

Seeking stability: Exploring dollarization as an option for Argentina's development

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Abstract

Argentina has struggled with inflation since the 1940s, with rates increasing over time and no successful attempts to eliminate it. Despite this, Argentinian society has grown accustomed to high, long-lasting, and volatile inflation, hindering economic growth and development. Numerous stabilization plans have failed, and all monetary policy schemes have been exhausted, except for dollarization.

The study aims to describe the different stabilization alternatives that Argentina has used to combat inflation and discuss the possibility of dollarizing the economy as a solution to the inflationary problem. Many neighboring countries have made this decision and their economies have stabilized. The methodology includes both a qualitative approach and a quantitative approach. In its first stage, an attempt will be made to approximate the object through its description, while in the second stage, Bayesian networks will be used. The idea is to analyze the influence of macroeconomic variables in the inflationary phenomenon in Argentina to try to propose a correct decision that stabilizes the economy in the long term. The preliminary research findings show that the inflationary phenomenon in Argentina is multi-causal and, although printing money is the main component, variables such as the interest rate, the exchange rate, the fiscal deficit, and expectations, among others, influence inflation.

With annual inflation at 95% in 2022 and projected to exceed 100% in 2023, alternative solutions must be considered. This article is a preview of a Ph.D. thesis in economics in Argentina.

Introduction

In order to achieve sustained growth and product development in a given country, a strong, stable, and competitive economy is needed. Argentina used to have these characteristics and was one of the top 10 richest countries in the world at the end of the 19th century, even going as far as being as rich as the United States, but its economy started to decline. Nowadays it is behind most of the countries in America.

Argentina is a country that witnessed a change of fortune, passing from one group - the group of the richest countries - to another. "There are four kinds of countries in the world: developed countries, undeveloped countries, Japan and Argentina", this is a famous phrase that was said by the Nobel Prize in Economics, Simon Kuznets in 1971. Argentina is a real case study.

Kuznets's idea was that Japan did everything well, and, starting from a catastrophic economic situation after World War II, had become the second economic power in the world. Argentina had followed exactly the opposite path. Kuznets' studies in the area of country growth are very important. Kuznets said that during the first years of growth, inequality among the inhabitants of a country increases. Later, when the decisive factors cease to be those related to the intensive use of capital, inequality begins to decrease, producing an inverted U-shaped figure, known as the Kuznets curve.

This Argentine decline is accompanied and intensified by the country's monetary economy. From the mid-1940s to the present, Argentina has not found a way to stabilize the value of its currency. This has had repercussions in all spheres: economic, social, political, and institutional.

The first appearance of inflation was in the '40s. Nevertheless, it was a regional event for that time: Chile, Brazil, Uruguay, and Peru had inflation levels similar to those of Argentina. So, it was not a concern for the government or the population.

At that moment in Latin America, the structuralist vision of inflation was accepted. Some inflation was considered compatible with growth. There was no agreement on an appropriate percentage of

inflation that would lead to economic growth, but in the southern cone, 30% per year became the accepted figure.

After that decade, there were two episodes in which inflation appeared. First, as a controllable phenomenon and second, as a perverse problem. These two situations occurred between 1946 to 1949, and between 1973 to 1975. In both cases, the state actively intervened in the economy by fixing the prices of goods and services. The objective was to increase the salary of workers in a dependency relationship.

Inflation could be contained in the first period until 1955, it is what Cavallo (2008) calls "repressed inflation". Already, almost 10 years later, inflation became open, and the consumer price index increased abruptly. A period began in our country in which inflation became a chronic, recurring, periodic problem.

Between 1955 and 1958 the general price level increased by 333%, and there was an annual inflation peak of 118% in 1959. The same happened between 1974 and 1976, with the rate of inflation peaking in 1976 at 444%.

Starting in the 1960s, not only did an inflationary period begin in the Argentine economy, but, in some way, companies and families began to learn to live with it. Rates above 25% or 30% per year were no longer something unusual, to become the constant of the Argentine economy.

