

Scientific  
Journal of  
**Applied  
Social and  
Clinical  
Science**

**CHANGES IN  
MONETARY POLICY IN  
LATIN AMERICA POST-  
PANDEMIC (2022), THE  
CASES OF CENTRAL  
BANKS (BRAZIL, CHILE  
AND MEXICO)**

---

*Quintero Estrada Oscar Edmundo*

Universidad Nacional Autónoma de México  
ORCID ID: 0000-0001-5120-4298

*Hernández Dorado Luis Enrique*

Universidad Nacional Autónoma de México

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Document for presentation at the XI International Congress on Government, Administration and Public Policies GIGAPP. Madrid, Spain, from September 21 to 23, 2022.

**Abstract:** In Latin America, the Central Banks of Brazil, Chile and Mexico have adopted measures in their Monetary Policy to deal with the high levels of inflation that affect not only these economies but also the world in general. These countries aim to achieve price stability, for which they have granted autonomy to their Central Banks since the 1990s, known as the period of great moderation. Although developed countries have adopted changes in their monetary policies after the 2008 crisis, Latin American countries have maintained the same measures implemented before this crisis, hoping to obtain positive results in their economies. However, in the new economic reconfiguration, it is important to distinguish the possible effects that could arise from the constant high interest rates established by the Central Banks of Latin America. It is necessary to analyze whether these measures will make it possible to regain control over the high inflationary levels or whether greater intervention by fiscal policy will be required to reduce inflationary levels. In this sense, it is crucial to assess the effects of quantitative easing that has been adopted in developed countries and whether it can be an alternative for Latin American countries.

**Keywords:** “Monetary Policy, Central Banks, Inflation, Quantitative Easing and Fiscal Policy”

## **INFLATION TARGETS AND INDEPENDENCE OF CENTRAL BANKS IN LATIN AMERICA, CASE OF BRAZIL, CHILE AND MEXICO**

This paper will analyze the foundations that were established in the Central Banks of Brazil, Chile and Mexico to adopt inflation targets as a measure to control inflationary levels. This was done in the Conventional Monetary Policy period (1995-2008), when these inflationary controls were implemented.

In reality, the need for changes in monetary policy in Latin America originated in the 1980s, due to various social, political, economic, and geographical factors that affected the region's population. This led to the implementation of measures that would reduce inflationary levels and establish price stability in the region.

In this sense, it is important to highlight the role played by the Central Banks in the adoption of monetary policies that allowed these objectives to be achieved. The adoption of inflation targets as a control measure was a key element in the strategy of the Central Banks of Brazil, Chile and Mexico to achieve economic stability in the region.

For the decade of the eighties of the 20th century, with the previously mentioned changes, it generated the end of the military dictatorships (the case of Brazil and Chile) and that they began to talk about democracy; for its part in the United States of America, in its economic policy issues, based on the proposal led by Ronald Reagan, strengthened a boom on the monetarist school, which was mainly the source of economic liberalism and falling into a reduction of participation of the state.

During the period known as conventional monetary policy, various changes were established, as indicated by Mántey (2012), who highlights the following distinctive characteristics of said period:

“After the breach of the Breton Woods agreements, many central banks focused their objective on stabilizing prices, in order to preserve confidence in their currencies, while other macroeconomic objectives, such as the level of employment and the growth of income, went to second term or disappeared from his schedule. The theoretical model of the new neoclassical synthesis, which emerged at the beginning of this century (XXI), justified such an omission, after arguing that under certain

assumptions, price stability implied efficiency in the use of productive resources". (Mantey, 2012)

In view of the high inflation rates that affected the study economies, according to the historical data available on the inflation.eu website (<https://www.inflation.eu>), it can be observed that inflationary levels reached three digits in some cases. In Mexico, for example, inflation reached 160% at the end of the 1980s, while in Brazil inflation was close to 2,000% in 1994. In the case of Chile, which was one of the first countries in Latin America to implement the conventional monetary model, inflation reached a maximum of 340% in the mid-1970s.

