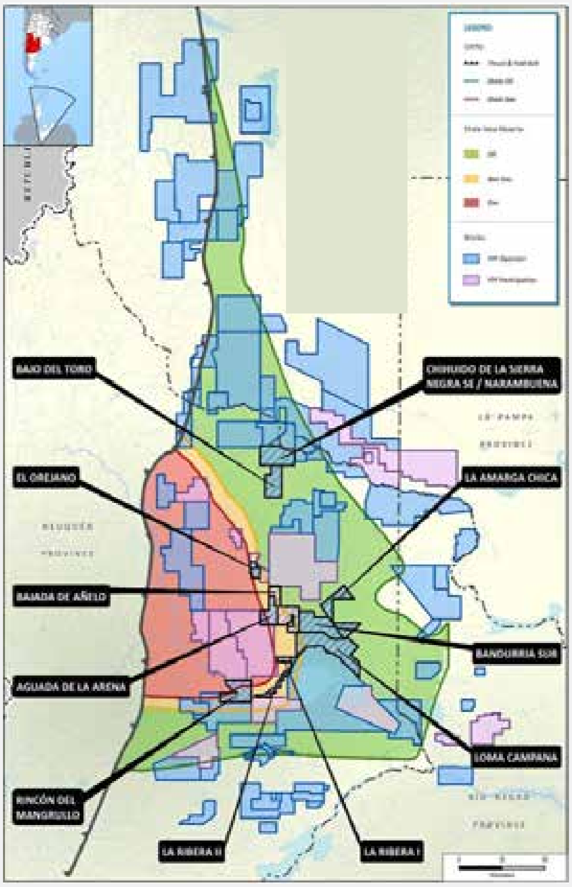
Vaca Muerta is a geological formation within the Neuquen Basin, with a surface of 36,000 km2 in the provinces of Neuquén and Mendoza. In the last decade, the formation became popular for its large shale oil and gas resources of 16 billion barrels and 8,722 billion m3 respectively[1], raising expectations as to potential benefits for the country from its exploitation. In Map 1, the main areas are defined in green for oil; yellow for condensed gas; and red for dry gas.

Compared with the main shale oil and gas formations of the US, leader in unconventional exploitation worldwide, Vaca Muerta has good geological conditions, considering the percentage of minerals from the rocks and its thickness (two factors to estimate the resources available) and the pressure of the reservoir. Vaca Muerta shows features similar to those of Eagle Ford, one of the main reference areas in the US.

[1]Technically Recoverable Shale Oil and Shale Gas Resources – Argentina, US Energy Information Administration. Septiembre 2015.

MAP 1

Vaca Muerta Formation



Source: YPF 20-F report for the year ended December 31, 2017, page 39.

TABLE 1

Conditions of Vaca Muerta in comparison with main formations in the US.

Formation	TOC*(%)	Thickness (m)	Pressure of the reservoir (psi**)
Vaca Muerta	3 - 10	30 - 450	4.500 - 9.500
Barnett	4 - 5	60 - 90	3.000 - 4.000
Haynesville	0,5 - 4	60 - 90	7.000 - 12.000
Marcellus	2 - 12	10 - 60	2.000 - 5.500
Eagle Ford	3 - 5	30 - 100	4.500 - 8.500
Wolfcamp (Permian)	3	200 - 300	4.600

Source: "Argentina Energy Plan – Guidelines", Strategic Planning Secretariat
* Percentage of mineral from the rock
** Pound per square inch, equivalent to 69 millibars

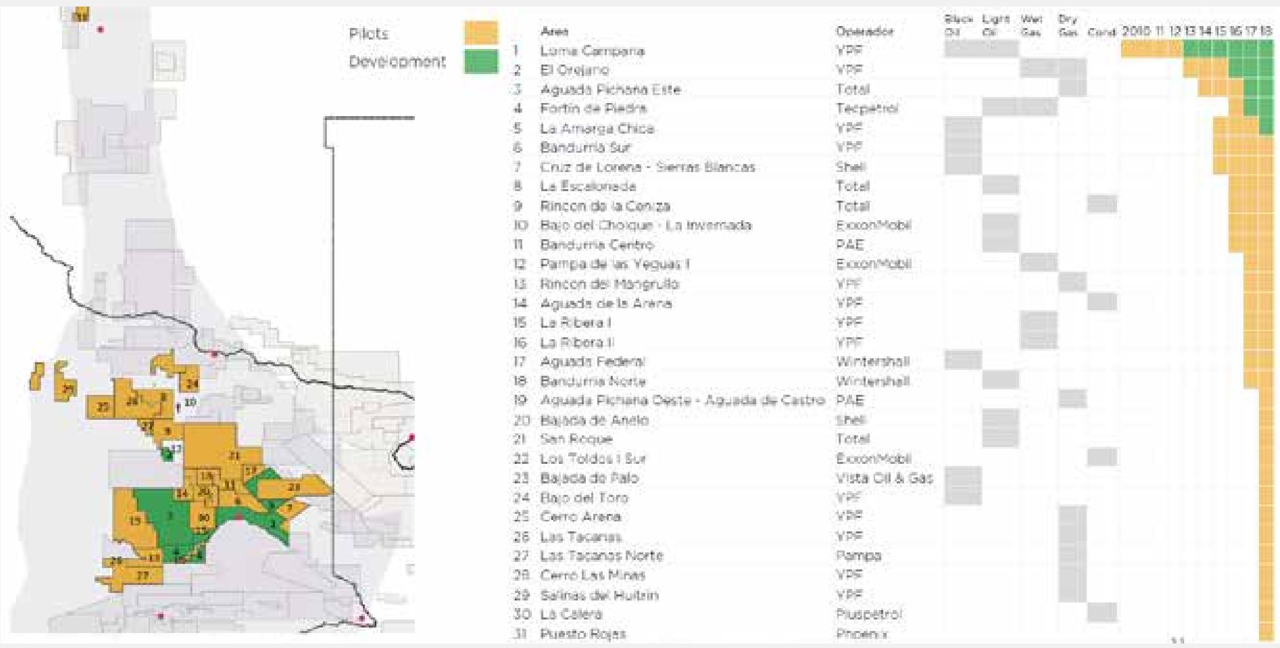
In spite of these geological advantages, the production is too small considering the potential of the formation. Analyzing 2018 data, the production scarcely accounted for 0.1307% of the oil resources and 0.0777% of the gas resources of the formation. That is, at this pace, gas resources will be extinguished in 1,287 years' time, which reflects the low level of current exploitation in relation with its potential.

