

Monetary Essays for Open Economies: The Argentine Case

Monetary Essays for Open Economies:
The Argentine Case

Javier Gerardo Milei* and Diego Pablo Giacomini**

*Acordar Foundation; **Economy & Regions

*jmilei@gmail.com

Summary

In the present work, a series of seven essays and three appendices are presented that deal with the debate on exchange matters that has taken place in the last three years in the Argentine economy, in which, together with a group of colleagues, we have taken a position, which implies an absolutely opposite vision with which these topics have been studied in the last 40 years. The divergence has much of its origin in a huge set of fallacies emerging from the "General Theory of Employment, Interest and Money" by John Maynard Keynes published in 1936, whose bad influences still extend to the present day and which, together with local structuralism, have caused so much damage to the country's economy and its inhabitants.

Keywords: monetary economy; mountain politics; exchange rate; inflation.

JEL code: E3, E52.

Received: 1/4/2016 Accepted: 12/21/2016

1. Introduction

In the first of the essays, the problem of the CEPO is addressed, its consequences on the monetary level, the effects associated with a disorderly exit (without cleaning the excess pesos from the economy) and why lifting the restrictions is a necessary condition (but not enough) to grow again. To support the point, an absolutely novel theoretical plot is developed regarding the theoretical foundation of money overhang, which is based on the Walrasian tradition of general equilibrium and the Austrian-monetarist approach.

Abstract

This paper presents a series of seven essays and three appendices that deal with the exchange rate debate that has taken place in the last three years in the Argentine economy, in which together with a group of colleagues we have taken a position that implies an absolutely opposite view with which they have been studying these subjects in the last 40 years. The divergence has much of its origin in a huge set of fallacies emerging from John Maynard Keynes's "General Theory of Employment, Interest, and Money" published in 1936, whose bad influences extend to this day and that, along with local structuralism, have caused so much damage to the economy of the country and its inhabitants.

Key words: Monetary economy; Monetary policy; exchange rate; inflation.

in terms of inflation with monetary origin. Therefore, this essay closes with a proposal to reform the BCRA's Organic Charter and a suggestion on how to conduct monetary policy until inflation is reduced.

Next, linking monetary problems with exchange problems, we proceed to study the debate around the real exchange rate. In that sense, it is clear that the traditional analysis of the real exchange rate is wrong. Firstly, because even if the tool were correct (which is not true) the issues linked to the

long-term trend and confidence. At the same time, even if this difficulty were overcome, the analysis would still remain invalid, since for this analysis to be relevant, a set of conditions must be met that are impossible to occur in real life. Therefore, in light of the precariousness of this type of analysis, the solution that we have proposed together with Nicolás Kerst to measure the level of competitiveness of the economy is mentioned.

Based on this, the third essay analyzes the destruction in Argentina from 1942 to the present, through the presentation of the “Wealth Thermometer”, which measures the competitiveness of the economy. In this sense, a set of interesting results is shown: (i) every time the indicator was above unity the economy has grown, (ii) every time the economy fell below a level of 0.6 it has presented a violent crisis, (iii) the indicator presents formidable strength for predicting a crisis and (iv) it sheds light on structural reforms that favor a higher growth rate.

Once the fundamental issues related to competitiveness have been analyzed through the use of the wealth thermometer, we move on to the exchange debate in terms of the transition to devaluation prices. Once again, at this point the Keynesian origin of said fallacy is demonstrated, the result of a poor construction in terms of the theory of value. In turn, this analysis is supported from an empirical point of view by the cases of the United States of North America, Chile and Peru, in which the absence of a relationship between devaluation and the transition to inflation emerges with complete clarity. In this sense, the country's empirical evidence is an emergent of the continuous monetary validation resulting from the application of passive money models of structuralist origin. Thus, as a contrasting vision, the following essay presents the vision of devaluation as a monetary phenomenon. After this, the ideas with which the departure of the CEPO was being analyzed by different professional economists are presented, which are a kind of mixture of partial equilibrium analysis together with an improper use of the PPP that could end in a true social disaster. .

Finally, the last two essays are about monetary policy. The first explains the impossibility of moving to an inflation targeting system, while the last, by way of conclusion, presents a proposal for monetary reform and the bases under which monetary policy should be conducted in Argentina.

2. Dismantling the CEPO to grow again

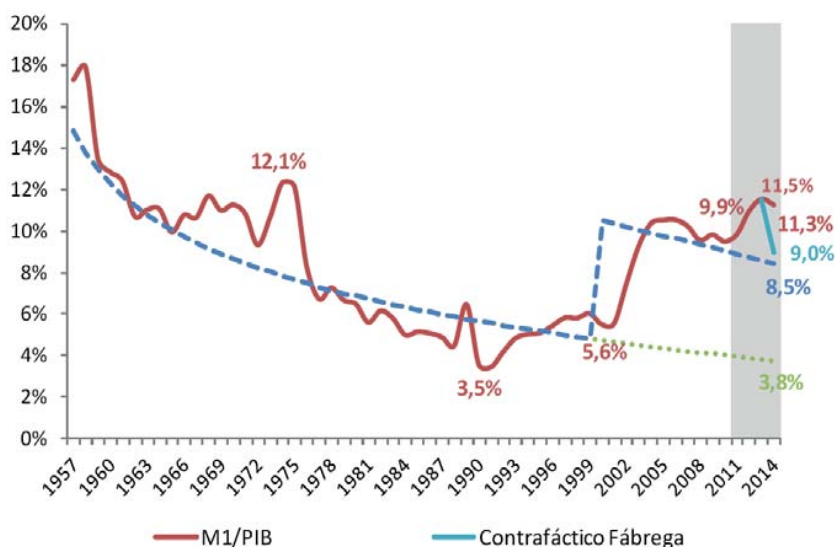
2.1. Demand for money, surplus of pesos and inflation

The Argentine economy, according to the money demand function that we have estimated, shows a surplus of pesos around 3.7% of GDP (\$200,000M). If we add to this that the USD 26,000M of reserves reported by the BCRA become almost zero when the banks' reserve requirements and the different debts that have been contracted to disguise the monetary story are refined, it should be clear that, if a sudden drop in the demand for money, an exchange crisis would be inexorable.

In this sense, the empirical evidence for Argentina from 1955 to 2015 is compelling. In the graph it is possible to see that this situation of excess pesos in the economy has taken place on two occasions. The first case is observed between the years 1957 and 1958, where after a surplus of about 4 points of the GDP, this ended in an inflationary outbreak of 113.7% in 1959. In second place we have the Rodrigazo, where with a surplus similar during the years 1973 and 1974, in 1975 inflation climbed to levels of 182.8% and to 440% during 1976.

In this sense, following the postulates of the quantitative theory of money, with an economy that remained stagnant and with a zero monetary emission rate, repressed inflation is 44%. However, given the deterioration in the public sector accounts, it is expected that the money creation rate will be at least 40% annually, so if the demand for money were adjusted to its equilibrium level (8.5% of GDP) inflation would rise to 150%. At the same time, if the demand for money fell towards its long-term level (3.8% of GDP) the inflation rate would rise to 450%.

Graph 1: Historical evolution of the demand for money in Argentina 1955-2015



Source: Own elaboration based on data from MECON, BCRA and Orlando Ferreres.

2.2. The gestation of surplus pesos

In light of the local experience and how socially disruptive the dismantling of excess money in the economy has been, it is extremely important to understand the causes that give rise to said imbalance. At the same time, this will make it possible to devise a solution for the current situation, minimizing social costs considerably.

Simplifying the analysis to the extreme, the surplus of pesos in an economy can take place in two ways. The first of them, and with transitory characteristics, is linked to the delays in monetary policy. International empirical evidence allows us to observe that during the first two years, increases in the amount of money, although they have a positive impact on the inflation rate, it is low. This situation, which reveals the presence of a "trade-off" between inflation and short-term unemployment and with real effects on activity and employment, has as its counterpart an increase in monetary aggregates in terms of GDP. However, when one studies the results of monetary expansion over five and ten years, the initial positive effect on activity and employment disappears and with it the surplus of money. Thus, in this case, the "money overhang" is the flip side of the delays in monetary policy.

