

## Factorial Analysis of the Inflation Influence on the Emerging Economy

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### **Abstract**

*This article is devoted to the study of the essence and significance of factors influencing the manifestations and decline in economic growth in the country. In particular, special attention is paid to the regulation of the money supply. At the same time, special attention is paid to the frequency of the author about the fact of the instability of the relationship between the growth of the amount of money, the increase in the increase with economic growth.*

*However, the task facing the research work involves not only a description of growth, but also a focus on finding out why the phenomenon is accepted or of a total other character, has a law-abiding structure, an expression of the operation of certain economic laws.*

**Ключевые слова:** инфляция, инфляционное таргетирование, денежная масса, денежно-кредитная политика, бюджетно-налоговая политика.

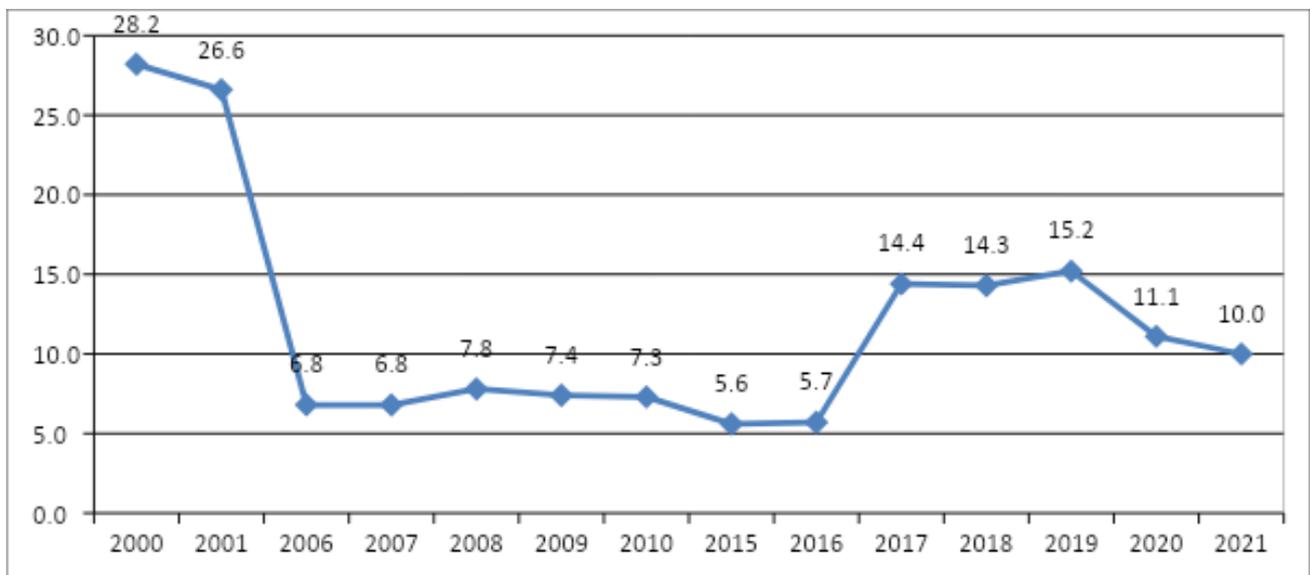
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### Introduction.

As a result, the origins of all economic problems are seen not in production, but in the sphere of circulation. This means the absence of real interaction in the economy, the inadmissibility of exaggerating the role of money in the mechanism of inflation. It would be wrong to deny the importance of the monetary factor in the development of inflationary processes, but it is fundamentally wrong to reduce them to this factor. In a regulated market economy, inflation is affected by the whole range of socio-economic reasons that cause prices to rise. At the same time, the expansion of the scale of monetary circulation is, as a rule, a consequence, and not the root cause of inflation. Practice even now fully confirms that “the expansion and contraction of the means of circulation is not the cause of price fluctuations. In practice, the dynamics of the money supply and prices may not coincide, and the depreciation of money and the rise in prices may continue under the influence of other factors.