According to official information, to achieve full development of Vaca Muerta it is necessary to drill at least 16 thousand oil wells and 10 thousand gas wells, with annual investments ranging from USD 15 to 30 billion. In this sense, the production of Argentina would grow substantially and at large would come from unconventional resources, doubling in 2023 and tripling in 2030. In Argentina, many companies are currently conducting pilot tests or exploiting different concessions of the formation; there are areas under concession for conventional exploitation, which enables them for drilling pilot wells for future unconventional exploitation. Furthermore, if companies that are currently running these tests decide to exploit it unconventionally, they have been authorized to obtain a concession for 35 years to do so. In Map 2, the 31 main areas under concession are seen where pilot tests are being carried out or in which the exploitation of unconventional resources are performed. The areas that are currently under exploitation with higher intensity are Loma Campana (Oil) operated by YPF with Chevron; and El Orejano (dry gas), operated by YPF with Tecpetrol.

Production is concentrated in a few companies. In 2018, only 5 companies produced more than 100 thousand m3 of oil, and only 4 more than 100 million m3 of gas in the year. YPF has a significant role in the exploitation of the formation: in 2018, it produced 82% of extracted oil and 41% of gas.

MAP 2

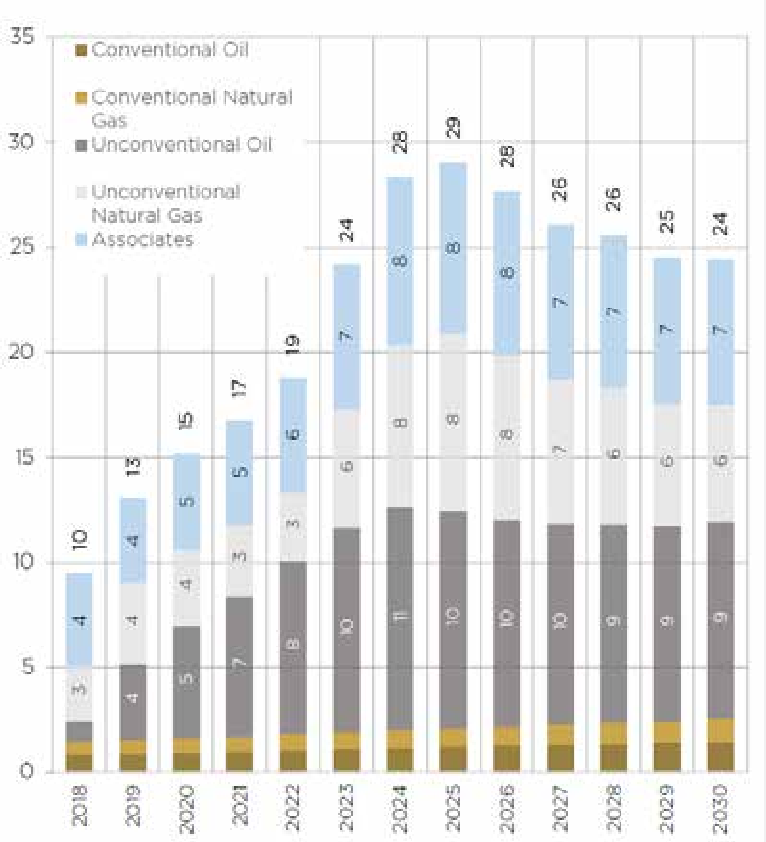
Areas under concession and operators of Vaca Muerta



Source: "Argentina Energy Plan – Guidelines", Strategic Planning Secretariat

GRAPHIC 1

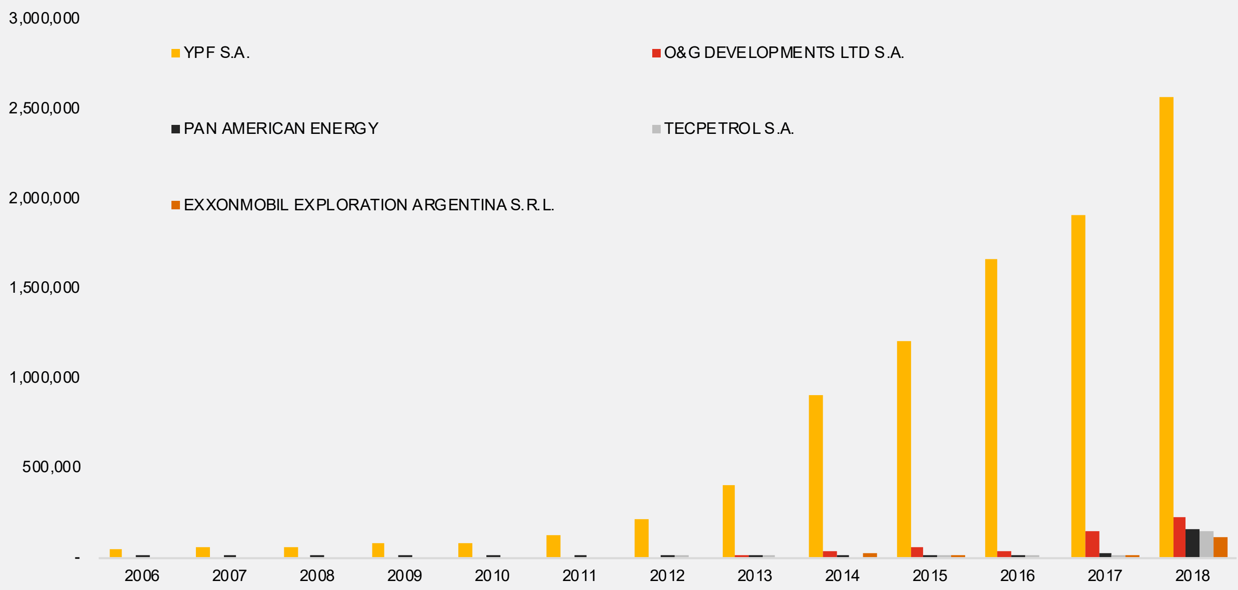
Investments necessary to develop Vaca Muerta (in billions of USD)