Society started to think in terms of inflation. Their economic decisions were based on future inflation. And that situation accelerated these rates even more.

The purchase of goods is becoming more and more frequent. This, in some cases, generates an increase in prices and, in other cases, scarcity of goods.

Only during the 1990s was Argentina able to control its inflation. Some months it even had deflation. This was when what is known as Convertibility was carried out. Schweickert, R., 1993

In April 1991 after years of hyperinflation and economic decline, Argentina implemented the convertibility plan, i.e., a stabilization program based on a fixed exchange rate vis-a-vis the US \$. The basic characteristics of the program are the mandatory full coverage of the monetary base by foreign exchange, the prohibition of fiscal deficits financed by the Central Bank, the full convertibility of the Peso for current as well as for capital account transactions, and the allowance for using of the US \$ as a legal tender. This implies that the Central Bank acts as a currency board, i.e., the money supply is completely determined by foreign exchange flows, and there is no safeguard with respect to capital flows. (Schweickert, 1993, p. 1).

Argentina is among the 10 countries in the world with the highest inflation, only below Venezuela in South America. Economic history seems to indicate that Argentina is doomed to failure in monetary matters. In 80 years, it was impossible to execute a program that would return Argentina to its position in 1914.

Literature Review

The inflationary situation in Argentina and stabilization alternatives

There are many studies on Argentina and its stabilization attempt. Cavallo, D (2008 and 2014) analyzed the situation of stagflation in Argentina, that is stagnation of the economy with inflation. Cavallo wrote about the history of inflation in Argentina, from 1940 to the present, and specified the periods in which the economy did not grow either and there was stagnation. Gerchunoff & Llach (2010) in "The cycle of illusion and disenchantment. A Century of Argentine economic policies" report both external and internal factors that explain the economic policy decisions that led Argentina to where it was in the last 50 years. Kiguel (2015) in "The Argentine economic crises: A History of Adjustments and Mismatches" recounts the dynamics of the Argentine economic crises: banking, exchange, and monetary, among others.

Ocampo (2017 and 2021) wrote about the problem of Argentina and compare the difference between the position of some other countries and the position of Argentina in the world. Countries that used to share that place with Argentina -Brazil, Uruguay, Chile, and Peru - are no longer in this position.

At some point in the last seven decades, all of these countries experienced very high inflation rates by international standards. In fact, it seemed as if inflation was a chronic disease in South American economies. This hasn't been true for Chile since the 1980s, Brazil since 1995 and Uruguay in the last two decades. When it comes to high inflation Argentina is no longer in the company of its neighbors but of African failed states such as Zimbabwe, Sudan, South Sudan, Ethiopia, and Yemen (Ocampo, 2021, p. 4).

Internationally, there are many authors that tried to analyze and explained the situation in Argentina. One case is Dornbusch and Simonsen (1987) who wrote "Inflation stabilization with incomes policy support: a review of the Experience in Argentina, Brazil, and Israel". They explained how these countries started programs of stabilization after episodes of high and sharply accelerating inflation. Pastor and Wise (1999) in "Stabilization and its Discontents: Argentina's Economic Restructuring in the 1990s" argue that Argentina may be panned in by its own success:

Exchange rate targeting quelled inflation, but the resulting real appreciation has limited export and employment growth; microeconomic reforms raised efficiency but have threatened income distribution and hence political stability; exclusive styles of policymaking helped enact reform but have led to corruption and policy insensitivity and contributed to rising social discontent (p. 477).

Maddison (2006) in "The World Economy. A millennial perspective" analyzed the world economic performance along history and divided the countries between developed and developing countries. He showed the evolution of the per capita income gap between developed and developing countries. Taylor (2018) in "The Argentina Paradox: micro explanations and macro puzzles" explains that the behavior of the Argentine economy was not always the same. This cycle of Argentine decline began around the 1930s.