Secondly, we have the creation of surplus money as a direct consequence of the coercive intervention of the market by the Government. Thus, when "social scientists" apply the Keynesian recipe known as "income policies" they set the monetary price of goods below equilibrium, generating excess demand in said market, its counterpart is an excess supply of money (surplus of pesos), which not only uncoordinates the level of activity but generally its exit is usually traumatic. Alternatively, when these controls are carried out in an open economy with a managed exchange rate, the counterpart is a loss of Central Bank reserves. In this sense, when controls tighten due to the loss of reserves, situations such as the exchange rate CEPO appear, which is equivalent to setting the price of foreign currency below the market equilibrium. This situation produces an excess of demand in said market and whose counterpart is an excess of supply in the rest of the economy that implies: (i) high interest rates (bonds), (ii) pressure on prices (money), (iii) fall in GDP per inhabitant (goods) and (iv) lower demand for productive employment (work). Naturally, all these effects have been present in Argentina since 2011, while reserves should be between USD 90,000M and USD 120,000M.

23. Dismantling the Overhang and monetary reform

Given the negative effects that the CEPO has on the functioning of the economic system, its immediate elimination is extremely important. However, the liberation of the foreign currency market with a large surplus of pesos and meager reserves, where the price of assets (dollars for the financial market) adjusts instantly and that of slow goods (commercial dollars), make disarmament betting on “the good vibes of the market” is very dangerous. To this end, it is key that prior to lifting the CEPO, the surplus pesos be absorbed through the placement of a title in foreign currency (freely subscribed in local currency) simultaneously with the implementation of a monetary reform.

The reform begins with a new Organic Charter for the BCRA establishing the sole objective of maintaining low and stable inflation. In this way, discretion is eliminated by institutionalizing a monetary policy that must always be conducted based on a rule. Thus, in the short term, the rule establishes a nominal anchor to prevent politicians from exploiting the short-term “trade-off” between inflation and unemployment, which nullifies the temporary “money overhang.” Said nominal anchor, established independently by the BCRA, is a rule that fixes the growth of M1 (instrument) and prevents the generation of surplus pesos (future inflation).

This instrument rule (M1) must be:

- i) efficient (minimize the volatility of M1); ii) simple (easy to understand); iii) precise (there is no doubt that it follows or not); iv) transparent (it must be announced so that the public knows it and incorporates it into their expectations); v) robust (valid for any model) and must have vi) audit mechanisms. With these characteristics, uncertainty about monetary policy disappears and both expectations and inflation decrease, favoring savings, investment and growth.

The instrument rule (M1) should be maintained until inflation converges to single digits annually. Then, with expectations already “tamed,”

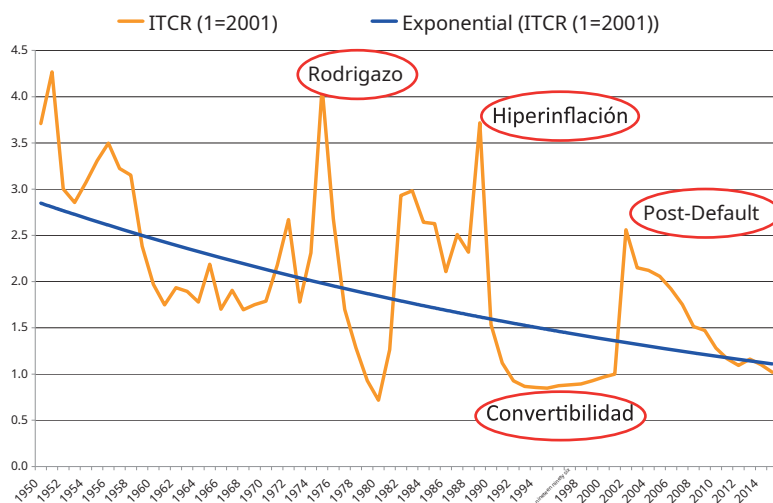
credibility and anti-inflationary reputation built, in the medium term the BCRA will be able to move towards a rule of objectives (Inflation Goals), which is a later stage that requires floating of the exchange rate and therefore banishes the possibility of there being a structural surplus of pesos. Chile, Peru, Colombia and other countries apply Inflation Targeting which has translated into low and stable inflation (between 2% and 5%) with economic growth. Therefore, in light of international experience and the damage caused by a BCRA co-opted by politicians, the key will be whether the latter will be willing to give up their privilege in favor of greater general well-being.

3. The exchange rate debate: When economists are part of the problem

After 70 years of strong exchange rate instability and heated debates about the “correct value” of foreign currency (especially the price of the US dollar), it is very difficult to understand how it is possible that we have learned so little about this issue. . Perhaps, the exaggerated neo-Keynesian imprint of the macroeconomics, international economics and monetary theory courses (among other areas) that have been taught and continue to be taught in this country has so deformed the minds of economists, to the point that they cannot be grasped. the most basic issues of economic analysis.

The following graph, and in line with the argument most used by local economists, presents the evolution of the real exchange rate of the Argentine currency with respect to that of the United States since 1950. In this sense, the evolution of the rate real exchange rate shows two essential characteristics: (i) a continuous tendency towards currency appreciation (black line) and (ii) great volatility in the series, a situation that one could rationalize with a case of multiple equilibria where in the cases of high confidence, such as the '60s, the beginning of the exchange rate table and convertibility, the currency appreciated, while in the '50s, the first part of the '70s (with a peak in the Rodrigazo), the '80s (with a peak in hyperinflation) and so far in the 21st century (with a jump in the exit of the convertibility plan) are

Graph 2: Real exchange rate against the US dollar (1950-2015)



Source: Own elaboration based on data from OJF, BCRA and MECON.

moments characterized by a high level of mistrust. Therefore, the first lesson that the graph leaves us with is that it is incorrect to say that the currency is depreciated or appreciated without referring to the level of confidence and the long-term trend.

However, despite the fact that said analysis is used persistently, that does not prevent it from being erroneous. The problem is that it implies completely ignoring what the price system is and how it works (typical Keynesian trait). Every market price constitutes a specific historical phenomenon, which always reflects what happened on a certain occasion and time under specific circumstances. Thus, the exchange relations (between money and the rest of the commodities that interest us - including foreign currency -) are in permanent mutation. There is nothing in them that is constant. A certain price may be re-registered, but there is no certainty that this will happen. What's more, even if it were the case that it actually reappears, it is not possible to ensure whether it is the result of the circumstances that caused it to reappear yesterday, or whether it results from a new and totally different constellation of forces.

Thus, ignoring the concept of what a market price is, a group of "economists" try to reflect on whether the dollar is expensive or

cheap, for which, taking the real exchange rate on a particular date, they make a kind of inflation adjustment on the nominal value and with this they "substantiate" their statement. For example, if one takes the real exchange rate that CFK started with, the price of the dollar should be \$16 per dollar. However, this analysis has at least three problems:

- (i) What are the elements that prove that said real exchange rate was equilibrium and not another?
- (ii) the account implies assuming that nothing has changed both in the local economy and in the world, and
- (iii) as if all that were not enough, it would be good to know what the price index was by which the pertinent adjustment was carried out since, even if there were official undrawn statistics, who could ensure that said index adjusts to the realities? of the foreign exchange market and its spillover effects on the rest of the system.

To get an idea of how ridiculous the methodology is, let's take the price of ENRON in September 2000 when it was trading at USD 87.63 per share. Now, if we adjust said price for US inflation, the method would indicate that the value of said share should be USD 120.95. However, today's price is zero, since the firm in question went bankrupt.

Along the same lines, stating that, given that today's real exchange rate coincides with the one that governed at the end of Convertibility and other traumatic episodes in history, the currency is appreciated, strictly speaking, says nothing, since the configuration of the economy at any given time has nothing to do with the one that governs today. For example, after the exit from Convertibility and the default, the country restructured its public debt through a haircut that left it as a net creditor to the world, so if it were not for the distrust generated by Kirchnerism, the currency could have appreciated even more (think of the exchange rate that the soybean producer receives after withholdings). In fact, the current situation would allow Argentina to live with a permanent current account deficit comparable to the financial income derived from said external position even without touching the stock.

