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In search of equilibrium (among multiple equilibriums)

We economists speak of general equilibrium to explain the behavior, interaction and equilibrium among the different markets of the economy. General equilibrium differs from partial equilibrium in that the latter focuses only on analyzing a particular market, considering that the prices of the other goods and services remain constant. In a general equilibrium, all the prices are variable and it is necessary for all the markets to adjust simultaneously.

Consequently, when we analyze a single market, in theory we should be able to reach multiple equilibriums, depending on the value we assign to exogenous variables determined in other markets.

However, not all those equilibriums could be stable since, if a given equilibrium relies on a specific variable in another market that is not in equilibrium, this could generate an adjustment process in that market that may not necessarily lead to its equilibrium.

When we consider inflation, there may be multiple nominal equilibriums that ultimately reflect a single equilibrium in real terms.

As discussed in this number's Tracking, the money market may present multiple exchange rate and interest rate combinations which –from a partial and short-term point of view- might be considered to reach equilibrium. However, each of those combinations may have different implications for the equilibrium of other markets and, ultimately, for the general equilibrium of the economy.

Therefore, allowing the foreign exchange rate to appreciate based on the availability of short-term financial capital inflows may determine an exchange rate level that is not in line with the goods market equilibrium, especially when there is a stringency or reluctance to reduce prices that does not allow an adjustment of the variable in real terms.

If the foreign exchange rate is to be maintained, either the money supply must be increased (anyone who wants to fix a price and has the capacity to do so must be willing to clear market quantities – and do so), or its increase must be sterilized through a higher interest rate.

In an inflationary context such as the current one, this situation poses the dilemma of maintaining or increasing the pace of inflation through an increase of the monetary base sufficient to lower the interest rate; or exacerbating the short-term capital inflows to take advantage of the carry trade, increasing the exchange rate volatility and the risk of a sudden adjustment of the latter.

There is, however, a solution to this dilemma: a monetary policy aimed not only at reducing inflation and recovering credibility in the currency –the sole long-term objective-, but also at achieving a nominal exchange rate that will imply a sustainable path in the long term for the real exchange rate. This way, in a scenario of capital inflows that appreciates the exchange rate, the Central Bank will have the possibility of inducing a drop in the interest rate that will generate a new equilibrium, with a lower interest rate and a higher exchange

rate than the one that would result from not lowering the interest rate. Since the increase in money supply required to lower the interest rates could have an impact on the inflationary expectations and, consequently, on the real interest rate, the exchange rate could overreact, requiring a new rise in the interest rate to contain it. The path to the target exchange rate would therefore be achieved by a process of successive trial-and-error.

Although the Central Bank did not say this explicitly, it seems to have pursued this policy in the last weeks. The actual facts show that it has established the lower limit of the no intervention band as the sustainable path and has acted accordingly.

Nevertheless, we must analyze whether the lower limit of the band is sustainable over time. The answer is that it will depend on how quickly relative prices become aligned and inflation reacts to the contractionary monetary policy. The longer this process takes, the higher the interest rate level will need to be maintained, and, consequently, the higher the endogenous component of future money creation will be (i.e. interest paid on Central Bank interest-bearing liabilities). To maintain the target real exchange rate, the rate of depreciation of the no intervention band should be higher. Additionally, due to the pass through, inflation will take longer to adjust downwards.

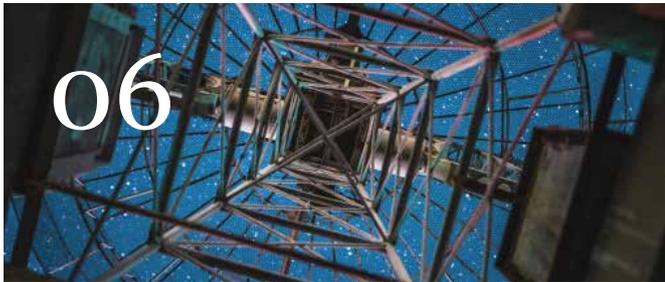
Currently, the total monetary creation rate (actual plus future) is below the depreciation rate of the no intervention band. If we consider that the monetary base (zero rate or non-interest bearing liabilities) represents approximately 60% and the Leliq (liabilities that bear an interest rate of 50%) account for approximately 40%, the present scenario shows a monthly monetary issue rate of approximately 1.6%, which compares with a 2% devaluation rate. However, we must not lose sight of the big picture (and the importance for the inflation to react, and of being able to reduce the interest rate), since the stock of Leliq is growing constantly as a result of the payment of interest (which, pursuant to the commitment with the IMF, cannot contribute to expand the monetary supply), increasing their weighting and accelerating the total issuance rate. If, due to the necessary corrections in certain relative prices of the economy, the inflation delays in falling back, the monthly devaluation rate of the no intervention band should be maintained for longer (or even increased).

Although this policy could delay the convergence to a normal inflation level by international standards, it would avoid the creation of tension in the exchange market, which entails the risk of a sharp correction in the future with all its consequences for the real economy.

The key question is, will the political sector and Argentine society be willing not to take the short-cut this time?



José María Segura
Chief Economist PwC Argentina



Tracking

The short-term economy

The challenge for the Argentine economy will be to avoid the mistakes of the past of intending to curb inflationary pressure based on a currency appreciation that exceeds the possibilities of maintaining a balanced foreign sector in the medium and long term.



Industry Roadmap

Retail in Argentina: How does the market prepare for the changes?

Retail is clearly experiencing enormous changes driven by the impact of technology breakthroughs. PwC Argentina conducted a survey covering many industry players to get to know their perspectives as well as the impact they expect these changes will have on their business strategy to achieve sustainable growth in the long run.



Zooming

Financial inclusion

In 2006, Muhammad Yunus received the Nobel Peace Prize for his breakthrough in financial inclusion. His work consisted in providing microcredit assistance to India's Base of the Pyramid market through Grameen Bank, established in 1976. Muhammad brought about a global social revolution.



Global Coordinates

Preparing for tomorrow's workforce

Leaders preparing for tomorrow's workforce know that they face certain challenges that require a clear vision in an uncertain world.



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Tracking

The short-term economy

The challenge for the Argentine economy will be to avoid the mistakes of the past of intending to curb inflationary pressure based on a currency appreciation that exceeds the possibilities of maintaining a balanced foreign sector in the medium and long term.