**Analysis and results.** At the beginning of 2017, for the first time in the entire period after the transition to the market, the inflation rate reached a level of more than 5.7% (see: Fig. 1). This can be regarded as a success, especially if we take into account the difficult conditions for the implementation of monetary policy and the whole range of tasks that the government of the Republic of Uzbekistan has to solve. Along with this, the achieved positive result should not be overestimated. Because the growth rates of consumer prices are still high and their further reduction is one of the most important goals of the state's financial and economic policy. In this regard, it makes sense to identify current trends in the dynamics of inflation, the negative consequences of inflation, moreover, to emphasize the need to achieve price stability, which is important in the context of innovative development of the economy.



**Fig.1. Inflation rate for 2000-2021 (%) [8]**

Today, the priority of the goal of reducing inflation indicates the presence of a rich arsenal of tools to achieve it. Therefore, one of the priority goals in the Republic of Uzbekistan is the need to reduce inflation in the coming years to single digits - at the level of 5% [9]. At the same time, it should be noted that in most developed countries, measures to reduce inflation were more characteristic. In the last decade and a half, the global economy has been characterized by a significant decrease in inflation rates [7]. This trend has become common in both developed and

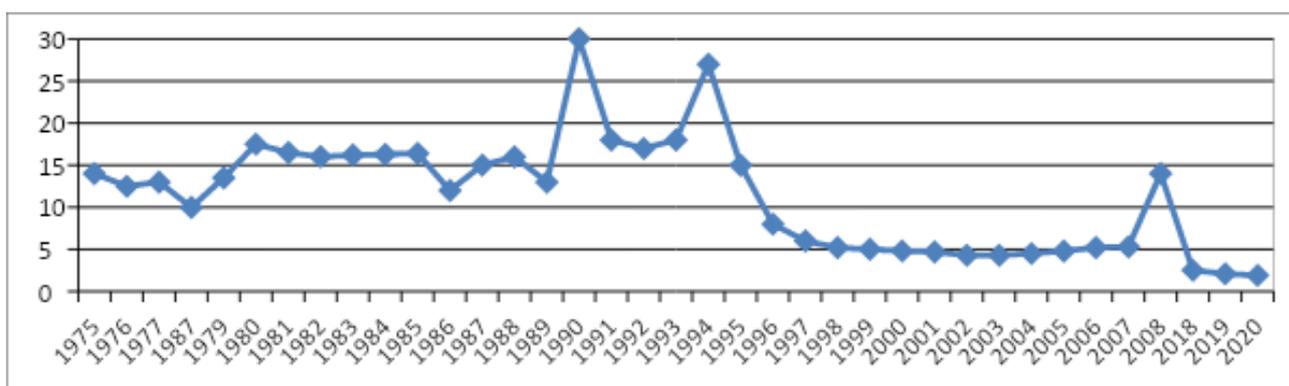
developing countries. The slowdown was about 5-8% or more. This indicated that, in conditions of price stability, the impact of negative factors was less prolonged.

In developed countries, the average inflation rate reflected progress in the implementation of measures to stabilize inflation. In particular, its rates fluctuate on average at the level of 2-3%, although before the transition period in the developed market countries the inflation rate was about 9%. The low inflation rates were very close to those announced by their central banks [1].

Most importantly, the inflation rate has also decreased significantly in market developing countries, where the inflation rate was up to 5%. This low rate of inflation, which is on a downward trend, is an improvement over the period when it was higher.

Fiscal and monetary policies, as well as administrative measures by the authorities, kept inflation at a low and stable level. This shift was due to the previous experience of high and volatile inflation in both emerging market and market economies [10]. In the early 1980s, visible costs were high. In addition, high inflation coincided with low economic growth and unemployment. The financial institutions of the countries with developed market economies were the first to react to this situation, starting to strengthen the institutional framework and pursue a more active economic policy. The purpose of such a policy was due to the increase in the stability of monetary policy. Using the experience of successful, more effective policies in market developed countries led to a subsequent transition to a policy aimed at maintaining low inflation in market developing countries as well. In addition, inflationary financing of budget deficits has become less common due to the gradual development of domestic financial markets and the expansion of central bank independence. A more prudent monetary policy was also facilitated by the globalization process and positive changes in the inflation intensity scale (see: Fig. 2). If earlier inflation at the level of 15-30% was considered moderate, now the interval has decreased to 7-10%. From 1995 to 2007 - at the level of 4-8%, and from 2008 to the present, respectively, 5-15%, and in the Republic of Uzbekistan from 7.8 to 15.2%.