That is why, together with my colleagues Diego Giacomini and Nicolás Kerst, in order to analyze in greater depth the issues linked to competitiveness, we developed “the wealth thermometer” which indicates that competitiveness is given by the ability to have profitable businesses. Thus, the indicator combines both internal and external factors, such as the evolution of labor productivity compared to the evolution of real wages (wages in terms of prices), the United States interest rate, country risk, expectations inflationary pressures, fiscal pressure, the quality of public goods and the international context. Based on all these elements, the indicator shows that never in the history of the country was so much wealth destroyed as during the Kirchner regime, where, if it were not for the formidable international context, the policies that have been carried out would have generated four major crises. .

Therefore, based on the “wealth thermometer” it is clear that the economy shows a serious competitiveness problem and that if there are no profound changes in the rest of the factors, the currency will end up devaluing. Whether by complacent omission and/or ignorance, when the only tool you have is a hammer, it is natural for everyone to look like a nail. That is, in a frank complicity between politicians and Keynesians, once again the most vulnerable sectors of society will be

brutally punished, so that “the caste” that has taken power continues to enjoy its enormous privileges and that it generates so much wealth.

4. The destruction of wealth in Argentina

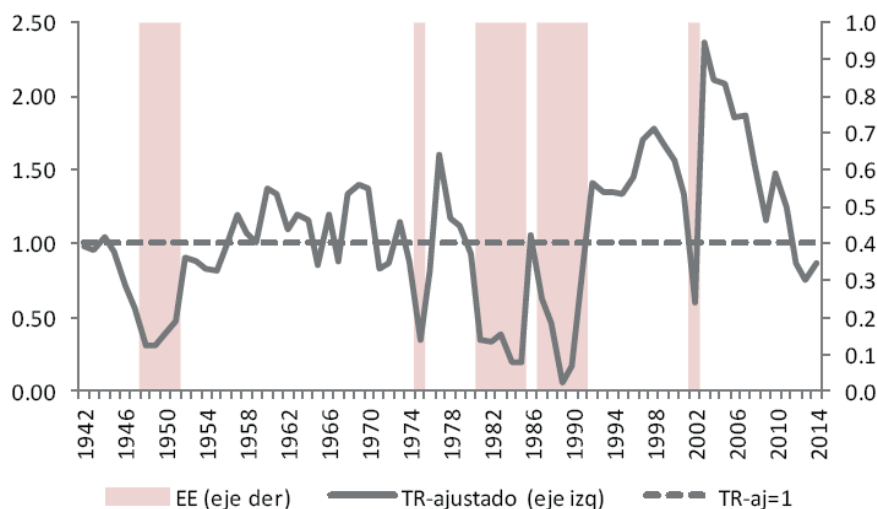
Although the fact that the expansion rate of the economy (there was never growth, but a mere cyclical recovery) has been falling very sharply, going from a level of 8% annual average during 2003-2007 to 4% for 2007-2011 and reaching at 0% during CFK's second management, while inflation accelerates, there is no creation of genuine jobs and foreign trade levels contract by more than 20% compared to historical highs, they should be examples more than enough of an exterminated model, different political sectors question the vision of “orthodox” economists who speak out about the poor management of the economy and who point out the opportunity that has been lost to accelerate convergence in the light of the best international context of the country's history.

In line with this vision of the Argentine economy, a study on competitiveness prepared by the World Economic Forum (WEF) shows our country in 140th place in a sample of 141 countries, where we have only missed out on surpassing the formidable achievements of the Venezuelan model, which with so much effort (economic and social) we try to copy every day.

Naturally, what was expressed by the WEF is not new for local economists, since today, the debate on the competitiveness of the economy is at the top of the agenda. Based on this, and given that the competitiveness of a country is determined by its ability to earn money (generate wealth), together with Diego Giacomini and Nicolás Kerst we have developed an indicator that we have called “The Wealth Thermometer”, which represents an expansion of James Tobin's uses of “q” as an analytical tool within economic analysis.

The idea of developing this indicator based on the “q” theory arises from the fact that the latter synthesizes all the social information.

Graph 3: Wealth Thermometer adjusted by Terms of Trade (1942-2014)



Source: Own elaboration based on data from Orlando Ferreres and MECON.

about the future that is relevant for making investment decisions by the agents, since in its assembly the equilibrium conditions of both the goods market converge (the income is sufficient to cover all operating costs, the tax and capital) and capital (the return on assets is equal to the opportunity cost of capital). At the same time, if one assumes that the economy under analysis is open and that purchasing power parity (PPP) is met in the long term, from the equilibrium conditions in the “q” model it is possible to determine the equilibrium exchange rate, which will be given by the real wage (wages in terms of the general price level) relative to the productivity of labor, the opportunity cost of capital (which takes into account the leverage of the economy, the rate of US interest, country risk and expected devaluation), fiscal pressure (public spending and its efficiency) and the productive scale, all relative to the reference economy (that of the currency being compared).

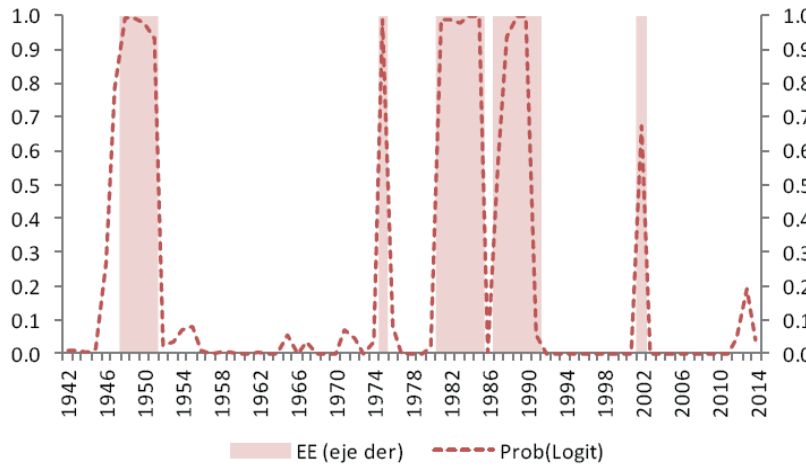
From this conceptual structure, “The Wealth Thermometer” was built, which takes 1942 as its base year, given that after that year, the country was a victim of the establishment of a populist regime that has turned the country into a rich country. on a border and that if we continue along the same path we face a situation of poverty. At the same time, so that the evaluation of economic policy is not affected by the

international conditions, the indicator has been corrected by the terms of trade.

The construction of the indicator shows that throughout the period under analysis, it has been located on average 3.3% above unity, which explains why, despite the poor relative performance shown by the economy compared to the world, has been able to sustain a positive growth rate. At the same time, the indicator shows that every time it fell below unity, the economy presented a balance of payments crisis (shaded areas), except for the year 2014, which is explained by the fact that we are facing the best international context in the entire history of the country.

Additionally, the indicator also shows that never in the history of the country has so much wealth been destroyed as in the period from 2003 to 2013. In this sense, the current economic policy has achieved a destruction of 1.61 points of the indicator, followed by the economy of the dictatorship during 1977-1982 with 1.27 points, the exit from convertibility (2000-2002) with 0.97 points, the rodrigazo (1973-1975) with 0.81 points and the years that go from 1945 to 1949 during the first government of Juan Domingo Perón with 0.74 points. On the other hand, although it is true that during the government of Raúl Ricardo Alfonsín the indicator showed the lowest level of the series (greater process of value destruction), the fall in the thermometer

Graph 4: Observed state of the economy and estimated probabilities (1942-2014)



Source: Own elaboration based on data from Orlando Ferreres and MECON.