A system of control of monetary aggregates and floating exchange rate contained within a so-called “no intervention zone” has been in place in Argentina since October 2018. In other words, the monetary authority undertook not to increase the monetary base above a given target initially set at the average daily monetary base for September, with the possibility of adjusting this upwards to reflect seasonal trends in December 2018 and June 2019. It additionally established a non-intervention zone within which the

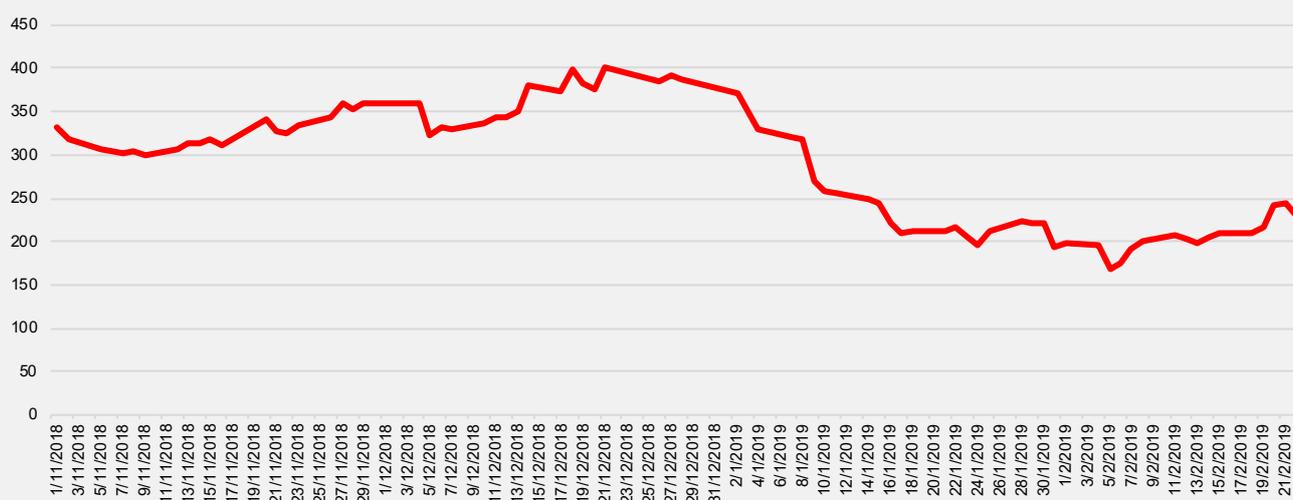
exchange rate can float freely without any exchange intervention by the BCRA (initially established between 34 and 44 pesos per USD, with a daily adjustment at a monthly 3% during the three last months of 2018, and at a monthly 2% from January to March 2019). The Argentine Central Bank may intervene if the exchange rate exceeds the lower or upper limits of this non-intervention zone. By agreement with the IMF, that intervention cannot exceed USD 150 million per day. However, the BCRA set its own limits for December at a maximum of USD 50 million in purchases, and 2% of the target monetary base for the month if the exchange rate fell below target. In January the Monetary Policy Committee of the BCRA relaxed this limit by 50%, effective as from February, thus allowing itself to purchase a daily maximum of USD 75

million, provided this did not expand the monetary base above 3% of the monthly target. It should be noted that the BCRA is exempted from the requirement to sterilize its USD purchases, and these are considered as a genuine source of expansion of the target monetary base.

In a context of relative calm in the international markets, the FED¹ did not increase its interest rates in January, and indicated it may maintain this policy in the near future in view of a possible deceleration of the United States economy. In addition to this, an apparent lull in the trade conflicts between the United States and China has driven a return of international funds to emerging economies, including Argentina, which is reflected in a drop in the country risk premium.

GRAPHIC 1

Argentine CDS 6 months

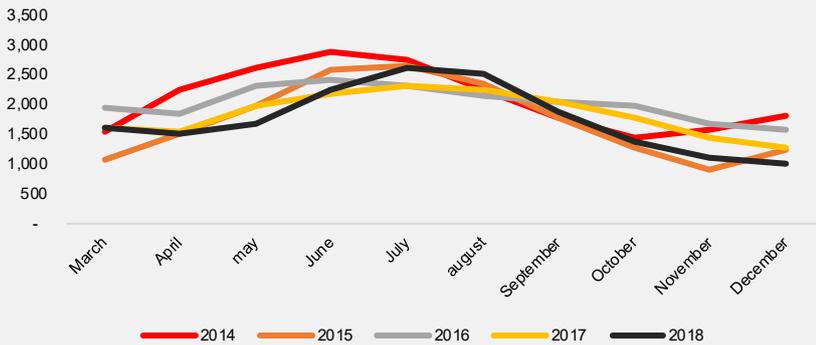


Source: Prepared by the authors based on Reuters' data.

¹ The Federal Reserve (FED) is the United States' monetary authority

GRAPHIC 2

Foreign exchange settlements for the agro-exporting sector, 3-month moving average in millions of USD

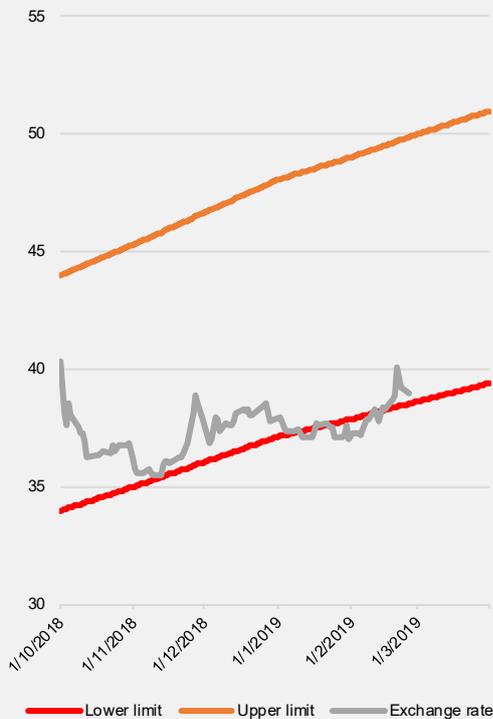


Source: Prepared by the authors based on CIARA-CEC data.

Locally, there has been a drop in the demand for dollars for travel (due to a dramatic decline in the volume of outgoing Argentine tourists at the beginning of 2019, which is likely to continue in subsequent months) and for imports of goods. The latter has been declining progressively as a result of the drop in economic activity. However, given the seasonality of Argentine agricultural exports, the period of strong foreign currency supply is due to begin in the coming months.

GRAPHIC 3

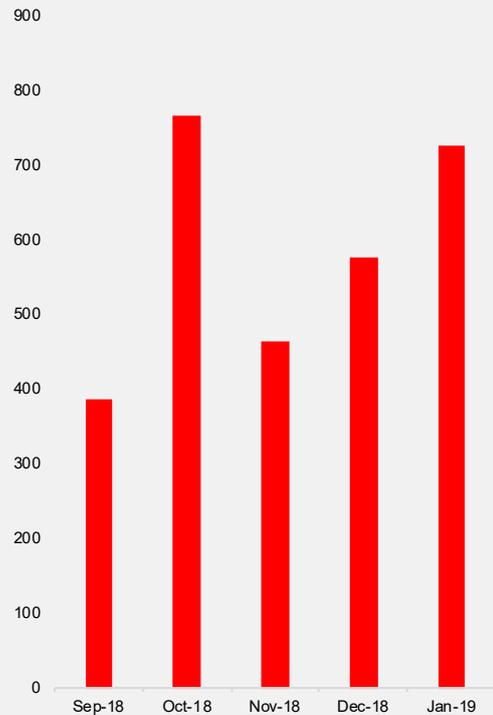
Wholesale nominal exchange rate and no intervention zone



Source: Prepared by the authors based on BCRA data.

GRAPHIC 4

MULC* - Portfolio investments, income. In millions of USD



Source: Prepared by the authors based on BCRA data.
*MULC: Spanish acronym for Sole Free Exchange Market.



The natural consequence of this scenario is the inflow of investment funds to take advantage of the US dollar supply.