Against the backdrop of large-scale stabilization of inflation at a low level, countries characterized by relatively high rates of price growth look extremely unfavorable.



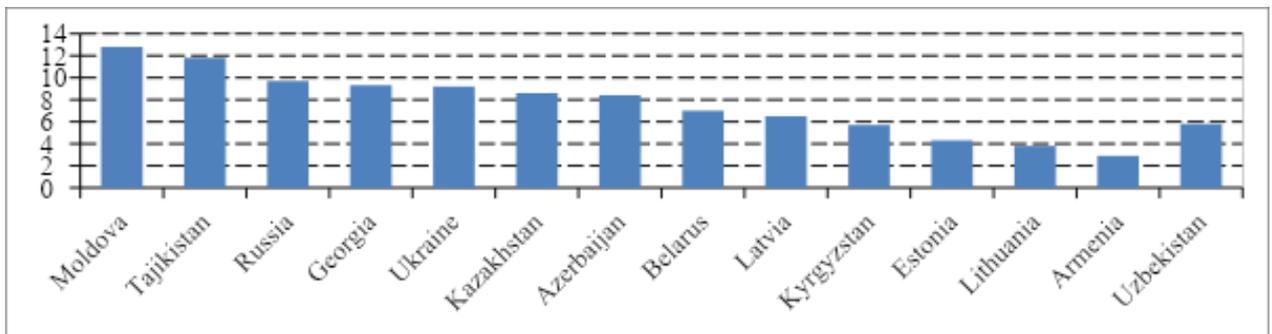
**Fig. 2. Inflation in the global economy [8]**

The Republic of Uzbekistan, having reached a single-digit inflation rate of 10% in 2021, can now be considered an economy with moderate inflation. But is this enough at this stage? To what extent is inflation of this level harmful to the economy?

With all the obvious successes of the anti-inflationary policy of the Central Bank of the Republic of Uzbekistan, the current level of inflation in the country remains relatively high even in

comparison with other CIS countries, not to mention the countries of Central and Eastern Europe. Although before the global financial and economic crisis, the inflation rate in the Republic of Uzbekistan was more moderate, that is, it fluctuated within 4-7% (see: Fig. 3).

Reducing inflation in Uzbekistan to a level of less than 6.3% is currently one of the main tasks of the financial and economic policy. More than 20 countries have introduced the so-called inflation targeting (IT) mechanism. Achieving inflation targets is becoming the most important indicator of the economic policy of any country, and in the Republic of Uzbekistan, inflation targeting began to pay attention and take practical measures starting from 2014. Although some domestic scientists have theoretically changed their minds about the need for inflation targeting [6], which provides for a decrease in inflation. The role of low inflation stemmed from the consensus reached about the negative consequences of high inflation, that we are now faced with a high inflationary phenomenon.