It is important to bear in mind that inflation refers to the sustained and general increase in the prices of goods and services, which in simpler terms means that money loses its purchasing value and we can buy less with the same amount of money. This has a direct impact on the purchasing power of citizens and can significantly affect their personal finances.

The causes of inflation are diverse, although the growth of money in circulation stands out, which favors greater demand, or the increase in the costs of production factors (raw materials, energy, wages, etc.). In addition, inflation can cause four effects in the economy: consumption inflation (when demand grows faster than supply), cost inflation (when companies increase prices to maintain their profits), self-constructed inflation (when producers increase the prices in anticipation of future increases) and increasing the monetary base (when the quantity of money in an economy increases faster than the supply, causing prices to rise).

It is important to mention that if prices drop continuously, deflation may occur. According to Mántey (2011), these concepts are essential to understand the effects of inflation on the

economy of the study countries, where three-digit inflation levels have historically been observed, which has had a negative impact on the purchasing power of consumers. citizens.

Inflation is a complex phenomenon that requires good management by central banks, since a high inflation rate can have negative effects on the economy. For example, it can cause a loss in the purchasing power of citizens, increase uncertainty in the markets and make long-term economic planning more difficult.

On the other hand, central banks must also take into account that inflation cannot be reduced abruptly, since this can generate negative effects on the economy. In this sense, it is important that monetary policy be gradual and based on a balance between supply and demand for goods and services.

Central banks use various tools to control inflation, such as adjusting the interest rate and controlling the amount of money in circulation. However, these measures can have negative effects in the short term, such as a reduction in investment and consumption.

Therefore, it is important that central banks set clear and realistic objectives for inflation control, as the aforementioned Research Banks have done, and that monetary policy is gradually adjusted to achieve these objectives. This way, monetary stability can be achieved that benefits the economy as a whole.

### **IMPLEMENTATION OF MONETARY POLICY IN BRAZIL, CHILE AND MEXICO (1990-2023)**

Since the implementation of the Conventional Monetary Policy, an effort was made to control the exponential levels of inflation that affected the economies of Brazil, Chile and Mexico. To achieve this, the interest rate was used as the main tool, whose increase discourages consumption and encourages savings. This measure was carried out at the

end of the 80s and beginning of the 90s of the 20th century, which was very similar in the three countries studied.

In addition to the above, autonomy was granted to the Central Banks, which allowed them to make decisions without government interference. In Chile, this autonomy was carried out in 1989, while Banxico did so in 1995. In the case of Brazil, although its autonomy was not complete until 2021, the Central Bank followed the recommendations established for inflation control.

The measures adopted in the cases of the Central Banks of Brazil, Chile and Mexico will be analyzed below:

### **BRAZILIAN CASE (REAL PLAN)**

The Real Plan was a milestone in the economic history of Brazil. It was a stabilization process that began in 1993 and managed to control the country's inflation, which had reached exorbitant levels of up to 4.922% in June 1994. The entry into circulation of the real in July of that same year marked the beginning of a new era of monetary stability in the country. Inflation, which had been one of the main concerns of the population, began to decrease, reaching 916% in 1994 and 22% in 1995. Since then, the Central Bank of Brazil has maintained its commitment to the stability of purchasing power of the Brazilian currency, which has led to the IPCA accumulated in 12 months exceeding it on a few occasions.