Based on the interest rate parity theory:

$$TC_{0,1} = TC_{Spot} \frac{(1 + Rd)}{(1 + Rf + CDS)}$$

Where:

$TC_{0,1}$ = Current forward exchange rate for 1 period

TC_{Spot} = Current Spot FX rate

Rd = Domestic interest rate for the period

$Rf + CDS$ = Foreign currency interest rate for the period. It should be noted that this rate must be adjusted to reflect the country risk premium in order to guarantee a covered debt ratio.

If we assume that the future exchange rate is driven by the expected future USD supply and demand, and that the supply is expected to grow in the very short term due to the seasonal entry of FX from exports, while the demand is not expected to vary significantly in that short term (due to the volatility inherent to the electoral process, or other domestic or international factors), the above formula could be rewritten as follows:

$$TC_{Spot} = TC_{0,1} \frac{(1 + Rf + CDS)}{(1 + Rd)}$$

If we start off from a balanced scenario, and go on to assume a drop in the country risk premium, unless the domestic interest rate is adjusted, the spot exchange rate will appreciate. This is exactly what happened at the beginning of the year when, taking advantage of high peso interest rates that were out-of-kilter with US dollar rates as a result of failing to make a downward adjustment in line with the change in country risk, the country received capital inflows and the

exchange rate was mostly below the no intervention zone.

It should be noted that if the BCRA had no intervention whatsoever in the foreign exchange market, this would only generate greater exchange volatility, with the ensuing impact on the buildup of inflationary expectations. The explanation for this is that, maintaining the assumption that the very short-term future exchange rate is driven by market fundamentals, the future spot value of the US dollar should match its current future value. Consequently, the adjustment between a more appreciated current spot value and its future spot value will be higher.

The agreement with the IMF allows a margin of intervention to maintain the exchange rate. This led the BCRA to purchase USD 560 million during the first month of the year, which increased its reserves and led to the ensuing increase in the target monetary base for February by \$20.876 billion. As a result, the target for the current month started out at \$1,372.812 billion; consequently, the monetary authority could intervene with a daily maximum of USD 75 million, and this figure could not exceed 3% of the target value – i.e. \$41.184 billion.

Although the monetary expansion driven by the inflow of US dollars and purchases by the BCRA should tend to reduce the peso interest rate, the downside is that it generates inflationary expectations. It should be noted that January inflation remains above the levels that would be compatible with the inflation envisaged in the national budget.

As a result, the drop in the nominal interest rate of the Leliq², in search of a new interest rate – exchange rate balance that will not trigger an exchange appreciation aggravated by short-term capital inflows, may have been perceived by the market as a much greater drop in the actual interest rate, with the consequent overreaction in the exchange rate which stopped appreciating and even dropped slightly.

² Which was possible due to over-compliance with the quantitative target.

Although it may be premature to make a conclusive affirmation, the rapid response by the BCRA of withdrawing pesos from the economy to increase the nominal interest rate again should indicate a return to a balanced foreign exchange market in line with the country risk premium and inflationary expectations.

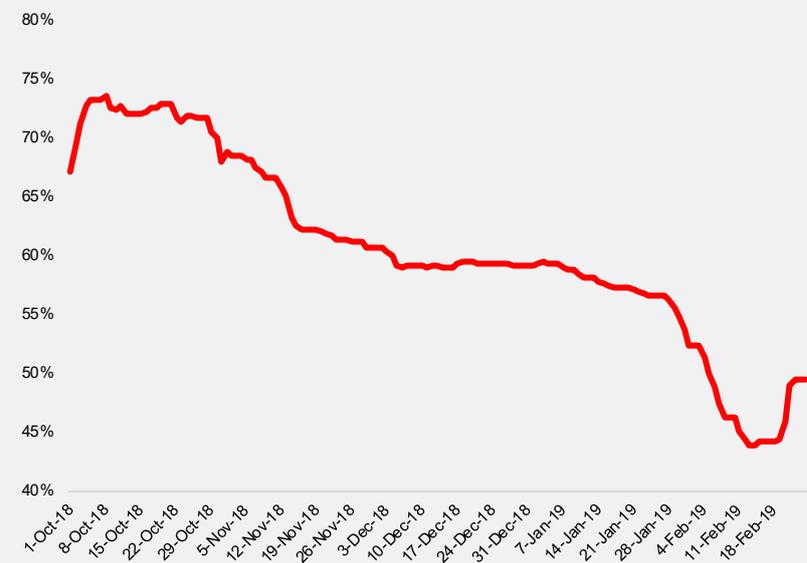
From the outlook of the real economy, a less volatile nominal exchange rate close to the lower limit of the no intervention range will help curb inflationary pressures. This, added to a relative recovery of the nominal income, should contribute to slowly start driving private consumption.

However, a greater drop in the country risk premium or a drop in inflation could lead to a continued decrease in interest rates.

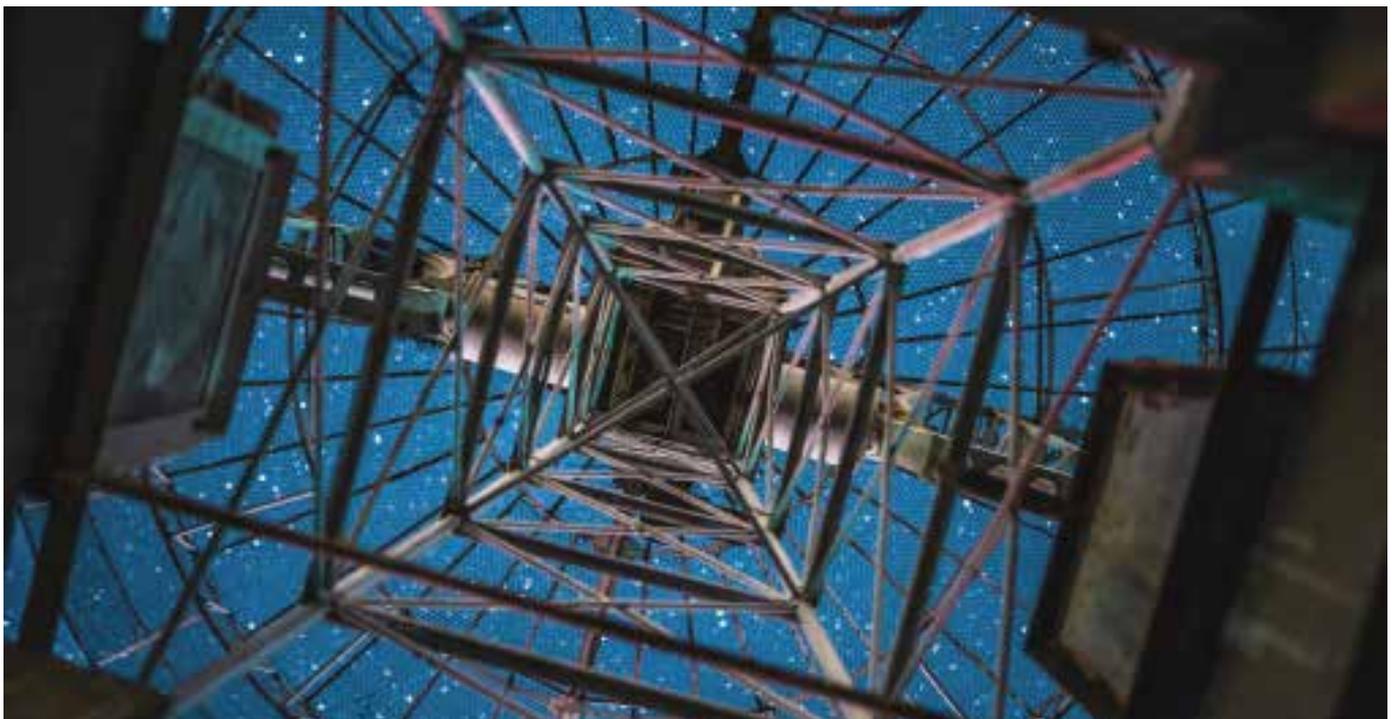
As we near the electoral dates, the chances of victory of one or another candidate may increase or reduce the level of uncertainty. While many candidates remain to be confirmed, the current scenario shows a level of parity that does not suffice to dispel uncertainties, and minimally establishes a lower limit to the reduction in the country risk premium.

