



## Impact of inflation on purchasing power and currency devaluation

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1

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### Summary

Inflation is characterized as a continuous increase in prices, caused by the loss of purchasing power and the devaluation of the currency. Moving on to the economic sphere regarding the financial situation of a country, the liquidity of a currency is linked to the monetary policy adopted by the current government. In accordance with these arguments, this work aimed to study the variation and exchanges of currency over the years and the relevance of the IPCA index in family budgets. The research was based on a bibliographical survey with the support of articles, books and periodicals that have already been limited to the study of this issue. Data from the IPCA was used, which is considered the official inflation index in Brazil, measured and published by IBGE. The research contains images, represented through tables demonstrating the trajectory and evolution of the currency in Brazil. Inflation is defined as the increase in the price of basic consumer items, as it measures prices in general, the isolated increase of a certain product, good or service cannot be considered as inflation. Brazilian currency over the years has undergone several changes that affected the liquidity of the economy and the purchasing power of consumers. This research presents the problem of how the Brazilian currency has undergone changes over the years, due to high inflation rates. This study is justified by the relevance of the topic for society in general, and not just for professionals in administration, accounting and economics. Through data analysis and measurement, the result was that the population's purchasing power is largely concentrated in the acquisition of basic products and services that make up the basic IPCA basket. On the other hand, regarding the economic plans adopted in Brazil, they all had the common objective of stabilizing the economy, containing the unbridled rise in prices.

**Key words:** Inflation, Currency, Purchasing power.

### Abstract

Inflation is characterized as a continuous increase in prices, caused by the loss of purchasing power and currency devaluation. Starting with an economic sphere as the financial situation of a country, the liquidity of a currency is linked to the monetary policy adopted by the current government. In accordance with these arguments, this work aimed to study the variation and exchanges of currency over the years and the relevance of the IPCA index in household budgets. The research was based on a bibliographic survey with the support of articles, books and

periodicals that have already delimited themselves to the study of this issue. Data from the IPCA was used, which is considered the official inflation index in Brazil, measured, and released by the IBGE. The research contains images, represented through tables showing the trajectory and evolution of the currency in Brazil. Inflation is defined as the rise in the price of basic consumer items, since it is one that measures prices in general, the isolated rise of a particular product, good or service cannot be considered inflation. Brazilian currency over the years went through several changes that affected the liquidity of the economy and the purchasing power of consumers. This research presents the problem of how the Brazilian currency has undergone changes over the course of the high inflation rates. This study is justified by the relevance of the topic for society in general, and not just for professionals in administration, accounting, and economics. Through the analysis and measurement of the data, it was obtained as a result that the population's purchasing power is largely concentrated in the acquisition of basic products and services that make up the IPCA's basic basket. On the other hand, as for the economic plans adopted in Brazil, they all had the common objective of stabilizing the economy, containing the unbridled rise in prices.

**Keywords:** Currency, Purchasing Power, Inflation.

## 1. Introduction

From a macroeconomic perspective, it is understood that the family consumption pattern is directly linked to the economic situation in which the country finds itself. In everyday life, the word inflation is constantly mentioned in newspapers or news reports. Inflation can be contextualized as a phenomenon characterized by rising prices, causing currency devaluation. For Vasconcellos and Garcia (2019), inflation is defined as a continuous increase in the prices of goods and services, and an isolated increase in a given good or service is not characterized as inflation. Purchasing power is characterized by the purchasing capacity of economic agents, that is, how much resource the consumer has available to purchase a good or service. If inflation is compared from one period to another, the variation in the indicators that measure the purchasing power of the national currency.

Based on this explanation, this work raises the following problem: the instability and changes in the Brazilian currency over the years, as a generating fact the constant changes in monetary policy, to control the inflation index, and the variation and weight of inflation, as the basic consumption basket of Brazilian families. The present work aimed to study the variation and exchanges of currency over the years and the relevance of the IPCA index in family budgets. The research is justified by the idea of bringing full knowledge not only to accounting professionals, economist administrators and academics, but

It addresses all layers of society. The purchasing power of a currency is linked to factors such as the water crisis, supply and demand shocks, the rise in the dollar and the appreciation of oil, which has its price indexed to the international market. To develop this work, bibliographical research was used, through existing surveys on the subject and the construction of a practical example, through data made available by IBGE. Figures and graphs were also used to measure the data and information collected.

The analysis of the data resulting from the main focus of the research allowed us to exemplify how an inflationary period can disable the economy. This phenomenon is evidenced in the various exchanges of monetary replacement policies, all of which had the common objective of making the national economy grow again. The work is structured into 4 chapters, the first presenting the introduction with a brief demonstration of it, the second demonstrating the research methodology. In the third, the theoretical framework is presented, which explains the basis for the development of the research. The fourth section presents the results and discussions about the research carried out, with the aim of responding to the proposed problem. Following are the final considerations.

