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Convertibility and Dollarization: Economic Policy Tools

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Abstract

One of the main problems that South American countries continuously face is devaluation and inflation, which are distorted due to the incidence of internal and external economic, political, fiscal and social crises. Hence the need for governments to determine appropriate policies that control these imbalances with the least impact on the quality of life of society. Thus, Argentina in 1991 adopted convertibility and Ecuador in 2000 dollarization as economic policy tools to control the growing exchange rate and inflation. For this reason, this article makes a comparative analysis between convertibility and dollarization to determine their advantages and disadvantages and the direct or indirect impact of each on the Gross Domestic Product, inflation and unemployment in the period 1985 to 2022. The study is qualitative because it is based on the analysis of theoretical and empirical documents compiled through exploratory research and, quantitative because it is based on analysis and treatment of World Bank indicators. The results reveal that there is a strong and direct correlation between the inflation rates generated in the convertibility period and the inflation rates generated in the dollarization period. Finally, it is concluded that dollarization is the best shield for the monetary management of a country, since it avoids the printing of unbacked banknotes that cause inflation and devaluation and protects the quality of life of the population.

Keywords: Unemployment, Inflation, Gross Domestic Product, Exchange rate

Introduction

Inflation and devaluation are complex phenomena that arise from a series of internal and external factors that mainly affect countries that do not have a hard currency. These factors often interact with each other in complex ways, making their analysis and management challenging for countries' economic policymakers. Among the internal factors that produce imbalances in inflation and devaluation are:

- Inadequate monetary and fiscal policy: Improper decisions in monetary policy, such as excessive money issuance by the central bank, lead to currency depreciation and, in turn, increase inflation. Likewise, the lack of fiscal discipline, with an uncontrolled increase in public spending without sufficient revenue, generates inflationary pressures.

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- Imbalances in the balance of payments: If a country imports more than exports, it generates a deficit in its balance of payments. This leads to a drop in demand for its currency and, therefore, to a devaluation. Devaluation in turn increases the cost of imports and translates into inflation.
- Political and social instability: Political and social uncertainty has a negative impact on investor confidence and foreign direct investment, leading to depreciation of the local currency and higher prices of goods and services.
- Corruption and economic mismanagement: These immoral practices erode trust in the economic system and institutions, which brings a negative effect on currency and inflation levels.

Some factors external to a country's economy that produce imbalances in the exchange rate and price rises are described below.

- Unfavorable terms of trade: Falling prices of the raw materials a country exports affect its export earnings and lead to currency devaluation.
- Changes in Capital Flows: Changes in foreign capital flows influence the supply and demand for the local currency, which in turn affect its value. The repatriation of foreign investments pushes to a devaluation.
- Monetary policies of external countries: The monetary policies of developed countries, such as higher interest rates, attract investors and capital flows that depress demand for the local currency and depreciate it.
- External shocks: Global events such as economic crises, international conflicts or fluctuations in commodity prices affect the region's economy and cause inflationary pressures.
- Import dependence: Import dependence makes an economy vulnerable to changes in the international prices of imported goods that affect inflation.

Thus, in response to inflationary challenges, economic difficulties and lack of confidence in their local currencies, several Latin American countries chose to implement significant changes in the 1990s and 2000s to revitalize their economies, including the adoption of new currencies. According to Figueroa (2014), nations in economic crisis should carefully consider countercyclical policies, which should be thoroughly analyzed before implementation. Ocampo (2011) highlights that one of the primary objectives of countercyclical policies is to ensure the economic stability of a country, reflected in its macroeconomic indicators. Consequently, in Argentina and Ecuador, convertibility and dollarization, respectively, were applied as economic policy tools to curb growing devaluation and galloping inflation.

Convertibility is an economic term that refers to an exchange rate regime in which a country's currency is pegged to another foreign currency or asset, usually with a fixed exchange rate or a narrow fluctuation margin. Generally speaking, it refers to the ability to convert a local currency into a foreign currency or other asset freely and without restrictions. Convertibility can be applied at both the current account (commercial transactions) and capital account (investments and capital movements) levels. Convertibility holds that a fixed or highly stable exchange rate can generate certainty and stability for economic agents and, by eliminating exchange rate volatility, international trade is facilitated, foreign investment is attracted and financial speculation is avoided. This stability is attractive for countries with high inflation because it helps maintain the purchasing power of the local currency (Cavallo, 1992; Dornbusch and Cavallo, 1994).

One of the main exponents of the theory of convertibility was the Argentine economist Domingo Cavallo, who played a fundamental role in the implementation of the convertibility regime in Argentina in 1991, which was dismantled in 2001 due to the crisis caused by the weakening and fall of convertibility that reached unprecedented and unstable levels of macroeconomic indicators.. This crisis was not caused by natural disasters, falls in foreign markets or wars, the causes were the economic policies applied in the convertibility process between 1991 and 2001. Therefore, these events served as an experience for the rest of the nations that sought to apply this type of policies did not do so. Precisely, the implementation of convertibility in Argentina was carried out in two phases:

- 1) The Convertibility Law (1991): In this period, a fixed parity was established between the Argentine peso and the US dollar in a one-to-one ratio. The Convertibility Law guaranteed free convertibility between the two currencies and established that the Central Bank of Argentina backs each peso in circulation with dollar reserves.
- 2) The Crisis and the End of Convertibility (2001-2002): Despite the initial benefits, convertibility faced significant challenges. The overvaluation of the Argentine peso, the accumulation of external debt and the lack of competitiveness of the economy led to a deep economic and social crisis. At the end of 2001 the country suspended the exchange parity and at the beginning of 2022 there was a drastic devaluation of the peso.

Convertibility had mixed effects on the Argentine economy. During the first few years, relative stability and a reduction in inflation were achieved, which fostered confidence in the local currency and attracted investment. Over time, however, structural imbalances and underlying economic problems emerged that were not adequately addressed. The overvaluation of the peso affected the competitiveness of exports and local industry, leading to an increase in unemployment (Sturzenegger and Levy-Yeyati, 2003). Convertibility generated a strong dependence on external indebtedness, causing an unsustainable debt crisis that collapsed in 2001 (World Bank, 2002). In addition, some studies have suggested that convertibility exacerbated the volatility of Argentina's business cycle and increased the country's vulnerability to international financial crises (Cottani et

al., 2002).

