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Analysis of the Performance of the Inflation and Economic Growth Goals for Latin America

Análisis del desempeño de las metas de inflación y crecimiento económico para américa latina

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Resumen:

La instauración de Metas de Inflación para América Latina se estableció en respuesta a los niveles altísimos de inflación que había presentado la región en la década de los ochenta y noventa provocada por la crisis económica. En este sentido el objetivo de este trabajo será analizar la relación que existe entre la inflación y el crecimiento económico de algunos países de América Latina: Argentina, Brasil y México; a través de un modelo de regresión en Mínimos Cuadrados Ordinarios, el cual demostró que existe una relación negativa entre inflación y crecimiento económico.

Palabras Clave:

Metas de Inflación, Crecimiento Económico, Política Monetaria

Abstract

The establishment of inflation targets for Latin America was established in response to the very high levels of inflation that the region had presented in the eighties and nineties caused by the economic crisis. In this sense, the objective of this paper will be to analyze the relationship that exists between inflation and the economic growth of some Latin American countries: Argentina, Brazil and Mexico; through a regression model in Ordinary Least Squares, which showed that there is a negative relationship between inflation and economic growth.

Keywords:

Inflation Targeting, Economic Growth, Monetary Politics

Introduction

During the eighties Latin America faced very high levels of inflation, budget deficit, devaluation and increase in debt as a percentage of GDP, as a monetary policy instrument, several countries implemented the system of Inflation Goals or Inflation Objectives called in English "Inflation Targeting". This system was first used by New Zealand in 1990, Brazil incorporates it in 1999, Mexico in 2000 and Argentina in 2016. The Inflation Goals oblige the autonomy of the Central Bank, greater transparency, publication of inflation and decision objectives Monetary focus on recognizing price stability as a primary objective.

This work aims to see the relationship between inflation and economic growth through a regression model in Ordinary Minimum Squares and analyze their relationship after the establishment of inflation targets in order to analyze the results of the establishment of the Inflation goals for Latin America. It was empirically proven that there is a negative relationship between inflation and economic growth, however, the establishment of inflation targets has achieved stability, in prices, within acceptable limits.

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Theoretical Review

Neoclassical-Keynesian Synthesis

As a consequence of the recession of 1929, Keynes incorporated into the economic theory the motives for money demand; transaction and caution, mentioned by the classics, and added speculation. In the IS-LM model known as neoclassical synthesis and presented by Hicks in 1937 in his article "Mr. Keynes and the classics: a suggested interpretation", its objective was to demonstrate that it determines the production given a given price level. The IS - LM model jointly considers the goods market (IS ratio) and the money market (LM relationship). The model assumes that the money supply is inelastic at the interest rate, while the demand for money depends on the level of income and interest rate. The IS-LM balance is given by the level of interest rate that ensures the balance in both markets (the money market and the goods and services market).

The money supply is exogenous, to the extent that it is given by the discretionary, exogenous and unilateral interventions of the central bank in the primary money markets, and that affects the level of production [1].

Monetarist Theory

According to the monetarist theory, the supply of money (total amount of money in the economy) is the determining factor of production in the short term. Currently, monetarism is associated with Milton Friedman, Nobel Prize in Economics. Friedman and Anna Schwartz in their book "A Monetary History of the United States", in 1963 argued that the deficient monetary policy of the central bank of the United States was the main cause of the Great Depression of the 1930s, since it failed neutralize the forces that put downward pressure on the money supply and by reducing the amount of money [2], the reduction of the money supply is considered to be the root cause of the fall in prices, employment and the production.

Friedman in 1956 argues that the demand for money is a stable and predictable function whereby the speed of money circulation is reciprocal and stable. In this model, an increase in the money supply will cause an imbalance between the amount of money in the economy and its demand. The variation in the money supply has effects on the general price level. The function of the monetary authority is to carefully monitor the money supply and not interest rates [3].

Postkeynesian theory

Postkeynesian theory starts from the analysis of the IS-LM model described above, however, the main difference between Postkeynesians and the rest of economists is how the monetary stock is determined. In contrast to the monetarists, the Postkeynesians consider the money supply to be endogenous and that it responds to variations in the level of monetary wages [4].