GRAPHIC 5

Monetary policy exchange rate



Source: Prepared by the authors based on BCRA data.





If the level of uncertainty rises enough to increase this premium, balance should be sought with a higher foreign exchange rate or a higher peso interest rate, or a combination of the two, with the ensuing impact on the price and activity levels.

As a result, the drop in inflation may be the only path to reduce the interest rate in the short term. While the inflation may begin to react to the monetary policy as the months roll on, it is also true that short-term inflation in Argentina is not driven merely by monetary/quantitative variables. While pass-through income and the exchange rate behavior explain inflation in part, the readjustment of relative prices necessary to meet fiscal targets - such as the adjustment of public utility fees - is also responsible for driving inflation.

If the drop in inflation becomes more sluggish than expected, it will be necessary to re-calibrate the path toward a convergence with lower levels of inflation. This is because, given the mechanism for controlling the BCRA's monetary aggregates through the Leliq, printing money entails an endogenous component determined by the nominal interest rate paid by the Leliq. Until the BCRA is able to build credibility, economic agents in Argentina will continue to seek refuge in the US dollar. Consequently, the amount of reserves held to back the monetary base will constitute a relevant component for determining the foreign exchange rate. If the money supply in the broad sense -that is, including short-term interest-bearing liabilities of the BCRA- grows at a much faster rate than reserves, the only way to avoid a sharp adjustment in market price in response to an external

shock -as occurred as from April last year- is to maintain an adjusted exchange rate that preserves a balanced foreign sector and a relatively consistent coverage of the monetary base using reserves.

As we have seen, a path with a more depreciated foreign exchange rate could be achieved with a lower peso interest rate (which would also reduce the endogenous monetary creation mechanism). However, coupled with the greater pace of depreciation, this would have a negative impact on the process of reducing inflation, prolonging it over time. However frustrating it may seem to have to follow this path, Argentine history holds many examples of the dangers of attempting to force progress to reduce inflation more quickly and allowing the foreign exchange rate to appreciate.

Industry Roadmap

How does the market prepare for the changes?



By Andrés Suárez, Retail and Mass Consumption Leader at PwC Argentina.

Retail is clearly experiencing enormous changes driven by the impact of technology breakthroughs. PwC Argentina conducted a survey covering many industry players to get to know their perspectives as well as the impact they expect these changes will have on their business strategy to achieve sustainable growth in the long run.

The main threats affecting this industry relate to the informal economy and volatile costs, while the challenges to maintain business competitiveness are associated with decline in consumption, increase in labor costs, heavy tax burden and inflation.

In this context, the disaggregation of costs is key to understand which categories create value and which categories could be dispensable or kept to a minimum. Therefore, it is essential to intensify the efforts and focus them on the former to achieve a solid basis and design a sustainable market strategy that will help improve the present situation.

Maintaining and strengthening the importance of organizational culture is another aspect businesses should

lay emphasis on, both during a crisis and a transformation process. Culture is the DNA of organizations: it allows companies to stand out in a market and get recognition from consumers, it shapes the behavior and attitudes of its people, and it reflects in the business strategy.

As for the future development of the sector, it is extremely important not to omit actions that may allow us to identify new trends and possible changes in consumer behavior. Moreover, we must also be prepared to take effective actions once the present circumstances have changed. In this regard, 95% of respondents consider that the changes in consumption habits will affect directly the current business model in the short or medium term. Thus investing in tools that allow us to anticipate these changes and consumers' future needs is not a luxury but a significant move to preserve business value.

Most respondents think that a combined business model, where physical and online stores coexist, will be the main innovative factor in the next five years. Further, survey respondents identify as

short-term priorities the organization's visibility and the development of mobile channels for sales generation and customer service. On the other hand, investment in products and services' innovation will also become a priority in the medium term.

Finally, the main challenge organizations face is to find the space to map out a strategy that takes into account the new trends and, at the same time, aims to maintain its market share, within a context in which the local economy is not at its best.

Zooming

Financial inclusion

In 2006, Muhammad Yunus received the Nobel Peace Prize for his breakthrough in financial inclusion. His work consisted in providing microcredit assistance to India's Base of the Pyramid market through Grameen Bank, established in 1976. Muhammad brought about a global social revolution.

According to the World Bank, financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance- delivered in a responsible and sustainable way. Key enabler to reducing poverty and boosting prosperity. Usually, the most vulnerable segments are the

small and medium-sized enterprises (SMEs), homes in rural farm areas, underemployed individuals, retirees and, according to the region evaluated, women.

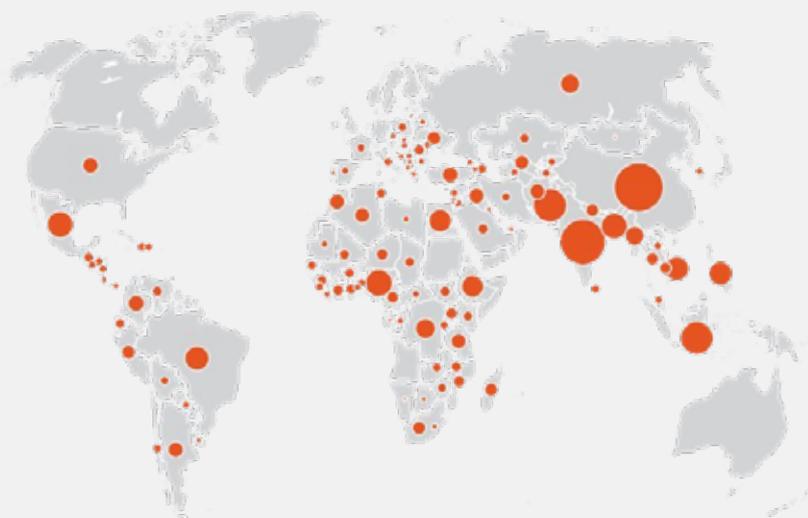
Over the last few years, financial inclusion has become a priority for international agencies, such as the World Bank and the G20, which have included in their agenda reforms and commitments to improving access to and usage of financial services by the population. At the Pittsburgh Summit in September 2009, the G20 leaders undertook to improve access to financial services by low-income people, through the support for safe and solid expansion of new ways of providing financial services capable of reaching the poor. At the 2010

Korea Summit, the leaders announced the establishment of the Global Partnership for Financial Inclusion (GPFI) as the enforcement agency of G20 commitments to financial inclusion, and a report was presented at the Cannes Summit held in 2011 on the expansion and specification of the recommendations on financial inclusion.

