

## THE DYNAMICS OF INFLATION IN THE CONTEXT OF THE ECONOMIC CRISIS

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### **Abstract**

*This article entitled *The dynamics of inflation in the context of the economic crisis* is structured in two components namely: the introductory part of which describes the inflation phenomenon and the second component aims to analyze the evolution of the inflation rate in Romania, as a result of the unfolding economic crisis. At the same time, it can be stated that the inflationary phenomenon has manifested itself in a different way at the level of each European state depending on the economic context in which the state is at that time and also represents an interesting topic by the way it influences both the activities of the population, as well as the activities at the state level.*

**Keywords:** *inflation, economic crisis, Romania*

**JEL Classification:** *E31, P44*

### **I. INTRODUCTION**

Inflation is one of the main instruments of the functioning mechanism of market economies. This is also a very complex phenomenon, because over the years it has shown different forms, causes and with its appearance it has quite powerful consequences on the entire economic system. This increase is differentiated according to the categories of economic goods that are in circulation on the market, according to the services of the production factors on various territorial markets.

The inflationary phenomenon is one that has been considered a controversial topic by many economists, each supporting his point of view on this process and thus highlighting the effects and ways of diminishing it. An eloquent example can be represented by the authors Richard G. Lipsey and K. Alec Chrystal in the book entitled "Positive Economy" in which they argue that inflation, unemployment and growth represent the fundamental problems facing the economy in the current period. Regarding the unemployment rate and the inflation rate, these two are in close correlation with each other (Phillips Curve), as the decrease in unemployment inevitably leads to an increase in the inflation rate and in the case of lowering this inflation was accompanied in most cases by a level of inflation high unemployment. "Macroeconomic policy can indeed be like that of trying to go on a very narrow bridge where inflation is on one side and unemployment on the other."

Another well-known economics author, Paul Samuelson, who received the John Bates Clark Medal in 1947 and the Nobel Prize in Economics in 1970, brings to the fore in his book "Economics-19-e" alongside William Nordhaus, their conception of inflation. The inflationary phenomenon appears when the economy is experiencing an increase in the general level of prices. Their opinion is based on the idea that "Inflation is as old as market economies", so that over time it affected in different proportions each state, manifested itself in different forms and led to new changes. Also, the two big economists argue that the impact of the inflationary phenomenon was very well highlighted through John Maynard Keynes concept: "Given that inflation is a continuous process and that the real value of the currency fluctuates wildly from month to month, all the permanent relations between debtors and creditors, which form the fundamental end of capitalism become so disordered that they are almost meaningless." Regarding Keynesian thinking, the inflationary process is viewed through the evolution of macroeconomic indicators, as well as real macroeconomic flows and the trend of rising market prices is associated with the use of labor. A defining idea of this book regarding the inflation rate is that it has the capacity to persist over a long period of time and at the same rate, especially in modern economies. Samuelson argues that inflation appears as a disease, for several reasons, because it lacks a single source. Part of inflation is due to demand and the other part is due to supply. Since it can be said that this phenomenon is so complex, because it is influenced by several factors, it takes place internally and with its emergence it leads to quite high costs.

### **II. THE QUANTITATIVE EQUATION OF MONEY**

The quantitative theory of money called Fisher's equation was developed between the centuries XIX-XX by the American economist Irvin Fisher. He analyzed the link between the total amount of money in the economy and the volume of expenditures on products and services. The equation of exchange is as follows:

$M \cdot V = P \cdot Y$ , where: M - represents the monetary mass in circulation, V - is the rate of rotation of money, P- is the level of prices of goods and services in the economy and Y - represents the amount or volume of goods and of services traded on the economic market.

The quantitative equation of money is an essential factor in the economy and at the same time a useful theory, because it emphasizes that with the modification of one of the four variables it is necessary to modify one or more variables so that equality is maintained. Since it can be mentioned that between the four variables there is a directly proportional relation. For example, if the amount of money increases and the rate of rotation of the money is maintained at a constant level, then the prices or the number of transactions must increase. Regarding this theory, it is important in terms of the definitions of the four variables, since the speed of rotation of money shows how often a monetary unit is used for the purchase of goods, products and services, thus being given by the technological specificity of the economy and from the frame institutional of the country. Regarding the growth rate of the money supply, it is managed by the Central Bank, thus having control over the level of the inflation rate. If the National Bank maintains the stability of the money supply, then the rate of inflation will be stable, but if the Central Bank wants to increase the level of the monetary mass rapidly, the rate of inflation will also increase rapidly. The increase in the quantity of currency in circulation is considered the main factor of influence of the inflationary phenomenon, this resulting from the affirmation of the economist Milton Friedman, laureate of the Nobel prize for economy in 1976: "Inflation is everywhere and always a monetary phenomenon".