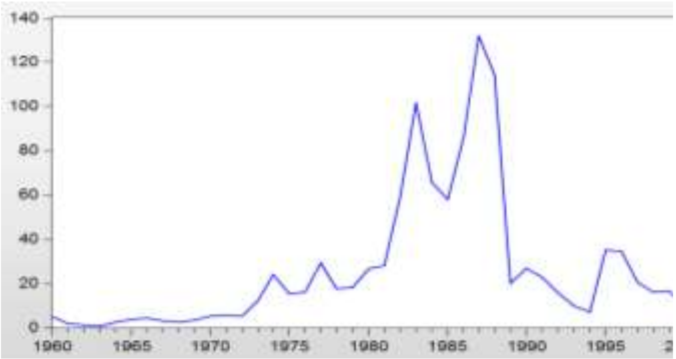
Other theories

Phillips' work (1958) suggested the existence, in the long term, of a negative relationship between inflation and unemployment; Equivalently, a positive relationship between the rate of inflation and economic activity, so the authorities had to choose only one of two highly desired objectives: higher levels of employment or lower levels of inflation. On the other hand, [6] perform a work where they show that for inflation levels above 40 percent per year, countries are vulnerable to falling under conditions of even higher inflation and low economic growth, so rates High inflation affects economic growth.

Monetary Policy of 1980 until the establishment of inflation

Mexico

From 1950 to 1970, the Stabilization Development Model was established in Mexico, during this stage the growth of the Gross Domestic Product (GDP) fluctuated between 3% and 4% annually, in addition to an inflation close to 3%. Economic growth was carried out within the framework of a protectionist system. The low inflation during the 1950-1970 period is attributed to the cautious fiscal and monetary policies; stability of international prices of export products; and that a policy of tied wages was not followed in addition to the stability of the exchange rate [7].



Graph 1. Inflation in Mexico 1960-2000.
Source: Prepared based on data from the World Bank.

In 1970 there was a reduction in oil prices, public spending anchored to oil revenues was directly affected and the government implemented an expansive fiscal policy. In the mid-1970s, the depletion of the model was reflected, the increase in public spending reflected in the fiscal deficit, caused an abrupt increase in prices, as we can see in graph 1, for 1975 inflation was 24%. All this was reflected in the fiscal deficit, trade balance deficit, increase in external debt and depreciation of the exchange rate. In addition to the international oil crisis, the Mexican economy was seriously affected. During that time, oil fields were discovered in Mexico and the government increased public spending, which increased (GDP), employment and investment.

The crisis of the eighties derived from the external debt and caused the use of fiscal and exchange instruments. By 1982 there was a drastic devaluation of the peso, a fall in GDP and an annual inflation rate of almost 100%. In 1988-1994, through the Development Plan of President Carlos Salinas de Gortari, he aimed to control inflation subject to the exchange rate.

The Immediate Program of Economic Reorganization (PIRE) was born with the objective of reducing inflation in 1982, for that date inflation was 59%, this program began with a rapid devaluation, an increase in taxes but this program did not work and was perpetuated the devaluation of the currency to balance the trade balance through foreign financial aid.

By not yielding inflation, the Pact for Stability and Economic Growth (PECE) was established, which aimed to reduce inflation and the fiscal deficit, encourage trade liberalization and price control. With the aim of reducing inflation, the Economic Solidarity Pact (PSE) was established, despite reducing inflation by almost 50% by 1984. For this reason, the PSE was established, aimed at economic liberalization and reducing government intervention in the economy [8].

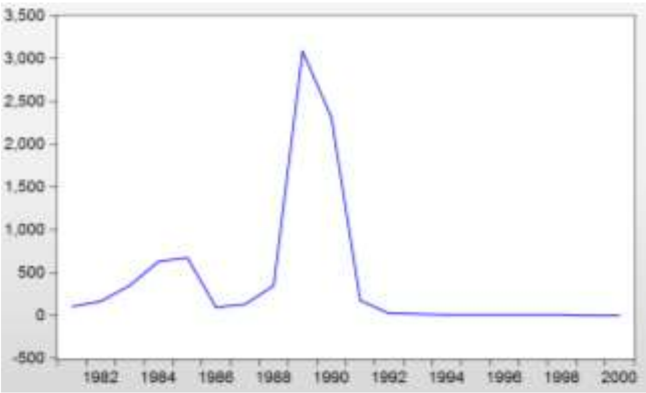
The 1985 crisis led the government to a change of economic model towards the neoliberal, which began with the commercial opening and the signing in 1986 of the General Agreement on Tariffs and Trade (GATT). Again to attack inflation, the Breath and Growth Program was born, which took two years to obtain a 20% inflation in 1900, as can be seen in Figure 2.