## **2 Theoretical framework**

### **2.1 National Financial System**

The concept of national financial system, for Neto (2021), can be understood as a set of institutions, which aims to mediate resources between surplus agents (economic agents that have resources to lend) and deficit agents (agents that need borrow resources). It was established by law no. 4,595, of December 31, 1964 (Banking Reform Law), and is composed of regulatory and financial intermediation subsystems. The normative subsystem assigns guidelines and operating standards for companies that aim to operate in the financial market. The premise of the financial intermediation subsystem is to search for resources in the financial market, bridging the gap between different market agents.

Surplus economic agents are all those that generate cash inflows (income) that are greater than their payment flows. Deficit agents are those who incur consumption expenses and investments greater than their cash availability (NETO, 2021, p.43).

## 2.2 National Monetary Council - CMM

The National Monetary Council, according to Neto (2021), is the highest regulatory body of the National Financial System, has a normative character and does not perform any executive function. It is the body responsible for ensuring the proper functioning of the financial system and control of the national economy. Among its main responsibilities, it stands out that it formulates all monetary and credit policy, with the objective of meeting the interests of a country's economy. It is made up of three representatives, they are: Minister of Finance, Minister of Planning and the President of the Central Bank. Among the main responsibilities of the CMN, it is worth highlighting the guidelines and norms of exchange rate policy, as well as regulating exchange operations, aiming to control currency parity and balance the balance of payments (NETO, 2021, p. 47 ).

## 2.3 Central Bank of Brazil - BACEN

The Central Bank of Brazil, according to Carrete and Tavares (2019), is responsible for controlling inflation and regulates the amount of currency in circulation. It was created by Law No. 31/12/1964, it is considered a bank of banks, the central bank supervises financial institutions that operate in the market, for compliance with accounting and statistical standards, designated by the National Monetary Council, with the exception of institutions that operate as Shadow Banking or “shadow banking” systems, these institutions operate in parallel to the National Financial System, as they are not subject to any rules or guidelines. Among the Central Bank's responsibilities, the following stand out: issuing paper money and metallic currency, regulating the foreign exchange market, acting as depository of international reserves, credit control, authorizing and supervising the operation of financial institutions and managing public debt.

## 2.4 Brazilian Mint - CMB

The Brazilian Mint was created on March 8, 1694, as Reis (2021) says, it was created with the aim of minting gold coins in circulation at the time, these coins were of Portuguese or Spanish origin. Initially, the Casa da Moeda appeared in the city of Salvador, but soon after, it was transferred to Rio de Janeiro, also spending a brief period in the capital of Pernambuco, Recife. Currently located in the industrial district of Rio de Janeiro, it has the capacity to produce up to 3 billion banknotes and 4 million coins per year. The Mint, in addition to producing money in circulation in the country, has other functions such as printing postal, tax and federal stamps, federal public debt securities and the manufacture of passports. To produce the money that circulates in the country, the Casa da Moeda depends on the authorization of the Central Bank, which is guided by the government, through the National Monetary Council. Basically, the Casa da Moeda can only produce money according to the needs of the national economy.

The Central Bank annually defines, together with this institution, the quantity of banknotes and coins that must be produced. In other words, the CM manufactures the money and Bacen issues, distributes and controls the circulating media (REIS, 2018).

## 2.5 Monetary policy

Monetary policy is defined as a set of measures adopted by a government of a given country, to control and monitor the development of the national economy. These measures that are drawn up through these monetary policies cover the economy in general, consumers are the ones who feel the most, positively or negatively, when the scenario goes well or badly, this is evidenced by family consumption and the inflation index, which nothing is more than the continuous rise in prices. According to Reis (2021), the main focus of monetary policies is to maintain the stability of the economy, this ranges from controlling the amount of money in circulation to establishing inflation targets for the respective years. Brazil, with regard to its economic state, has oscillations and volatility, making it a favorable environment for applying monetary policies. In developed countries, it is common to spend a long period of time, without experiencing macroeconomic changes, in the conduct of their policies. Between 2016 and 2018, Brazil went from a contractionary policy to an expansionist one. The country faced a period of inflation, from 2014 to 2016, due to

stimulating consumption policies that did not generate satisfactory results for the proper functioning of the economy. According to Reis (2021), the main types of monetary policies existing in Brazil are:

**Open Market:** open market in which banks carry out purchase and sale operations of federal securities. When the government purchases bonds, it inserts currency into the economy as an incentive for expansionary policy. When the sale is made, currency is removed from the economy and exchanged for securities. The sale of securities is part of a restrictive policy, being used to reduce the economy's liquidity.

**Rediscount rate:** is the loan granted by the Central Bank to financial institutions, hence the title “bank of banks”.

**Compulsory deposit:** collection made by banks, directed to the Central Bank, which can be made in currency or federal bonds.

## 2.6 Concept, functions and types of currency

According to studies carried out by Vasconcelos and Garcia (2019), the concept of currency can be understood as a means of intermediation in the financial market, popularly known for its use in paying for goods and services.