Source: "Argentina Energy Plan – Guidelines", Strategic Planning Secretariat

GRAPHIC 2

Main oil producers (2006-2018, m3)



Source: Prepared by the authors based on Minem data [2]

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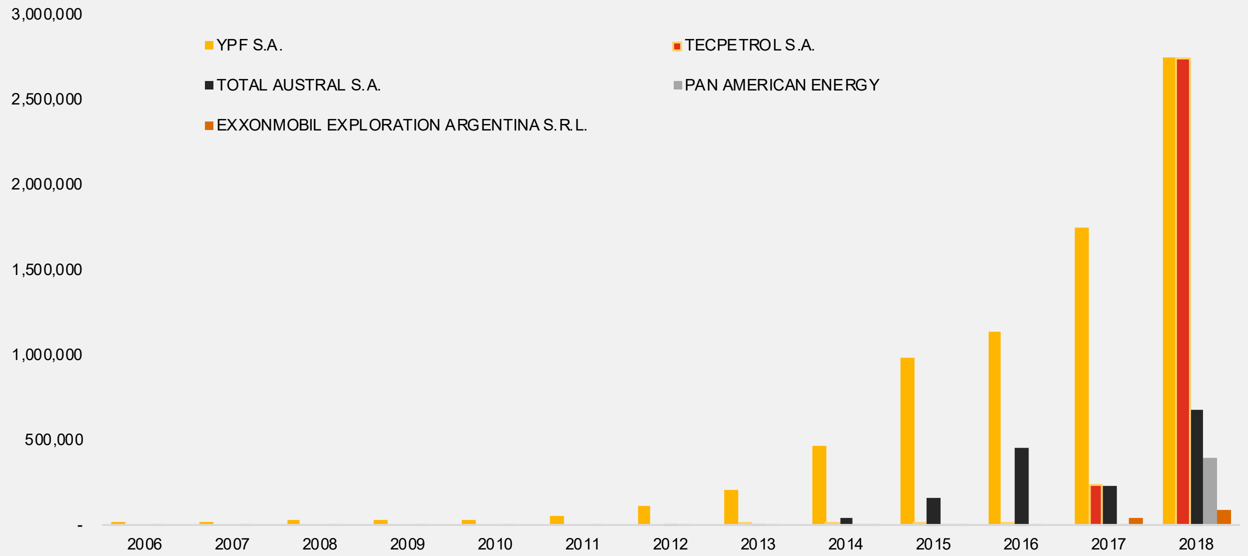
[2]Ministry of Energy and Mining.

GRAPHIC 3

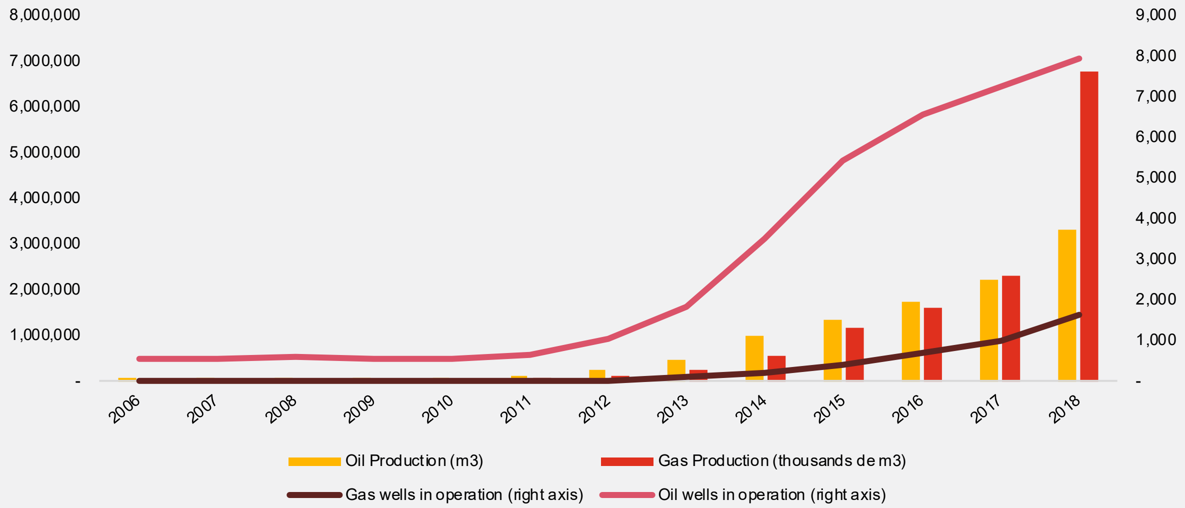
Main gas producers (2006-2018, thousands of m3)