It was Miguel de la Madrid and Carlos Salinas de Gortari who began with policies of privatization of companies and the change of economic model to the Neoliberal, between 1992 and 1993 Mexico grew on average 2.4% and inflation stood at 8.4%, figures that made years were not seen. In August 1993, the Bank of Mexico acquires its autonomy by modifying articles 28, 73 and 123 of the constitution where it is established that Banxico has as its primary objective the stability of the purchasing power. The year of 1994 was marked by the Zapatista uprising in Chiapas, the murder of Luis Donaldo Colosio and the signing of the North American Free Trade Agreement (NAFTA). This treaty became the most important for Mexico and made it a country open to foreign trade.

The fixed exchange rate regime through fluctuation bands remained until 1994. The crisis resulted in a severe nominal depreciation of the exchange rate, high and volatile inflation and a slowdown in the real economy, which forced the adoption of a flexible exchange rate regime with which monetary policy became a key instrument for the economy, as of 1995, monetary policy functioned as a nominal anchor of the economy under a flexible exchange rate regime and the interest rate as monetary policy stance instrument [9].

Argentina

In the eighties the Argentine economy experienced high and unstable inflation rates, for 1983 there was fiscal deficit and lack of control in the money supply, inflation was close to 20%. The change of government of Raúl Alfonsín made people think about the increase in economic growth and job creation, the new government brought a gradual reduction in inflation. In 1984 an agreement was signed with the International Monetary Fund (IMF) which had no effect on the economy. Subsequently, Gross GDP fell while inflation increased 90% monthly.



Graph 2. Inflation of Argentina from 1980-2001.
Source: Prepared based on data from the World Bank.

The situation of the Argentine economy resulted in the establishment of the Austral Plan on June 14, 1985, which is summarized in the change of the monetary sign, freezing of prices, wages, exchange rates and public rates; adjustment of fiscal accounts and renegotiation of external debt commitments in addition to monetary reform (Frenkel and Fenelli, 2006). In the following months, inflation levels of 40% to 80% were presented, which seemed hopeful, however, by 1988 prices had increased by about 800% [10].

The southern plan had the purpose of reducing the very high inflation rates through decreasing public spending, exchange rate, prices and fixed salaries. However, the government of Argentina financed its public expenditure through the issuance of banknotes by the central bank, however inflation continued to rise.

In an attempt to control inflation, the government established the Spring Plan, through the industrial sector, the chamber of commerce; with IMF and the World Bank to obtain credits for these organizations. The Austral and Primavera Plan led to the privatization of public companies, including the capitalization of external debt and the Economic and Social Emergency Law, which prohibited the granting of State subsidies, authorized the reform of the Organic Charter of the Central Bank and liberalized investments foreigners [11].

In 2002 Argentina suffered a 11% drop in GDP, a price increase of 41% and a record poverty rate that reached 57.5%. In the first place, the floating of the peso and the stabilization of its value were decided according to the market signals, so it began to implement a new economic plan, based on the budget surplus, exchange rate flexibility, surplus balance of payments, supply Monetary free to the demand of the public and the greater role of the State in matters of investments, regional development and social policy [12].

Argentina's economic growth is from 2003-2007, the GDP grew by about 7% per year in this period and inflation was on average at 10%, due to the fact that the manufacturing sector, the construction sector was boosted and the agricultural. Other than that exports grew.

According to the statistics of the National Institute of Statistics and Census (INDEC), the greater number of employed persons, together with the recomposition of income, allowed to gradually lower the level of poverty and destitution from 54% and 28% of the total population in 2003, at 17.8% and 8.7% at June 2008, respectively [13].

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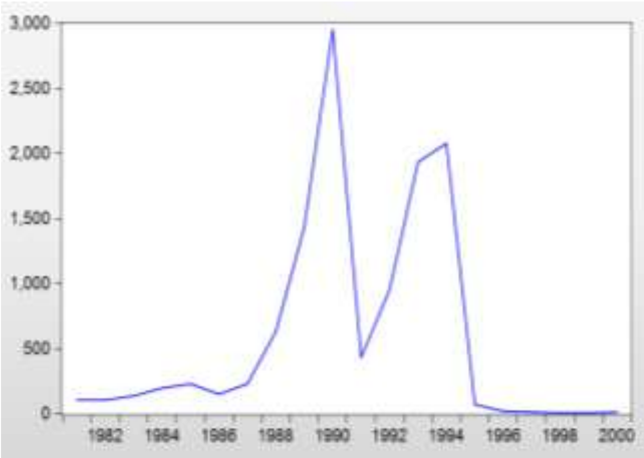
Several factors contributed to growth such as the favorable international context, high prices of export products and low interest rates. The control of public spending, tax management and especially the restructuring of public debt in 2005, in addition to the exchange policy that consisted in preserving a competitive and stable real exchange rate (TCRCE) led to the reversal of the current account deficit, mainly through the generation of important trade surpluses [14].

