

# Statistical Analysis of Inflation Processes in The Republic of Uzbekistan

Nabikhodjaev Abbas Abdupattakhovich

PhD, Associate Professor of Statistics, Tashkent State University of Economics,  
Tashkent, Uzbekistan

Umarova Mukaddas Abbasovna

DSc., Associate Professor of Statistics, Tashkent State University of Economics,  
Tashkent, Uzbekistan

**Abstract:** In Uzbekistan, statistical monitoring of price dynamics is carried out in all sectors of the market. In this article, the applied methods and principles of price registration in accordance with the standards accepted in international practice ensure the high quality of statistical data. Methodological aspects of inflation, methods of collecting and processing statistical information for calculating the price index system are presented in the article. The basic concepts of price statistics, the principles of price registration, methods of calculating price indices and the system of price statistics indicators are presented. To date, the system of price statistics indicators in Uzbekistan has 19 main indexes, each of which is covered in detail according to the accepted standard classifications and specific conditions of the republic.

**Keywords:** Price statistics, The nature of inflation, Causes of inflation, Forms of inflation, Types of inflation, Inflation levels, Consumer price index (INI), GDP deflator, LTR, STR, import-export, deflation processes, inflation processes, Nominal GDP, real GDP, ways to stabilize inflation, Anti-inflation measures.

## 1. INTRODUCTION

Globalization on a global scale is yesterday and national economies are connected to each other, and the only market shift has become an important category of inflation.

Inflation is one of the indicators of macroeconomic stability of the market economy.

The last star wages, pensions and pensions, the increase of the tax rate, the measures taken on the inflation rate, the gross and real growth of the population increased.

While the decrease in consumer demand in the market limits the increase in prices, the world experience shows that in order to maintain the liquidity of the banks and the financial sector in order to maintain the liquidity of the banks due to the emission of a large amount of money, the risk of the inflationary processes will increase sharply. brought about.

In the conditions of the market economy, inflationary processes are determined on the basis of market laws. Nevertheless, the study of inflationary processes remains an urgent issue in all countries. Therefore, the scientific and practical research that should be carried out on these issues is important for any country.

In Uzbekistan, statistical monitoring of price dynamics is carried out in all sectors of the market. The used methods and principles of price registration in accordance with the standards accepted in international practice ensure the high quality of statistical data.

The efforts of the price statistics activity are aimed at integrating national statistics into the world statistical system. At the initial stage, price statistics were represented by only two indicators - the retail price index and the price index of manufacturers of industrial products. Since 1994, the development of the consumer price index, which is a generally recognized statistical indicator describing the level of inflation, began in the country. Gradually, monitoring of prices was established in other sectors of the economy: agriculture, construction, transport and communication, as well as in the field of public services, for export-import products, and in some relevant sub-sectors of the economy.

## 2. LITERATURE REVIEW

Fundamental economic theories on the analysis of the level of inflation are first of all connected with the works of J.M. Keynes, the founder of the theory of state regulation of the economy by A. Smith, D. Ricardo, representatives of the classical economic school who developed the laws and principles of the market economy. J.M. Keynes evaluates the level of inflation and unemployment as economic indicators related to the increase of gross costs in the economy.

The second half of the 18th century In the first quarter of the 19th century, against the background of the "industrial revolution" [1] in Great Britain, favorable conditions were created for the development of economic ideas in relation to other countries, these ideas were based on the teachings of A. Smith and D. Ricardo. found the

opposite.

In particular, in A. Smith's work "Research on the nature and causes of the wealth of nations", the value of goods and products consists of the labor spent on them. Accordingly, the commodity price is divided into real and nominal prices. If real price is measured by the necessity of this product and the convenience it creates for people, the nominal price is the expression of the price of this product in money [2].

J.M. Keynes defined inflation in his book "General Theory of Employment, Interest and Money" [3]. According to him, inflation is an economic process that occurs due to excess demand.