There is only one notable case of a country that started life relatively rich and ended up comparatively poor: this is the great puzzle or paradox of Argentina. In the late nineteenth century, it was among the top five countries in income per capita, richer than all European countries except Britain, and on a par with other rich settler societies such as the United States, Canada, and Australia [...] It is now close to the average country in the world given its level of income per capita, and its citizens enjoy only 40% of the average income per capita of the 12 core countries of Western Europe (Taylor, 2018).

The inflationary situation in Argentina

The following table shows Argentina's inflationary history since 1960 within a global context, in comparison with the average rate world. In the first column there is the percentage for the entire period, that is from 1960 to 2016. The second includes the sixties and seventies; the third includes the eighties; the following covers the period since the return of democracy, and finally, the last column covers the 21st century.

Table 1. Argentina's Inflation in a Global Context

| | 1960- 2016 | 1960- 1980 | 1981- 1991 | 1984- 2016 | 2000- 2016 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| Argentina | 176.6% | 79% | 731.1% | 236.3% | 19.1% |
| World | | | | | |
| Average | 33.8% | 12.3% | 64.6% | 41.7% | 16.8% |
| Median | 7.5% | 8.0% | 8.9% | 6.9% | 4.1% |
| 90 th Percentile | 48.3% | 19.6% | 67.0% | 55.0% | 13.4% |

Source: Ocampo (2017) from World Bank

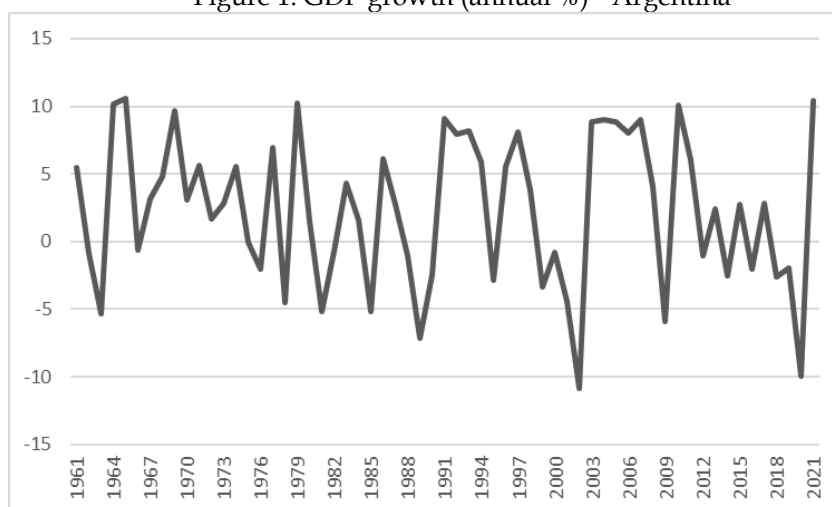
Several conclusions could be drawn from this table: a) for the entire period, that is from 1960 to 2016, inflation in Argentina was far above that of the rest of the world; b) in the period of the return of democracy the rate of inflation has remained stubbornly high, this carried out the hyperinflation in 1989; c) during the 21st century, all the countries that used to stay with Argentina in terms of inflation managed to take off, but not Argentina.

The following figure shows the GDP growth in Argentina from 1960 to 2021. The data is in percentages and the frequency is annual. The design of the graph is more like an electrocardiogram than a country growth chart. No country, be it Latin American, European, or any other part of the world has this type of behavior in terms of GDP growth.

This shows the cycles in which Argentina is constantly immersed and from which it seems to have no way out. It is a real trap. Based on World Bank figures, the GDP growth rate lagged the world average by, at least, 1.4 percentage points.

Argentine long-term growth performance is vulnerable to macro-fiscal crises and depended on a limited number of sectors strongly affected by external factors, such as droughts, global trade shocks, and commodity price fluctuations (World Bank, 2021).

Figure 1. GDP growth (annual %) - Argentina



Source: World Bank

Stabilization Plans. The Convertibility

Several plans and economic programs were carried out in Argentina: The Krieger Vasena Plan, the Gelbard Plan, the Martínez de Hoz Exchange Table, the Austral Plan in all its versions, the Primavera Plan, the BB Plan, and Convertibility, just to mention a few. The truth is that none of them, with the exception of convertibility, has managed to contain inflation for more than 3 consecutive years.