Acceptance of the currency is guaranteed by law, as the currency is legal tender. Before the creation of currency, in the financial market, the flow of exchanges of goods and services was classified as barter, as there was a direct exchange of goods for goods. Over time, precious metals took on the function of currency, but factors such as limitations in nature, durability and resistance were taken into account (VASCONCELLOS; GARCIA, 2019, p.191)

To control the currency in circulation, the government created the minting of the currency from which the metallic currency originated. Current paper money had its origins in paper currency. Years ago, people who owned gold, for security reasons, trusted their reserves in specialized houses (embryos of the current banking system) in which the goldsmith, being the professional responsible for working with gold and silver, issued certificates of deposit. of metals. “Like any commodity, currency has its price and quantity determined by supply and demand. The supply of currency is the supply to meet the needs of the community” (VASCONCELLOS; GARCIA, 2019, p.192).

These metals were mainly used in the acquisition of goods and services. For Vasconcellos and Garcia (2019), people could make the appropriate payments with these

certificates, as they are transferable, the new holder of the title could withdraw the amount of metal corresponding to the metal, with the goldsmith.

As they were a safe and reliable form of payment, metal certificates began to circulate freely, gaining general acceptance, as they had backing and could be converted into gold at any time. Over the years, the balance became less than 100%, due to the amount of unused gold that remained in the goldsmith's hand. Then came the issuance of paper money for its own benefit, without any collateral. In the 17th century, Private Commercial Banks emerged, these banks issued notes or bank receipts that soon began to circulate, giving rise to paper money (VASCONCELLOS E GARCIA, 2019, p.192)

Currency is defined as a form of payment, used legally to make transactions. According to Neto (2021), the basic function of currency is the exchange of values for the acquisition of goods or services, enabling the functioning of a country's economy. Currency performs some functions that are extremely important for good economic functioning.

Currency acts as an instrument of exchange, according to Neto (2021), carrying out the exchange of goods and services, it also serves as a measure of value, as it allows comparisons of different monetary values. Another function of currency is to serve as a reserve currency, allowing economic agents to save resources for later use. This function attributes absolute liquidity to the currency, where the economic agent can make immediate conversion into assets (financial or real) at any time. However, this characteristic is affected in a scenario of inflation, with a decrease in purchasing power and an increase in prices.

The circulation of currency, in the past, was characterized by the guarantee of backing in gold. Coins were issued only if they had gold equivalence, as a reserve, with the purpose of allowing their conversion. Through the growth of economic activities and the expansion of the financial market, it became unfeasible to back the currency in gold, which is why the unbacked currency, fiat currency, was created (NETO, 2021, p.10)

With the evolution of financial systems in the world, according to Neto (2021), gold went from being an investment option to a commodity, without traditional exchange mechanisms, investors now have autonomy to make decisions regarding the defense of their capital, being able to choose the best markets for investment.

More stable financial markets have been offering their investors attractive mechanisms to secure operations and reduce general speculation. As a result, gold ceases to be the only or most important refuge for capital in the face of economic crises and political instability, losing its traditional importance to other more liquid and stable assets (NETO, 2021, p.11)

Coins can be classified into three types, according to Vasconcellos and Garcia (2019), they are:

**Metal coins:** they are issued by the Central Bank and constitute part of the monetary supply and facilitate small value transactions as fractional monetary units (change); **Paper money:** also issued by the Central Bank, corresponds to a significant portion of the amount of money held by the economy;

**Scriptural currency:** is represented by demand deposits (current account deposits).

## 2.7 Real Plan

The Real Plan was an economic plan, created in 1994, during the government of President Itamar Franco. According to studies carried out by Reis (2018), the main focus of the Real Plan was the stabilization of the national economy and promoting the end of hyperinflation, right after a period of economic crisis in Brazil. A series of economic packages were relevant to the creation of the Real Plan, such as price freezing and the Collor Plan, unsuccessful attempts to stabilize the economy. Economic policies prior to the Real Plan caused Brazil, in 1994, to have an inflation rate of 46.58% per month. The adoption of the real as the official currency made Brazil achieve economic stability, controlling inflation and consequently increasing purchasing power.

The constant rise in prices made people lose track of the price of items, for example, the price of drinks around the 1990s had up to 5 numerical places. Due to currency devaluation, Brazil needed to change its official currency a few times. Some of these coins, according to studies carried out by Reis (2018), were:

- **Crusader**(1986);
- **New Crusader**(1989);
- **cruise**(nineteen ninety);
- **Royal Cruise**(1993).

The continuous currency exchanges were an attempt to stabilize prices in the economy, as the continuous rise in prices harmed the poorest population to a greater extent, who had no protection against hyperinflation. This effect contributed to the increase in poverty and social inequality in Brazil. Before the creation and success of the Plan

In reality, several economic plans were implemented in the country in an attempt to stabilize the economy, according to Reis (2018) these were the plans:

**Cruzado Plan (1896):**Its hallmarks were the freezing of prices, the continuous increase in taxes and the adoption of the Cruzado as the official currency.

**Bresser Plan (1987):**froze prices for 3 months and caused an immediate 10% devaluation of the dollar.

**Summer Plan (1989):**established the Cruzado Novo as the official currency, raising the interest rate and freezing prices, this year Brazilian inflation reached 1972%.

**Collor I Plan (1990):**carries out currency exchange, which after a while returned to being called Cruzado. The main measure of this plan was the confiscation of the population's savings and other financial assets.