The implementation of the Real Plan was not an easy task. Due to the skepticism of the Brazilian citizens, the economic policy managers had to make a significant effort of planning and innovation. To do this, in the second half of 1993, teams from the Ministry of Finance, the Central Bank and Casa da Moeda worked together to develop the plan, which was divided into three phases. In the first phase, the fiscal adjustment effort began, with emphasis on the creation of the

Emergency Social Fund (FSE), destined to increase tax collection and make budgetary management more flexible in 1994/1995. The second phase was marked by the use of an account entry currency, the Real Unit of Value (URV), as the unit of account. In the last phase, the introduction of the new monetary standard, the real, implied the need for rapid and complete availability of the new currency as of July 1, 1994. (Central Bank of Brazil, 2022)

The success of the Real Plan in Brazil was due to a planning and innovation effort in three phases: fiscal adjustment, the introduction of the Real Unit of Value as a unit of account, and the rapid implementation of the new monetary standard, the real, the 1 July 1994. The commitment of the Central Bank of Brazil to ensure the stability of the purchasing power of the Brazilian currency has prevailed since then, and throughout this period inflation has been controlled on a few occasions.

### **CHILEAN CASE**

Below are the changes implemented in the Chilean monetary policy to reduce inflation. During the 1990s, the Central Bank of Chile adopted a more active role, with the priority of controlling inflation. As a result, inflation decreased significantly, from 27% to 6.6% between 1990 and 1996. In addition, the economy grew an average of 6.8% during this period, with a balance of payments in surplus.

In particular, monetary policy focused on price stability and did not use intermediate objectives such as specific exchange rate levels or monetary aggregates. Starting in 1995, short-term nominal interest rates began to be used as a tool to control inflation.

In addition, the relationship between inflation and other variables that determine it, such as spending, was used to make it the main indicator and make economic decisions accordingly. (Magenzo, 1997).

These changes were carried out after the creation of the autonomous Central Bank in 1990, with objectives aligned with the central banks of other countries that seek to maintain low and stable inflation. This is based on the evidence that an expansive monetary policy causes inflation without a permanent effect on the unemployment rate, the general acceptance that economic agents correctly define their expectations according to the expected future of the economy, and the certainty that the economic stability is necessary to achieve sustained growth. In short, Chilean monetary policy focused on achieving low and stable inflation as the best benefit for the economy.

### MEXICAN CASE

Since 1994, what is our country has had a Central Bank that is autonomous, the monetary policy decisions taken by the Bank of Mexico (BANXICO) are practically focused on guaranteeing the purchasing power of the peso based on the control of inflation and the exchange rate monitoring. Consequently, the economic crisis of 1994-1995 was not a crisis associated exclusively with economic performance, but rather a reaction to the pattern of accumulation typical of the Mexican economy, associated with the external processes of capital reproduction (which are recognized with the globalized environment), the conduct of fiscal, monetary and exchange rate policies in an open economy environment, its mismanagement and apparently, following the conspiracy theory, a deliberate conduct of economic policy to weaken the Mexican peso and favor certain interest groups (Díaz Bustos & Padilla Zazueta, 2018).

Although economic policy in general terms was associated with stabilization objectives, including the containment of inflation, it is from the 1994-1995 crisis that monetary policy would play a privileged role,

around the stability of the prices. Due to the rescue commitments, the oval loans granted by the International Monetary Fund (IMF) and the policies agreed upon by the North American monetary authorities, it is decided to apply a new strategy in the implementation of monetary policy. It must be noted that the anti-inflationary policy was not only focused on the control of credit or the money supply, or indirectly through control over the interest rate, as well as exchange control that said price stability. In reality, given the recommendations of the IMF, a regime of flexible exchange rates was established, this is determined by the “free” game of supply and demand. In other words, according to the interests of large national and international, financial or corporate groups. In addition, flexible exchange rate regimes imply policies that liberalize capital flows, especially portfolio ones, and exchange rate stability depends on how open and aware the country is in relation to capital inflows, especially in the short term. Both due to the liberalizing measures and their dependence on external capital flows, countries like Mexico are losing their autonomy, both economically and in the conduct of economic policy, in this case of monetary and exchange rate policy.