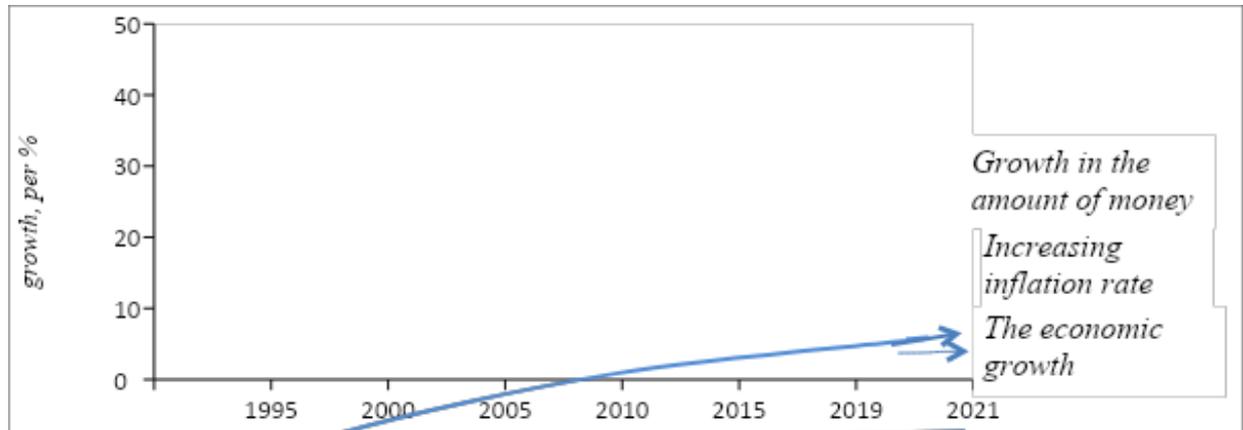


**Fig. 3. Inflation rate of the countries of the former Soviet Union for 2005 (%) (before the global financial and economic crisis in 2008) [8]**

The quantitative theory of inflation is supported by many researchers, and it has received confirmation in practice more than once. However, despite its internal logic, harmony and, it would seem, indisputability, economists continue to test the adequacy of the theory to real processes in the economy, both in individual countries and in their totality. Usually, the results of empirical studies confirm the main provisions of the theory, but the nature of the relationship between indicators turns out to be different depending on the intensity of inflationary dynamics. They even cite the conclusions of studies on 165 countries for 1969-1999, which are of a long-term nature. On the basis of the results obtained, the authors also found indisputable evidence that they draw scientific conclusions that theoretically there is no doubt that there is a directly proportional relationship between the growth rate of money and the rate of inflation, and this is obvious in economics and is confirmed statistically [4].

At the same time, it should also be noted that in countries with low inflation, there is no direct relationship between the growth rate of the money supply and inflation (the correlation coefficient for the corresponding variable turns out to be close to zero). In our practical view, a rapid increase in the amount of money does not lead to an acceleration in the rate of inflation (along with this, it does not affect the rate of economic growth) (this can be represented schematically in Fig. 4). In conditions of low inflation in countries with developed financial institutions and a high level of confidence in on-going reforms, changes in the velocity of money circulation, in our opinion, occur under the influence of exogenous factors (technological and structural changes in the payment system) and it is hardly possible to find a connection between

growth and growth of the money supply. This means that the money supply adjusts to changes in the demand for money caused by exogenous factors.



**Fig. 4. The instability of the relationship between the growth of the amount of money, the inflation rate with economic growth**

In this respect, their theory is less pessimistic than their logical conclusions. Because their views give grounds to draw a purely economic conclusion, in particular, with regard to exogenous factors of economic growth, inflation and the amount of money (we tried to draw this picture (see: Fig. 4). It shows the main features of the cyclical movement of these indicators. But, unfortunately, such phenomena in relation to each indicator, in the end, lead to a drop in the amount of profit (income), without which it is hardly possible to find a solution to mitigate the negative factors that could lead to crisis phenomena. Factors in the current environment can also be attributed to the pandemic (March 2020), which started in December 2019 in China, and then spread to more than 180 countries around the world. It takes several trillion US dollars to eliminate such an exogenous phenomenon. Therefore, it is now very difficult to draw the classic conclusions on the growth or decline of the above indicators. This leads to the destruction of the growth of macroeconomic indicators. Therefore, it is now very difficult to draw classic conclusions on the growth or decline of the above indicators.

Often in economic sources there is an opinion that economic growth, the growth of the money supply, inflation, unemployment, gross domestic product, in particular, in our time obey (before that, they also obeyed) certain patterns. Indeed, to create a genuine theory of economic growth or economic development, it is not at all enough to show that there has been, say, an increase in national income or per capita income, just as it is not enough to refer to the fact that new products (goods, services) are constantly emerging and being introduced more and more widely GDP and labour productivity increase. It is also not enough to formally indicate the relations that operate between “monetary aggregates or mass economic phenomena. It is also necessary to subject all these heterogeneous phenomena to a systematic analysis and establish whether there are regular relationships between them and what kind. And for this, only a quantitative analysis is not enough: first of all, an analysis of the qualitative aspects of phenomena is required phenomena and aspects: the first is quantitative, the second is qualitative.).