A. D. Ricardo, who is considered a follower of the Smith school, also put forward a number of teachings on the formation of prices in the domestic market. In particular, liberalizing the economy, creating an environment of free competition by removing barriers to trade, and allowing free formation of prices formed the basis of the doctrine of D. Ricardo [4].

Ricardo's 1815 pamphlet, An Experiment on the Effect of a Low Price of Bread on the Profits of Capital, briefly but succinctly describes the economic relations of classes and the theory of the development of capitalism.

Another important theory of inflation is the monetary theory of inflation.

According to the founders of this theory, the change in the money supply in the economy has a direct impact on the level of gross demand and income and is a decisive factor in the formation of prices. One of the founders of monetarism is M. Friedman, who in his "Capitalism and Freedom" (published in 1960) [5], "Monetary History of the United States" (1963) [6] and other works all major economic losses and high-level noted that inflation is a consequence of monetary policy.

Economist J. Hicks studies the level of inflation in connection with inflationary expectations. In addition, by M. Friedman [7] (conducted scientific research in the field of interdependence of consumption, money circulation and macroeconomic stability), B. Bernanke and F. Mishkin [8] (conducted research in the field of inflation targeting) scientific research has been conducted in this field.

Inflation and the causes of its origin were initially explained by classical economists (K.Smith, D.Ricardo), proponents of quantitative theory (S.L. Montesquieu, D. Hume, J. Miller, I. Fisher, A. Marshall, A. Pigou, D. Robertson), later studied by monetarists (K. Brunner, A. Maltser, L. Leidlerwa, M. Friedman) and representatives of the Keynesian school. Also B. Oaken, P. Samuelson, J.R. Hicks, A. Hansen, L. Harris, E. Dollan, J. Tobin, K. McConnell, S. Brew, D. Gali, M. Gertler, I. Eseeleva [9 ] are noteworthy for their research on this problem.

Among the economists with these problems in Uzbekistan are N. Soatov[10], A. Ayubdjanov[10], Yo. Abdullaev[11], A. Abdurakhmonov[12], A. Nabikhodjaev[13], S. Chepel [13], A number of scientists such as H. Khujakulov [13], H. Shadiyev [14] were involved and expressed their opinions worthy of attention.

### 3. RESEARCH METHODOLOGY

President Sh.M. Mirziyoyev's lectures on these areas, the strategy of measures aimed at stable economic development and stabilization of inflation in the country, and scientific and methodical literature dedicated to this field served. During the research, the official data of the State Statistics Committee of the Republic of Uzbekistan, the Ministry of Economic Development and Poverty Reduction, other ministries and agencies served as the information base.

The purpose of the research is to develop proposals and recommendations for the further improvement of programs of concrete measures aimed at stabilizing inflation in the Republic of Uzbekistan and some CIS countries, due to the statistical analysis of the inflationary processes and the study of its specific features, in the context of the modernization of the economy. is output.

In the analysis of external factors influencing the level of inflation, comparative price comparison, statistical data collection, grouping, dynamic series analysis, index method, and correlation-regression analysis methods are widely used.

### 4. ANALYSIS AND RESULTS

Inflation rate in our country, as used in international practice, is based on the change in the prices of 510 goods and services included in the consumer basket when calculating the consumer price index (INI).

Table 1: Dynamics of the consumer price index in the Republic of Uzbekistan for 2010-2021

Months	Growth rate, compared to the previous month (STR), times											
	2010 yil.	2011 yil.	2012 yil.	2013 yil.	2014 yil.	2015 yil.	2016 yil.	2017 yil.	2018 yil.	2019 yil.	2020 yil.	2021 yil.