In general terms, economic policy was oriented towards stabilization, including the containment of inflation, but it was after the 1994-1995 crisis that monetary policy became the main focus in the search for price stability. Due to the rescue commitments, the credits granted by the International Monetary Fund (IMF) and the policies agreed by the monetary authorities of the United States, it was decided to apply a new strategy in the implementation of monetary policy. However, the anti-inflationary policy was not focused solely on the control of credit or the money supply, or indirectly through control over the interest rate, but also on exchange control. Based on the recommendations of the IMF, a regime

of flexible exchange rates was established, determined by supply and demand, which implied liberalizing policies for capital flows and a dependence on the interests of large national financial and corporate groups. and international.

This generated a loss of autonomy both economically and in the conduct of economic policy, in this case, monetary and exchange rate policy, due to the dependence on external capital flows and the liberalization measures adopted.

### **MONETARY POLICY IMPLEMENTED BY THE CENTRAL BANKS AFTER THE REAL ESTATE CRISIS IN THE UNITED STATES IN 2009**

During the economic crisis that developed in the United States between 2007 and 2010, Mexico experienced its effects in 2009, which influenced the conduct of its monetary policy. In addition, several countries have adopted the inflation targeting regime, and in the case of Mexico, Banco de México substituted the short policy for inflation targeting on January 21, 2008. The interbank interest rate is used at one day as a key element of the anti-inflationary policy.

In recent decades, more and more central banks have opted for an inflation targeting scheme to conduct their monetary policy. Among the advantages of this regime, it stands out that it avoids the use of the exchange rate as the nominal anchor of the economy, which in the past has led to exchange rate and financial crises. Likewise, it is highlighted that thanks to its transparency, it is an effective means of influencing public expectations and increasing credibility in the central bank.

According to (Mantey, 2011) we have that: “The inflation targeting regime has two essential components 1) a theoretical framework for monetary policy decisions 2)

a communication strategy with the public, explaining policy decisions based on that theoretical framework.

The model for open economies, in its simplest form, consists of four fundamental equations. The first, similar to an IS curve, defines the gap

between current and potential output ( $y$ ), as a function of the interest rate and the exchange rate:

$$Y = f(i, e)$$

The second in a Phillips curve, which describes the behavior of inflation as a function of the output gap:

$$P = f(Y)$$

The third is a Taylor rule, which explains the central bank interest rate ( $i$ ) as a function of the output gap ( $Y$ ) and the differential between expected inflation and the inflation target ( $P - P^*$ ).

$$i = f(Y; P - P^*)$$

The fourth equation is based on the uncovered interest rate parity hypothesis, and explains the exchange rate as a function of the differential between the domestic interest rate and the foreign interest rate.

$$e = f(i - i_{ext})$$

According to this theoretical framework, which presupposes competitive and efficient markets, the interest rate is the policy variable that makes it possible to stabilize the product and reduce inflation. Low and stable inflation indicates that the economy operates at a level close to full employment and, therefore, is synonymous with economic efficiency (Mantey, 2011).

Based on the previous theory, it can be seen that in Mexico this theory has been put into practice from 2001 to the present, where BANXICO seeks to control inflation and the exchange rate. (Bank of Mexico, 2018).

The inflation targeting regime, on which

the theoretical model is based, does not consider two important characteristics of the institutional framework of emerging economies, which influence their inflationary process and the way in which their central banks approach monetary control. In the first place, there is the oligopolistic structure of the internal market, which is associated with its late industrialization and its technological and financial dependence on industrialized countries. This dependence results in a conflict in the distribution of the product and manifests itself in a high pass-through of the exchange rate to inflation.

Thus, by Mantey we have:

- A devaluation will generate inflation not only because of its impact on the cost of imported inputs, but also because 1) it allows domestic products to increase their profit margin, given the benefits of less competition from imported products 2) it triggered a struggle by the distribution of the product among the factors of production 3) tends to induce central banks to raise the interest rate (not to reduce it, as would be expected based on the theory of interest parity), with the purpose of containing the inflationary effects of currency depreciation.

Regarding this theory, based on the above, it was expected that there would not be a worse devaluation, currently the devaluation has increased due to high inflation levels.