Source: Prepared by the authors based on Minem data

GRAPHIC 4

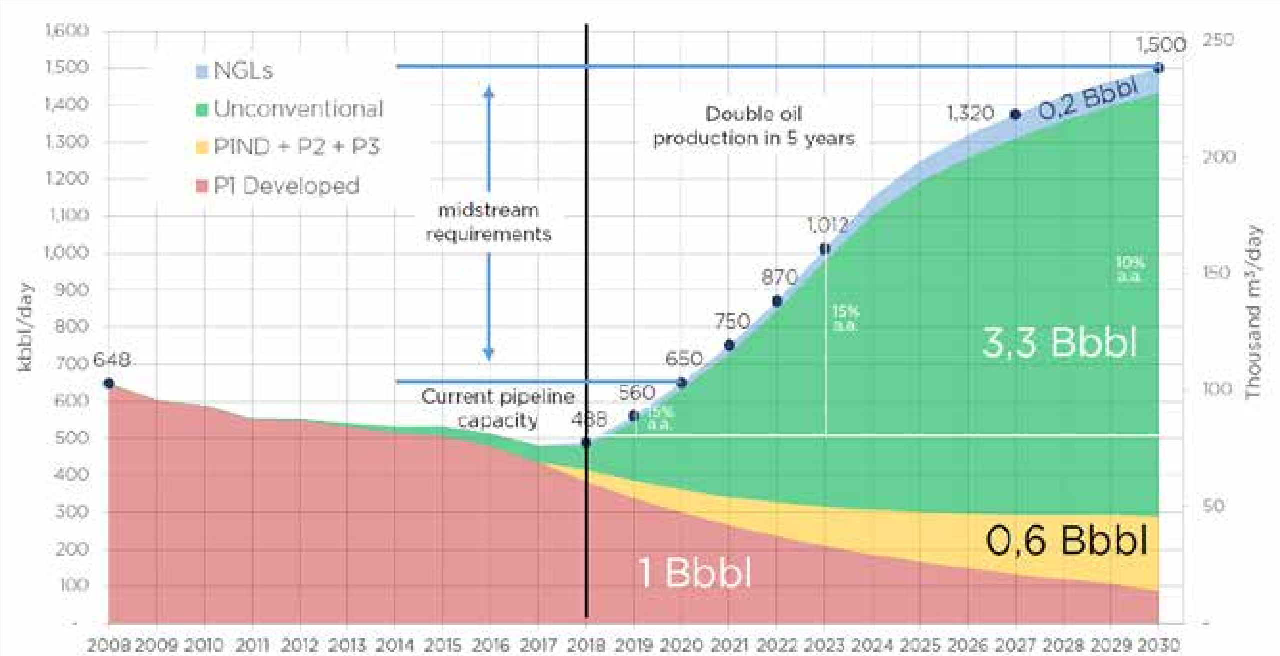
Changes in the oil and gas production and number of operating wells in Vaca Muerta (2006-2018)



Source: Prepared by the authors based on Minem data

GRAPHIC 5

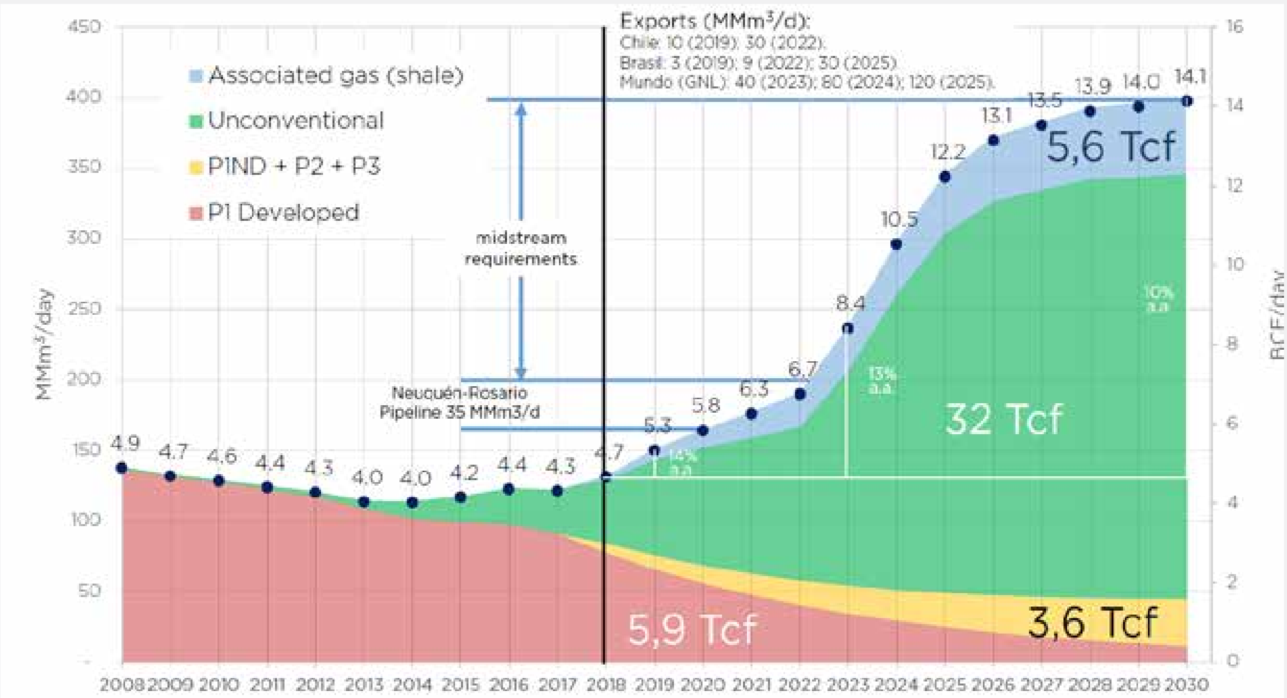
Estimated changes in the oil production in Argentina.



Source: "Argentina Energy Plan – Guidelines", Strategic Planning Secretariat
*P1: proven reserves, 90% of certainty of commercial extraction
*P2: probable reserves, 50% of certainty of commercial extraction
*P3: possible reserves, 10% of certainty of commercial extraction

GRAPHIC 6

Estimated changes in the natural gas production in Argentina.