Brasil

In the 1980s, like a large number of Latin American countries, Brazil witnessed high levels of inflation. Faced with this situation, six stabilization plans were established: Crusader in 1986, Bresser in 1992, Collor in 1992, and Real 1994. Having as a consequence fluctuation in inflation rates and the level of macroeconomic activity.

Plans Bresser and Verão, were based on the temporary freezing of prices, restoring the balance in the balance of payments, however production fell and inflation remained high.



Graph 3. Inflation of Brazil from 1980-2001. Source: Prepared with World Bank database.

The Cross Plan was a combination of anti-inflation policies with GDP growth and income redistribution, based on the freezing of prices and the nominal exchange rate, in the short term the inflation rate was drastically reduced and the rate of GDP growth remained at fairly high levels, however the government abandoned the exchange rate setting policy, which resulted in a return to high inflation levels (Neri, 2010). The Collor plan, on the other hand, was convened to protect fixed prices, seize deposits from the financial sector and wage restrictions.

Despite these efforts, inflation continued to have very high levels of inflation, where the Royal Plan was established. The Royal Plan, benefited from structural reforms how liberalization commercial and financial, renegotiation of external debt, privatization.

The achievements in the rapid reduction of inflation were mainly due to the behavior of the prices of goods, and services regulated by the State, such as electricity and public transport. The change in relative prices would be due to the appreciation of the Brazilian currency after the Royal Plan, and the process of economic opening [15]. The real appreciation of the Brazilian currency was supported by a substantial inflow of capital, which allowed the increase in reserves and benefited debt restructuring, generating the stabilization of the Brazilian economy.

Inflation Goals

Since the mid-1990s, central banks in a large number of emerging market economies have adopted inflation targets to reduce and stabilize price advances, following the example of advanced economies such as New Zealand, Canada, United Kingdom, Sweden and Australia. In Latin America, the first countries that introduced the setting of inflation targets were Brazil, Chile and Colombia in 1999. Subsequently, they were followed by Mexico, Peru and more recently Argentina.

The Inflation Objectives establish that the central bank cannot pursue and achieve multiple goals with just one instrument such as the interest rate also highlights that high inflation impairs economic growth and income distribution; disincentive investment. The main feature of this system is to have an autonomous bank.

The basic elements of Inflation Goals such as having an explicit mandate from the central bank to seek price stability as the main objective of monetary policy, accountability, a high degree of transparency in the strategy and Implementation of monetary policy and explicit quantitative objectives for inflation.

The main characteristics of inflation targets with respect to other monetary policies are, central banks have the mandate and commit themselves to an inflation target Unique numerical, which can be an annual inflation level or range. Making public the inflation forecast for a certain horizon is in fact the intermediate goal of monetary policy.

Inflation Goals for Latin America

After decades of high levels of inflation and stagflation, different Latin American countries incorporated the inflation targeting model such as Mexico, Chile, Brazil, Colombia, Colombia, Guatemala, Peru and Argentina, which has incorporated it in recent years. For this work, only four countries Mexico, Brazil, Chile and Argentina will be analyzed.

Country	Year	Current Inflation Goals	Features
México	2000	3% ± 1%	Banco de México recognizes price stability, a flexible exchange rate and its own autonomy as its primary objective.
Brasil	1999	4.5 ± 1.5%	The Central Bank of Brazil has as a priority to ensure price stability and a solid and efficient financial system.
Argentina	2016	15% para 2018	The Central Bank of the Republic of Argentina uses the short-term interest rate as the main instrument and flexible exchange rate.

Table 1. Characteristics of inflation objetives for Latin America.
Source: Prepared with information from the Central Bank of Mexico, Brazil and Argentina.

Mexico established the inflation targeting system in April 2003 due to the levels of inflation that had occurred during the 1994 crisis in this system monetary policy responds to inflation expectations and inflation itself.