5) A monetary devaluation means loss of national wealth and increase of foreign wealth; and this effect is even greater when the central bank raises the interest rate to contain inflation, and depressing the market value of companies in local currency. (Mantey, 2011).

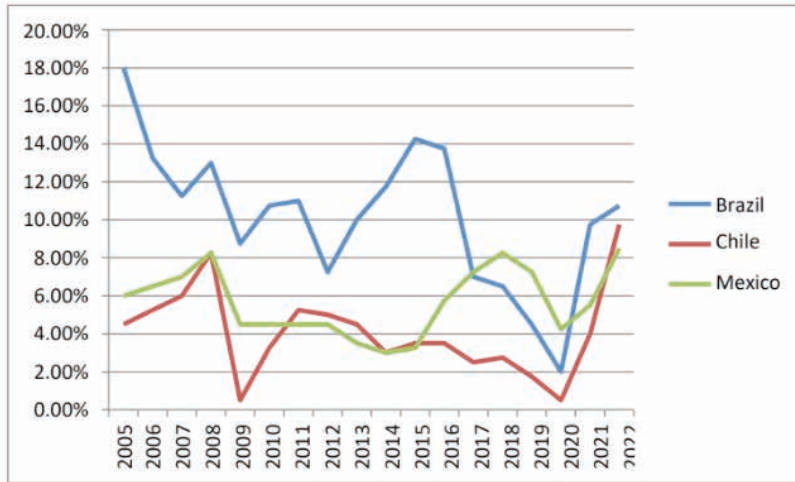
The interest rate is an important tool for monetary control and economic policy in general. In general terms, it is used to establish the cost of money and determine the

profitability of loans and savings accounts. In the context of the implementation of inflation targets in the 1990s, it is essential to analyze the evolution of both the interest rate and the inflation rate in the study countries. This way, it is possible to determine whether these changes have contributed to better economic development, which can be measured by the GDP growth rate in the countries in question. In summary, the interest rate and inflation are key variables in the economy and their evolution is important for analysis and decision-making in monetary policy.

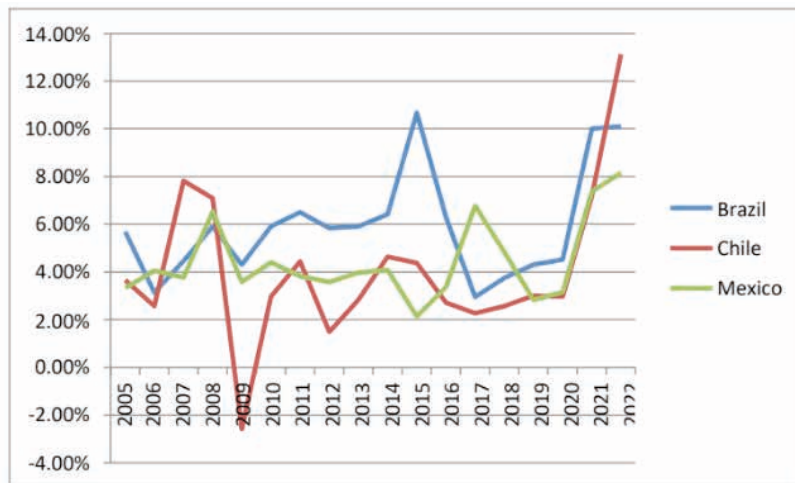
Graph 3.1 shows the changes that the Central Banks of the study have implemented after the 2009 crisis, in comparison with the Federal Reserve of the United States, which reduced the interest rate to around 0%. However, the study countries did not reach levels close to 0%, except for Chile, which approached the level of quantitative easing for a short time.

Period. Graph 3.2 shows the inflation rate that the Central Banks in the study were able to obtain, and it can be seen that few periods were within the expected level of 3%. Brazil has struggled to meet the inflation target, but has improved compared to the exponential inflation of the 1980s. Chile and Banxico have managed to be close to the inflation target, but this has not been positively reflected in the GDP of the study countries, as shown in graph 3.3. Despite the changes generated by the Central Banks of study since the mid-90s, the situation after the 2009 crisis has not been beneficial and the increase in GDP has been diminished.