Source: "Argentina Energy Plan – Guidelines", Strategic Planning Secretariat

Considering the potential of the sector and that the internal consumption is relatively stable, a greater production would generate an important margin to export.

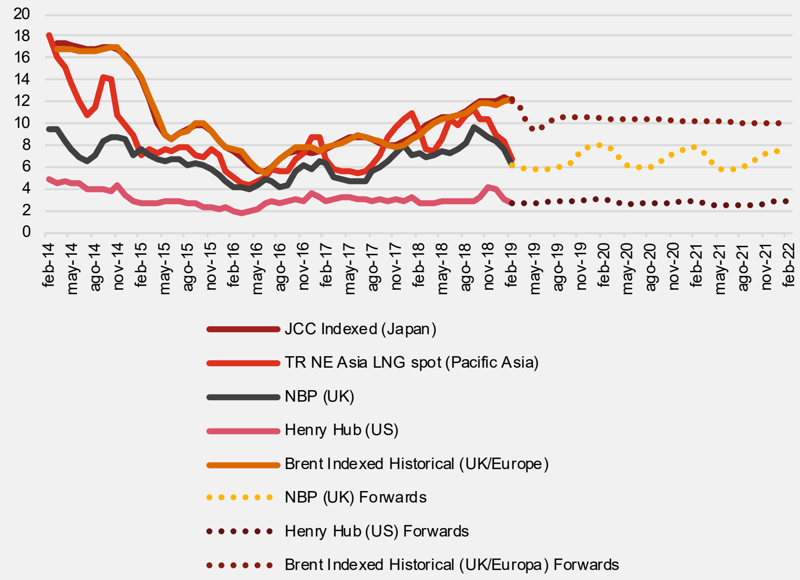
More precisely, approximately 500 thousand barrels of oil are consumed daily; thus, in line with the highest estimate, rises to a million daily barrels. On the other hand, in the case of gas, the demand is seasonal, concentrating in winter and in the peaks of electricity consumption in summer (to supply thermal power plants), up to a maximum of 150 million of m3/d. The main challenge in this case would be to develop the transport infrastructure (Midstream), which in the case of oil is currently 650 thousand barrels per day and, in the case of gas, 160 million of m3 on a daily basis.

Among the sector challenges, the long-term macroeconomic stability is essential to have a high deal of investments and relationships with international prices in US dollars. Strictly speaking, neither would great fluctuations in the exchange rate appear nor frequent amendments to the regulations to change the rules of the game in a sector that sinks capital with plans for 15 or 20 years henceforth. In addition, political uncertainty significantly lowers the planning horizons and increases the risks of enactment of detrimental policies in the sector.

At this point, the sector's development would generate huge exportable balances, if the production estimated by the energy secretariat maintains trends in prices and remain stable. Thus, in the year 2025, exports of oil would total more than USD 13 billion (Bbl= USD 51.6 and volume exported 704 thousand barrels per day) and natural gas exports would total almost USD 11 billion (MMBTU = USD 6 and volume exported 140 million of m3 daily); and in 2030, oil exports would total more than USD 16 billion (Bbl= USD 50 and volume exported 895 thousand barrels per day) and natural gas more than USD 13 billion (MMBTU = USD 6 and volume exported of 172 million of m3 daily).

GRAPHIC 7

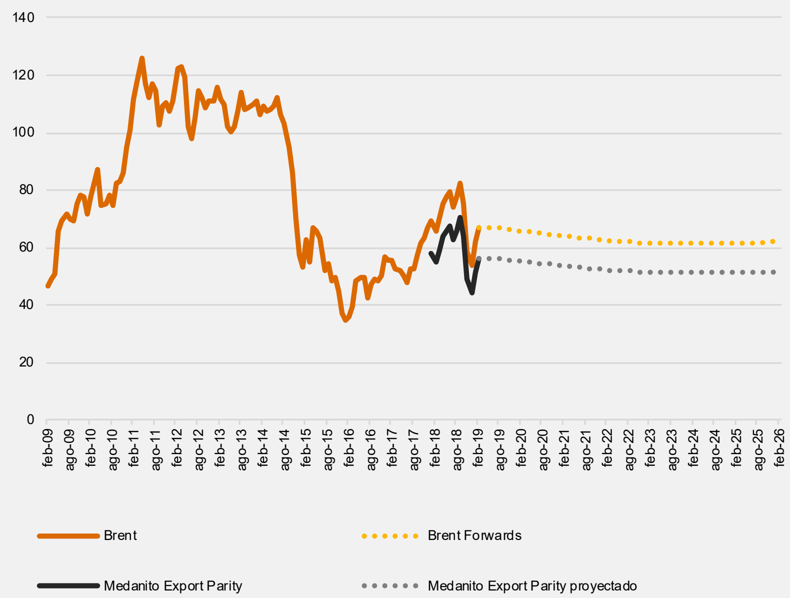
International Prices of LNG of main benchmarks (USD/MMBTU, forwards February 2019)



Source: Prepared by the authors based on Reuters data

GRAPHIC 8

Changes in the price of Brent and Medanito[3] (USD/bbl, forwards February 2019)



Source: Prepared by the authors based on Reuters data
* We assume that 10% export tax duties will continue to be in effect

[3] Medanito is a type of oil extracted from the Neuquen Basin

MAP 3

Detail of works in the train Norpatagónico

Source: Trenes Argentinos

The limit is the logistics factor, both for access to materials and inputs to Vaca Muerta and for the transport of gas extracted for substitution of imports and diversification of export destinations.

In the first case, the National Government has called for a bidding process to recover the Train Norpatagónico (Northern Patagonia) to connect Bahía Blanca and Añelo (700 km), which consists in the renovation and improvement of tracks, and the construction of a new section between Contraalmirante Cordero (28 km to the North of Cipoletti) and Añelo. The work costs approximately USD 780 million, set to be completed in the second six-month period of 2023 and will allow the circulation of both cargo and passenger broad gage (1676mm) trains.