In effect, convertibility was an economic policy that sought to provide stability and certainty to Argentina's monetary and exchange rate system. Although initially successful in terms of reducing inflation and attracting investment, in the long run, its structural constraints and lack of adequate policies to address imbalances led to a deep economic crisis. Therefore, convertibility in Argentina is a clear example of how an economic policy has positive and negative effects and developed an economic model that must take into account the specific conditions of each country.

On the other hand, dollarization is a monetary regime in which the country adopts the US dollar as its official currency, relinquishing control over its monetary and exchange rate policy. Dollarization is a concept that can have several interpretations, in general terms, it refers to the process of substitution of the national currency of a country by the US dollar as a medium of exchange and unit of account. It implies the official adoption of the dollar as the legal currency of course instead of the national currency. Theories supporting dollarization focus on the benefits it brings to a country's economy, such as:

- 1) **Stability and Credibility:** The adoption of the dollar can provide stability and credibility to the economy, since the US dollar is a widely accepted currency and used in international trade as it is a hard currency, such as, for example, the euro, Japanese yen, pound sterling, Swiss franc, Australian dollar, Canadian dollar, Chinese yuan and Swedish crown.
- 2) **Low and Predictable Inflation:** By relinquishing control over monetary policy, a dollarized country can avoid the temptation to print money to finance deficits, which can help keep inflation low and predictable.
- 3) **Reduction of Foreign Exchange Risks:** By using the dollar as a reference currency, economic agents can avoid the risks associated with exchange rate volatility and devaluations.
- 4) **Investment Attraction:** Dollarization can attract foreign investment, as international investors can feel more confident in having a strong and stable currency as a medium of exchange.

Ecuador is one of the countries that adopted dollarization as an economic policy whose process was carried out in two phases:

- 1) Dollarization in Ecuador began de facto in 1999 due to a deep financial and economic crisis that led to the loss of confidence in the national currency, the sucre and, during that phase, the dollar began to circulate widely in the economy as a medium of informal exchange. And
- 2) Given the lack of control over inflation and the need to recover economic stability, the Ecuadorian government of the day formalized dollarization in January 2000. From then on, the dollar became the official currency of Ecuador and the sucre was definitively abandoned, until today 2023.

In Ecuador, dollarization stands out for achieving monetary stability: Dollarization has helped to

reduce inflation and maintain a more disciplined monetary policy, which has led to greater price stability. A lower exchange rate risk has been achieved, since the adoption of the dollar has eliminated exchange rate volatility and the risks associated with devaluations, which has provided greater certainty to business, national and foreign investments and, above all, quality of life of the population.

Dollarization has generated restrictions in monetary policy, given that the lack of control over monetary policy limits the government's ability to apply countercyclical measures in times of economic crisis, however, this has protected governments from printing money for corrupt practices and political mismanagement that would lead to hyperinflation and poverty with the use of their own currency in a scenario of continuous devaluation. Finally, dollarization has also led to greater dependence on the U.S. economy and has exposed Ecuador to the impacts of this country's economic and trade policies, however, the purchasing power of the population is maintained over time and has improved the quality of life of society.

Therefore, the following article analyzes the economic crisis that Argentina went through in the late 80s and the reasons why convertibility was implemented in 1991 and the economic and social situation that led Ecuador in 2000 to the adoption of dollarization that has been preserved until today as an economic and monetary model that protects the population from devaluation, rampant inflation and corruption through monetary policies. In this way, the first section comprises a historical review of the economic situation in both countries, then the theoretical description of each economic policy tool, then the study methodology is described and, finally, the theoretical and empirical application of both models is comparatively analyzed to present the respective research conclusions.

Methodology

The study is qualitative because it is based on the analysis of theoretical and empirical documents collected through exploratory research in digital databases of indexed articles and books. In addition, the work is quantitative because it is based on the analysis and treatment of GDP, inflation, unemployment and exchange rate indicators from the period 1985 to 2022 that rest on the basis of the World Bank. For this purpose, the indices between each country in the periods before convertibility (1985 – 1990), convertibility (1991 – 2001) and dollarization (2000 – 2022) are correlated to identify direct or inverse relationships between these indices as an effect of the application of convertibility and dollarization. Finally, the correlation of the indices cited between Argentina (1991-2001) and Ecuador (2000-2022) is carried out in order to know if both measures generate equal behavior of convertibility and dollarization against GDP, inflation and unemployment.

Gross Domestic Product (GDP) is a macroeconomic measure that represents the total value of all goods and services produced in a country during a given period, usually a year. GDP is used as a leading indicator to measure the size and economic activity of a nation. It is calculated by adding

the value of all final goods and services produced in the country, including domestic consumption, investment, government spending and net exports (Mankiw et al., 2014).

According to Blanchard and Illing (2009), inflation refers to the sustained and widespread increase in the price level of goods and services in an economy over a period of time. In other words, it is the phenomenon whereby the purchasing power of a monetary unit decreases over time and causes the same amount of money to buy fewer goods and services. Inflation can manifest itself in various sectors of the economy and can be caused by factors such as increased demand, production costs, monetary expansion, and other economic and political elements.

Unemployment refers to the condition in which people of working age, who are unemployed and able to work, are unable to find gainful employment despite their active search. It is an important measure of resource underutilization in an economy and is usually expressed as a percentage of the total labor force. Unemployment can have different causes, such as economic fluctuations, changes in demand for goods and services, technological advances, government policies that cause distrust and structural factors (Mankiw et al., 2014).

Results

Convertibility in Argentina

Latin America has always been immersed in all kinds of inflation, from annual single-digit rates to those that denote hyperinflation. In this way, Argentina at the end of the sixties with the accumulation process based on financial valuation that is consolidated in 1977 with the financial reform and, in 1979 inflation acquires greater strength with the commercial and financial opening in the military dictatorship. The main feature was the redistribution of income aimed at the most concentrated sectors of capital (domestic and foreign), providing subsidies to industry, preferences of the financial system and payment of interest on the external debt that led to the definitive bankruptcy of the State between 1989 and 1990 (Basualdo, 1994).