**Collor II Plan (1991):**announced a price freeze and measures to accelerate the country's production. It also ended price indexing to control inflation.

These plans had common characteristics and measures. According to Reis (2018), these measures were divided into currency exchange, price freezing and confiscation of savings and salary containment. The Collor Plan confiscated the population's savings, with the main objective of limiting the resources in circulation in the economy, as a strategy to contain the increase in prices. At the time, the government also announced the containment of salaries. Such measures, in addition to failing to contain inflation, gained popular dissatisfaction with the current president's management. The 1990s were also marked by increases in tariffs and taxes, with the expectation of reducing demand and consumption by the population and reducing the public deficit.

The economists who were responsible for the Real Plan divided the implementation of the Real Plan into 3 main phases. This feat led to the real becoming the currency in force to this day. According to Reis (2018), the 3 main stages of the Real Plan were: **Immediate Action Program (IAP):**was responsible for the fiscal adjustment of the economy, as it was necessary to balance public accounts through budgetary tightening. At this stage, a privatization plan and measures to achieve a primary surplus also stood out. Basically, this phase of the Real Plan aimed to reduce government expenses and increase union revenues. This occurred around 1993 and 1994. **Implementation of the Real Unit of Value (URV):**Its purpose was to de-index the economy, as it was a currency linked to the previous day's dollar exchange rate. Through

With this exchange rate policy, it was easier to maintain the price reference in the economy. After implementing URV, they would be marked as URV value. However, when making payments, these were converted into circulating currency, in this case Cruzeiro Real.

**Launch of the Real Monetary Standard:** official launch of the real as currency on July 1, 1994. At that time, anyone who owned Cruzeiros Reais (CR\$) had to convert it to the real. In this sense, the government determined the conversion of R\$1.00 for each CR\$2,750.00.

The economic success of the launch of the real was so great that the currency managed to consolidate itself for almost three decades. And for a country that had gone through so many monetary exchanges in such a short time, this consolidation was a great achievement (REIS, 2018).

## 2.8 Purchasing power

The concept of purchasing power can be understood as the purchasing capacity to purchase a good or service, with a certain amount. In practice, it uses the parameter, the quantity  $x$  of a product, which in the past was purchased at a certain value, and in a current scenario, economic agents are forced to spend more resources to maintain the consumption pattern. Purchasing power is directly linked to the country's economic scenario, as inflationary rates affect consumption and family budgets. Normally, central banks define the monetary policy of each country, establishing the inflation target for each year. As shown by Reis (2018), purchasing power is related to inflation rates, it is up to the monetary authorities to regulate the amount of money in circulation in the economy and define inflation targets.

There are factors that contribute to high inflation in a country. These factors according to Rocha (2021) are distinguished into:

**Supply shock:** increase in demand, exceeding the quantity of supply.

**Water crisis:** The low capacity of hydroelectric plants leads to the activation of thermoelectric plants, generating a high cost, which is passed on to the population in the electricity bill.

**Increase in fuel prices:** the devaluation of the real and the low supply of oil caused respective increases in gasoline and diesel. High fuel prices also affect food prices, as most food transport is done by trucks.

**Dollar rise:** The devaluation of the real concerns imported inputs at higher prices. Different fields of national industry depend on raw materials and inputs from outside the country. The increase in prices is passed on to customers in the domestic market.

## 2.9 Inflation

Inflation is defined according to Vasconcellos and Garcia (2019) as a continuous increase in prices. The increase in particular goods or services in particular is not considered inflation. The effects of inflation are notable when observing income distribution, as it is an index that corresponds relatively to the purchasing power of classes or economic agents.

In general terms, the causes of inflation are associated with distributive conflicts, that is, the attempt by agents to maintain or increase their position in the distribution of the economic "pie": businesspeople defending their profit margins, workers trying to maintain their salaries and the government maintaining its share through taxes, prices and public tariffs (VASCONCELLOS; GARCIA, 2019, p. 252).

Inflation index, can be understood, according to Neto (2021) as a rise in prices, as consumers lose purchasing power, taking into account the generalized rise in prices, the greater the number of people who will be able to to maintain the consumption pattern. People choose to reduce the amount consumed, or look for alternative consumption options, such as beef, which in 2021 managed to have a super high price index, causing consumers to look for other options such as chicken, fish and eggs, consequently the demand for such products also increases prices. Stabilizing the economy involves balancing the amount of currency held by people and the supply of goods and services. The amount of money in circulation and the exaggerated issuance of paper money, to cover the Union's expenses, is one of the causes of inflation. Variations in price indices are mainly controlled by the Central Bank and the adoption of economic policies.

In the context of inflation, consumers lose purchasing power. Faced with a generalized rise in prices, fewer people will be able to maintain their consumption pattern, consuming a smaller volume of goods and services. In a situation of deflation, the producer/seller loses profit margin, as they are forced to offer their products at a lower price (ASSAF NETO, 2021, p.15).

The inflationary phenomenon can be linked to external and internal factors, according to Marques (2020) inflation can also include political factors. Rising prices are directly related to inflation, as it is possible for consumers to feel the increase in their pockets

of prices, this is because traders are forced to pass on products with the respective increases to consumers. “To measure inflation, there are indices that monitor price fluctuations” (MARQUES, 2020).