### III. THE ECONOMIC IMPACT AND EFFECTS OF THE INFLATIONARY PROCESS

The economic effects of the inflationary process differ from one economy to another, depending on the economic policies adopted, the degree of development of each country, as well as the capacity of governments to manage and control inflation as a whole. Regarding the analysis of the consequences of inflation, this is difficult to achieve, because: one part of the economic agents obtains considerable profits from the inflation and the other part has to lose. It can also be specified that the intensity of the effects is closely related to the intensity of the inflationary phenomenon.

It is worth noting that under inflation conditions prices and wages do not change in the same proportion, as changes in relative prices occur. As a result of this change, two effects of inflation were identified, such as: the redistribution of income and wealth of the population between different groups and differentiations that appear at the level of prices and production of different goods and services.

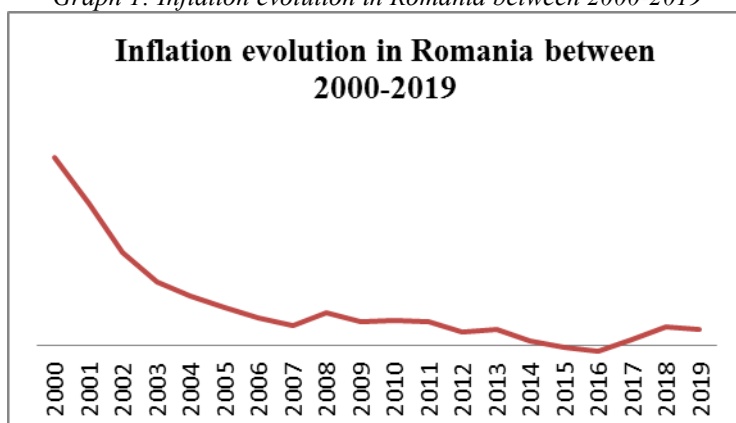
There are many areas that are affected by inflation, for example: the distribution of income and wealth at the level of a state, because there are major differences between the assets and liabilities they hold. Also, the unforeseen inflation is the one that the borrowers benefit from, but also the creditors, they are not as affected as in the previous period, because there are many types of debts that have interest rates moving up and down with the rates. An eloquent example is variable rate mortgages. In most cases, unexpected inflation helps borrowers and hurts creditors, as it redistributes income and wealth from creditors to borrowers. The redistributive impact of inflation is due in principle to its effect on the real value of people's wealth. In the case of unforeseen deflation, the impact is opposite to that encountered in the case of unforeseen inflation, this time those who suffer are debtors and not creditors.

Inflation affects not only the distribution of incomes, but also the real economy in two important areas, such as: economic efficiency and total production, both of which are essential, as they lead to the sustainability of the economic system. In terms of economic efficiency, inflation impacts this area, as it changes the price level and the price signals. An eloquent example is the situation in which an economy has low inflation, if the price a good on the market grows, both buyers and sellers will notice that at market level there has been a change in the conditions of supply / demand for that good and they can act accordingly. Otherwise, when there is high inflation in the market it is much harder to differentiate the changes that occur in the relative and global prices.

### IV. THE EVOLUTION OF THE INFLATIONARY PROCESS IN ROMANIA IN THE CONTEXT OF THE EMERGENCE OF THE ECONOMIC CRISIS

During the period 2000-2019, the level of the inflation rate fluctuated considerably, reaching both positive and negative values so that the highest level of the inflation rate was registered in 2000, of 45.7%, and the lowest in 2016 of -1.5%.