Argentina was in a hyperinflationary and recessive economic crisis with a great decrease in fiscal accounts, high indebtedness and capital flight, which led President Carlos Menem to seek stability through the application of a neoliberal economic program of privatization of public companies, however, the results were oligopolistic markets that did not reduce inflation and promoted economic recession. The Argentine convertibility system called "Convertibility Law of the Austral" entered into force on March 27, 1991 and set as exchange parity without time limit of 10,000 australes per dollar, it was provided free convertibility of the national currency with any foreign currency, prohibiting the issuance of money not backed by 100%. resulting in the establishment of the peso as legal currency on January 1, 1992. The role of the Central Bank was to sell dollars when there were demanders, receiving pesos that were destroyed and, when people needed pesos, the Central Bank issued them in exchange for dollars to achieve price stability, eliminate inflation, generate confidence in the population and avoid devaluation (Becerras, n.d.).

Convertibility is part of the theory of supply that began in the early sixties in the US, which proposes the nullity of currency devaluations. However, it should be remembered that after a devaluation an inflationary process is generated that cancels out the effects and produces fiscal and trade deficits, decrease in prices, elimination of control of the amount of currency and supports Say's Law indicating that supply creates its own demand (Conesa, 1998). Convertibility is part of a set of rules to reduce the actions of the State where the authorities explicitly and irreversibly renounce the tools of economic policy to promote confidence in the market (López Murphy, 1995).

In 1998, Argentina's convertibility scheme was applied in countries with high political or economic risk, such as Antigua and Barbuda, Brunei, Bosnia, Bulgaria, Djibouti, Lithuania, Dominica, Estonia, Grenada, Saint Lucia and Hong Kong (Cuello, 1998). The convertibility model is based on three fundamental principles:

- 1) Ensure the free play of the market and competition,
- 2) Abandonment of patterns in money supply and,
- 3) The state is responsible for providing public goods not offered by the market. (Schweickert, 1996).

This was not the first experience for Argentina in issues of convertibility, in the years 1899 to 1913 and 1927 to 1929 the currency board system came into force under the gold standard system and the gold exchange standard, in order to boost exports favoring the agro-export sector, the strategies were beneficial in the boom periods. Due to the global situation that was in decline in the economic cycle, there was a chaotic situation in Argentina because the scheme depended on the entry of gold from abroad.

The application of the new convertibility model was unprecedented and had the support of foreign capital and creditors, large economic groups and the people who feared the increase in inflation. Convertibility sought price stability through a recessionary measure that develops a process of revaluation of the peso (Valle, 1995). The results of convertibility were reflected in price stability, a slow slowdown in inflation and, according to the authorities, a 20% deflation was announced (Cuello, 1998). The convertibility process was affected by external factors such as the Mexican crisis of 1995 and the Brazilian crisis of 1999.

Due to the increase in real wages that had reached their lowest limit due to hyperinflation, the expansion of consumption produced a growth in production, especially in the automotive industry and in goods and food. This contributed to a small fiscal balance caused by an increase in tax revenues, improved economic activity and the implementation of adequate controls to prevent tax evasion, while exports and imports increased and led to a deficit in the trade balance that lasted four years.

The success in the first years of implementation of convertibility was accompanied by the renegotiation of the external debt that contributed to the reduction of domestic interest rates that

boosted the increase in private spending and economic reactivation (Gerchunoff and Machinea, 1995). Until 1993 it seemed that convertibility was going well, but from 1994 the deficits increased in a directly proportional relation to the increase in interest payments, the deficit being the cause for acquiring new credits.

In April 1992 Argentina entered the Brady Plan, allowing a restructuring of the debt with private banks, the agreement signed granted 15 years for arrears of interest payments, with an amount of 8,300 million dollars and, 30 years for debt capital with an amount of 20,000 million dollars. This transaction was secured by United States Treasury bonds, reducing the debt by \$6,493 million, but it was not sufficient due to the increase in public debt by 71% from 1993 to 1997, which represented 40.8% of GDP (COMERCIO, 1998).

In addition, the crisis in East Asia and the Russian default in 1998 contributed to the longest recession of the Argentine economy until reaching a depression in 2001, causing the trigger for convertibility to come to an end (Damil et al., 2003). To these factors were added the prohibition of printing currency without backing, lack of financing of the fiscal deficit, limited borrowing capacity of the government, increase in taxes such as VAT that reached 21% and, its collection reached 6.3% of GDP in 1998, imposition of regressive measures that forced people with less income to pay taxes.

By 1996 revenues fell and when the state enterprises were sold, the fiscal balance was in danger, leading to the cutting of items, reduction of salaries and salaries, operating expenses and public investment, these actions generated by the government did not stop the increase in expenses, due to the defunding of the social security system induced by the administrators of retirement and pension funds (AFJP) who retained part of the income. and expenditure on pensions and pensions decreased in the long term and was estimated to reach equilibrium in 2007 (Treber, 1999), which produced a debt of 130% between 1993 and 1998. Faced with the deterioration of the fiscal situation, President De la Rúa increased tax rates, continued to cut salaries and pensions, actions that failed to establish confidence and ended in greater instability of the economy.

In 2001 there was an interruption of external financing, together with the flight of capital that led to a reduction of 12,000 million dollars in the international reserves of the Central Bank, producing a depression and crisis of the financial system, causing an increase in unemployment and poverty, in this scenario the IMF removed support to Argentina under the Krueger-Rogoff approach of non-intervention in financial crises to avoid moral hazard. The measure requested by the foreign banks was to request the government to restrict the withdrawals of deposits, the government agreed to the request and in December 2001 implemented the system called corralito, which consisted of an exchange holiday of indefinite duration and restrictions on the purchase of foreign currency, this action buried convertibility and cash deposit (Rapetti, 2003).