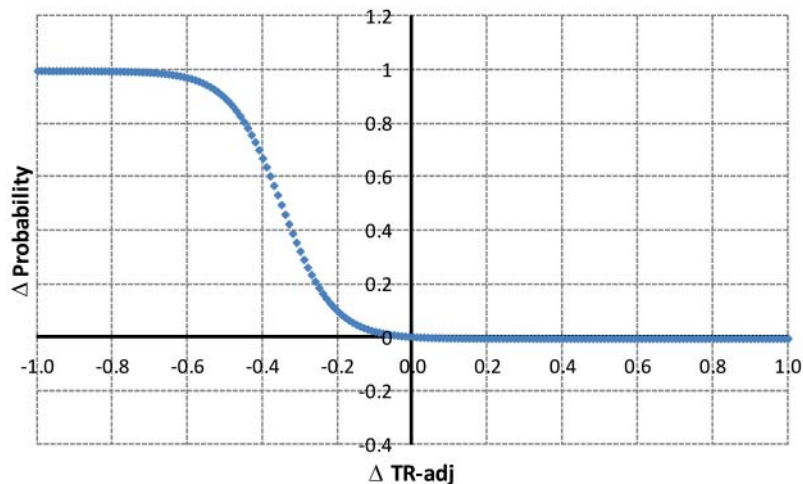
of wealth was only 0.29 points between the extremes of the period (where in the middle of the period the Austral Plan marked a strong jump but which later ended in hyperinflation).

On the other hand, given the strong relationship between the moments in which the indicator falls below unity and the presence of balance of payments crises, a statistical study was carried out using a Logit model, which yields as a by-product to the analysis of wealth creation (competitiveness), the probability of falling into a balance of payments crisis and the levels that mark entry into the danger zone. In this sense, the graph that shows the state of the economy and the probability of crisis reveals the statistical robustness of the indicator.

In turn, the same statistical study shows that when the indicator falls below 0.6 the probability of crisis accelerates strongly. In other words, when the indicator loses 0.4 points with respect to the historical average level, the economy enters a crisis. Once again, this analysis confirms that we are facing the worst government in history, since over the last 12 years it has generated a fall that could have generated four crises, if it were not for the structural reforms of the '90s, the adjustment made by Eduardo Duhalde and the best international context in history.

Finally, the indicator is useful for the design of economic policies that lay the foundations for future growth and

Graph 5: Probability curve according to changes in adjusted index



Source: Preparation based on own estimates.

the associated per-capita product. In this sense, for an average international risk-free rate level (that of the US) of 3%, an average country risk level of 550 basis points (5.5%), an average tax pressure of 32% of GDP, a financial leverage of 16.3% and a value of the marginal product of capital in dollars of 13.8%, the Argentine economy would tend in the long term to a GDP per inhabitant of 40% of that of the US. In turn, if we consider that under the government of Cristina Fernández de Kirchner, the average country risk was in the order of 1,500 basis points (measured by the 5-year CDSs), the tax pressure is located at 50% of GDP, the marginal productivity of capital fell to 10.1% while the economy does not grow, the GDP per inhabitant would tend to 10.2% of that of the US, which would cause the country to leave the definition of a frontier country and become a poor country.

Simultaneously, and looking to the future, with this indicator it is possible to determine the policy conditions that would allow convergence to be achieved, which consist of: (i) eradicating the fiscal deficit and achieving intertemporal solvency in a sustainable manner such that the country risk disappears, (ii) reduce the fiscal pressure to 26.1% of GDP and (iii) recover the productivity level of the '90s (where it was 20.1%). In this way, we will be able to grow faster and in a sustained manner so that we can reach the per capita product of the United States. Of course, a reform of these characteristics will have resistance, especially in the political corporation, which should be informed that even carrying out points (i) and (iii) it would not be possible to achieve convergence since there would be a ceiling for the GDP per inhabitant of 55.2% compared to that of the USA. In short, a very high cost for such poor performance in the services provided by the public sector.

5. Money, prices and exchange rates

5.1. The debate around devaluation and the transfer to prices

Currently, in the Argentine economy, taking into account that it is already taken for granted that sooner rather than later there will be a devaluation of the local currency, associated with this there is discussion about the transfer to prices (pass-through).

of the measure in question. However, this debate is fully contaminated by the use of Keynesian "analytical tools", which - as usual - is wrong, whose conceptual format is equivalent to maintaining that the sun shines brighter because the ice cream businessmen have decided to reopen their sales premises.

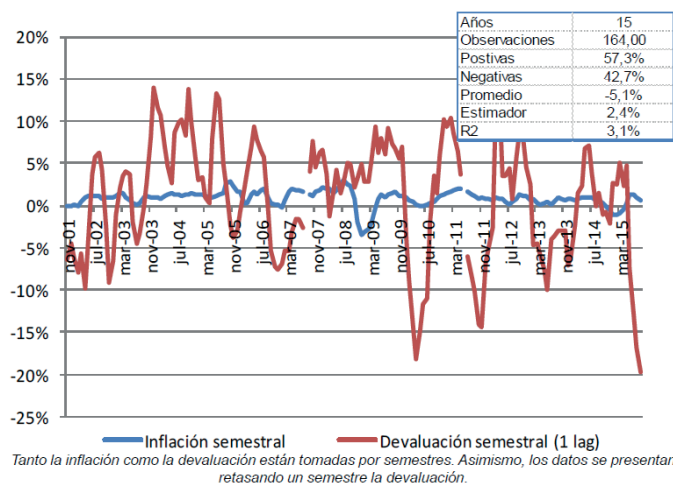
The "theories" on the determination of the general level of prices with Keynesian roots are especially inspired by chapter 21 (The theory of prices) of book V (Nominal wages and prices) of "the general theory" by John Maynard Keynes. In this sense, in the second section of the aforementioned chapter, the Cambridge Englishman maintained: "The price level in a specific industrial branch depends, in part, on the rate of remuneration of the productive factors that enter the marginal cost and, in part, on the scale of production. There is no reason to change this conclusion when we turn to the industry as a whole. The general price level depends, in part, on the rate of remuneration of the productive factors that enter into the marginal cost and, in part, on the scale of production as a whole, that is, (considering the equipment and technique known), of the occupancy volume." Therefore, under this format, when the exchange rate rises (the currency depreciates), there will be a transfer to prices. At the same time, this formulation also allows us to understand the reason why, when faced with a rise in the inflation rate, the workers are blamed (targeting the unions) and the greed of the businessmen (who "shovel it up").

However, despite how "reasonable" the argument might sound in the context of a very light reading and lacking rigor, this analytical scheme is wrong. Thus, both on a theoretical and empirical level, Keynesianism's mechanism for determining the general price level is a grotesque fallacy.

5.2. Keynesianism and non-existence of pass-through

Naturally, and as expected, the analytically correct answer is the one that John Maynard Keynes himself, who despite having taken only a single economics course (with Alfred Marshall), tried to uncover

Graph 6: Fluctuation of the Dollar/Euro relationship and inflation in the US (1999-2015)



Source: Own elaboration based on data from the FED.

lify. In fact, at the beginning of the aforementioned chapter, the “father” of macroeconomics pointed out: “While economists deal with what is called the theory of value, they have accustomed to teaching that prices are governed by the conditions of supply and demand; having played a prominent role, in particular, changes in marginal cost and in the elasticity of supply in short periods. But when they move, ..., to the theory of money and prices, we no longer hear about these familiar but intelligible concepts and we move to a world where prices are governed by the quantity of money, by its velocity-income, by the speed of circulation relative to the volume of transactions, by hoarding, by forced savings, by inflation and deflation et hoc omne; and little, if any, effort is made to link these vaguer phrases with our earlier ideas of the elasticities of supply and demand.”

Therefore, if in line totally opposite to Keynesian “thinking” we consider that nominal prices are guided by the interaction between supply and demand for money, while relative prices will depend on the real configuration of the economy as a whole, In those countries where the Central Bank aims for a low inflation rate, the “pass-through” should be negligible.

Based on the above, if one takes the case of the United States compared against Europe and the cases of Chile and Peru against the maximum power

global trend, the evidence is overwhelming. For example, in the case of the United States and the dollar-euro relationship, if one takes the inflation of a semester and the lagged semiannual devaluation in a period during the last 15 years, it is observed that the depreciation of the dollar was followed by a greater inflation 57% of the time, while in the remaining 43% the movement was the opposite. In turn, if the variations are averaged, on average they have been negative. Finally, if one regresses inflation as a function of devaluation, the level of explanation sits at 3%, so dollar devaluation has nothing to say about inflation in the United States.