As for natural gas exports, currently production is sent largely to Chile, given its geographical closeness and the existence of gas pipelines with the neighboring country. At February 2019, there are 34 export permits approved and effective, 23 of which are part of Vaca Muerta. These permits are valid until May 2020 and would account for USD 1.1 billion in exports, 53% of the total value of export permits in the Country.

Considering the small size of the local market as to the production potential (150 million m3 daily versus 400 million m3 daily) and the limited capacity of the midstream to export gas to the markets of neighboring countries, the most reasonable option would be to export LNG[4] to different European and Asian markets. In this sense, YPF hired a barge that converts gas into LNG with the aim of exporting this product from the port of Bahia Blanca. However, to place all excess gas production in the LNG international markets, it would be necessary to increase capacity significantly, by building plants to convert Gas into LNG in different ports in the Province of Buenos Aires, or even in Chilean ports, to access Asian markets with lower transportation costs.

As regards the transport logistics of the oil production, the national government is driving a project for the construction of a gas pipeline of 1,200 km between Neuquén and Rosario with a capacity of 35 million m3 per day, which would require an investment ranging between USD 1.5 and 2 billion. This new gas pipeline, estimated to be completed in 2022, could supply the industrial parks in southern Santa Fe, the Northeast of the Province of Buenos Aires and Buenos Aires Metropolitan area, as well as extend exports to Brazil and Uruguay. This sector has true potential and in the medium- and long-term, could become a black soy for Argentina; not exactly due to the net inflow of foreign currency, but for the important effects on the rest of the economy. As a highly technical sector, it will require quality with both qualified and formal employment, as well as investments in logistics that would favor the development of other production sectors, a true potential that Argentina should not ignore.

[4] Liquefied Natural Gas

Global Coordinates

How the weakening of the global economy could affect monetary policies of the leading central banks

A decrease in the balance sheet of the US Federal Reserve (the Fed), added to the end of the European Central Bank's quantitative easing program, could imply that these central banks start draining liquidity off the global economy for the first time since the mid-year world financial crisis. However, this toughening of monetary policy could take place at the same time as global growth decelerates and the volatility of financial markets increases, which makes us think that the process could take place over some time, with steps forward as well as backward.

According to a recent report by PwC UK, the Central Banks of the three largest and most advanced economies in the world responded to the 2008-09 financial crisis similarly, by lowering interest rates and stimulating loans through the QE, or quantitative easing process. This methodology generated assets valued in billions of dollars in the balance sheets of the Fed, the European Central Bank (ECB) and the Bank of Japan (BOJ).

Ten years after this crisis, the banking institutions mentioned above are seeking to normalize their monetary policies and to set interest rates closer to the pre-crisis average values. The Fed has made the greatest progress in this sense: it concluded the third round of its QE program in 2014, raised interest rates for the first time in 2015 and allowed some of the assets purchased under the QE policy to mature in 2017. In contrast, the ECB ended with its QE program only in 2018 and is still pondering whether or not to halt the repurchase of assets, while BOJ continues buying government bonds and private securities month after month.

The fact that the ECB ceased to purchase bonds, together with the increased rate at which the Fed allows for maturity of its bonds and securities, implies that a significant threshold can be crossed in the first semester of 2019. For the first time since the crisis, these three central banks could draw funds from the world economy. At the peak moment of the incentives, in 2009 and again at the end of 2016, the amount of liquidity injected into the economy was growing at a rate equivalent to 2.5% of world GDP.

This injection took place at the same time as interest rates hit bottom and pushed the prices of assets upwards as investors looked for better yields. However, the combination of the rise in interest rates and reduction in the balance sheet of the Fed coincides with lesser growth of the global economy and an increase in volatility in the financial markets.

This unstable context involves complications for the plans of different banks. While the Fed faced positive prospects as it started to increase rates in 2015, this looks less promising for the ECB, since economic growth in the Euro zone has significantly decreased. Last January, the Fed stated that the global economic situation requires that rates stay at present values.

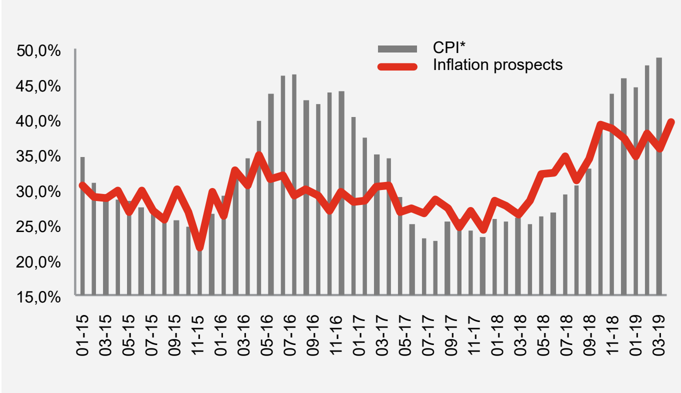
The ECB and BOJ might change their course of action, but neither has committed to a restrictive monetary policy. The BOJ has reduced the monthly amount of bond purchases, but it has not set a minimum goal. While the ECB is sticking to its wait-and-see policy for an indefinite period.

It is not clear to what extent the Fed intends to decrease its holdings. Prior to the crisis, it possessed assets for a value of USD 900 billion. Today, with the 1.5 trillion of US dollars in circulation, it would take until early 2023 for the balance to go back to that level, assuming that the maximum value of assets that could be disposed of would be USD 50 billion per month.

But the Fed is likely to change the course before that date, because it sees the balance as a technical matter that enables them to control interest rates, rather than as a monetary policy issue. But if the economic growth slow down, the Fed would face the dilemma of being in the need to persuade the financial markets to dispose of their assets, while at the same time paring down interest rates. As a result, the balance of the Fed is likely to remain more attractive than before the crisis, as a reduction in the balance sheet would be precluded by the need for a change in direction of the interest rate policy in response to economic decline.