January	1,01 1	1,00 9	1,00 9	1,01 0	1,01 0	1,00 8	1,00 8	1,00 8	1,02 7	1,01 5	1,00 6	1,010
Fevral	1,01 0	1,00 9	1,01 0	1,01 0	1,00 9	1,00 8	1,00 8	1,01 1	1,01 1	1,01 6	1,00 8	1,006
Mart	1,00 8	1,00 8	1,00 8	1,00 7	1,00 6	1,00 5	1,00 4	1,00 9	1,01 1	1,01 2	1,01 3	1,008
April	1,01 1	1,01 0	1,01 0	1,01 0	1,00 8	1,00 7	1,00 7	1,01 0	1,00 9	1,00 9	1,01 7	1,015
May	1,00 4	1,00 2	1,00 3	1,00 3	1,00 2	1,00 3	1,00 3	1,00 9	1,00 8	1,00 7	1,00 3	1,005
Iyun	0,99 3	0,99 6	0,99 3	0,99 4	0,99 6	0,99 5	0,99 5	1,00 3	0,99 6	0,99 5	0,998	0,99 8
Iyul	0,99 2	0,99 4	0,99 4	0,98 8	0,98 9	0,98 8	0,98 8	1,00 4	0,99 7	0,99 6	0,997	0,99 8
Avgust	1,00 4	1,00 6	0,99 7	1,00 0	0,99 9	0,99 8	0,99 8	1,00 6	1,00 3	1,02 9	1,00 5	1,005
Sentyabr	1,00 5	1,00 8	1,00 9	1,01 0	1,01 0	1,01 0	1,01 1	1,01 4	1,01 8	1,01 3	1,014	1,01 1
Oktyabr	1,01 0	1,01 1	1,01 2	1,01 1	1,01 0	1,01 0	1,01 0	1,01 3	1,01 3	1,01 6	1,01 4	1,013
Noyabr	1,00 8	1,00 8	1,01 0	1,01 0	1,00 9	1,01 1	1,01 1	1,02 0	1,02 3	1,01 8	1,01 5	1,012
Dekabr	1,01 1	1,01 0	1,01 2	1,01 1	1,01 0	1,01 1	1,01 2	1,02 7	1,02 1	1,01 5	1,01 6	1,013
O'rtacha oylik STR	1,00 6	1,00 6	1,00 6	1,00 5	1,00 5	1,00 5	1,00 5	1,01 1	1,01 1	1,01 2	1,00 9	1,008
LTR <sub>12</sub>	1,07 3	1,07 6	1,07 0	1,06 8	1,06 1	1,05 6	1,05 7	1,14 4	1,14 3	1,15 2	1,11 1	1,100

Short-term and long-term indices are also used in the calculation and forecasting of INI and similar indicators. Calculating the average monthly level of the indices will not be enough to assess the general change of the phenomenon, for this, of course, based on the average monthly indices, the prices compared to December of the previous year, the corresponding period of the previous year, the previous quarter, the corresponding quarter of the previous year it is necessary to calculate the change. It will be possible to calculate the long-term indices listed above using the properties of indices and methods recognized in international experience. If the short-term, i.e. change compared to the previous month, is represented by the STR indicator, the price change in the longer term is determined by calculating various forms of the LTR indicator. Table 1 below shows the indicators of short-term (STR) INI observed in our country during the years 2001-2021.

Table 2: Dynamics of all inflation levels (according to INI) observed in the Republic of Uzbekistan in 2021

Oylar	STR		2019dek = 1 LTR1		2020dek = 1 LTR1*	Ushbu oyning o'tgan yil xuddi shu oyiga nisbati LTR2	Ushbu chorakning oldingi chorakka nisbati LTR3	Ushbu chorak- ning o'tgan yilning xuddi shu choragi- ga nisbati	O'sib boruv- chi LTR5
	2020 yil	2021 yil	2020 yil	2021 yil	2021 yil				