On the other hand, empirical evidence from the last 20 years in Chile and Peru indicates almost the same results. In Chile, a devaluation was followed by higher inflation only 55% (that is, it fell 45% of the time) of the time, while in Peru it was 53% (that is, 47% of the time it fell). On the other hand, the average of the variations in Chile has been slightly positive (4%), while in the case of Peru it has been negative (-15%). Finally, the level of explanation is located at 9% and 1% respectively. Therefore, the data show the empirical poverty of the Keynesian instruments.

5.3. Carl Menger, the Law of Imputation and Milton Friedman

This lack of empirical relevance for the “pass-through” arises from Keynes assuming

“that the types of remuneration of the different productive factors that enter into the marginal cost all change in the same proportion... it follows that the general level of prices depends, in part, on the unit of wages and, in part, on the volume of occupation” this implied going back to the labor theory of value of David Ricardo and Karl Marx, which had been discredited by William Stanley Jevons, León Walras and especially by Carl Menger and his Law of Imputation.

Under the postulate of the law of imputation, it is prices that determine costs and not the other way around. Thus, consumers not only determine the prices of consumer goods, but also of all factors of production, thus setting all the income of those who operate within the scope of the market economy. It is they, not the businessmen or the union members (much less a politician), who, in short, pay for each input and each worker his salary.

Therefore, if one wanted to determine the causes of why all prices in the economy rise (and among them that of the foreign currency - the dollar -) the causes are not in the costs, but in the continuous increase in the emission. monetary. In other words, if the prices of the economy's goods are determined in monetary units, when an amount of money is issued that exceeds its demand, this will cause the relative value of the currency to fall or, what is the same, that the price of goods expressed in money rises. Hence the famous phrase of Milton Friedman (the executioner of the Keynesians): “inflation is always and everywhere a monetary phenomenon.”

5.4. Nominal devaluation as a monetary phenomenon

Based on all of the above, it is very evident that the relative prices of the system are given by the preferences of individuals and scarcity, while nominal prices are determined by the conditions of the money market. Put in other terms, variations in the exchange rate do not affect the inflation rate, since the latter depends on monetary conditions and

not from relative price changes. That is, if the Central Bank does not stop issuing money above demand, the currency will lose value against all assets in the economy, and since foreign currency is an asset like any other, the devaluation will be inexorable.

In turn, the Argentine case presents an additional complication as a consequence of the presence of an excess of money in the economy of 3.7% of GDP (as a result of the CEPO and the fiscal deficit financed by emission). That is, to the problem of flows due to the issuance of each period, a stock problem is added. Therefore, if the CEPO were opened without eliminating the surplus of pesos and betting that confidence will bring enough foreign currency for the dollar to be in a pseudo-equilibrium around \$14, in case the demand for money in a good equilibrium, inflation would be 150%, while in the bad case (most likely) the inflation rate would rise to 450%. If this were the situation, the much-mentioned pass-through could range between 75% and 95%, where in addition, the level of activity could fall between 3% and 6% and poverty would exceed 50% of the population. In short, a formidable idea, poorly implemented or implemented by incompetents, could end in a new social disaster.

6. Dollar: that green Argentine passion

The exchange debate, both due to the search for a reference level – price – and its potential effects on the general level of prices (inflation), has taken center stage. The meager level of BCRA reserves (which clean of loans with Central Banks, outstanding debts and bank reserves would pierce the line of USD 5,000M), is testimony to an inconsistent and unsustainable monetary policy.

Although it is true that it would be feasible to have a fixed exchange rate without reserves, this would only be possible if at least one of the following conditions were met: (i) a granite downward demand for money – and, depending on the case, even strongly increasing. -, (ii) unrestricted and instant access to the capital market and/or (iii) absolute downward flexibility in public spending (to extract excess pesos via surplus). Naturally,

Argentina does not remotely comply with any of these points, which is why if it opted for a managed exchange rate it would have to have a huge amount of reserves that it does not have. Therefore, the country will have to choose between the option of free floating of the dollar or a strong increase in controls, which not only raise the interest rate, put pressure on prices and cause per capita GDP, employment and employment to fall. and the real salary, but also puts individual freedoms in check (as is the case of Venezuela).

In this way, and given the imminent possibility of moving towards the implementation of a system of free floating of the peso, many economists have begun to conjecture about what the movement of the exchange rate could be. In general, these analyzes are based on the typical case of a market that has a maximum (managed) price below the equilibrium level, from which two results emerge: (i) at the set price there is a shortage, given that the quantity demanded exceeds to that offered and (ii) compared to the amount of foreign currency that the bidders are willing to take to the market at the official price, there is the possibility of selling it in the parallel market at a price above the equilibrium price to agents with greater will to do good. Therefore, following this logic, if the restriction on the administered price were eliminated, the official price should rise and the parallel price should fall until said prices are unified at an intermediate point, while the quantities traded would increase. Put in white on black, the free exchange rate should be at a level between \$9.7 and \$16.

At the same time, these analyzes are complemented (and supposedly validated) by work based on the application of the purchasing power parity model (law of the single price for an open economy -PPP-), where, taking a basket of goods in Argentina denominated in pesos and divided by the same basket denominated in dollars in the US, it is determined that the prices of the Argentine economy are set with a dollar of \$14. Therefore, when combining this result with the previous one, it is affirms that if it is decided to leave the CEPO, this would only imply a jump in the exchange rate, placing it above the official one without an inflationary effect.

Unfortunately, and despite the “euphoria” generated by the possibility of moving towards a new government that does not mistreat capital as the Kirchnerist regime has done in these twelve years (which does not require great efforts), the preceding analysis has great number of problems. On the one hand, it is a simple partial equilibrium analysis, where assuming everything is constant, the price in question would explain a real equilibrium translated into a monetary format. Naturally, if we do not take into account what could be happening in other markets, both local (where preferences, resource endowments, technology and tax system come into play) and international (especially with respect to the international interest rate and the terms of trade , among other things), the analysis in question could surely prove insufficient. On the other hand, the absolute omission of monetary issues causes the problem of the nominal scale to be overlooked, that is, given a set of relative prices, the different levels in the quantity of money will have different levels of value associated with them. nominal prices in the economy (including that of the dollar).

Additionally, for the exchange rate analysis based on purchasing power parity to be true, the economy should be perfectly open and have simultaneous balance in the labor, goods and money markets. In this sense, the number of trials in the WTO, a labor market that has not generated genuine jobs for four years now (where unemployment data is disguised and an army of public employees has been recruited) within the framework of an economy stagnant with growing inflation and a surplus of money of around 3.7% of GDP (stock similar to that observed during the years 1959 and 1975) to which should be added the emerging flow of monetary financing of the fiscal and quasi-fiscal deficit (derived from positions in LEBACs and in the future dollar market), they point out that this vision is at least reckless.

In this sense, beyond the importance of all the market imbalances that would strongly discourage the use of the PPP to make an economic policy recommendation, the case of the money market occupies a prominent place. Thus, if when the CEPO opens,

If there were not an extremely strong confidence shock that would increase the demand for money (M1) and this would contract towards the good equilibrium (8.5% of GDP), the inflation rate would climb to levels of 150%, while in the case bad (3.8% of GDP) the inflation rate could be around 450%. In this context, the level of activity could fall between 3% and 6% and poverty would exceed 50% of the population. Needless to say, under nominal dynamics with similar characteristics, the idea of talking about a price for the dollar is strongly blurred.

Therefore, given the risks involved in the money market, before opening the CEPO, the excess pesos should be eliminated and a program put in place to put a stop to the issuance of money. That is, a formidable idea like raising the CEPO, but poorly designed or carried out by incompetents, could end in a new social disaster.

7. The impossibility of applying inflation goals in the BCRA

Without a doubt, judging by the inflation results throughout the country's history, the performance of the BCRA is far from being a matter of pride. Specifically, prior to its creation in 1935, the amount of high-power money (monetary base) grew at a rate of 6%, while inflation and the exchange rate rose at a rate of around 3% and 4% annually. In turn, in the first ten years of operation, the amount of money grew at a rate of 14%, while inflation and the exchange rate grew at 6% and 2%.