The lowest layer of society, according to Viceconti and Neves (2021), are those who suffer most from the effects of inflation, as the rise in prices of goods and services, together with the unbridled rise in interest rates, causes economic agents to lose power. of purchasing, that is, salaried workers end up gradually suffering a reduction in wages.

In an article published on the UOL ECONOMIA website by Oliveira (2021), the view of some economists on the country's current economic situation was exposed. It is clear that prices continue to rise all over the world, but in Brazil this scenario is aggravated by uncertainty about the current government's management policies. Economy Minister Paulo Guedes states that inflation is higher worldwide. In 2020, this index went from 3.5% to 4.5%, driven by factors such as: increased exports of raw materials, changes in consumption and a global increase in oil consumption, valuing the use of this raw material by up to 50%, in 2020. For a group of economists, the problem is getting worse in Brazil, due to the lack of concrete policies to contain the rise in prices in some sectors.

High inflation severely affects the budget of Brazilian families, reducing purchasing power. Brazilians are paying more to have access to goods and services considered basic. In an article published on the DIÁRIO DA REGIÃO website, by Nunes (2021) it is talked about how the price of items such as cooking gas, fuel and food affects the low-income population. Inflation, in addition to squeezing family budgets, impacts the country negatively, taking away consumers' purchasing power. With the reduction in consumption, the industry reduces production, postponing the economic recovery.

The increase in the cost of gas cylinders, liters of fuel and the price of food contributes to rising inflation and the lack of rain, in addition to harming the production of some foods, it also readjusts the price of electricity, as with the reservoirs of hydroelectric plants below capacity, the government is obliged to activate thermoelectric plants, passing on the costs in consumer tariffs (NUNES, 2021, DIÁRIO DA REGIÃO)

According to Vasconcellos and Garcia (2019), the main types of inflation are: **Cost inflation:** It can be considered as supply inflation, as it is directly linked to the supply of services. This type of inflation is related to several variables such as increased wages, exchange rates, cost of raw materials and inputs needed for production.

**Demand inflation:**the opposite effect to cost inflation occurs. When demand for a product or service increases, the price rises and the quantity supplied does not change. **Inertial inflation:**Compared to other types of inflation, a certain price stability is observed. However, it is considered one of the most complex theories in economics, as it also assumes a continuous increase in prices, although not very high.

## 2.10 IPCA – broad consumer price index

To explain how inflation rates are measured in Brazil, Reis (2018) considers the IPCA as the official inflation index in Brazil. It can be said that when the IPCA increases, the population's cost of living becomes higher. Each year, the Central Bank publishes an inflation target that must be followed in order to approximate what the budget of Brazilian families is doing, which may vary according to the allowed tolerance range. The inflation target corresponds to a percentage pre-established by the IPCA. The IPCA calculation is based on the consumption of families with a monthly income of 1 to 40 minimum wages, with a broad scope, seeking to guarantee coverage for 90% of families in urban areas.

The calculation and publication of the IPCA are carried out by IBGE, from the 1st to the 30th or 31st of each month, in the main Brazilian capitals, metropolitan regions: Belém, Fortaleza, Salvador, Belo Horizonte, Rio de Janeiro, São Paulo, Curitiba, Vitória, Porto Alegre, Brasília Goiânia and Campo Grande. These data are collected in commercial and service establishments. The IPCA calculation is carried out by dividing it into groups, which are: food and drink, housing, household items, clothing, transport, health and personal care, personal expenses, education and communication.

## 3 Methodology

Scientific research is the result of a detailed inquiry or examination, carried out with the aim of solving a problem, using scientific procedures. Research is required when there is not enough information available to answer the problem, or when the available information is in such a state of disorder that it cannot be adequately related to the problem (GIL, 2002, p.47)

Therefore, this work presents quantitative research as a method of approach. As for its nature and, as it involves universal truths and interests, the research had a basic character. On the other hand, regarding its objectives, the research was focused on an explanatory method. However, regarding the procedures adopted, the research excelled in bibliographical foundations. Basic or fundamental research aims to provide answers to a problem or situation that affects the entire society or a certain group. According to Gil (2007), basic research is motivated by curiosity in studying a problem. The discoveries made must be shared with the entire community, enabling knowledge debates. Most of the time, basic research is based on a bibliographical review of existing content on the topic studied.

Bibliographical research is carried out by surveying theoretical references that have already been analyzed and published through written and electronic means, such as books, scientific articles, and website pages. Any scientific work begins with a bibliographical research, which allows the researcher to know what has already been studied on the subject. There are, however, scientific researches that are based solely on bibliographical research, looking for published theoretical references with the aim of collecting information or prior knowledge about the problem to which the answer is sought (FONSECA, 2002, p. 32).

Bibliographical research is based on books, periodicals, websites, newspapers and academic articles that have already studied the proposed topic. Bibliographical research is considered the initial stage, whether of an academic article or a course conclusion work. The main focus is to gather information and data for the construction or investigation of the problem proposed by the topic. "Bibliographic research is developed based on already prepared material, consisting mainly of books and scientific articles" (GIL, 2007, p.44).