Brazil adopted the inflation targeting regime to combat the high levels of inflation that originated due to the collapse of the exchange rate regime between 1995 and 1999, with this system the National Monetary Council (CMC) was created would set the inflation target . Therefore, on June 30, 1999, the CMN decided to set a decreasing scale for inflationary targets: 8% for 1999, 6% for 2000 and 4% for 2001 with a band of 2% [16]. Currently, according to the Central Bank of Brazil, the inflation target is 4.5% in a range of 1.5%. During 2015, Argentina experienced a period of high inflation according to the Bank of Mexico.

Inflation in 2015 was 15% and for 2016 it is estimated that in 2016 it was more than 30%. The president of the Central Bank of the Republic of Argentina mentioned in 2016:

The first objective of the Central Bank will be to ensure the monetary stability of the Argentine economy. This purpose implies prioritizing, in the current context, the decrease in the rate of variation of domestic prices, to levels similar to those experienced by emerging economies today. This change of axis requires moving towards an inflation targeting system with managed exchange rate floating [17]. Thus, Argentina is the last country in Latin America to join the inflation targeting system.

In this work we make a comparative analysis on the performance of inflation targets for Latin America through Mexico, Brazil and Argentina. This is part of a Linear Regression model to see the inflation and economic growth relationship, and an analysis of the structural change for the Mexican case will be carried out.

The growth of the Gross Domestic Product (GDP) and the Inflation for Mexico and Argentina of 1961-2016 obtained from the World Bank is used. Similarly, GDP growth and inflation from 1994-2017 for Mexico obtained from the National Institute of Geography and Informatics Statistics (INEGI) is used. For Brazil we use it from 1996-2017 obtained from (IBGE).

The methodology of Ordinary Minimum Squares was used:

$$\Delta \widehat{PIB} = \widehat{B_0} + \widehat{B_1}\, Inflation \quad (1)$$

To verify the robustness in the quarterly observations, the methodology of Ordinary Minimum Squares was used under the first order autoregressive scheme of Markov.

$$\Delta \widehat{PIB} = \widehat{B_0} + \widehat{B_1}\, Inflación + [Ar(1)] \qquad (2)$$

We seek to verify empirically whether there is a positive or negative relationship between inflation and economic growth.

In the case of Mexico, the Chow stability test is carried out to determine if there was a structural change in the relationship between the return Y and the return X. By structural change it refers to the fact that the values of the model parameters do not remain constant at throughout the entire period. This test the test assumes that:

1. u1t ~ N (0, σ2) y u2t ~ N (0, σ2). That is, the error terms in the sub-period regressions are normally distributed with the same variance (homoscedastic)σ2. The two error terms (u1t and u2t) are independently distributed. This test is done through the Eviews Software, Chow Stability Test, where

H_0 = There is stability between the parameters,

H_1 = There is no stability between the parameters

Presentation of Preliminary Results

Mexico

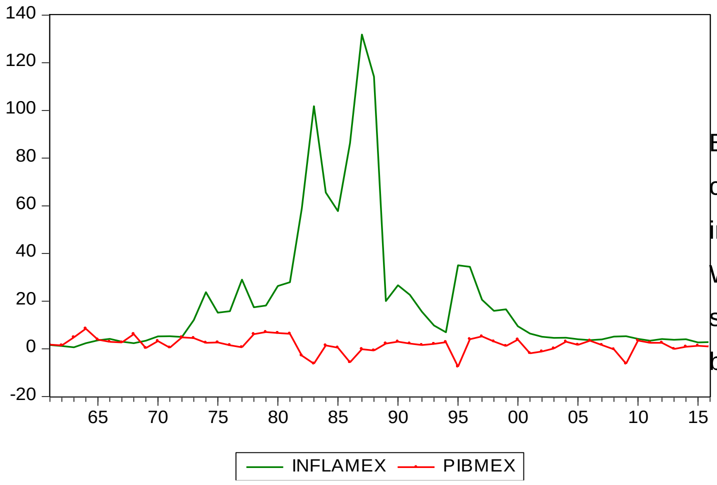
By performing the regression between the relationship of inflation and GDP with annual data from 1961 to 2016, we can find the following regression.

$$\Delta\widehat{PIB} = 2.7024\% - 0.0445\% Inflación$$

In table 2 we can visualize the complete results of the regression, as the theory and different works that relate to inflation and GDP growth indicate, inflation discourages economic growth. In this regression we can see that a 1% increase in inflation reduces Mexico's GDP by 0.044%. However, the explanatory variable (inflation) only explains 16.22% in the case of Mexico.