Argentina suffered one hyperinflation in terms of Philip Cagan (1956). The standard measure is a monthly increase in the consumer price level in excess of 50%. The hyperinflation in this country began in May 1989 and ended in March 1990, in a country that had already experienced a long inflationary history. However, Argentina came close to hyperinflation on, at least, two occasions more: July 1975 and March 1976.

The economic situation with the return of democracy was not really well. The rate of inflation started to increase as did the fiscal deficit too. The GDP variation was negative. In this context, it was carried out The Austral Plan in 1985. Inflation dropped considerably once it was carried out. But then prices began to rise again, faster, and faster. The following table shows this situation.

Table 2. Argentina's Macroeconomics Indicators (1983-1991)

| Macroeconomics Indicators in Argentina (1983-1991) | | | |
|---|---------------|-------------------|------------------------|
| Year | Inflation (%) | GDP (Variation %) | Fiscal Deficit (% GDP) |
| 1983 | 343,8 | 1,5 | 10,7 |
| 1984 | 626,7 | 1,1 | 7,7 |
| 1985 | 672,2 | -5,7 | 2,2 |
| 1986 | 90,1 | 4,2 | 2,9 |
| 1987 | 131,3 | 1,2 | 5 |
| 1988 | 342,9 | -3,7 | 5,8 |
| 1989 | 3079,8 | -5,7 | 3,7 |
| 1990 | 2313,9 | 0,8 | 2 |
| 1991 | 171,7 | 7,2 | 0,8 |

Source: Kiguel and Liviatan (1995)

Subsequent to this, Argentina has hyperinflation and elaborated a new stabilization plan called "Convertibility". This plan combined strict monetary and fiscal discipline with far-reaching structural reforms and was based on a strict exchange rate rule, where the parity was fixed by law at one peso per US dollar. The convertibility law established that the monetary base had to be fully backed by international reserves. The central bank was restrained from financing budget deficits, thus breaking one of the critical mechanisms that caused inflation in the past. In effect, Argentina established a currency board regime. "Argentina adopted the currency board in March 1991 to put an end to a long history of large macroeconomic imbalances and high inflation that culminated in the hyperinflation process of 1989-91" (Kiguel, 1999, p.1).

Convertibility has success in terms of controlling the increase in prices. During the period from 1986 to 1990, the average inflation was 1382,4%. In the following years, from 1991 to 1995, inflation decreased considerably; the average was 22,9%. Finally, from 1996 to 1998 was 0,4%. It was incredible for a country like Argentina to have, even for a few months, deflation in prices.

In 2001, Argentina decided to leave the convertibility and let the Argentine peso float. After a few months, the relationship between the USD dollar and the Argentine peso was 1 to 4. From then on, the peso began to devalue. Currently, the relationship is 1 to 300 approximately. Not only was the Argentine peso devalued, but inflation rates never stopped falling. From 2001 to the present, this phenomenon has become a chronic disease in Argentina.

Research Methodology

The current study intends to describe the different cases of dollarization in Latin America as a way to propose the same structure in Argentina. Since the second half of the 20th century, various currents of thought have been polarized into two main approaches: the qualitative and the quantitative approach. While both approaches have similar and interrelated phases; each of them has its own characteristics.

This research aims to identify aspects of dollarization as a way to stabilize the economy. Given the complexity of the object, framed both by the historical context and by the critical variables that influence its implementation, it is decided to propose a general strategy of methodological triangulation with a view to increasing the validity of the findings and the degree of confidence in them.

This first stage is qualitative. The aim objective is to describe the situation, analyze similar cases and try to propose some solution for Argentina. The second part of the research has a quantitative approach. The idea is to analyze the influence of macroeconomic variables on the inflationary phenomenon in Argentina in the period by applying the Bayesian network methodology. The Bayesian network methodology is gaining more and more relevance in academic literature. They allow the representation of all information in a single format, which facilitates interpretations.