However, this type of research does not immediately interfere with the causes of the problem addressed, it only gathers knowledge and expands the vision of the community or group in which the study is directed. According to Fonseca (2002), scientific research procedures enable the understanding of a reality. According to this author, research is the result of a thorough inquiry, which is carried out with a focus on solving a problem through scientific procedures. To develop a study, it is essential to define the method that will be used. Based on the characteristics of the project, it is possible to choose several types of research, including qualitative and quantitative. As for the explanatory method,

it is based on identifying the causes of a phenomenon. According to Gil (2007), this method is known for explaining the “why” of things.

In turn, quantitative research, as Fonseca (2002) explains, [...] focuses on objectivity. Influenced by positivism, it considers that reality can only be understood based on the analysis of raw data, collected with the help of standardized and neutral instruments. Quantitative research uses mathematical language to describe the causes of a phenomenon, the relationships between variables, etc.

Bibliographical research, of a quantitative nature, with analysis of articles, books, newspapers, websites and newspapers and periodicals already published on the proposed topic. Therefore, a literature review was carried out on the impact of inflation on purchasing power and currency devaluation, addressing the main variables on the subject.

**4 Results and discussions**

The following table is based on a study carried out by Murça (2020) that demonstrates the trajectory and evolution of the currency in Brazil. Before the real became the current currency, Brazil underwent several monetary policy changes. These had the common objective of controlling inflation rates and stabilizing the economy. Each policy adopted had a monetary standard to be followed, these standards influence the economy in general.

**Table 01**–history of banknotes used in Brazil

Reis colonial period to 1942	Cruise 1942-1967	Cruzeiro Novo 1967-1970

Cruzeiro 1970-1986	Cruzado 1986-1989	Cruzado Novo 1989-1990
		
Cruzeiro 1990-1993	Cruzeiro Real 1993-1994	Real from 1994 to the present day
		

Source:Central Bank of Brazil, banknotes produced

At the beginning of the period of Portuguese colonization, Brazil did not have an official currency. According to Murça (2020), trade between natives and foreigners, largely Europeans, was carried out through an exchange system, using Brazilwood, sugar, tobacco, among others. Once colonization was advanced, the first coins brought by foreigners began to circulate throughout the country, following the monetary standard of the metropolis. Even with Brazil's independence, the Réis remained, only the engraving on the banknotes and coins changed.

The first change in the monetary standard was the creation of Cruzeiro. The new currency came to unify the 56 different types of banknotes that were in circulation in the country.

The devaluation of Cruzeiro in 1967, according to Murça (2020), caused the currency to be replaced, even temporarily, by Cruzeiro Novo. According to information provided by the Central Bank, Cruzeiro was created with the aim of remaining in force until the new Cruzeiro banknotes enter circulation and society adapts to the cut of three zeros. Banknotes from 100 old cruises stamped with a value of 10 Novo Cruzeiro cents. The banknotes were stamped with new values and reused as Novo Cruzeiro.

A new Cruzeiro (CR\$ 1.00) corresponded to a thousand old cruises worth R\$ 1,000.00. Soon after the monetary reform, the Brazilian currency was once again called Cruzeiro.

In 1980, inflation rates rose again, reaching 100% devaluation. Cruzeiro was replaced by Cruzado. Murça (2020) showed in his study that in the Cruzado Plan, of the José Sarney government, one CR\$ 1.00 Cruzado was equivalent to a thousand CR\$ 1,000.00 cruises. A few years later, inflation rates continued to rise, the president, at the time José Sarney, decided to carry out another monetary reform.

The Cruzado was replaced by the Cruzado Novo, which again had three fewer zeros. In 1990, Cruzeiro became national currency again, for the third time. There were no zeros cut. The currency exchange was part of the Collor Plan to contain the economic crisis, driven by hyperinflation of 1700% per year. After Collor's resignation, vice-president Itamar Franco carried out a new monetary reform. The cruise left the scene and Cruzeiro Real was established, once again reducing three zeros on the ballots. In 1994, the Plano Real economic project was consolidated, created by the then Finance Minister Fernando Henrique Cardozo, still under the Itamar Franco government. The Real Plan aimed to contain hyperinflation, or galloping inflation, which had been plaguing the country for many years.