País	$\widehat{B_0}$	$\widehat{B_1}$	$Prob.\ \widehat{B_0}$	$Prob.\ \widehat{B_1}$	R^2	$Prob\ (F-statistic)$
México	2.7024	-0.0445	0.0000	0.0021	0.1622	0.0200

Table 2. Regression of the Inflation and Economic Growth Relationship for Mexico from 1960-2016.
Source: Elaboration based on the World Bank.



Graph 4. Inflation and GDP in Mexico from 1961-2016.

Source: Prepared based on information from the Bank of Mexico.

Graph 4 shows the relation of inflation and GDP which supports the results shown by equation 1. The regression is carried out as follows:

$$\widehat{PIB} = 4.7501 - 0.2671\text{iNFLATION} + Ar(1)$$
$$= -0.8566 + \hat{u}^{*}$$

$\widehat{B_0}$	$\widehat{B_1}$	$Ar(1)$	$Prob.\ \widehat{B_0}$	$Prob.\ \widehat{B_1}$	$Prob.\ Ar(1)$	R^2	$Prob\ (F\ statis$
4.7	-0. 26	-0.68	0.0048	0.000	0.000	0.6 2	0.000

Table 3. Regression of the Inflation and Economic Growth Relationship for Mexico from 1993-2017.

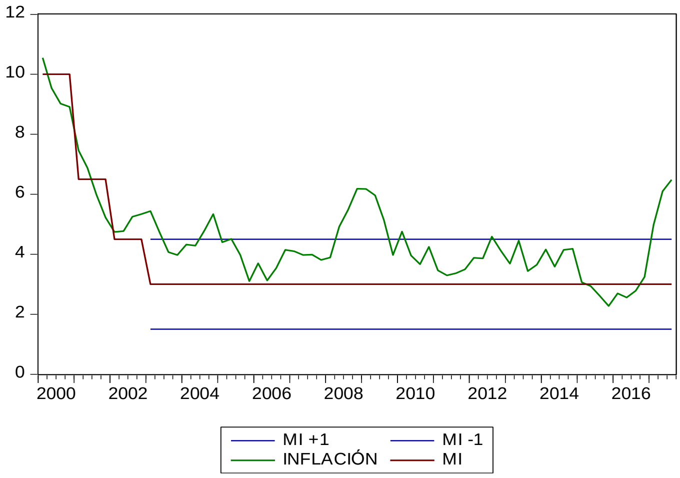
Source: Elaboration based on equation 1, INEGI data.

Table 3 reflects the negative relationship between inflation and economic growth than theorists like Levine and Zerbos (1993) who find that the negative relationship between very high levels of inflation and economic growth agreeing with Bruno and Easterly (1995) who had already found a negative relationship between these variables. After this equation, the Chow Structural Change test was carried out, which showed that as of 2003 the parameters do not remain constant throughout the entire period.

Now we incorporate a dichotomous variable to the regression of the form:

$$\widehat{PIB} = 4.7501 - 3.7992D_t - 0.2671\ \text{INFLACIÓN} + Ar(1)$$
$$= 0.7986 + \hat{u}^{\dagger}$$

Being all the statistically significant values, we can conclude that it is a parallel regression where the intercept in the two different regressions but the slopes are equal. We can conclude that the change in the inflation targeting system brought about a change in the relationship between inflation and economic growth.



Graph 5. Evolution of Inflation after the establishment of Inflation goals.
Source: Elaboration based on data from INEGI and Banco de México.

As part of the establishment of inflation targets in 2000, announcements of medium-term inflation objectives are now being made, promoting transparency based on communication regarding the objectives, plans and decisions of the monetary authority.

How can we see in Graph 5, since the establishment of inflation targets in 2000, this has been within the limits established by the Bank of Mexico, we can see that during the 2008 crisis inflation was higher than the limits already established. However, we must highlight that in 2016 inflation was higher because of the liberalization of gasoline prices.

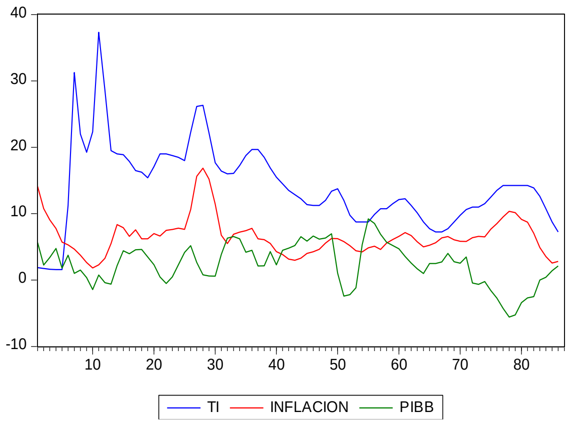
With the objective of reducing the inflationary pressures that can be caused by the depreciation of the exchange rate, Banxico, through the National Exchange Commission, together with the Ministry of Finance and Public Credit, went from using international reserves, since 2017 they use exchange hedges. The Inflation Goals system forces us to monitor all the variables that may cause inflationary pressures.