A Bayesian network – also known as a causal network, probabilistic causal network, Bayesian expert system, probabilistic expert system, influence diagram, or belief network, among others – is a statistical method that represents uncertainty from the assignment of probabilities to each of the variables.

Findings and Results. Dollarization. Latin America Cases

Around the world, countries have different rates of inflation. Even within the same continent, there are big differences in terms of inflation. This also happens within Latin America, with countries that have different currencies, forms of government, and inflation rates. "Difference in inflation rates among countries is then frequently – and squarely – ascribed to the credibility of governments, the quality of institutions of monetary policy, practical arrangements in Central Banking and technical aspects of inflation indices" (Roncaglia de Carvalho, Ribeiro and Marques, 2018). This is why many Latin American countries have decided to dollarize their economy.

Pure or official dollarization implies the resignation of the local currency as a legal tender instrument and, in its replacement, the adoption of the dollar. In Latin America, there are many cases in which countries adopted the dollar as the legal currency: Panamá in 1904, Ecuador in 2000, and El Salvador in 2001. In the middle, there are other cases that have also been carried out in Latin American countries and, without being pure dollarization, they adopt the dollar as a means of payment and as a unit of account,

only in competition with the local currency. This adoption is known as bi-monetarism or real dollarization, and successful examples of this case are Peru and Uruguay since 2002.

Venezuela could be a third case of "spontaneous" or "unofficial" dollarization. Since 2018, the president of Venezuela, Nicolás Maduro, began to allow the use of the dollar as a means of exchange. Before that moment there was an absolute rejection by the authorities of the use of foreign currencies, and the use of the Venezuelan currency was imposed.

In other cases, such as Zimbabwe and the Dominican Republic, dollarized their economy and then returned to their local currency. Currently, Zimbabwe leads the world ranking of countries with the highest inflation, with an annual inflation rate of approximately 280%.

The case of Argentina is also in the middle. It has a "de facto dollarization". People use the dollar not as a medium of exchange in all transactions, but in some markets. For example, the real estate and the automotive market are in dollars. To save, people choose the dollar or, in some cases, another foreign currency, but definitely not the Argentine peso.

Ecuador dollarized its economy 22 years ago. On January 9, 2000, the dollar began to be used as legal tender, and the sucre was no longer used. In between, it survived the 2008 global financial crisis, two sovereign debt defaults, the 2016 earthquake, the COVID pandemic in 2020 and 2021, and six governments of different political colors. None of these events succeeded in overthrowing this measure.

This was given not only because of its establishment but also because of its popularity. Dollarization became more popular than other historical institutions like the church, and even more popular than military rule. People accept it, choose it, and prefer it; nearly 90% of the Ecuadorian population declares that they approve of this measure.

Dollarization is adopted in Ecuador - contrary to what is established in the economic literature - in a context of massive runs on deposits, devaluation and inflation, a fall in the real exchange rate, foreign debt default, a negative fiscal situation, and freezing of deposits. After a year of adjustment in the mismatches, the dollar managed to stabilize the salary, and in Ecuador, since 2002, an annual inflation of one digit was registered, after having had 70% inflation.

Advantages and Disadvantages

Dollarization would involve benefits as well as costs. Countries that decide to dollarize take this into account when making the decision.

When a country decides to dollarize, it must take into account that there will be a loss of seigniorage, loss of the figure of the Central Bank as a lender of last resort, and finally, the resignation of monetary policy as a tool for action. "Dollarization implies the loss of independent monetary policy and of seigniorage, yet the significance of such losses can only be evaluated in conjunction with assumptions about the policymaking process" (Chang and Velasco, 2002).

On the other hand, there are many reasons for dollarization too. First of all, and, perhaps more important, the inflationary problem that Argentina and other countries have, would be solved. Actually, inflation would converge to that of the United States. Second, dollarization would reduce exchange risk and country risk. The credibility of that country's currency would increase and, therefore, international trade. Third, the confidence of individuals in their currency will increase. This is very important for the economic decisions that the population will make in the future.