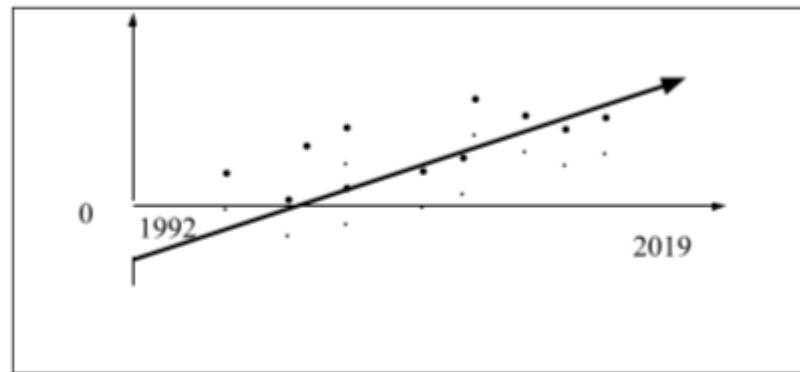
In essence, such an analysis was absent in Russian science and is still absent, therefore, even the majority of economists who consider themselves modern authors have come to avoid dynamic analysis as a whole. Analytical tabular materials in their works can hardly be understood as dynamics. It is impossible to detect in them the natural development of economic systems in a

certain direction, their material more takes on the form of an “empty car” and a car without a locomotive that does not have a specific direction.

In terms of private, sectorial “dynamics” over short periods of time, as well as in terms of relationships between individual phenomena, more and more studies appear (certainly uninteresting, sometimes not leading to the growth of research subjects), which, from the formal point of view, are opaque, but the analysis in them is not carried to the end, stops on the surface of the phenomenon, on external signs, without affecting the essence of its causal relationships. It is clear that with such an approach, at first glance, it is striking that there are an infinite number of connections, and among them it is impossible, if you do not have a reliable method, to single out the determining ones, i.e. necessary conditioned connections.

We must constantly remember that "development" is not tantamount to quantitative growth, it includes qualitative changes that affect the relationship between various phenomena.

One thing is certain: the economy is developing. If we consider the phenomena only in a quantitative aspect, it should be recognized that the total income of most countries has increased. If this is expressed graphically, taking any year as a starting point, for example. 2019, the chart will take the form of an ascending straight line (see: Fig. 5).

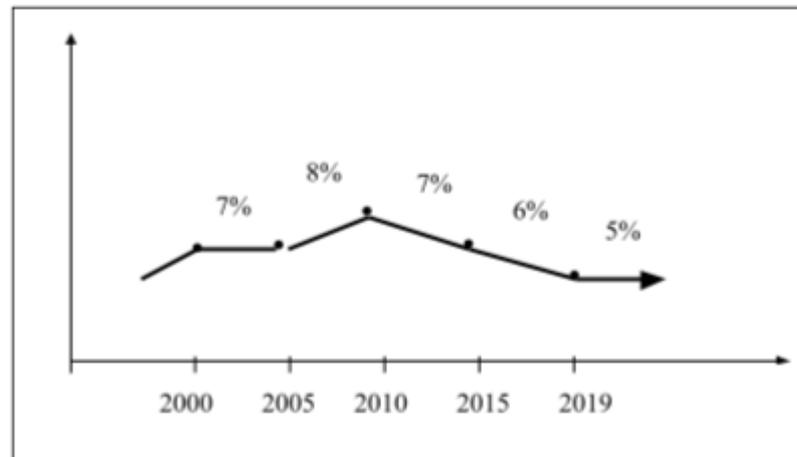


**Fig. 5. Quantitative GNP growth in 1992-2019.**

The distance from the x-axis will show the size of the increase (national income or output of a particular industry).

But the historical experience, reflected in the statistical data, shows that the increase is a variable value, and, therefore, cannot be represented on a straight line chart. For example, the growth rates of the gross national product differ not only in different countries, but even within the same country, i.e. economic growth is observed: in one interval - at the level of, say, 9%, in another - 7%, in the third - 6%, in the fourth - 5%.