However, after the nationalization of the "Monetary Control Body" in 1946, the average growth rate of the amount of money shot up to levels of 130%, while inflation and devaluation rates climbed to levels of the 160% and 150%. Therefore, the performance of the Central Bank since the middle of the 20th century has been highly questionable, where in addition, its brands record periods of very high inflation, two hyperinflations and the destruction of five monetary signs (actually there are six if we take into account that the current pesos stopped being convertible in 2002), which is why

which should be clear that the mission of the BCRA has to be reconsidered very seriously.

If one were to assume that in the economy there was a single representative agent, where relative prices are also constant such that it can be thought in terms of a single good and that given these elements there would be no distribution effects in terms of income and wealth (regardless of the fact that additions of money would affect the agent's level of utility and therefore his spending), it could be defined that the only objective of the Central Bank should be to preserve the value of the currency, that is, defend its purchasing power. In other words, given the balance of the real side of the economy, the BCRA should minimize the growth rate of the economy's prices, which under this framework would mean maintaining a low inflation rate.

To achieve this objective, there are at least two methodologies. On the one hand, there is the inflation targeting system, which has been applied in the world with great success. On the other hand, there is the method based on the control of monetary aggregates, which has fallen into disuse since the mid-1980s in developed countries and in emerging countries after the 1990s.

Although the latter seems to indicate that the method to follow to reduce inflation in Argentina should be the inflation targeting system, its implementation requires nine conditions that are not met today: (i) institutional framework that ensures the operational independence of the Central Bank and its responsibilities, (ii) transparency in communication, (iii) having inflation expectations anchored, (iv) reputation and credibility, (v) transparency of monetary policy, (vi) transparency of information, (vii) present an objective with floor and ceiling goals on a reliable price index, (viii) coordination with fiscal policy and (ix) development of prediction models

At the same time, the supposed success referred to in its use during 2002 and 2003 has been the result of what is known as type II error (desired result doing the wrong thing), where the strong illiquidity emerging at the exit of Convertibility, the exaggerated devaluation of the currency

regarding the dollar and Duhalde's Homeric fiscal adjustment, were the bases of the success achieved. In fact, the conditions of the economy today are radically different: (i) the treasury is the most important source of peso issuance, (ii) there is no surplus of dollars and (iii) there is an appreciable excess of pesos, which is why which is impossible to anchor expectations.

On the other hand, according to a series of works that we have published ("The New BCRA and the Monetary Reform" and "Essays on Monetary Economics: The Argentine Case") there is a very deep causal relationship between M1 (circulation in the hands of the public but demand deposits) and nominal GDP (existence of cointegration), which is why the specialized literature on the subject would be suggesting that monetary policy, until the inflation rate is reduced and expectations regarding it are anchored, should be designed based on quantitative goals on M1.

This statistical importance of M1 on the determination of nominal GDP and given the level that the economy's growth rate usually has, this amplifies the causal link between the growth rate of said monetary aggregate with the inflation rate. In this context, it is where the discussion about the existence of a surplus of pesos also becomes more relevant.

According to the work carried out previously mentioned, when we proceed to estimate the demand for money (M1) in terms of GDP in the last 70 years, the estimate suggests that there are pesos left over for about 3.8% of GDP (about \$200,000M). In turn, the level of M1 in terms of GDP in Argentina exceeds the average for the region by 3.9 percentage points, where in addition, while the average M1/M3 ratio for the region is 20%, in our country it is located at 50%. Therefore, all indicators would be accounting for a strong surplus of pesos (something normal when restrictions such as the CEPO are put in place), which has also been empirically validated by studying the residuals (unexplained part of the statistical estimate) the relationship between M1 and nominal GDP.

This monetary situation has already been observed twice in the country's economy. The first

took place in 1959 and the second in 1975 (the Rodrigazo). In both cases, the inflation rate multiplied by six times and the GDP fell by 6% at the most acute moment of the crisis. Therefore, in the face of this risk, it is advisable to place a bond in dollars subscribeable in pesos, so that the excess pesos are withdrawn. In turn, as this solution implies a manifestation of potential demand for foreign currency, when neutralized, the exchange CEPO could be opened successfully and without any run.

Finally, from the point of view of risks, if the bonds in question were not in demand, this would not only have no costs, but would also imply a strong expression of confidence in the local currency. However, if, on the contrary, we worked with the hypothesis that there is no surplus of pesos and when the CEPO opens the demand for local money collapses, generating an exchange rate run, the economy could replicate the Rodrigazo experience. Consequently, both in terms of monetary policy design and in terms of risk control, the new authorities should refrain from betting on the Type II Error while at the same time they should try to minimize the risks, since if the existence of a surplus of pesos and in this case there is not a large dose of good luck, the final result could be very negative for the well-being of Argentines.

8. Conclusions: Reflections for the design of monetary policy

In the long term, expanding the money supply above the growth rate of money demand ends up killing growth and job creation. Theory and empirical evidence taught us this in the '70s. Although the data from the region strongly validates it, some in these lands still refuse to internalize it. If we compare 2014 with 1998, the GDP per capita of the region (with low and stable inflation) grew on average + 72%, while that of Argentina (with high and sustained inflation) fell -14%. The new government must have among its main economic objectives lowering inflation to

international standards to be able to recover the growth path.

Economic science explained that inflation is always and everywhere a strictly monetary phenomenon, making it clear that monetary policy is the only effective tool to lower and then prevent inflation. Thus, Central Banks around the world apply (prudent) monetary policies whose main long-term objective is to maintain “low” and “stable” inflation.

In this framework, it is understood that the Central Bank must be refounded in order to lower inflation. A new Organic Charter must be promulgated for the BCRA. The new charter of the Central Bank does not have to have a dual objective (inflation and level of activity), because an activist policy would deteriorate the performance of monetary policy, awakening the trade-off between output and fluctuations in inflation, which leads to under-optimal monetary policy. In other words, the risk of “more” inflation grows, which ends up punishing the level of activity and employment. Furthermore, the Dual Objective complicates communication between the Central Bank and economic agents, being counterproductive to its credibility and the quality of its policy.

The new Organic Charter (voted in Congress) must make it clear that price stability must be the only and predominant long-term objective for the BCRA's monetary policy. The new BCRA must be independent in terms of monetary policy instruments to use and must be obliged to build and strengthen transparency and communication with economic agents. An annual Monetary Plan must be prepared with quarterly monitoring that must be reported, published, explained and defended in the National Congress with institutionalized audit mechanisms. At the same time, financial stability must also be a policy objective for the monetary authority.

The BCRA has to set a NOMINAL ANCHOR to define and limit its commitment to price stability. There are four types of nominal anchor: i) Convertibility; ii) Exchange rate

permanent; iii) Monetary Aggregate Targets and iv) Inflation Targets. The first two are not an option. Nor are the Conditions given to go to Inflation Targets. There is no Transparency in Communication between the Monetary Authority and economic agents, there is no pre-existing nominal anchor for expectations in the Economy, nor is there credibility or reputation (announce, explain and then comply). There is even less transparency in information and monetary policy. Even less is there a credible price index on which to set a central objective, ceiling and floor. Furthermore, international experience shows that currently an Inflation Targeting Program would not be useful for Argentina because it is based on very high inflation; and consequently it would take many years to lower it to single digits. The international experience of Chile, Colombia, Peru and Brazil shows that Inflation Targeting lowered inflation, on average, 2.4 percentage points per year in those countries. Thus, Chile and Colombia took 10 and 8 years to lower inflation from 30% and 33% to 2.7% and 3.0%; respectively.

9. References

- Blinder, A. (1998). *The Central Bank: Theory and Practice*, Ed. Antoni Bosch.
- Friedman, M, and Schwartz, A. (1963). *A Monetary History of the United States (1867-1960)*. Ed. Princeton University Press.
- Friedman, M. (1968). “The Role of Monetary Policy” *AER*58(1): 1-17.
- Friedman, M. (1971). *Dollars and deficit*. Ed. Emecé Friedman,
- M (1982). *Unemployment and Inflation*. Union Ed.
- Garrison, R. (2001). *Time and Money: the Macroeconomy mine of Capital Structure*. Union Ed.
- Keynes, J. (1936). *General Theory of Employment, Interest and the money*. Fund of Economic Culture.
- Menger, C. (1871). *Principles of Political Economy*, Ed. Union
- Menger, C. (2013). *The money*, Ed. Union.
- Milei, J., Giacomini, D. Ferrelli Mazza, F. (2014). *Cop-Economic ethics against the clock: symptoms, diagnosis and measures to get out of the trap and grow again*, Ed. Barbarossa
- Milei, J., (2014). *Readings on Economics in Times of Kirchnerism*, Ed. Union

Milei, J., (2014). *The Return to the Path of Decadence Argentina*, Union Ed.