The decisions of the government of the day brought with it that the population convoked the cacerolazo, a measure that led to the departure of the president, later there were changes of

governments until in the presidency of Duhalde in January 2002 the end of convertibility was formalized, then devalued the currency, eliminating the requirement of support in international reserves for the monetary base, Political decisions that were not enough to face the crisis, the government made the decision to make the change from dollars to pesos with a change of 1.40 dollars for each peso that could be adjusted over time, depending on the cost of living and a low interest rate. The measure adopted by the government for mortgage loans, personal consumption or those of small amounts for SMEs granted by banks, passed them to pesos at an exchange rate of 1 dollar per peso adjusting according to the nominal wage index, the withdrawal prohibitions were eliminated and a schedule of return of deposits was announced that had a duration of 3 and a half years (Rapetti, 2003).

The savers did not agree with these restrictions, calling it corralón because the change of their pesos was at 1.40 dollars each peso, while the free dollar stood at 2 pesos, a group of businessmen began to pressure the government until their debts have an exchange of one dollar per peso, causing a fiscal cost, causing the image of the government to fall because it favored the power groups, giving rise to savers to present amparo resources to recover their original dollars, the justice issued a sentence in their favor, thus worsening the management of monetary policy, the deposits of the financial system were decreasing as well as the international reserves of the Central Bank (Rapetti, 2003).

The government tried to reach an agreement with the IMF the same one that in the letter of intent requested some conditions that could not be corrected, the talks were delayed reaching a change of 3.85 pesos in March 2002 originating its worst crisis, until in December 2002 the corralito was completely lifted and in March 2003 the corralaso. The fall in convertibility caused two deficiencies, the lack of depth of structural changes, especially labor flexibility and excessive public spending, because the governments of the day could not achieve the initial postulates until the last instance.

According to Acuña (1994), a group of economists argues that convertibility was a very rigid model that went against the interests of the production and export sectors, generating as a result the vulnerability of the economy, which is why growth was not sustained, blaming the political class for not making decisions at the right time. Likewise, Arceo and Basualdo (1999), argue that the fall of convertibility was linked to the struggle of the social sectors against the most regressive aspects of the economic model such as unemployment, poverty, inequality and, with this class against, the existence of the model became unviable until it came to an end.

Dollarization in Ecuador

Dollarization in Ecuador was the result of a series of economic and financial crises that weakened the country's economy in the 90s. These factors triggered a search for stability and confidence in the currency, which eventually led to the decision to adopt the US dollar as the official currency. Factors contributing to dollarization include:

- 1) Banking and fiscal crises: Ecuador faced a series of banking crises in the 1990s, which

eroded confidence in the financial system and led to the bankruptcy of several major banks such as Banco Continental, Banco de los Andes, Banco la Previsora, Filanbanco, Banco de Préstamos, among others. In addition, fiscal imbalances and high public debt also undermined the country's economic stability (Smith, 2005).

- 2) Galloping inflation: Inflation in Ecuador reached alarming levels in the 1990s, which eroded the purchasing power of the population and generated uncertainty in the markets (Klein, 2010).
- 3) Exchange rate instability: The local currency, the sucre, experienced sharp devaluations against the dollar and other foreign currencies, which complicated international trade and affected foreign investment and deteriorated the quality of life of the population (Graham, 2003).
- 4) Distrust in the local currency: Citizens and investors lost confidence in the sucre due to economic and financial instability, which led to the demand for a more stable alternative, proliferating the informal market for the sale of dollars and the commercialization of goods in the American currency.

The dollarization process in Ecuador took place in January 2000 under the presidency of Jamil Mahuad. The government implemented dollarization quickly and radically, with the aim of stabilizing the economy and restoring confidence in the financial system. The exchange rate set for dollarization was 25,000 sucres to the U.S. dollar. This conversion rate was established to facilitate the transaction and allow equivalence between monetary values before and after dollarization. However, in its beginnings the conversion of sucres to dollars left a large part of the population in poverty. This dollarization process involved several aspects:

- 1) Elimination of the sucre: The sucre, the local currency, ceased to be legal tender and was replaced by the US dollar. Prices, wages and transactions were expressed in dollars, however, in the beginning this affected the purchasing power of the population as their income was reduced and with the passage of time they were balanced. Dollarization took 5 years to mature, and in 2005 greater price stability and single-digit inflation were achieved under stable conditions.
- 2) Limited monetary autonomy: Ecuador gave up its ability to issue its own currency and adjust monetary policy independently. This meant that the country could not influence the amount of money in circulation or interest rates. Factor that has protected the country from the mismanagement of public money that was done through the excessive printing and without backing of own bills (sucre). Currently, the dollar is considered as the shield that protects the population from falling into poverty when it is in the hands of corrupt governments.
- 3) Adoption of prudent fiscal and monetary policies: To maintain economic stability, the

Ecuadorian government implemented responsible fiscal and monetary policies, including austerity measures and fiscal discipline.

- 4) Confidence and stability: Dollarization helped restore confidence in the currency and reduce economic uncertainty. Foreign investors showed greater interest in the country due to the elimination of currency risks.

According to Calderón and Zambrano (2019), first, the adoption of the dollar contributed to reducing inflation; secondly, the Gross Domestic Product (GDP) experienced growth; Third, the money supply and liquidity increased acceptably without disturbing inflationary stability, and a decline in the unemployment rate was observed. Despite these advances, it is important to note that oil continued to be the main export product, however, there were challenges in the trade balance, with deficits in recent years due to the imbalance between imports and exports.

In 2015, safeguard measures were applied to certain imported goods with the aim of stimulating economic growth, in the absence of a sound monetary policy and crises related to oil revenues and the poor performance of financial markets, among other factors that eroded Ecuador's stability. Starting in 2015, the Ecuadorian economy faced growth difficulties, partly due to declining oil prices, and were aggravated by natural disasters, such as the 2016 earthquake. These events have generated a series of obstacles to economic growth in the years of socialist government (Cabrera, 2012; Smith, 2005).

Comparative analysis between convertibility and dollarization

Argentine convertibility and Ecuadorian dollarization are two economic policy strategies that sought to stabilize the economies of their respective countries by anchoring their currencies to the U.S. dollar. Although they share certain similarities, they also present significant differences in their implementation and long-term results. Convertibility failed in Argentina and dollarization remains mature and prevalent in Ecuador. Thus, taking into account the Gross Domestic Product GDP, inflation and unemployment (World Bank, 2023), the situation of each country is compared in three stages: before the application of convertibility (1985 to 1990), during convertibility (1991 to 2001) and during dollarization (2000 to 2022).