In the last graph presented, you can see the average growth of the study countries after the 2009 crisis. For Brazil, the growth has been only 0.01%, which indicates that there has not been significant growth in this country. In the case of Mexico, unlike Brazil, a GDP decrease of -0.20% is shown, despite having better

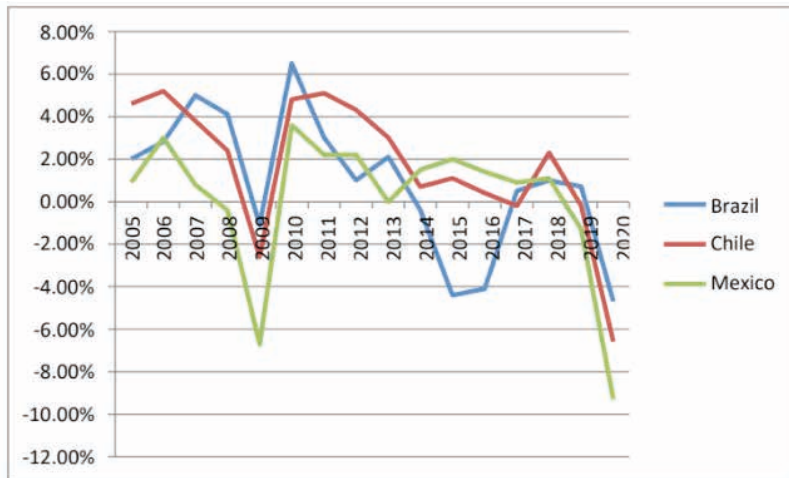


Graph 3.1 Interest rate of the Central Banks of Brazil, Chile and Mexico (2005-2022)  
 Source: Own elaboration with data from the Central Banks of Brazil, Chile and Mexico.



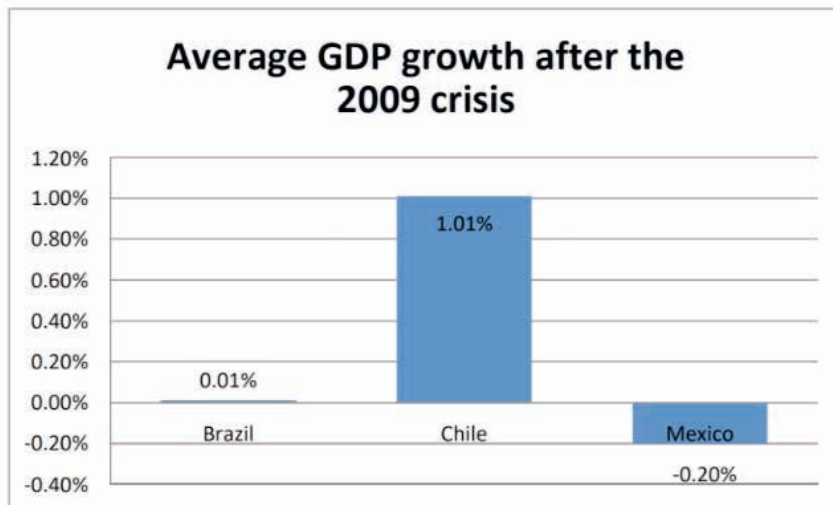
Graph 3.2 Inflation rate of Brazil, Chile and Mexico (2005-2022)  
 Source: Own elaboration with data from [www.inflation.eu](http://www.inflation.eu)





Graph 3.3 Rate of Gross Domestic Product of the Study Countries (2005-2020)

Source: Own elaboration with data from the World Bank



Graph 3.4 Average GDP growth after the 2009 crisis (2009-2020)

Source: Own elaboration with data from the World Bank

control of its inflation rate compared to Brazil, which indicates that inflation control is not has been reflected in the GDP. Finally, Chile shows growth of 1%, which although positive, is mediocre growth that has not generated satisfactory social welfare. This is evidenced by the shift in power to the left, which hopes to reverse measures implemented in the past to improve the welfare of Chilean society.