Milei, J., Giacomini, D. Kerst, N. (2015). "The Thermometer: Tobin's "q", competitiveness and growth", International Conference on Public Finance – UNC.

Milei, J., Giacomini, D. (2015). "The New BCRA and the Monetary Reform".

Milei, J., Giacomini, D. (2016). *Economics Essays Monetary: the Argentine case*, Ed. Union.

Mises, L. (1949). *Human Action: Treaty of Economics*. 10th ed. Union Ed.

Mishkin, F. (2007). *Monetary Policy Strategy*, MIT Ed. Press

Walsh, C. (2010). *Monetary Theory and Policy*. 3rd ed. Ed. MIT Press

Appendix 1: The end of the BCRA Money Overhang: cornering the surplus of pesos

The BCRA under the leadership of Sturzenegger is on the path to putting an end to the surplus of money of 3.7% of GDP inherited from the previous leadership. The task takes on greater relevance when one considers that in the two previous comparable experiences (1959 and 1975), monetary normalization led to a six-fold increase in the level of inflation and sharp falls in GDP. This surplus of pesos is the child of several economic policy errors, whose parents are the exchange rate CEPO and fiscal policy (the mother of all evils). Thus, while it was issued to finance fiscal waste, the CEPO prevented excess pesos from leaving the system via the purchase of foreign currency, leaving \$200,000M trapped in the form of M1 by the end of 2015.

Faced with this monetary imbalance, the new BCRA has decided to attack the problem forcefully. According to the estimates that we have made together with Federico Ferrelli Mazza, the excess pesos from the end of the year to date have been reduced by 81.8%. The original surplus of pesos that, at the official exchange rate that governed during the CEPO, represented a potential demand of USD 20,000M, when the exchange rate jumped fell to USD 14,000M. In turn, the agreement with importers for USD 5,000M led to the

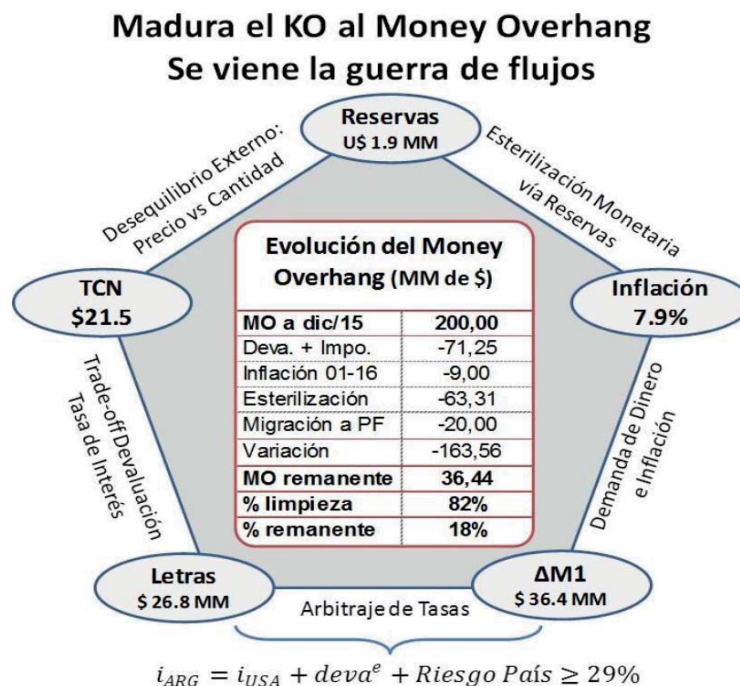
potential demand at USD 9,000M, that is, \$129,000M. In this sense, if January prices rise by 4%, this would cause the excess pesos to fall by \$9,000M. The placement of LEBACs so far in January for \$47,000M, given the M1 multiplier, absorbed \$63,000M, while the transfer of sight deposits to fixed-term deposits reduced the surplus of pesos by \$20,000 M, so the imbalance was reduced to \$37,000M.

Based on this result, by using the "monetary pentagon", it is not only possible to determine the limit values that the different variables could take to eliminate the remaining excess pesos, but on its sides it is possible to observe the different trade-offs that the BCRA will have to face. In this way, if the excess pesos were liquidated by the external sector, this would imply selling reserves for USD 1.9 billion. On the other hand, if the adjustment fell on the prices of the economy, the exchange rate would have to jump to \$21.5 or, alternatively, if the adjustment variable were inflation, an additional jump in the CPI of 7.9% would be necessary. . Finally, if the adjustment came from the quantity side, net sterilization would have to be increased by \$26.8 billion or, failing that, \$36.4 billion of demand deposits would have to be converted to fixed-term deposits.

Faced with this situation, although we are close to winning the battle of stocks, we are still very far from winning the war against inflation. On the one hand, given the 18-month lag in the money-inflation relationship, Vanoli's inheritance leaves an inflationary floor of 15%, which when adding the transfers to the treasury for \$ 160,000M would reach 30% annually. On the other hand, an enormous sterilization effort would have to be made, since not only would the current stock of LEBACs have to be renewed (6% of GDP), but to this would have to be added the effect of interest (1.5% of GDP). GDP), which could additionally add another 10 points of inflation.

Therefore, the strategy of placing all the effort to clean up the surplus pesos in the hands of the BCRA, together with the very modest fiscal adjustment, punishes the income-risk relationship of the chosen policy. In terms of return, high interest rates penalize investment and growth. Regarding risk, the concentration

Chart A: The Monetary Policy Pentagon



$$i_{ARG} = i_{USA} + deva^e + Riesgo País \geq 29\%$$

En el centro del Pentágono se muestra la evolución del Money Overhang mientras que en las aristas constan los límites del ajuste sobre el remanente.

Source: Own elaboration based on BCRA data

of short-term debt headed by the BCRA leaves the door open for a speculative attack in the event of an adverse shock, in a context where the fiscal program requires heavy doses of funds from abroad. Therefore, once again, the limits imposed by the political corporation on public spending have led to choosing a quality of economic policy that is far from optimal, leaving the BCRA carrying most of the responsibility in the fight to achieve greater well-being. .

Appendix 2: The optimality of the BCRA's monetary policy

Prior to the assumption of the new leadership of the BCRA in December 2015, the economy had had restrictions in the exchange market (CEPO) for four years. This situation, given that it involved setting a price for the foreign currency below its equilibrium level (hence the existence of the gap), generated excess demand that translated into a generalized excess supply in the rest of the economy. Thus, these excesses, in the bond market implied high interest rates, in the goods market a GDP per

decreasing inhabitant, in the labor market losses of private jobs (made up with public jobs) and in the money market a high inflation. That is, the decision to try to hide the effects on the exchange rate and prices resulting from a large fiscal imbalance that was financed mainly with monetary issuance (and reserves) not only deprived the country of taking advantage of the most favorable international context it has ever had. in its history, but also left the foundations for hyperinflation to break out.

Naturally, the joint presence of a fiscal deficit financed by the issuance of money and restrictions in the exchange market (CEPO), meant that the pesos were trapped in the system, generating a monetary surplus by the end of 2015 of about \$200,000 million, which was equivalent to 4% of GDP. Excesses of money of such magnitude throughout Argentine history had been recorded in the years 1959 and 1975. In both cases, when the exchange restrictions were lifted, the inflation rate multiplied by six times, going from levels of 20% to 120% and from 30% to 180% respectively, with GDP falls of around 6% at the most acute moment of the outbreak.