As informed by the World Bank, around 1.7 billion adults remain unbanked. Given that account ownership is almost universal in the developed economies, most of the unbanked population is situated in the developing economies. Graphic one shows the statistics prepared by the agency with Global Findex¹ data:

GRAPHIC 1

Adults without an account in 2017



Source: Global Findex database

Note: data on economies with a proportion of adults without an account of 5% or less are not shown.

¹Demirgüç – Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar and Jake Hess. 2018. Global Findex database 2017: Measuring financial inclusion and the financial technology revolution. Working paper. Washington, DC: World Bank.

In less developed economies with low levels of account ownership, there is a great opportunity to generate inclusion through mobile money. Kenya is a good example of success in this matter. There, money transfers among people were facilitated with the usage of mobile telephones. Customers can use their mobile telephones to transfer money, check their account balances, pay bills, apply for credit on the phone and transfer such credit. At present, almost 50% of Kenya's GDP is processed by this means of payment; 93% of the population has access to mobile payments and 120,000 agents are in charge of converting physical money into mobile money and vice versa².

FinTechs play a very important role and are the great protagonists from the private sector to generate inclusion. The Inter-American Development Bank, in conjunction with Finnovista, have stated that the irruption of FinTechs, together with the reconfiguration of the financial services industry, will contribute to narrowing the financing gap that affects the productive sectors in the region, especially SMEs in Latin America. Additionally, the emergence of on-line platforms and intermediaries will reduce transaction costs enabling the creation of the so-called virtuous circle to expand SMEs access to credit and reduce SME informality³.

Financial inclusion has no cultural or geographical boundaries to cause significant impact towards a more connected world with equal opportunities. In this context, there is the question of where Argentina is located in this matter today.

To evaluate the situation of the local market, information released by the Central Bank and indicators proposed by the G20⁴ and other international bodies were considered.



²Designing Mobile Money Services - Lessons from M-PESA. Ignacio Mas and Olga Morawczynski. Spring-2009
N-Magazine Spain. M-PESA: How Kenya revolutionized mobile payments. Haizea De Pedro. April 30, 2018 Link: <https://mag-es.n26.com/m-pesa-cómo-kenia-ha-revolucionado-los-pagos-móviles-d5eff43cb9ec>
³ FINTECH: Innovations You May Not Know were from Latin America and the Caribbean. Inter-American Development Bank and Finnovista. 2017.
⁴G20 Financial Inclusion Indicators – Global Partnership for Financial Inclusion & G20. 2016, China.

The evaluated indicators can be segmented into indicators of use and access to financial services. Among indicators of use are the number of savings accounts per 1,000 adults⁵, while in evaluating access to financial services was considered the concentration of physical points of service (number of branches and automatic teller machines (ATMs) per 1,000 adults⁶), and the number of debit and credit card holders per 1,000 adults. Finally, we measured digitalization of financial services based on the number of non-cash transactions⁷.

At present, the Central Bank is one of the main promoters of financial inclusion in Argentina. The Central Bank's functions and powers include the regulation of payment systems, the orientation of credit and the protection of the rights of users of financial services⁸.

As a starting point, the Central Bank of Argentina, in collaboration with CAF - Development Bank for Latin America, conducted a financial capability survey to have a diagnosis of individuals' financial knowledge, skills, attitude and behavior.

The survey results showed low savings levels among the population (only 29% saved money in 2017) and the precarious means used (58% kept their money in moneyboxes or under the mattress, while 37% did it in checking and savings accounts).

⁵ Any individual who is 15 years old or more is considered an adult. Information on Deposit Tranches released by the BCRA was used: number of savings accounts in pesos owned by individuals residing in Argentina.

⁶ The number of service units (except for ATMs) released by the BCRA was used. With respect to automated teller machines, the number of ATMs, self-service terminals and other automatic devices also released by the Central Bank of Argentina was taken.

⁷ The Volume of Transactions and Payment Instruments through the Electronic Payment Market for immediate transfers by individuals (including ATMs, Home Banking and Mobile Banking) were used to build that indicator.

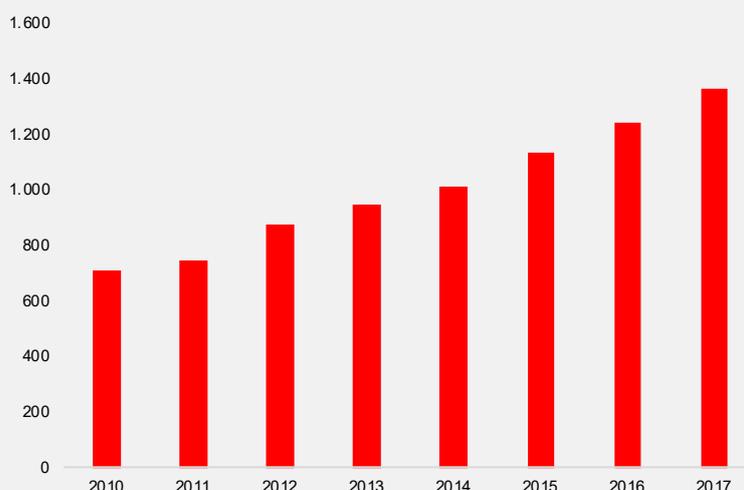
⁸ Law 24144, Charter of the Central Bank of Argentina - Section 4.

To evaluate the use of the services by individuals, the number of savings accounts per one thousand adults was considered, which almost doubled between 2010 and 2017. Although the biggest year-on-year growth occurred in 2012 (16.73%), a sustained growth was experienced as from 2015. This sustained growth might be due to

certain measures implemented by the BCRA during 2015-2016. Those measures include less stringent requirements for the opening of savings accounts free of charge and the larger number of services admitted for savings accounts for the payment of social aid or assistance programs.