## CONCLUSIONS

The implementation of conventional monetary measures has not been seen with positive results within the GDP of the study countries, since these presented null growth on average (2009-2020) in the years after the 2009 crisis, however this whether they had a positive effect on inflationary reduction. In addition to experiencing a state of pandemic that affected the Central Banks in a very substantial way, since increases in the inflation rate have begun to be observed at levels close to those that were not seen 20 years ago, such as what was observed when these measures were implemented.

It must be clear that the health crisis is not over yet, the first symptoms are beginning to be seen, since the statistics show a significant reduction in cases of contagion, but there are still people who are still infected. Therefore, a measure that can be proposed for the monetary part is to apply an expansive monetary policy, or a monetary policy that does not have constant increases in the interest rate, since it is not a good solution to said problem.

It is necessary to go deeper and try to understand if Chile has been the country that, although it has had an average increase in GDP of 1%, this has been positive for the country, because perhaps this causes a severe problem of inequality and inequity that has increased, as it is that various hypotheses have been raised that have increased in recent years and therefore that has caused great discontent

in society due to the lack of opportunities.

In this new restatement of the Monetary Policy, it must be carefully observed that the instruments used previously have lost their validity or have become obsolete, since the problem of inflation is more latent today, so it is important that they consider new monetary paradigms in which a new theory is generated where it is strengthened with the idea that monetary policy alone does not have a great effect, it is necessary that this be accompanied, for example, by a fiscal policy that perhaps allows a better development within the the countries as it could be observed in the decade of the 50s of the 20th century; since it was a time when the GDP grew to levels that today have not been reached and as Keynes said, the State is an important part of better economic growth.

The Central Banks manage to meet the objective of reducing the inflation rate, however it was not economically significant for the majority of the population of these countries.

A new monetary theory is needed that addresses the current problem of inflation and that takes into account the importance of complementary fiscal policies to achieve sustainable and equitable economic development.

## REFERENCES

Díaz Bustos, Y. O., & Padilla Zazueta, H. (2018). *El ciclo Económico: Reflexiones de Política Económica en México*. Estado de México: Laboratorio de análisis Económico y Social.

Levy, N., & Mántey, M. (2007). *Políticas Macroeconómicas para países en desarrollo*. Ciudad de México: Miguel Angel Porrúa.

Magendzo, I. (1997). La política monetaria en Chile en los años noventa. *Series de Estudios Económicos Número 41*, Banco Central de Chile.

Mantey, G. (2011). La política de tasa de interés interbancaria y la inflación en México. *Investigación Económica*, 37-68.

Mántey, G. (2012). *La política de la banca central en la teoría y en la práctica*. México, D.F.: Sede Subregional de la CEPAL en México.

### Website Source

Banco Central de Brasil (2022) [https://www.bcb.gov.br/en/monetarypolicy/transmission\\_channels](https://www.bcb.gov.br/en/monetarypolicy/transmission_channels).

Banco de México (2018), Régimen de Objetivos de Inflación y el papel de los pronósticos, Extracto del Informe Trimestral Octubre – Diciembre 2017, Recuadro 6, pp. 68-69, Febrero 2018

Banco de México (2022)

Tasa de interés <https://www.banxico.org.mx/SieInternet/consultarDirectorioInternetAction.do?sector=18&accion=consultarCuadroAnalitico&idCuadro=CA51&locale=es>

Tasa de inflación <https://www.banxico.org.mx/tipcamb/main.do?page=inf&idioma=sp> Banco Mundial (2022)

PIB de México <https://datos.bancomundial.org/indicador/NY.GDP.MKTP.KD.ZG?locations=MX> INEGI (2022)

PIB de México 2022 <https://www.inegi.org.mx/temas/pib/>