Graph 1: Inflation evolution in Romania between 2000-2019



Source: National Institute of Statistics, <https://insse.ro/cms/ro/content/ipc%E2%80%93serie-de-date-anuala>

The very high value of the inflation rate from 2000 and its gradual decrease in the following years is due to the fact that the monetary policy authorities after the 1990's began to realize that the application and encouragement of a monetary policy, but also an expansionary fiscal policy in the long term can cause the growth. Since 2000, the level of inflation has started to decline so that in 2001 it registered a value of 34.5%, and subsequently in 2002 the value of 22.5%. With regard to this year it can be specified that the macroeconomic policies that were adopted at that time were much more severe compared to the other years and this led to the decrease of the price dynamics and to the tempering of the inflationary expectations. In 2002, the disinflationary process caused a decrease in the growth rate in terms of consumer prices, the decrease being of 17.8% compared to the target that the National Bank of Romania set by 22 percentage points. Regarding the years 2003 and 2004 it is visible that the inflation rate is in a continuous decrease, reaching the values 15.3%, respectively 11.9%. The increase of the NBR intervention rate in 2003 was one of the measures applied by the central bank aimed at reducing inflationary pressures as a result of rising prices for energy products. With respect to the above mentioned measure, it is part of the central bank's proactive measures strategy. According to the information published by the National Bank of Romania, the inflation rate in 2003 was quite close to the target set at 14%, although at the economic system level there were certain factors that could have influenced the inflation rate in a negative way. These factors include: increasing consumer demand and the tendency to stagnate the disinflationary process, following the pressures that have been encountered at the supply level. Taking into account the values reached by inflation from 2000 to 2004, the Central Bank has estimated that the future values will be on a downward path, which happened until 2008, the year of the economic-financial crisis.

The economic crisis started in 2007 and reached a turning point in mid-September 2008, leaving deep imprints on the economic systems of each state. The factors that weakened and subsequently triggered the most serious international economic crisis after the one that occurred between 1929-1933, the Great Depression are mortgage loans, which presented a high risk (subprime). The economic-financial crisis intensified following the bankruptcy of Lehman Brothers bank, but also after the time when Merrill Lynch was taken over by Bank of America. Concerning the states that were affected by the impact of the economic crisis, they were, first of all, the states with large external deficits, including Romania and secondly, the emerging countries, due to the diminution of liquidity in the international markets. The rise of the inflation rate in 2008 was influenced by a number of significant factors, such as: rising global oil prices a change that was felt in the prices of natural gas and fuels, as well as the lasting effects exerted on the level of food prices as result of the decrease in agricultural production achieved in 2007. The decrease of the labor force productivity in terms of daily activities and the increase of the salary level in Romania in 2008, more precisely between June and August, inevitably led to an increase in the unit cost of the employees, as these changes felt in the economy determined the appearance of inflationary pressures. These were generated primarily by the costs of the employees on the prices that the producers set and secondly, the inflationary pressures were determined by the wage constraints that were reflected on the excess domestic demand. The intensification of inflationary pressures was due to the expansion of population consumption and investments made actions that could be achieved through financing in the form of: salary increases of economic agents, increase of government spending, as well as loans granted to the private sector.

Also, another factor that contributed in 2008 to the exercise of inflationary pressures is the depreciation of the national currency against the euro. The values recorded by them tended to be maintained at a high level, given that the monetary policy authorities in the economy focused on the correction of the internal deficit and on the adjustment of the domestic demand. The volatility and instability of the currency continued to influence the

level of the inflation rate, as the financial crisis also increased from day to day with the increased risk aversion of investors.

In line with the situation in the economy in 2008, the monetary policy authority of the NBR has established certain measures through which the exit from the crisis and the mitigation of its effects can be achieved. The Central Bank decided to practice a restrictive monetary policy, justified by the overheating of the Romanian economy, which focused on increasing the monetary policy interest rate from 8%, registered in 2007, to 7.5% per year, which it aimed to maintain a high level of monetary conditions in the economy while achieving the short and medium term disinflation goals. The decision to increase the monetary policy interest rate was materialized after the considerable increase in consumer prices, at the end of 2007, the dynamic increase in budgetary expenditures, as well as the further increase in the expected duration and level of GDP. Also, the NBR considered the control of the liquidity at the level of the foreign exchange market through market operations and maintaining a constant level of the minimum reserve ratio. Due to the diminution of the excess liquidity in the system, commercial banks experienced a liquidity deficit and the central bank thus occupied the position of creditor.

Another aspect that is important to mention regarding the period of the economic crisis is the level of the external deficit, which was quite high and difficult to sustain at the time, which is why the NBR measures were also focused on stimulating the saving, which is an essential way of correction of the external deficit, which subsequently materialized by gradually diminishing the imbalance between investments and savings.

## V. CONCLUSION

In conclusion, we can highlight the idea that inflation appears as diseases, for several reasons, because it lacks a single source, according to Paul Samuelson's conception, thus affecting both Romania and the member states of the European Union, and in what regards the economic-financial crisis of 2008-2009, it will remain enshrined in the economy of each state through the effects exercised.

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