Before the implementation of convertibility (1985-1990)

Argentina (1985-1990)

During these years, Argentina grappled with a combination of high levels of inflation and unemployment, which created a challenging economic environment. Despite efforts to implement adjustment and stabilization policies, inflation remained at persistently high levels. During the presidency of Raúl Alfonsín, the Argentine economy presented difficulties in controlling the inflationary spiral and achieving sustainable economic growth. Argentina's GDP fluctuated during this period, reflecting economic instability. While there were moments of growth, inflationary pressures and inconsistent economic policies contributed to economic volatility and low growth

(Rapetti and Rozenwurcel, 2015). Table 1 presents the GDP and inflation indices according to the World Bank base (2023), however, in that period there are no records of unemployment for both countries.

Ecuador (1985-1990)

In Ecuador, the same period was marked by similar challenges. The country faced high levels of inflation and a growing external debt. Although economic reforms were implemented to address these problems, the Ecuadorian economy struggled to achieve sustained GDP growth. Dependence on oil revenues and volatility in oil prices also affected economic performance. Economic performance in Ecuador was another challenge, as a lack of economic growth and instability contributed to a tense labor market. Although unemployment rates may not have been as high as in Argentina, the unemployment problem persisted and adversely affected the labour force (Steger, 2003). Similarly, Table 1 shows the situation of GDP and inflation in Ecuador for this period.

Table 1. GDP and inflation in Argentina and Ecuador prior to convertibility

Years	GDP		Inflation	
	Argentina	Ecuador	Argentina	Ecuador
1985	-5,19%	3,94%	237,90%	27,99%
1986	*6,15%	3,46%	**81,40%	**23,03%
1987	2,70%	**0,26%	*387,00%	29,50
1988	-1,09%	*5,89%	344,00%	58,22
1989	**7,16%	1,01%	196,30%	*75,65%
1990	-2,40%	3,68%	211,70%	48,52%

Note: In these years each nation has its own currency, Argentina the Austral and Ecuador the Sucre. Adapted from World Bank (2023). *Higher rates. **Lower rates.

Argentina and Ecuador faced problems of inflation and unemployment during the period from 1985 to 1990, which affected their respective GDPs and overall economic stability. Lack of coherent policies, inflationary pressures, and other economic and political factors contributed to both countries' difficulty in achieving sustainable economic growth and job stability. These economic challenges laid the groundwork for the implementation of more drastic measures, such as Argentine convertibility and the subsequent adoption of the dollar in Ecuador, with the aim of addressing inflationary problems and improving economic stability.

In this context, applying Pearson's correlation coefficient between the GDP indices of Argentina and Ecuador from 1985 to 1990, no statistically significant values are identified. A similar situation occurs in the case of inflation. Therefore, during the period 1985 to 1990 the presence of own currencies in Argentina and Ecuador has no relation to the situation of GDP and inflation of one country with respect to the other, as shown in Table 2.

Table 2. Pearson correlation of GDP and inflation between Argentina and Ecuador 1985 – 1990

	GDP	Inflation
Pearson correlation	-,327	,107
Sig. (bilateral)	,527	,839
N	6	6

Note: Data processing in SPSS. Prepared by authors.

During convertibility (1991 to 2001)

Argentina (1991-2000)

Convertibility in Argentina, implemented in 1991 under the government of Carlos Menem and Economy Minister Domingo Cavallo, established a fixed parity between the Argentine peso and the U.S. dollar in an attempt to control inflation. During the first years of convertibility, the Argentine economy experienced a period of economic growth and price stability. Argentina's GDP showed steady growth for much of this period, driven in part by macroeconomic stability and foreign investment. However, as the decade progressed, structural limitations in the economy became apparent. The fixing of the exchange rate affected the competitiveness and the economy's ability to adjust to external shocks. Moreover, convertibility failed to address profound problems, such as lack of investment in productive sectors and dependence on external debt (Blejer and Cavallo, 2003).

Ecuador (1991-1999)

During the 1990s, Ecuador went through a period of political and economic instability. The economy faced challenges related to external debt, falling oil prices and the need to implement structural reforms. Despite these challenges, Ecuador's GDP experienced modest growth for most of this period. Economic openness and market-oriented reforms boosted foreign investment and the expansion of some export sectors. However, volatility in oil prices and dependence on raw materials also contributed to economic uncertainty. Despite liberalization efforts, the Ecuadorian economy did not achieve sustained and diversified growth. In addition, the Ecuadorian financial crisis hit the country with the bankruptcy of the largest banks in Ecuador due to linked credits, this caused distrust in the country and internationally (Larrea and Jácome, 2000).

Inflation was a persistent problem in Ecuador during this period. To address this issue, structural adjustment policies and monetary reforms were implemented. However, the results were mixed. Although inflation declined compared to previous levels, it remained a major challenge to economic stability. Inflation reflected difficulties in economic management and the need to address structural issues in the Ecuadorian economy. Volatility in international prices and dependence on commodity exports contributed to the country's vulnerability to external shocks. Unemployment was another challenge in Ecuador during this period. Although the economy experienced some growth, this was not enough to generate employment to the same extent. Lack of economic diversification and dependence on specific sectors limited employment opportunities.

Unemployment rates varied over the years, reflecting economic instability and the need for stronger policies to promote job creation. In addition, structural adjustment efforts and economic reforms may also have had impacts on the quality and stability of employment.

Table 3 describes the situation of GDP, inflation and unemployment in Argentina and Ecuador according to World Bank data.