GRAPHIC 2

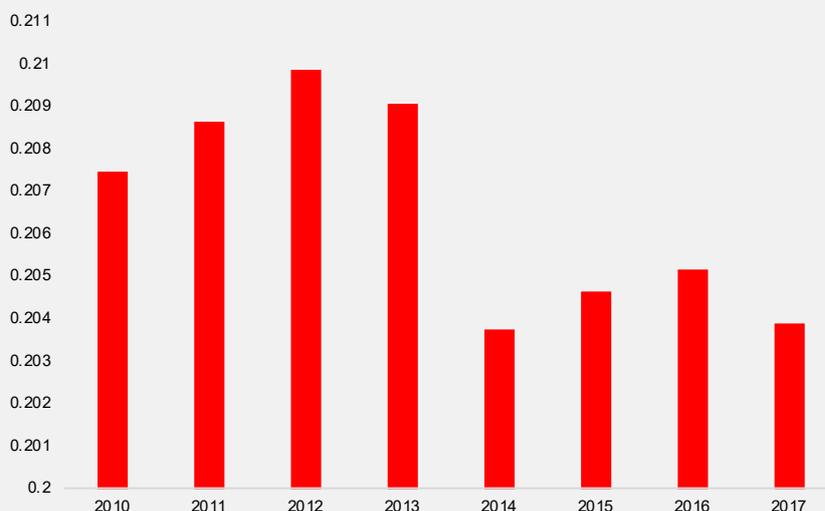
Savings accounts per 1,000 adults



Source: Prepared by the authors based on official statistics from the BCRA

GRAPHIC 3

Number of Bank Branches per 1,000 adults



Source: Prepared by the authors based on official statistics from the BCRA

As regards access, the number of branches in the period 2010-2017 increased until 2012 and decreased as from 2013. Although this could indicate a slowdown in the inclusion in the formal banking system, when combined with the indicator of the number of ATMs per 1,000 adults (graphic 4), an increase is seen in ATM penetration in the Argentine population, with a fivefold rise in the number of ATMs between 2010 and 2017. Aligning the two indicators, a trend might be seen towards self-service, which separates the bank branch's assistance function, allowing users the possibility of carrying out formalities by themselves.

Over the last few years, debit and credit card ownership grew in Argentina, a positive sign of financial inclusion. This growth was driven by different measures issued by different agencies. For instance, the Domestic Trade Undersecretariat of the Ministry of Production and Labor of the Nation, with measures such as Ahora12, offering fixed non-interest-bearing installment plans, encouraged usage of credit cards, while AFIP General Resolution No. 3997-E, which obliged sellers and service providers to accept transfers through debit cards as a means of payment, increased the number of transactions with debit cards. Lastly, the support of the Central Bank was very important, for it enabled using the Mobile Payment Platform (MPP) to make online payments by cellular phones using debit and credit cards.

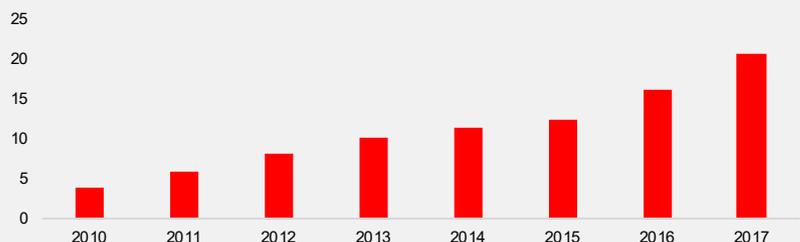
Use of digital financial services even in countries with different levels of development, such as Denmark or

India, eliminated the use of cash, whether due to the debit/credit cards as the main means of payment and the greater use of mobile payment platforms, in the case of Denmark, or to combat the informal economy, as it occurred in India, where the two higher denomination banknotes were

eliminated. Although Argentina is far from making progress in this regard, the indicator of use of non-cash⁹ financial services enables estimating the growth of transactions without the need of using cash, with the consequent reduction of costs, and more transparent and safer transactions.

GRAPHIC 4

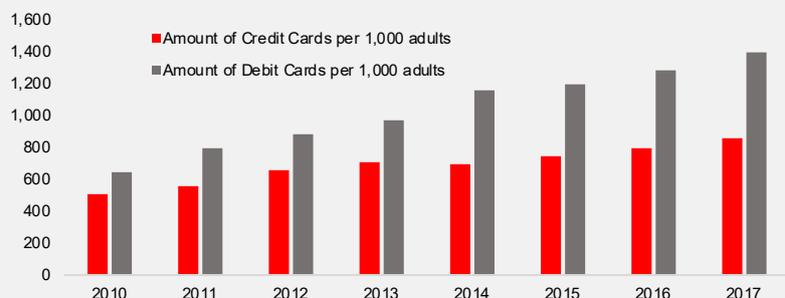
Number of ATMs per 1,000 adults



Source: Prepared by the authors based on official statistics from BCRA

GRAPHIC 5

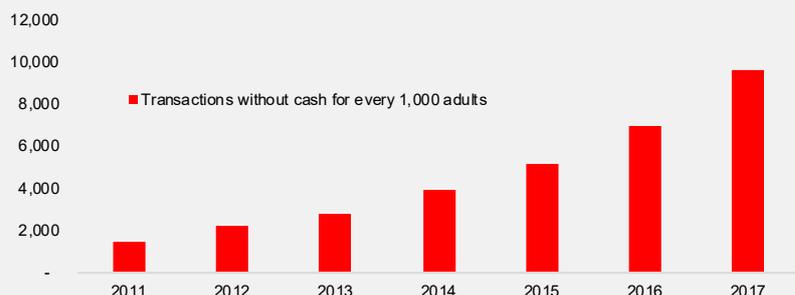
Number of debit and credit cards per 1,000 adults



Source: Prepared by the authors based on official statistics from BCRA

GRAPHIC 6

Non-cash transactions per 1,000 adults¹⁰



Source: Prepared by the authors based on official statistics from BCRA

⁹ Correspond to the volume of MEP transactions (Electronic Means of Payment) through ATMs, Home Banking and Mobile Banking by individuals.

¹⁰ No information available at 2010.



This is an indicator of non-cash transactions sustained growth. Non-cash transactions increased 574% between 2011 and 2017, driven by FinTechs' growth, the introduction of digital payments and certain measures promoted by the BCRA, such as easier transfers using an ALIAS associated with the banking ID (CBU) and the implementation of the Mobile Payments Platform.

Argentina's structural resources are another relevant factor when it comes to analyzing financial inclusion. Cellular phones play a very important role in financial inclusion. With the new digital payment methods and the possibility of making transfers from the cellular phone, it is important to know the structural conditions existing in Argentina to assess the capacity to make progress toward digital payments. Thus, to develop those methods, electricity supply, satellite signals or Internet are required. According to the World Bank, 100% of population had access to electricity in Argentina in 2016¹¹. Satellite signals, measured by the number of 4G radio base stations, are available nationwide¹². The City of Buenos Aires is the region with the largest number of radio base stations (88), while the provinces with the lower number are Santa Cruz and La Pampa (24), according to ENACOM¹³. As of Q3 2018, 60 out of 100 people had access to desktop Internet at home, as reported by ENACOM. Finally, the number of cellular phones is estimated to exceed the current number of inhabitants, including minors. The largest number of individuals with access to mobile phones was recorded in 2013, with 1.6 cellular phones per capita; this number diminished though it remained above one. These data might indicate that the basic structural conditions exist for making progress toward financial inclusion. However, there are factors that could have a negative impact on the rapid massification of financial media. The informal economy is one of the main problems facing Argentina. An informal employment rate of 34%¹⁴ is an obstacle that hinders financial inclusion and use of digital banking services.

Citizens' lack of financial education is another factor to consider. The survey conducted by the Central Bank showed that the financial knowledge score in Argentina (4.0) was below the benchmark (higher than 5.0)¹⁵ -only 38% of population had a high level of knowledge. Argentina's score was low compared to other countries, and was ranked 31st among 39 countries surveyed¹⁶. From a product supply viewpoint, although the Capital Market is implementing different measures, the level of financial inclusion in Argentina¹⁷ is very low.