We can conclude that moving to the inflation targeting system has managed to have low levels and within the limits established by the Bank of Mexico, economic growth in Mexico has remained almost constant over the past 30 years.

Brazil

Brazil joined the inflation targeting system in 1999, being one of the first countries in Latin America to establish this system in its monetary policy.

Brazil implemented an economic model based on non-tolerance for inflation, a system of inflation targets; fiscal responsibility, and exchange rate flexibility. For example, the average economic growth of Brazil from 1981-1993 was 1.7% under an inflation of 762%; instead of 1995-2010 it was 3.2% and an inflation of 7.5%.



Graph 6. Ratio of GDP, SELIC Interest Rate and Inflation of 1996-2017.
Source: Preparation based on information from IBGE.

Also for Brazil, the regression was carried out to see the relationship between inflation and economic growth as follows, in this case we propose that the inflation of the previous quarter is the one that discourages economic growth:

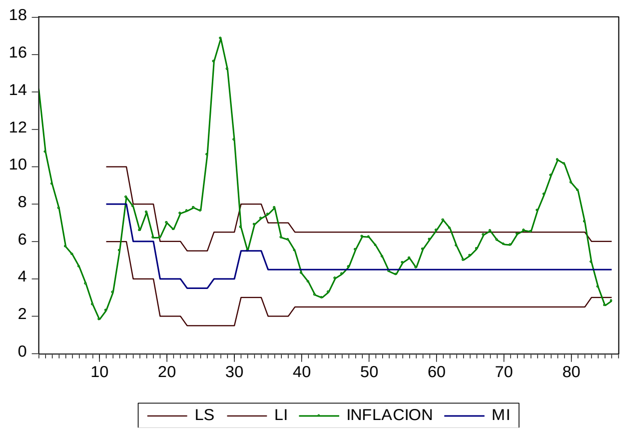
$$\widehat{PIB} = 4.6938 - \ 0.4034\ \mathrm{INFLATION}(-1) + Ar(1) = 0.8320 + \hat{u}$$

$\widehat{B_0}$	$\widehat{B_1}$(-1)	$Ar(1$	$Prob.\ \widehat{B_0}$	$Prob\ \widehat{B_1}$	$Prob.\ Ar(1)$	R^2	$Prob\ (F\ statistic)$
4.6	-0.40	-0.83	0.001	0.0	0.000	0.	0.000

Table 4. Regression of the Inflation and Economic Growth Relationship for Brazil from 1996-2017.

Source: Preparation based on information from IBGE and BCB

Through the regression made, we can visualize that there is a negative relationship between economic growth and inflation, which can be visualized in graph 6 where a negative relationship of these variables is visualized. It can also be seen in the graph that inflation and the Interest Rate (IT) have the same trend since IT becomes one of the most important instruments for maintaining price stability.



Graph 7. Real inflation with respect to inflation targets 1996-2017.
Source: Preparation based on information from IBGE.

During the first year the intense activity of the BCB led to inflation at less than 9%, one of the best years of setting inflation targets was the year 2000 since economic growth was around 4% with inflation below of the 6% inflation target. Brazil subsequently faced an energy and political crisis coupled with the contagion of the crisis in Argentina. Subsequently, the Central Bank used the interest rate to control inflation. During the Government of Lula da Silva we can find how through the primary surplus and with the help of IT it was possible to maintain stable inflation in addition to the exchange rate flexibility. Economic, political and institutional stability stimulated the development of the Brazilian capital market and the strong expansion of credit. However, with the political crisis that it went through in recent years, it brought inflation to levels close to 10% during 2015 and 2016 caused by the political crisis, accelerating the world economy. We can conclude that inflation targets have achieved acceptable levels within the limits established by the Central Bank, however there are inflationary pressures that force the central bank to act in order to maintain price stability as it drives economic growth.