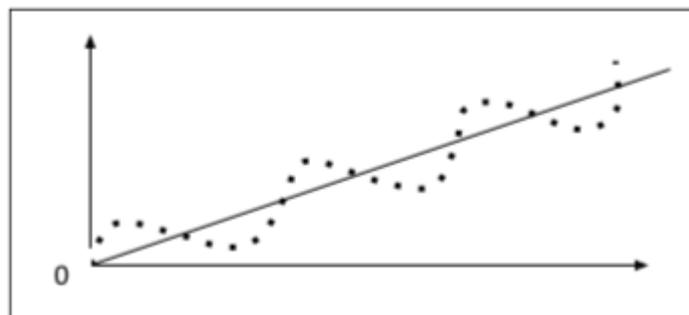
In order to adequately reflect the real state of affairs, another curve should be constructed. We will conditionally accept that between 1992 and 2019. the increase was 8% between 2000 and 2005. – 7%, between 2005 and 2010 – 7%, between 2010 and 2015 – 7% and further – 6 and 5%. Then the graph will take the form of a curve (Fig. 6).



**Fig. 6. GDP growth for 1992-2019**

However, we know from experience that within a single period of time, the growth rate is subject to fluctuations: development does not proceed in a straight line, but in waves, passing through ups and downs and deviating from the average value obtained for a given period, and these deviations are not constant in magnitude.

If we take a continuous trend, then it turns out to be crossed by cyclic fluctuations, which in turn are crossed by even shorter-term fluctuations (see: Fig. 7).



**Fig. 7. Cyclical fluctuations in GDP**

This curve is, of course, given simply for illustration and does not reflect any particular situation.

Scientists-economists, denoting such a course of development by the extremely general term "economic fluctuations", single out development trends over one century; cycles spanning several decades; normal economic cycles, small cycles, seasonal cycles and specific fluctuations within a particular industry (for example, housing construction) or a particular phenomenon (for example, inventory levels). In the economic literature, these cycles are usually given the names of scientists who have devoted special studies to them. Such as they talk about Kondratiev cycles [6] (50-60 years), Juglar cycles [2] (Juglar) or, according to Hansen's definition, "big cycles" (normal economic cycles of 8-10 years), Kitchin cycles [5] (Kitchin, Joseph.) (2-3 years), included in the general economic cycle.

**Conclusion.** The task before us, however, should not be limited to the description of phenomena: it is more important to find out why the phenomenon took on precisely such a character and why it is not accidental, but natural, i.e. reflects the operation of a certain economic law. At the same time, as we have already said, by economic development we mean not only quantitative, but also qualitative changes, which are more important for understanding the laws of development of society. It is well known that the modern economy is different from the economy of the last century, and not only because more steel or grain is now being produced, that there are airplanes, cars, radios that did not exist before, but also because there have been qualitative changes.

In other words, in order to understand what the process of economic growth or development consists in, it is necessary to consider the economy as a whole, to identify the essence of relations between various economic categories, the dynamics of monetary aggregates and their impact on economic growth, inflation, etc.

The significant role of the Central Bank of the Republic of Uzbekistan and the development of systems for monitoring monetary aggregates, of course, can make it possible to more thoroughly control the volume of money supply and adjust to the demand for money [11]. Therefore, the acceleration of the money supply is a response to an increase in demand and does not lead to an increase in prices. At the same time, attention should be paid, for example, to how inflation will react to an increase in the volume of money supply when the interest rate changes.

However, with an increase in inflation rates, its dependence on the growth rate of the money supply becomes more and more pronounced. Already for countries with moderate inflation, the coefficient is significant at the level of 0.24. In countries with high inflation, its dependence on the growth of the money supply becomes directly proportional: the coefficient approaches 1.

At the same time, it should also be noted that high inflation occurs against the backdrop of a budget deficit. The broader consequences of weak fiscal policy are not always statistically detectable, as they can sometimes be pushed into the future by financing the budget deficit not by printing money, but by borrowing [3].

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