The financial inclusion growth enables monitoring the development of sectors that are excluded from the formal economic system. This process creates equal opportunities, increases saving capacity of individuals by giving them greater stability, reduces the costs of transactions, permits SME leveraged growth, and reduces the informal economy, which allows distributing and reducing the tax burden on taxpayers. In view of the above, we understand that Argentina can and must follow this path to a sustainable economic and financial development to reduce poverty, create new jobs and encourage formal economic activity.



¹¹ Source: World Bank, database of the Sustainable Energy for All (SE4ALL) Global Tracking Framework, led jointly by the World Bank, Energy Sector Management Assistance Program, and the International Energy Agency.

¹² Source: Ente Nacional de Comunicaciones (National Communications Authority) (ENACOM)

¹³ National Communications Authority (ENACOM)

¹⁴ Source: Unreported employment rate, Q2 2018. Department of Labor, Employment and Social Security (MTEySS) - Bureau of Macroeconomic Studies and Labor Statistics, based on EPH (INDEC)

¹⁵The methodology developed by Atkinson, A. y F. Messy (2012) was applied. Measuring Financial

Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study, OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing. Also: OECD/INFE (2015), Toolkit to measure financial literacy and inclusion: Guidance, Core questionnaire and Supplementary Questions, OECD, Paris.

¹⁶Financial capability measuring survey in Argentina – Year 2017. Development Bank of Latin America and BCRA

¹⁷ Economic GPS – November 2017. Tracking – “BCRA remains steadfast in its policy interest rate” - PwC Argentina.

Global Coordinates

Preparing for tomorrow's workforce

Leaders preparing for tomorrow's workforce know that they face certain challenges that require a clear vision in an uncertain world.

Leaders preparing for tomorrow's workforce must face the dual challenge of achieving company growth and preparing for the new, often unknown opportunities the future will bring. Immediate action is required, as a full transformation of the way of working, the place of work in everyday life, and even our understanding of work itself is now in process. Therefore, it is necessary to address a number of issues about the challenges that the workforce poses for the future, such as the way in which organizations respond to these transformations or the opportunities arising from such trends.

Organizations will need to rebalance their workforces to focus more on a collaboration between technology and humans, and to harness human skills, such as creativity, empathy and ethics alongside digital skills.

In this regard, PwC UK conducted a survey¹ of 1,246 business and HR leaders in 79 countries, in which they identified the most important organizational capabilities that businesses need to consider when preparing for tomorrow's work tasks, workers trainings and future workplaces' design, where they will provide solutions to new trends. The main challenges revealed from the survey are:

- Benefits from workers' experience. Although organizations know how important it is to create the right everyday experience at work, they say they're failing to deliver.

- Untapped potential in data and analytics that allows companies to make better decisions, improve the working environment and people's behaviors.
- Get HR and business leaders on the same page. According to the survey, HR leaders are more comfortable with their efforts to prepare the workforce of the future compared with non-HR leaders.
- An HR department favoring the development of capabilities for new technologies. The ability to navigate the technology landscape is a top capability for organizations. Having that ability is fundamental.
- Innovation and flexible talent to capture good ideas. More than half of respondents say they have no capability to use open innovation and crowdsourced ideas from outside the business and less than 10% agree that they can do this.
- Do the right thing for their people. The capabilities that respondents rate as the most important – building trust, human skills and well-being – are the ones where they are taking most action.

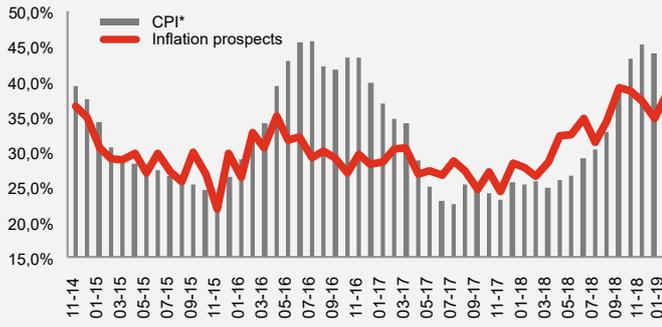
The key point is how quickly business and HR leaders can ascertain and respond to the transformations and prepare their organizations for the future.

Although the survey shows encouraging progress, it also reveals gaps between being dogged by the problems and taking actions to solve them. Therefore, these chasms must be bridged to obtain a workforce fully prepared for the future. In this respect, preparing for the future implies taking actions today, with a clear vision to plan the steps to follow by allowing people to take on new roles and create compelling experiences.

¹ "Preparing for tomorrow's workspace, today".

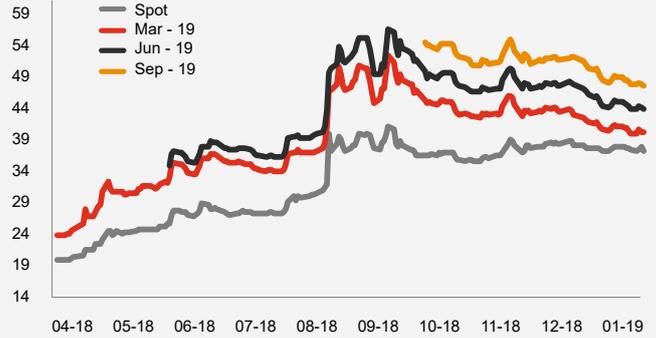


Inflation



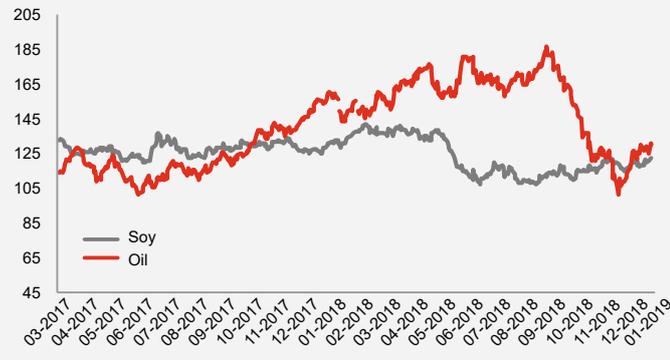
Source: Own calculations based on CPI Congress and UTD
*CPI Congress. As of November 2016 it is considered CPI City of Buenos Aires

Exchange rate: spot and futures



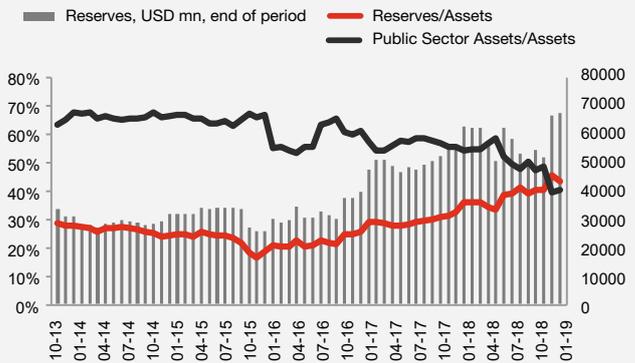
Source: Own calculations based on Roxef

Price of Soy and Oil, index2004=100



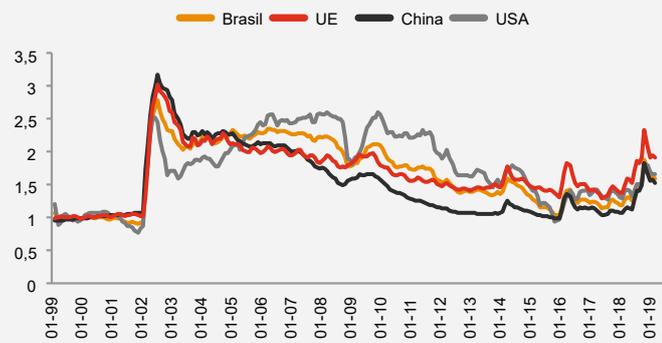
Source: own calculations based on CBOT y WTI NYMEX