Table 3. GDP, inflation and unemployment in Argentina and Ecuador during convertibility

Years	GDP		Inflation		Unemployment	
	Argentina	Ecuador	Argentina	Ecuador	Argentina	Ecuador
1991	*9,13%	4,29%	*84,00%	48,72%	**5,44%	**4,44%
1992	7,94%	2,11%	17,90%	*54,61%	6,36%	4,59%
1993	8,21%	1,97%	7,70%	44,96%	10,10%	4,62%
1994	5,84%	4,26%	3,40%	27,31%	11,76%	4,49%
1995	-2,85%	2,25%	1,50%	**22,93%	*18,80%	4,63%
1996	5,53%	1,73%	0,70%	24,41%	17,11%	4,68%
1997	8,11%	*4,33%	-0,60%	30,66%	14,82%	4,54%
1998	3,85%	3,27%	** -0,90%	36,10%	12,65%	4,62%
1999	** -3,39%	** -4,74%	-0,30%	52,24%	14,05%	*5,19%

Note: In these years Argentina used the Peso as a convertibility currency and Ecuador the Sucre. Adapted from the World Bank (2023). *Higher rates. **Lower rates.

In Argentina, the fixing of the exchange rate became a contributing factor to the 2001 economic crisis, marked by debt defaults and falling GDP. During the period from 1991 to 1999, Ecuador faced a number of economic challenges that influenced its GDP, inflation, and unemployment rates. Despite efforts to implement economic and political reforms, the economy failed to achieve sustained growth and faced persistent difficulties related to inflation and employment. Dependence on commodity exports and the need to address structural issues were key factors influencing the country's economic performance during this period.

Thus, Pearson's correlation coefficient between the GDP indices of Argentina and Ecuador from 1991 to 1999 does not identify statistically significant values and the same happens in the case of inflation and unemployment. Therefore, the presence of convertibility in Argentina and the sucre in Ecuador has no relation to the situation of GDP, inflation and unemployment of one country with respect to the other, as shown in Table 4.

Table 4. Pearson correlation of GDP, inflation and unemployment between Argentina and Ecuador 1991-1999

	GDP	Inflation	Unemployment
Pearson correlation	,622	,443	,463
Sig. (bilateral)	,074	,233	,209
N	9	9	9

Note: SPSS data processing. Prepared by authors.

During dollarization (2000 to 2022)

Argentina (2000 – 2022)

During these two decades, Argentina went through periods of economic growth interspersed with crises and recessions. In the first half of the 2000s, the country went through an economic recovery following the 2001 financial crisis, driven in part by rising international commodity prices and the implementation of economic stimulus policies. However, as the decade progressed, the Argentine economy faced persistent challenges related to public debt, lack of investment, and structural vulnerabilities. Economic volatility and recurrent crises affected growth and economic stability throughout the period (Cavallo, 2014; Blanco and Gasparini, 2014).

Inflation has been a persistent issue in Argentina during this period. Despite efforts to control it, the Argentine economy has struggled to maintain price stability. Factors such as the monetization of the fiscal deficit, lack of credibility in monetary policy, and fluctuations in exchange rates contributed to inflationary pressures. In 2022, inflation reached an annual average rate of 94.8%. Despite attempts to implement adjustment and stabilization policies, inflation remained a chronic problem in Argentina, negatively affecting citizens' savings and private investment (ILO, 2021).

Unemployment and the labor market in Argentina during this period also reflected economic difficulties. Despite moments of economic growth, unemployment fluctuated and sometimes reached worrying levels. Economic crises, lack of investment, and volatility in labor markets contributed to variable unemployment rates. Unemployment and job quality were also influenced by economic and political uncertainty. The lack of sustainable policies to promote long-term employment and investment also contributed to labour market instability.

Likewise, the exchange rate grew impressively in those years reaching the year 2022 to 130.62 pesos per dollar, considering that it began in 2002 with an exchange rate of 3 pesos per dollar. Devaluation that has driven the growth of price levels reflected in galloping inflation as an important factor in the Argentine crisis and, to this, the pandemic crisis was added.

Ecuador (2000-2022)

Dollarization in Ecuador sought to create a more stable and predictable economic environment by eliminating exchange rate volatility and controlling inflation. During the first years of dollarization, the Ecuadorian economy experienced moderate economic growth compared to previous periods. Ecuador's GDP showed some stability in this period, driven in part by confidence in the new monetary policy and the attraction of foreign investment. However, it is important to note that dollarization did not completely eliminate the structural and economic challenges facing the country, such as dependence on raw materials and lack of economic diversification (De la Torre, 2002).

One of the key objectives of dollarization was to control inflation, which had been a persistent problem in the Ecuadorian economy in previous decades. During the dollarization period, inflation decreased significantly due to the adoption of the U.S. dollar as legal tender. Dollarization contributed to price stability and reduced inflationary expectations in the economy. Consumers and businesses benefited from predictability in prices and the elimination of local currency devaluation. Ecuador since 2004 maintains a single-digit inflation.

The relationship between dollarization and unemployment in Ecuador is a complex issue. While dollarization may have contributed to economic stability and growth, sustainable job creation also depends on structural factors and specific policies. During the dollarization period, unemployment rates may have varied according to economic developments and the short-term effects of the measure. Importantly, while dollarization may have influenced investor confidence and job creation in some sectors, addressing deeper structural issues is also crucial to achieving a lasting impact on employment.

Table 5 describes the situation of GDP, inflation and unemployment in Argentina and Ecuador in the period 2000 to 2022 according to World Bank data.

Table 5. GDP, inflation and unemployment in Argentina and Ecuador during dollarization

Years	GDP		Inflation		Unemployment	
	Argentina	Ecuador	Argentina	Ecuador	Argentina	Ecuador
2000	-0,79%	1,09%	**0,80%	*96,10%	15,00%	4,80%
2001	-4,41%	4,02%	24,80%	37,68%	17,32%	4,25%
2002	** -10,89%	4,10%	40,90%	12,48%	*19,59%	4,90%
2003	8,84%	2,72%	22,00%	7,93%	15,36%	5,66%
2004	9,03%	*8,21%	4,40%	2,74%	13,52%	5,00%
2005	8,85%	5,29%	12,30%	2,17%	11,51%	3,78%
2006	8,05%	4,40%	9,80%	3,30%	10,08%	3,55%
2007	9,01%	2,19%	8,50%	2,28%	8,47%	3,14%
2008	4,06%	6,36%	7,70%	8,40%	7,84%	3,92%
2009	-5,92%	0,57%	7,70%	5,16%	8,65%	4,61%
2010	10,13%	3,53%	10,90%	3,55%	7,71%	4,09%
2011	6,00%	7,87%	9,50%	4,47%	7,18%	3,46%
2012	-1,03%	5,64%	10,80%	5,10%	7,22%	3,23%
2013	2,41%	4,95%	10,90%	2,72%	7,10%	**3,08%
2014	-2,51%	3,79%	38,00%	3,59%	7,27%	3,48%
2015	2,73%	0,10%	26,90%	3,97%	7,52%	3,62%
2016	-2,08%	-1,23%	41,00%	1,73%	8,11%	4,60%
2017	2,82%	2,37%	24,80%	0,42%	8,35%	3,84%
2018	-2,62%	1,29%	47,60%	-0,22%	9,22%	3,53%
2019	-2,00%	0,01%	53,80%	0,27%	9,84%	3,81%
2020	-9,94%	** -7,79%	36,10%	** -0,34%	11,46%	*6,11%