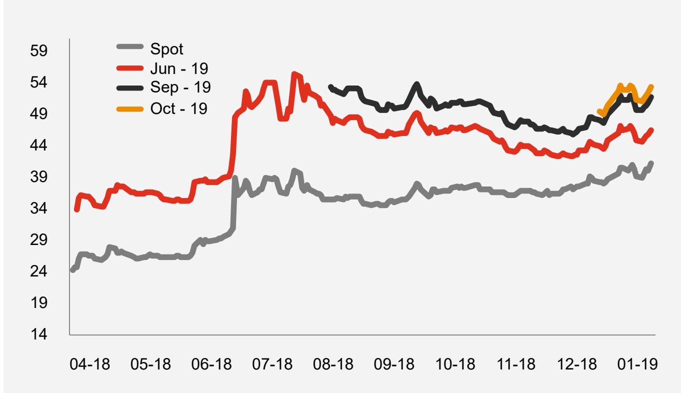
Normalizing the account statements of Central Banks will be a long and challenging process that will pose risks for the global economy's growth and will certainly be interrupted or delayed by the frequent occurrence of economic shocks.

Inflation



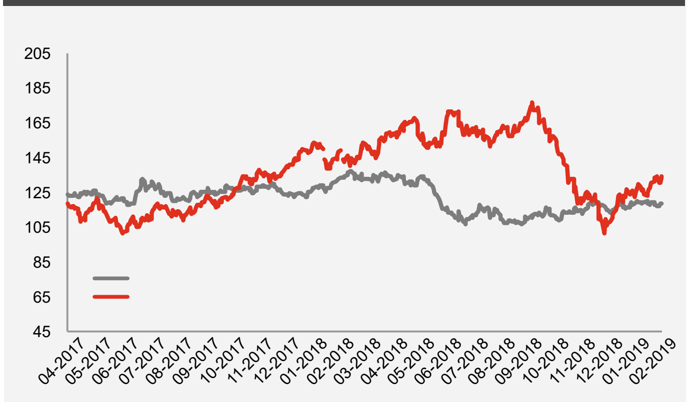
Source: Own calculations based on CPI Congress and UTD
*CPI Congress. As of November 2016 it is considered CPI City of Buenos Aires

Exchange rate: spot and futures



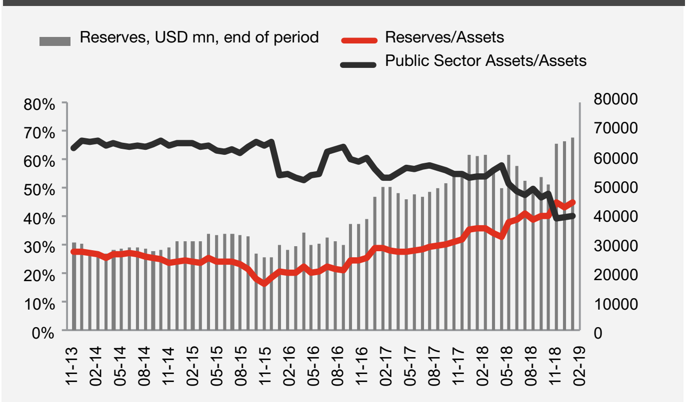
Source: Own calculations based on Rofex

Price of Soy and Oil, index2004=100



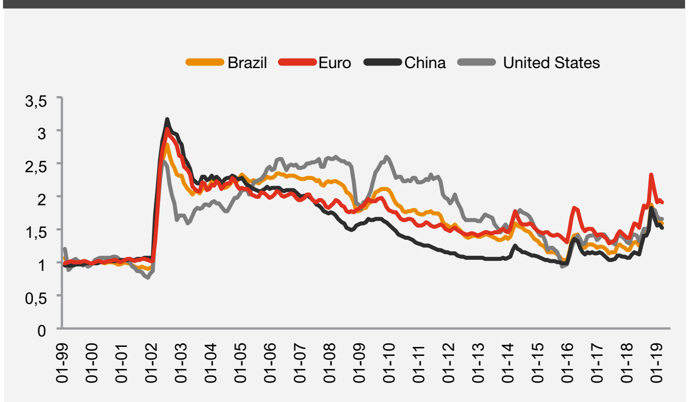
Source: own calculations based on CBOT y WTI NYMEX

Reserves and Central Bank Assets



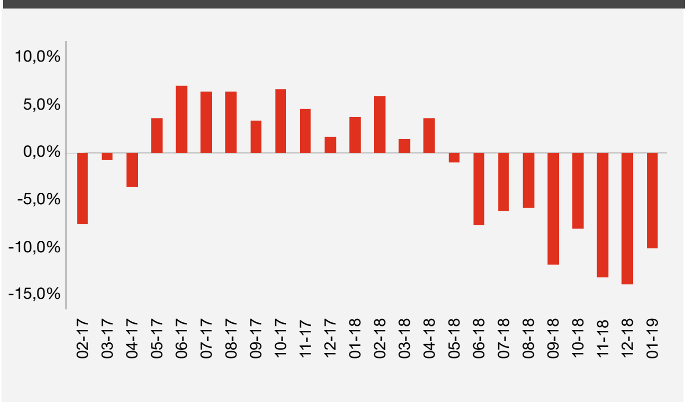
Source: own calculations based on Central Bank

Real Exchange Rate Index: base Dec-99=1



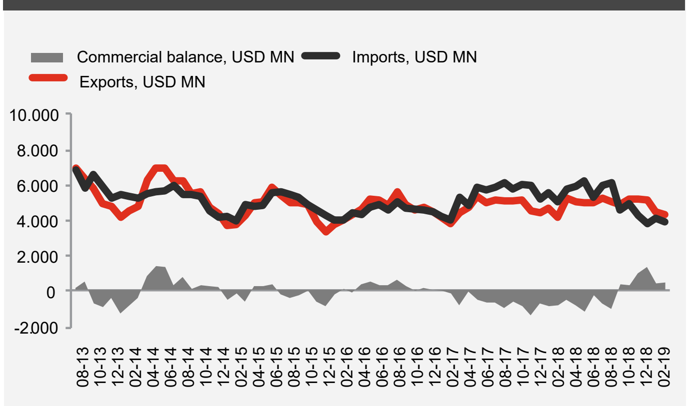
Source: own calculations based on the Argentine Central Bank