To measure the magnitude of the problem, if we consider that during the eight years of Cristina Fernández de Kirchner's government the amount of money grew by 546% and prices according to Congress grew by 517% (95.5% of the issuance was transformed into inflation) and that Alejandro Vanoli left the amount of money growing at 47%, a number that, given the futures bomb, climbed to 80%, underlying inflation was around 80%. At the same time, faced with the inexorable opening of the CEPO due to macroeconomic inconsistency, in accordance with what history has shown, the inflation rate would have climbed to levels of 500% along with a drop in GDP of 6% with poverty levels higher than 60%. A true catastrophe.

In fact, the catastrophe did not occur as a result of a profound policy of monetary sterilization via the placement of LEBACs. In this way, avoiding hyperinflation meant that the stock of LEBACs went from almost \$300,000M to about \$700,000M (\$200,000M has as a counterpart an amount of USD 14,000M as insurance against runs). Therefore, sterilization through LEBACs, plus the agreement for the debt with importers, the dollars contributed by soybean producers and the specific interventions of the BCRA (futures maturities) managed to avoid hyperinflation.

Naturally, this action was not without criticism. One of the attacks was based on what the literature calls “the unpleasant monetarist arithmetic”, which indicates that if one finances the fiscal deficit with monetary emission and that to avoid inflation sterilizes money at a positive real interest rate, If the deficit caused by the issue is not closed, in the end the price level will be higher, so the inflation rate between peaks will be higher.

However, the argument has two flaws. On the one hand, it assumes that the fiscal deficit will never be reversed. On the other hand, it omits the intertemporality underlying the process. Specifically, if the deficit were to be closed, faced with a very high current inflation and a low tomorrow, monetary sterilization allows the BC to distribute inflation over time and given that future flows weigh less on the preferences of individuals than present ones, The measure results in a

welfare gain. Furthermore, this result deepens if inflation is treated as an evil that generates disutility.

Now, suppose that in the case of the BCRA there was no certainty about closing the fiscal deficit. Even so, in the case of a certain hyperinflation today compared to a potential one in the future, the measure remains correct. And if we add to this the passion of Argentines for the short term, there is no doubt that sterilization has resulted in a strong improvement in well-being. However, it does not end there. If one considers that the average rate at which the BCRA borrowed was 28%, while inflation for the year would be around 40%, this implies a liquefaction of 10% of the debt due to LEBACs, which is why the profit welfare derived from the sterilization policy is magnified. In short, even if the BCRA's move went wrong due to lack of fiscal commitment, the strategy carried out by Federico Sturzenegger and his team has been optimal.

Appendix 3: One year after the departure of the CEPO

A year ago, the Cambiemos government, despite the catastrophic forecasts that predicted a crisis of enormous proportions, decided to begin the process of liberating the exchange market, that is, lifting the CEPO. Thus, in line with what good economic theory predicted, the price of the foreign currency (the dollar) was located at an intermediate point between the official price and the one emerging from the parallel market. However, beyond the factual issue of exit and especially the collateral effects of the measure, it is worth analyzing two issues: (i) at the regulatory level, which indicates the reasons why the exit should be CEPO and (ii) the economic consequences of the type of exit that has been chosen.

A3.1 The regulatory plan for leaving the CEPO

The restrictions in the exchange market (CEPO) established by Kirchnerism implied setting a price for the foreign currency (the dollar) below its equilibrium level (hence the existence of a gap), which generated a

excess demand that translated into a generalized excess supply in the rest of the economy. Thus, these excesses, in the bond market implied high interest rates, in the goods market a decreasing GDP per inhabitant, in the labor market losses of private jobs (pretended with public jobs so that the unemployment rate did not increase while at the same time the fiscal deficit increased) and high inflation in the money market. That is, the decision to try to hide the effects on the exchange rate and prices resulting from a large fiscal imbalance that was financed mainly with monetary emission (and reserves) while depriving the country of taking advantage of the international context (terms of trade 30% better than those at the end of World War II and zero interest rates) the most favorable it has had in its history.

On the other hand, there was no factual margin to continue with the increase in public spending financed by emission and managed exchange rate, since net reserves were zero. That is, of the USD 25,000 million that were reported, when the swap with China, the banks' reserves for their dollar deposits and the debt with importers was cleared, the BCRA lacked the firepower to sustain the exchange rate. . Therefore, faced with this reality, not opening the CEPO implies tightening controls and sinking the economy even further.

2. Macroeconomic consequences of the departure of CEPO

2.1. The inherited monetary imbalance and the hyper that was not

The traditional literature on "international monetary economics" maintains that under a managed exchange rate system (in the extreme case a fixed exchange rate), the excess of monetary emission above the demand for money generates a loss of international reserves as a result. and the moment they fall below a critical level, a balance of payments crisis breaks out. At the same time, if there are restrictions on the purchases of foreign currency, an excess of domestic currency begins to exist, which in the literature is known as a peso surplus (Money

Overhang), a phenomenon no less important when lifting restrictions in the exchange market, since this repressed force leads to an over-reaction in all the variables of the economy.

Naturally, the joint presence of a fiscal deficit financed by the issuance of money and restrictions in the exchange market (CEPO) generated a monetary surplus by the end of 2015 that amounted to about \$200 billion, which was equivalent to 4% of GDP. Excesses of money of such magnitude throughout Argentine history have been recorded in the years 1959 and 1975. In both cases, the inflation rate multiplied by six times, going from levels of 20% to 120% and 30% to 180% respectively, with GDP falls of around 6% at the most acute moment of the outbreak.

To measure the magnitude of the problem, if we consider that during the eight years of Cristina Fernández de Kirchner's government the amount of money grew by 546% and prices according to Congress grew by 517% (95.5% of the issuance was transformed into inflation) and that Alejandro Vanoli left the amount of money growing at 47%, a number that, given the futures bomb, climbed to 80%, underlying inflation was around 80%. At the same time, faced with the inexorable opening of the CEPO due to macroeconomic inconsistency, in accordance with what history has shown, the inflation rate would have climbed to levels of 500% along with a drop in GDP of 6% with poverty levels higher than 60%. A true catastrophe.

In fact, the catastrophe did not occur as a result of a profound policy of monetary sterilization via the placement of LEBACs. In this way, avoiding hyperinflation meant that the stock of LEBACs went from almost \$300,000M to about \$700,000M. In turn, \$200,000M of the stock would have to be cleaned, which has as a counterpart the purchase of USD 14,000M and which, in the face of jumps in the exchange rate, not only generates positive results for the BCRA, but also provides it with firepower against a speculative attack against the currency. Therefore, sterilization through LEBACs, plus the agreement for the debt with importers, the dollars contributed by soybean producers and the interventions

punctual BCRA (futures maturities) it was possible to avoid hyperinflation.

2.2. The implications on the real side of the economy

Although the departure of the CEPO did not lead to a disaster and the BCRA with masterful skill avoided hyperinflation, this does not mean that the methodology for the exit was optimal. Specifically, at the time of leaving the CEPO, the Minister of Finance, Alfonso Prat-Gay, dismissed the existence of the monetary surplus and as a result, he rejected carrying out a bond placement that would clean up the excess pesos.

If the peso market has dried up by placing a bond on the head of the public sector (something natural, given that the excess money is the result of financing the treasury with a restricted exchange market), the firepower of the market to buy dollars, would have been the same as that of a revolver without bullets, so the price of the foreign currency would have been much more similar to the official exchange rate than to the parallel one, which would have radically changed the future situation of macroeconomic balance. On the one hand, the price of food would have risen much less, so the impact on the most vulnerable sectors would have been much smaller and less burdensome to sustain. This point is not minor, since the rise in food prices compressed the purchasing capacity of other goods, which deepened the recession associated with the change in relative prices in a very inflexible economy. On the other hand, the need to carry out a profound money sterilization process forced the BCRA to have to work with interest rate levels that have not contributed positively to the expansion of the economy, thus worsening the recessive situation.

3. Final reflection

The lack of reserves and the macro imbalances derived from the CEPO required an urgent exit. However, the selected method has been far from optimal, since it has implied a deterioration in social conditions and has deepened the drop in the level of activity. At the same time, although a battle against hyperinflation has been won, the stock of LEBACs says that the war is not over. Based on this, we hope that the political corporation and its irresponsible fiscal waste will stop sabotaging the achievements of the BCRA, since failing that, the damage to society will be enormous.