Reserves and Central Bank Assets



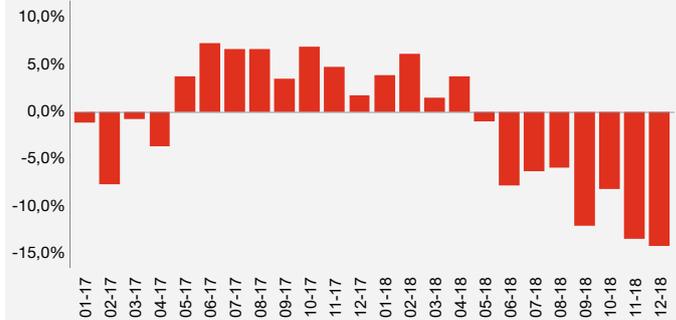
Source: own calculations based on Central Bank

Real Exchange Rate Index: base Dec-99=1



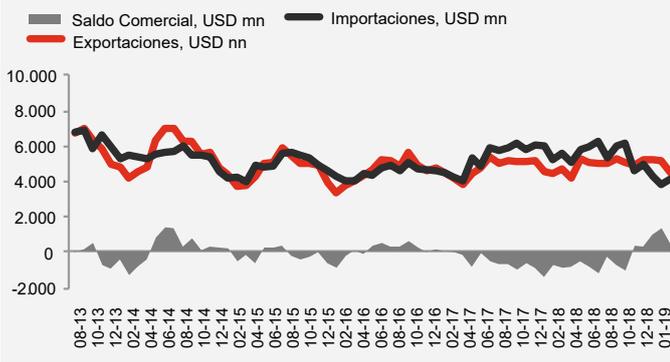
Source: own calculations based on the Argentine Central Bank

Monthly Industrial Estimator



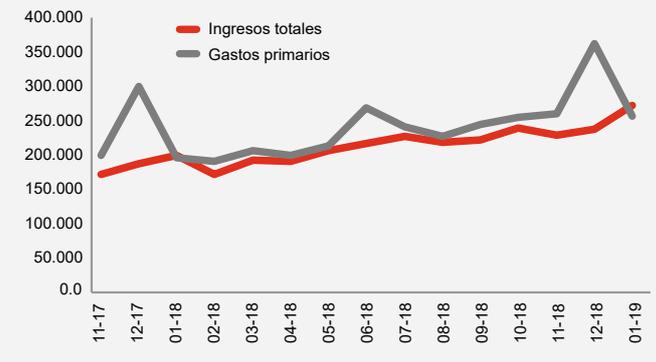
Source: own calculations based on INDEC

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	Oct-18	Nov-18	Dec-18	Jan-19
Real GDP, var % y/y	-1.8%	2.9%	na	-	-	na	-
CPI Federal Capital, var % y/y	41.0%	26.1%	45.5%	44.6%	46.8%	45.5%	48.6%
CPI San Luis, var % y/y	31.4%	24.3%	50.0%	48.3%	51.3%	50.0%	53.2%
Industrial Production, var % y/y	na	2.5%	-5.0%	-1.3%	-10.1%	-7.2%	na
International Reserves (end period, USD mn)	39,308	55,055	65,806	53,955	51,193	65,806	66,811
Import Cover (month of reserves)	8.44	9.87	12.07	10.63	11.73	16.82	15.85
Implicit exchange rate (M0 / Reserves)	20.81	18.34	21.41	21.41	24.20	21.41	20.25
\$/USD, end period	15.85	18.77	37.81	36.20	38.02	37.81	37.04

External Sector	2016	2017	2018	Oct-18	Nov-18	Dec-18	Jan-19
Exports, USD mn	57,879	58,622	61,621	5,355	5,349	5,282	4,586
Imports, USD mn	55,911	66,930	65,441	5,077	4,365	3,913	4,214
Comercial Balance, USD mn	1,969	-8,308	-3,820	278	984	1,369	372
Currency liquidation by grain exporters, USD mn	23,910	21,399	20,202	1,184	810	1,041	1,756

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

Fiscal	2016	2017	2018	Oct-18	Nov-18	Dec-18	Jan-19
Income, \$mn	2,070,154	2,578,609	3,382,644	312,509	300,119	319,921	363,927
VAT, \$mn	583,217	765,336	1,104,580	110,762	96,792	99,210	114,742
Income tax, \$mn	432,907	555,023	742,052	63,743	65,415	73,833	71,300
Social Security System, \$mn	536,180	704,177	878,379	74,624	74,592	74,909	109,101
Export Tax, \$mn	71,509	66,121	114,160	14,051	14,715	15,794	15,573
Primary expenses, \$mn	1,790,789	2,194,291	2,729,251	238,604	249,322	350,880	247,266
Primary result, \$mn	-343,526	-404,142	-338,987	-16,586	-33,770	-135,316	16,658
Primary result, \$mn	185,253	308,048	513,872	72,113	46,327	76,858	91,700
Fiscal results, \$mn	-474,786	-629,050	-727,927	-78,327	-72,884	-192,774	-60,038

Financial - interest rates***	2016	2017	2018	Oct-18	Nov-18	Dec-18	Jan-19
Badlar - Privates (%)	20.04	23.18	48.57	50.68	51.27	48.57	45.90
Term deposits \$ (30-59d Private banks) (%)	19.51	21.80	46.22	48.05	48.55	46.22	44.14
Mortgages (%)	19.70	18.61	47.70	41.63	44.93	47.70	47.01
Pledge (%)	20.82	17.42	24.88	29.46	28.52	24.88	26.10
Credit Cards (%)	44.45	42.21	61.11	54.03	56.58	61.11	61.77

Commodities****	2016	2017	2018	Oct-18	Nov-18	Dec-18	Jan-19
Soy (USD/Tn)	362.6	358.9	342.3	315.8	322.3	330.5	333.8
Corn (USD/Tn)	141.1	141.4	145.0	144.9	144.0	148.1	149.1
Wheat (USD/Tn)	160.3	160.2	182.1	187.8	185.7	190.1	189.9
Oil (USD/Barrel)	43.3	50.9	64.9	70.8	56.7	49.0	51.6

* 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, Ministry of Economy, BCRA, AFIP, Unión por Todos, CIARA, CBOT, NYMEX

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	Revenue forecast		
	Surveys		

Contacts

José María Segura | jose.maria.segura@ar.pwc.com | +54 11 4850 6718

Leandro Romano | leandro.romano@ar.pwc.com | +54 11 4850 6713

Paula Lima | paula.lima@ar.pwc.com | +54 11 4850 6028

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