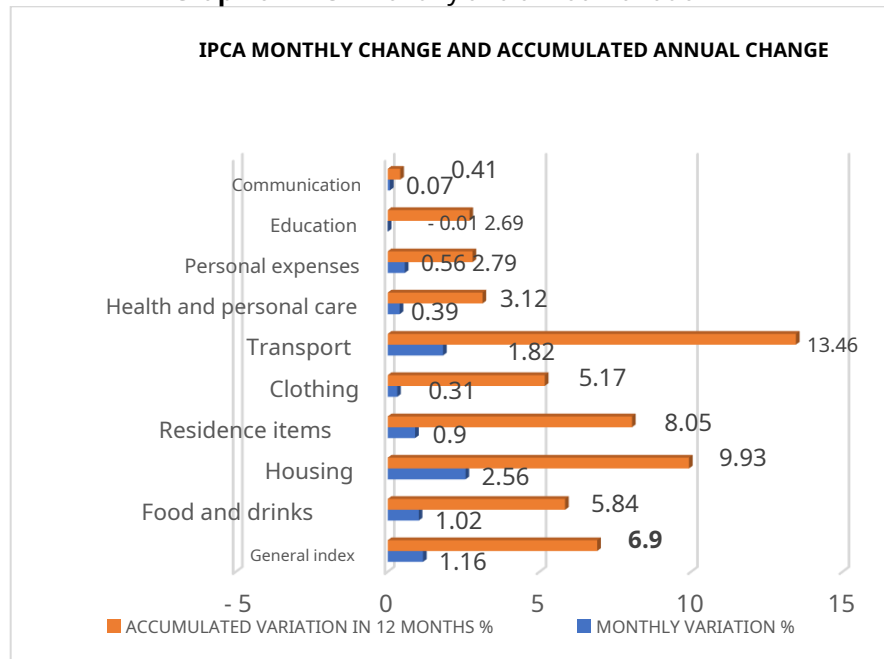
Although the Real Plan managed to stabilize the economy for many years, in 2020 the real was considered one of the most devalued currencies in the world. In a G1 article, economists explain that the government's difficulty in balancing its accounts and growing the economy makes investments here more risky. Low interest rates also explain devaluation. In addition to the global crisis caused by the Covid-19 pandemic, the rise of the American currency in Brazil is related to the recent political crisis between the Executive and other powers, the Legislative and the Judiciary. In the view of analysts, in addition to the health and economic crisis faced by all countries, Brazil still needs to deal with a turbulent political scenario, fiscal problems, lack of reforms and the flight of foreign investors from the stock market. In short, monetary policies can be defined as:

The set of measures that a government adopts and which aims to control the supply of its currency in the economy, that is, its liquidity. In this way, this type of policy practiced by the State can directly impact inflation and a country's interest rate. And thus, directly impact the economy (REIS, 2021).

In Brazil, some crises were attributed to ineffective administration in relation to monetary policies. Monetary policies are important to contain crises, but if

used incorrectly, which could be the solution, can generate an even greater economic problem.

**Graph 01**–IPCA monthly and annual variation



Source: IBGE 2021, inflation indices

The IPCA is the official indicator that measures Brazilian inflation. This indicator provides data on the consumption of families with budgets of 1 to 40 minimum wages. By analyzing this indicator, it is clear to understand whether the currency is appreciating or devaluing. With the very high inflation rate, consumers end up losing their purchasing power, the supply and demand shock generates product shortages, the water crisis causes an increase in electricity and the appreciation of oil on the international market increases the price of fuel and export incentives, the quantity of raw materials offered to manufacture a given product does not meet demand, causing prices to rise continuously. In the first graph shown above, constructed with data extracted from IBGE, an accumulated inflation rate of 6.90% in the month of September 2021 is evident. The following problem shows how inflation affects family budgets.

Practical example:

A family spent R\$1,500.00 on food in 2020. In September 2021, the annual accumulated IPCA reached 6.90%. How much did this family spend on food?

**RESOLUTION:**

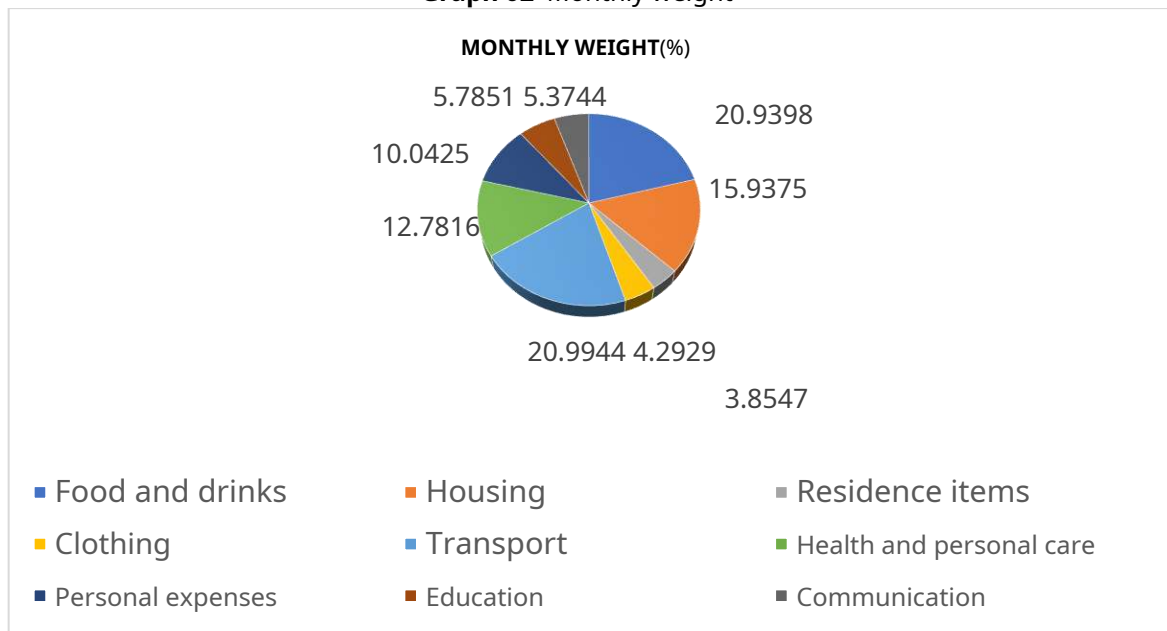
$$\begin{aligned}
 & \% \\
 & , \% \\
 & \frac{\dots}{\dots} \% \\
 & = ,
 \end{aligned}$$

The exact corrected value corresponds to R\$1,603.50, based on annual accumulated inflation.