Monthly Industrial Estimator



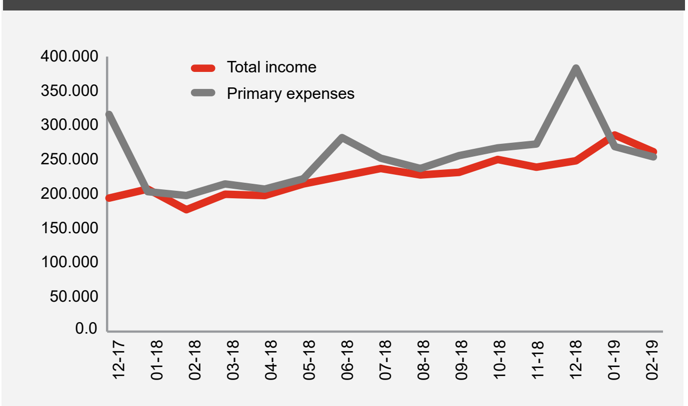
Source: own calculations based on INDEC

Foreign Trade



Source: own calculations based on INDEC

Income and Expenses of the National Non-Financial Public Sector



Source: own calculations based on Secretary of Finance

Activity and Prices	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Real GDP, var % y/y	-1.8%	2.7%	-2.5%	-	-6.2%	-	-
CPI Federal Capital, var % y/y	41.0%	26.1%	45.5%	46.8%	45.5%	48.6%	49.7%
CPI San Luis, var % y/y	31.4%	24.3%	50.0%	51.3%	50.0%	53.2%	55.2%
Industrial Production, var % y/y	nd	2.5%	-5.0%	-10.1%	-7.2%	-4.9%	nd
International Reserves (end period, USD mn)	39,308	55,055	65,806	51,193	65,806	66,811	68,015
Import Cover (month of reserves)	8.44	9.87	12.07	11.73	16.82	15.85	16.99
Implicit exchange rate (M0 / Reserves)	20.81	18.34	21.41	24.20	21.41	20.25	20.63
$/USD, end period	15.85	18.77	37.81	38.02	37.81	37.04	38.9983

External Sector	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Exports, USD mn	57,879	58,622	61,621	5,349	5,282	4,586	4,464
Imports, USD mn	55,911	66,930	65,441	4,365	3,913	4,214	4,004
Comercial Balance, USD mn	1,969	-8,308	-3,820	984	1,369	372	460
Currency liquidation by grain exporters, USD mn	23,910	21,399	20,202	810	1,041	1,756	1,290

Labor*	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Unemployment, country (%)	7.6	7.2	9.1	-	9.1	-	-
Unemployment, Greater Buenos Aires (%)	8.5	8.4	10.5	-	10.5	-	-
Activity rate(%)	45.3	46.4	46.5	-	46.5	-	-

Labor*	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Unemployment, country (%)	2,070,154	2,578,609	3,382,644	300,119	319,921	363,927	330,891
Unemployment, Greater Buenos Aires (%)	583,217	765,336	1,104,580	96,792	99,210	114,742	103,782
Activity rate(%)	432,907	555,023	742,052	65,415	73,833	71,300	69,441
Social Security System, $mn	536,180	704,177	878,379	74,592	74,909	109,101	85,784
Export Tax, $mn	71,509	66,121	114,160	14,715	15,794	15,573	17,592
Primary expenses, $mn	1,790,789	2,194,291	2,729,251	249,322	350,880	247,266	234,451
Primary result, $mn	-343,526	-404,142	-338,987	-33,770	-135,316	16,658	6,726
Primary result, $mn	185,253	308,048	513,872	46,327	76,858	91,700	14,877
Fiscal results, $mn	-474,786	-629,050	-727,927	-72,884	-192,774	-60,038	-4,906

Financial - interest rates***	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Badlar - Privates (%)	20.04	23.18	48.57	51.27	48.57	45.90	37.91
Term deposits $ (30-59d Private banks) (%)	19.51	21.80	46.22	48.55	46.22	44.14	36.83
Mortgages (%)	19.70	18.61	47.70	44.93	47.70	47.01	41.80
Pledge (%)	20.82	17.42	24.88	28.52	24.88	26.10	25.58
Credit Cards (%)	44.45	42.21	61.11	56.58	61.11	62.04	62.18

Commodities****	2016	2017	2018	Nov-18	Dec-18	Jan-19	Feb-19
Soy (USD/Tn)	362.6	358.9	342.3	322.3	330.5	333.8	334.5
Corn (USD/Tn)	141.1	141.4	145.0	144.0	148.1	149.1	147.2
Wheat (USD/Tn)	160.3	160.2	182.1	185.7	190.1	189.9	183.5
Oil (USD/Barrel)	43.3	50.9	64.9	56.7	49.0	51.6	55.0

* Quarterly figure. The year corresponds to Q4
** includes intrasector public interest
*** data 2012/13/14 corresponds to the daily weighted average of December
**** One moth Future contracts, period average
p: provisional

Source: INDEC, Secretary of Finance, Ministy of Economy, BCRA, AFIP, Unión por Todos, CIARA, CBOT, NYMEX

Our services

Macroeconomic analysis	Sectorial/Quantitative	Litigation	Regulatory
Monthly/quarterly report	Follow up and projection by sector	Support of experts' reports relating to economic matters	Tax benefits
Conferences	Quantification of demand	Dumping	Benefit/price structure
Projections and data	Applied econometrics	Antitrust	Quantification of impacts
	Revenue forecast		
	Surveys		

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