In 2015 the IBGE announced that the Brazilian economy had contracted 3.8% as a result of the serious political crisis from which Dilma Rousseff was even dismissed as president of Brazil, loss of confidence to invest that contracted investment and loss of competitiveness, In addition to the corruption cases related to the Petrobras oil company. All this coupled with the slowdown in the Chinese economy and global economic complexity caused the fall in GDP and the increase in Investment. During 2017, Brazil began to recover at the same time that inflation began to decline, so Brazil is in full economic recovery and the central bank maintains its objective of ensuring price stability.

Argentina

In the case of Argentina, a 1% increase in inflation causes a fall of 0.0036% in Argentina's GDP. However, the explanatory variable (inflation) 10.80% to economic growth.

$\widehat{B_0}$	$\widehat{B_1}$	$Prob.\ \widehat{B_0}$	$Prob.\ \widehat{B_1}$	R^2	$Prob\ (F-statistic)$
1.8675	-0.003	0.0180	0.0134	0.1080	0.0133

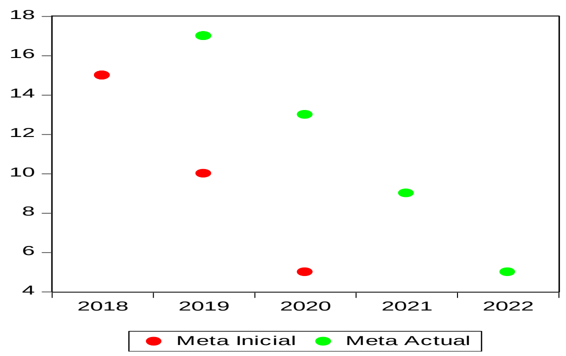
Table 5. Results of the Argentina Regression 19601-2016.
Source: Elaboration based on the World Bank.

$$\Delta\widehat{PIB} = 1.8675\% - 0.0036\% InflaTION$$

By December 2015, Argentina had an inflation above 25% since 2007; fiscal imbalance, a system of multiple exchange rates that penalized the generation of public debt currencies that contributed to placing country risk at levels higher than those of the rest of the continent (BCRA, 2016).

Argentina was the last country in Latin America to join the inflation table system after 2016 reached inflation levels above 30%, there are currently no official records of the level of inflation in Argentina during 20016 after INDEC will modify the methodology of the Consumer Price Index missing observations making it impossible to calculate real inflation during 2016, according to different private consultants inflation in 2016 Congress averaged 40%. Even though Argentina grew in 2017 after the great economic crisis at the end of 2015 and during 2016, the economic recovery of the United States, appreciation of the US dollar and various internal conflicts that have generated inflationary pressures for Argentina and forced the Central Bank to change the previously established goals. The objective of Argentina in establishing the Inflation Targeting System was to reach levels presented by emerging economies. The first step was to establish a floating exchange rate that was intended to boost the decline in inflation. The establishment of a system of Inflation Targets forces the stability and growth of the financial system. Recently, the Central Bank announced the measures that will strengthen the Inflation Targets scheme which consists of: Operational and financial autonomy of the Central Bank of the Argentine Republic.

The program establishes the elimination of financial assistance from the BCRA to the Treasury and the cancellation by the Treasury of its debt to the Central Bank. The BCRA modified its inflation targets.



Graph 8. Inflation Goals Argentina

Source: Elaboration based on BCRA.

Conclusions

When analyzing the relationship between inflation and economic growth, these have a negative relationship, since inflation inhibits economic growth. For the case of Mexico we can say that from the establishment of the inflation targeting system there was a structural change between the relationship of these variables. The Bank of Mexico has managed to establish low inflation levels and even close to the goals that Banxico itself adopted. Similarly, the Central Bank of Brazil has been successful in terms of the inflation target and real inflation, however external economic pressures, political instability and internal economic crisis encouraged that during 2015 and 2016 inflation was higher than What was expected. Argentina is a young country with respect to a policy based on inflation targets, evaluating its performance is still soon however due to inflationary pressures such as the appreciation of the US dollar, growth of the United States and different internal conflicts promoted that the central bank of Argentina changed Fully established inflation goals. We can conclude that the Inflation Goals System does not guarantee in itself economic growth, however, has helped to maintain price stability; In addition to that it forces the Central Bank to have greater transparency and ensure a healthy financial system, so we can say that if it meets the primary objective of this monetary policy scheme. The generation of economic growth must go hand in hand with a strong and secure financial system, fiscal policies appropriate to the needs of each country and the guarantee of compliance with the rule of law.

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