However, it is important to clarify that dollarization by itself will not produce the desired results, at least in Argentina. Structural reforms are needed to accompany this measure.

Is dollarization a quick remedy for economic stability in Latin America? The answer is yes, and no. Dollarization may promote economic stability in the short term, but structural and institutional problems must also be addressed if a dollarizing country is to achieve long-term economic growth and development (Quispe-Agnoli, 2002, p.2)

Discuss and Conclusion

The Argentine political system does not fulfill the mandate to preserve the value of the currency. If there is no stable economy, the economy cannot grow.

In recent years, many central banks have placed increased emphasis on price stability. Monetary policy – whether expressed in terms of interest rates or growth of monetary aggregates – has been increasingly geared toward the achievement of low and stable inflation. Central bankers and most other observers view price stability as a worthy objective because they think that inflation is costly (Barro, 1996, p. 1).

The history of Argentina is repetitive. Since the middle of the 40s until now, Argentina has had a rate of inflation of, on average, 60% annually. When the rate started to increase, a new stabilization plan was carried out. The economy stabilizes for a short period – in fact, the only moment that Argentina could “control” its prices was between 1991 and 2001 with a currency board regime-, and after that, a new cycle of crisis and price increase begins to be created.

Argentina is a case of study because in terms of stabilization, tried everything: a stabilization plan based on price control, a currency board, and programs based on mini devaluations of the exchange rate, to name a few. Tried many different things but all with the same consequence: a new cycle of crisis and price increase. So, in Argentina, inflation is a chronic disease.

Inflation has several costs. High inflation rates not only make it difficult to manage economic policy but also exchange and financial ones. It affects the population in their consumption, investment, and saving decisions. With high inflation, the time horizon is shortened, and people begin to speed up their consumption.

Another important effect of high inflation is manifested in international trade and the relations of a certain nation with the rest of the countries. The inflationary acceleration generates a loss in the value of its own currency and a subsequent loss of competitiveness of its products.

The growth and development of a country are affected by high inflation rates. This is extremely important because without a stable and strong currency is impossible to grow steadily and sustainably.

Inflation, when it is substantial or shows the risk of becoming substantial, is clearly perceived as a national problem of enormous proportions. This fact is also evident in the constant attention that inflation is given in the media and in the fundamental role it plays in many political elections. News about inflation seems to have serious consequences for approval ratings of presidents and for outcomes of elections. Public-opinion polls have shown that inflation (or something like inflation) has often been viewed as the most important national problem (Shiller, 1997).

Argentina has tried all the existing mechanisms to preserve the value of the currency. And has not succeeded. It is time to face the problem in another way. Dollarization is not rare: 195 countries around the world are dollarized.

After the success of Ecuador, Argentina could imitate its neighboring Latin American country and start to grow steadily. Consolidating the country's productive development and growing at sustained rates is the only way to break with the circle in Argentina. It is essential to stabilize the country's monetary economy to achieve this. If it is not through the Argentine peso, let it be through the USD.

The present case study tries to argue the benefits of dollarization. It is important to clarify that it is not this measure itself. It must be accompanied by other structural reforms. It is the beginning of the discussion that is expected to continue in the future. Argentina cannot continue on this path of growth and decline for years. If so, we are headed for absolute failure.

Limitations and Direction for future research

Future work will focus on the quantitative method: the use of Bayesian networks to analyze the factors that influence Argentine inflation. "A Bayesian network is a mathematical structure that is used to represent the understanding of a process and its dependencies (cause-effect), assigning weights and probability of occurrences" (Ortiz-Arango, Cruz-Aranda, et al., 2015, p.61).

Not only the monetary issue, but also monetary policy, the exchange rate, and inflation expectations, among others, are factors that can cause inflation to increase. It is then proposed to carry out this analysis in order to give a more well-founded opinion on the dollarization alternative for the Argentine economy.

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