2021	*10,40%	4,24%	50,90%	0,13%	8,74%	4,50%
2022	5,24%	2,95%	*94,80%	3,47%	**6,49%	3,96%

Note: In 2001 Argentina leaves the convertibility and Ecuador from 2000 uses the US dollar. Adapted from the World Bank (2023). *Higher rates. **Lower rates.

During the period from 2000 to 2020, Argentina faced significant economic challenges that affected its GDP, inflation, and unemployment rates. Despite attempts to boost economic growth and control inflation, the Argentine economy faced structural headwinds and vulnerabilities that had a lasting impact on its economic performance. Recurrent economic crises, lack of investment, volatility in labor markets, and inconsistency in economic policies contributed to Argentina's difficulty in achieving sustainable growth and economic stability throughout the period.

Dollarization in Ecuador during the period 2000-2001 had a significant impact on GDP, inflation and unemployment. Price stability achieved through dollarization contributed to a more predictable environment for consumers and businesses, while moderate economic growth reflected confidence in the new monetary policy. However, it is important to recognize that dollarization did not completely resolve the structural challenges of the Ecuadorian economy, such as dependence on raw materials and the need for economic diversification and human development. Addressing these long-term problems requires a broader mix of monetary, fiscal, and structural policies. At this point it should be noted that 80% of the Ecuadorian population defends dollarization and any intention to eliminate it or place a parallel currency would bring the uprising of the population.

Precisely, through the analysis of the Pearson correlation coefficient between the GDP and unemployment indices of Argentina and Ecuador from the years 2000 to 2022, direct and moderate correlations are identified with significance levels lower than 0.05. Therefore, in the period 2000 to 2022 when one country had GDP growth and unemployment, the other reflects the same behavior and, if these indices decrease in one country, the same situation occurs. In the case of the inflation rate, there are no correlations as shown in Table 6.

Table 6. Pearson correlation of GDP, inflation and unemployment between Argentina and Ecuador 2000 – 2022

	GDP	Inflation	Unemployment
Pearson correlation	,454*	-,292	,593**
Sig. (bilateral)	,030	,199	,003
N	23	21	23

Note: *The correlation is significant at level 0.05 (2 queues), ** The correlation is significant at level 0.01 (2 queues).

Correlational analysis between the convertibility period (1991 to 2001) and part of the dollarization period (2000 to 2010)

Considering the convertibility period (1991 to 2001) and the dollarization period (2000 to 2010),

the correlation analysis between the indicators of GDP, inflation and unemployment between Argentina and Ecuador is carried out. The period of Ecuador is considered from 2000 to 2010 for statistical reasons to correlate the data. Thus, it is determined in Table 7 that there is a direct and strong correlation between the inflation rate of both countries, that is, when convertibility and dollarization were implemented, both countries lowered their price levels to the same intensity and, if the effect is contrary, both countries increased their inflation rates with the same strength. Thus, the application of both models of economic policy favors price control. Meanwhile, there are no correlations of GDP and unemployment between the convertibility periods (1991 – 2001) and part of the dollarization period (2000 – 2010).

Table 7. Pearson correlation, inflation and unemployment between Argentina and Ecuador in the convertibility period and dollarization period

	GDP	Inflation	Unemployment
Pearson correlation	-,265	,938**	-,208
Sig. (bilateral)	,431	,000	,540
N	11	11	11

Note: ** The correlation is significant at the level 0.01 (2 tails)

Exchange rate behaviour

The exchange rate is the relative value between two different currencies, which establishes how much currency of one nation is needed to acquire a unit of currency of another nation. It is a crucial measure in international trade and financial transactions between countries, as it affects the prices of goods and services, foreign investment, and the competitiveness of exports and imports (Calvo and Reinhart, 2002).

Argentina experienced a number of significant changes in its exchange rate. In the 1980s, the country implemented several currency devaluations amid an economic crisis and high inflation. In the 90s, the convertibility policy (1 Argentine peso = 1 US dollar) established a fixed exchange rate regime, which initially helped control inflation, but also generated imbalances and vulnerabilities in the economy. The economic and financial crisis of 2001 led to the suspension of convertibility and a sharp devaluation of the Argentine peso. Throughout the 2000s, Argentina faced recurring challenges in its exchange rate policy due to inflation, debt, and dependence on external factors.

Ecuador also experienced fluctuations in its exchange rate during this period. In the 1980s, the country faced economic crises and foreign debt. Dollarization in 2000 established the U.S. dollar as Ecuador's official currency. During this period, the exchange rate remained constant, which provided stability and controlled inflation and, above all, has provided until today a better quality of life to the population and the business sector, so it became a citizen shield against the misaligned policies of the governments of the day, avoiding the printing of money without backing that would cause devaluations.

Both approaches had implications in terms of inflation control, competitiveness and economic adjustment capacity. Argentina faced challenges in its exchange rate policy due to high levels of inflation, while Ecuador achieved price stability, but with limitations in its monetary policy. In Table 8. It describes the exchange rate in each country from 1985 to 2022.