When going to the supermarket, consumers can get an idea of some products that have gone up in price and others that have become cheaper throughout the month. When leaving the cashier, he feels in his pocket whether there has been an increase or decrease in the total purchase price. Over the months, he will be able to assess whether there is a sustained increase in the price of these items, which could consume a greater part of his income (CORACINNI, 2021).

From this view, it is clear that the IPCA is measured in a similar way, but the IBGE researches the price of several items in thousands of establishments. In addition to clarifying price fluctuations, the IPCA is essential for the government to make changes to its monetary policy and adopt containment measures based on inflationary pressures. The isolated increase in a certain good or service cannot be considered as general inflation, as this indicator focuses on the price of basic consumer items evaluated by group. The following graph shows the monthly weight of each expense for the groups covered by the IPCA.

Graph 02–Monthly weight



Source: IBGE, inflation index 2021

The IPCA is the official indicator that measures Brazilian inflation. This indicator provides data on the consumption of families with budgets of 1 to 40 minimum wages. With the analysis

The second graph shows the monthly weight of each item, covered by the IPCA. According to information collected by IBGE, spending on food and transportation is the biggest burden on families' budgets. The gradual resumption of the industry is still not enough to meet demand, where demand inflation ends up emerging, the demand for a certain product increases and the quantity supplied is not enough to meet the market, causing the increase in that product. The price of fuel in Brazil follows international parameters, together with state ICMS rates, all of which contributes to the increase in the price at the pump. Housing costs also rose, due to the increase in energy tariffs, caused by the water crisis, caused by the low capacity of hydroelectric plants and the activation of thermoelectric plants, where the costs are passed directly to the consumer. Health expenses increased considerably, due to the demand for some hygiene items such as alcohol gel, essential in preventing COVID 19.

However, some economists defend the problem that inflation is currently not just a problem in Brazil. The current economy minister Paulo Guedes, in a speech to the G1 website, says that inflation is considered a global problem due to the pandemic. According to the President of the Republic Jair Messias Bolsonaro, the quarantine caused the level

inflation rate rose, due to the stoppage of activities considered non-essential, harming industry and the national economy, increasing the number of unemployed people.

Some scholars have the theory that official inflation indicators do not portray economic reality. According to material prepared by Stange (2021), there is a distinction between personal inflation and official inflation. Personal inflation considers family consumption patterns, the number of residents per household and the region in which they reside. It is worth emphasizing that official inflation is defined as the increase in price levels and has always been present in everyday life, being noticed in adjustments to school fees, more expensive products in the supermarket and the increase in energy and water bills, among others.

### **Final considerations**

Therefore, when carrying out this study, we gained insight into how inflation can harm a country's economy, reducing the purchasing power of economic agents, causing currency devaluation. The weight of inflation on consumption was also analyzed. of Brazilian families. The results obtained show that the economic plans implemented in Brazil before the consolidation of the Real Plan did not have the expected effect, which explains why there were so many currency changes, with the inflationary periods experienced in Brazil until the 1990s as an aggravating factor. The research carried out contributes to all spheres in general, in addition to the academic community, professionals in administration, accounting and economics, in order to encourage society to study and understand the subject addressed.

The proposed problem was justified in involving the most diverse layers of society, since they are all affected by inflation rates. This problem has an even greater corrosive power for low-income families, as they do not have defense resources during a period of crisis. The IPCA, being the official inflation index in Brazil, shows that the budget of Brazilian families is concentrated in its greatest weight, in the acquisition of items and services that are basic for survival. Food, housing, transport, health and transportation are the groups that suffered the most increase, together they can account for 50% of the budget of Brazilian families. In general terms, the financial/economic health of a country is affecting the population's consumption, as the purchasing power of economic agents varies according to inflation rates. During a period of economic recession, it is not always

inserting more currency into the economy, or adopting monetary policies that encourage consumption is the solution for a moment

It is worth emphasizing that the information presented in this article, as it is economic indicators, may vary depending on time. However, the limitations of the research do not diminish the relevance of the topic linked to the proposed problem. The objectives and proposed problems were clarified in order to demonstrate, through the measurement of information and theoretical knowledge, that inflation affects all spheres of the economy without exception. From this point of view, the macroeconomic study of the subject is necessary in future research, to understand how a country's economy works, examining the way in which the government, through monetary policies, defines the inflation target, to stabilize the economy, just as the Central Bank regulates the amount of currency in circulation.

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