Table 8. Exchange rate in Argentina and Ecuador average for each year

Years	Argentina (austro or pesos per dollar)	Ecuador (sucres per dollar until 1999)	Years	Argentina (austros or pesos per dollar)	Ecuador (dollar to dollar)
1985	**0,0001	**69,56	2004	2,9233	1,00
1986	**0,0001	122,78	2005	**2,9037	1,00
1987	0,0002	170,46	2006	3,0543	1,00
1988	0,0009	301,61	2007	3,0956	1,00
1989	0,0423	526,35	2008	3,1442	1,00
1990	0,4876	767,75	2009	3,7101	1,00
1991	0,9536	1.046,25	2010	3,8963	1,00
1992	0,9906	1.533,96	2011	4,1101	1,00
1993	0,9989	1.919,11	2012	4,5369	1,00
1994	0,9990	2.196,73	2013	5,4594	1,00
1995	0,9998	2.564,49	2014	8,0753	1,00
1996	0,9997	3.189,47	2015	9,2332	1,00
1997	0,9995	3.998,27	2016	14,7582	1,00
1998	0,9995	5.446,57	2017	16,5627	1,00
1999	0,9995	*11.786,80	2018	28,0950	1,00
2000	0,9995	1,00	2019	48,1479	1,00
2001	0,9995	1,00	2020	70,5392	1,00
2002	*3,0633	1,00	2021	94,9907	1,00
2003	2,9006	1,00	2022	*130,6166	1,00

Note: From 1991 to 2001 Argentina implemented convertibility. From 2001 to the present, Ecuador applied dollarization. Adapted from the World Bank (2023). *Higher rates. **Lower rates.

Applying Pearson's correlation coefficient between the exchange rate of Argentina and Ecuador from 1985 to 1990 identifies a direct and strong correlation. This implies that both countries had the same behavior in the variation of the exchange rate and devaluation in that period, that is, if in one country its exchange rate grew in the other the same effect was presented, on the contrary, when one country had a decrease in the exchange rate in the other, the decrease also occurred with the same intensity. In the other two study periods, no correlations have been identified, as shown in Table 9.

Table 9. Pearson Correlation of the Exchange Rate between Argentina and Ecuador

1985-1990	1991-2001	2000-2022
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Pearson correlation	,841*	,361
Sig. (bilateral)	,036	,340
N	6	9

Note: *The correlation is significant at the level 0.05 (2 tails). From 2000 to 2022 it cannot be calculated because the exchange rate in Ecuador is 1 usd.

Comparative matrix of Argentine convertibility and Ecuadorian dollarization

From the analysis carried out in the previous sections, the following comparative matrix between both scenarios is established, as shown in Table 10.

Table 10. Comparative table between Argentine convertibility and Ecuadorian dollarization

Aspect	Convertibility in Argentina	Dollarization in Ecuador
Dwell time	From 1991 to 2001	Since 2000 it is still in force
Definition	<ul style="list-style-type: none"> ● Exchange rate regime with fixed parity between the peso and the US dollar. ● Free currency convertibility. 	<ul style="list-style-type: none"> ● Official adoption of the dollar as legal tender instead of the national currency (sucre).
Proceeds	<ul style="list-style-type: none"> ● Exchange rate stability ● Reduction of inflation. ● Attraction of investments. 	<ul style="list-style-type: none"> ● Monetary stability. ● Lower currency risk. ● Attraction of foreign investments. ● Improved quality of life of the population. ● Low interest rates.
Implementation Phases	<ul style="list-style-type: none"> ● Convertibility Law (1991). ● Crisis and end of Convertibility (2001-2002). 	<ul style="list-style-type: none"> ● De facto dollarization (1999). ● Official dollarization (2000). ● Mature dollarization with long-term permanence (currently in force).
Economic Effects	<ul style="list-style-type: none"> ● Initial reduction of inflation and attraction of investments. ● Subsequent crisis and economic imbalances. 	<ul style="list-style-type: none"> ● Monetary stability. ● Reduction of inflation. ● Lower currency risk. ● Increased dependence on the U.S. economy
Purchasing power of the population	<ul style="list-style-type: none"> ● Loss of purchasing power due to unemployment and lack of control of inflation. 	<ul style="list-style-type: none"> ● Maintenance of purchasing power in the long term. ● Economic stability of the population.
Quality of life of the population	<ul style="list-style-type: none"> ● Decrease in the quality of life that led to the end of 	<ul style="list-style-type: none"> ● Increase in the quality of life that

convertibility.	strengthened the dollar, being a heritage of life for the population.
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Note: Authors' elaboration.

Conclusions

Nations that do not have hard currencies and have limitations to compete in globalization suffer continuous imbalances in the levels of devaluation and inflation rates, therefore, they need to strengthen in some monetary policy that softens the social and economic impact of these phenomena. Argentina and Ecuador took risks by applying economic policy tools such as convertibility and dollarization.

For Argentina, convertibility remained a decade with good inflation controls due to the parity of peso to dollar, however, it was a measure that does not have a lock to maintain over time so it was eliminated due to bad economic management of the governments of the day that did not know how to face the external crises. On the other hand, since 2000 Ecuador through dollarization maintains adequate control over price levels and has left behind the devaluation, not only has improved its micro and macroeconomic figures but has also allowed the population to improve their quality of life by having income in a hard currency. He has been able to travel abroad, acquire movable and immovable property because of the confidence in the stability of the price of money. In addition, dollarization has taken care that the governments of the day do not print money without backing that would depreciate their own currency and cause Ecuadorian society to lower its living standards. It is also relevant to add that 80% of the Ecuadorian population supports dollarization.

Therefore, due to the historical experience in Argentina and Ecuador, dollarization represents a proven model of economic policy that generates better economic and social results for a country, above all it protects to some extent that the waste and diversion of resources via currency printing is limited by governments with immoral practices. As a result of them, wages are attractive, purchasing power is maintained, interest rates are low and allow long-term debts to be obtained with greater confidence, there is the tranquility that prices do not grow disproportionately and avoids the implementation of socialist policies that seek equality of poverty and not wealth. However, it is important to recognize that dollarization did not completely resolve the structural challenges of the Ecuadorian economy, such as dependence on raw materials and the need for economic diversification and human development. Addressing these long-term problems requires a combination of broader monetary, fiscal and structural policies away from corruption and the promotion of ethics in incumbent governments.

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