								<b>LTR4</b>	
Yanvar	1,006	1,010	1,006	1,123	1,010	1,116			1,116
Fevral	1,008	1,006	1,014	1,130	1,016	1,114			1,115
Mart	1,013	1,008	1,028	1,139	1,025	1,109	1,033	1,113	1,113
April	1,017	1,015	1,045	1,157	1,041	1,107			1,111
May	1,003	1,005	1,048	1,162	1,046	1,109			1,111
Iyun	0,998	0,998	1,046	1,160	1,044	1,109	1,026	1,108	1,111
Iyul	0,997	0,998	1,043	1,158	1,042	1,111			1,111
Avgust	1,005	1,005	1,048	1,165	1,048	1,111			1,111
Sentyabr	1,014	1,011	1,063	1,177	1,059	1,108	1,006	1,110	1,110
Oktyabr	1,014	1,013	1,078	1,193	1,073	1,106			1,110
Noyabr	1,015	1,012	1,095	1,207	1,086	1,103			1,109
Dekabr	1,016	1,013	1,111	1,223	1,100	1,100	1,035	1,103	1,108
LTR1 <sub>2</sub>	1,111	1,100							
STR <sub>o'rtacha</sub>	1,0088	1,0079							
LTR5 <sub>2</sub>		1,108							

Columns 2 and 3 of Table 2 show monthly inflation rate coefficients (STR) observed in 2020 and 2021.

The LTR indicators mentioned above start by calculating the LTR1 indicators first. For this, in Table 3, the price level of December 2019 should be selected as the basis of comparison for 2020 and 2021.

In the calculations for 2021, the LTR1 indicator represents the change of 2020 and 2021 compared to December 2019, the INI of January 2020 is written in column 3, line 4 (1,006), and January and February in line 4, column 4 is written as  $1.006 \times 1.008 = 1.014$ , which in turn indicates the two-month inflation rate.

The product of three months in 4 columns and 5 rows is  $1.006 \times 1.008 \times 1.013 = 1.028$  and so on. The general formula for calculating the LTR1 indicator is written as follows:

$$LTR1_i^{2020} = STR_i^{2020}$$

$$LTR1_2^{2020} = LTR1_1^{2020} * STR_2^{2020}$$

$$LTR1_3^{2020} = LTR1_2^{2020} * STR_3^{2020}$$

$$LTR1_{12}^{2020} = LTR1_{11}^{2020} * STR_{12}^{2020} \text{ is considered as}$$

Since we used December 2019 as the basis for calculating LTR1 for 2021, we take January 2021 as the 13th month, February as the 14th month, etc., December as the 24th month, and write the calculation formula as follows  $LTR1_{13} = LTR1_{12}^{2020} * STR_{13}^{2021}$ .

$$LTR1_{14} = LTR1_{13} * STR_{14}^{2021}$$

$$LTR1_{15} = LTR1_{14} * STR_{15}^{2021}$$

$$LTR1_{24} = LTR1_{23} * STR_{24}^{2021}$$

$LTR1_{24}$  – the indicator represents the 24-month inflation rate

Now, what was the actual inflation rate ( ) in 2021? For this, we will take December 2020 as a basis (equal to 1), and in this case, the formulas for calculating inflation levels will be as follows.

$$LTR1_1^{2021} = STR_1^{2021}$$

$$LTR1_2^{2021} = LTR1_1^{2021} * STR_2^{2021}$$

$$LTR1_3^{2021} = LTR1_2^{2021} * STR_3^{2021}$$

$$LTR1_{12}^{2021} = LTR1_{11}^{2021} * STR_{12}^{2021}$$

is considered as

LTR2 is defined as the ratio of the change in the price level in each month of the current year to the price level in the same months of the previous year. For example, the ratio of January of the current year to January of the previous year, February of the current year to February of the previous year, etc., is defined as the ratio of December of the current year to December of the previous year. Its calculation formula is as follows.

$$LTR2_1^{2021} = LTR1_1^{2021} \div LTR1_1^{2020}$$

$$LTR2_2^{2021} = LTR1_2^{2021} \div LTR1_2^{2020}$$

$$LTR2_3^{2021} = LTR1_3^{2021} \div LTR1_3^{2020}$$

$$LTR2_{12}^{2021} = LTR1_{12}^{2021} \div LTR1_{12}^{2020}$$

is determined by its appearance.

For example, we will determine how the inflation rate changed in November of this year compared to November of last year.

$$LTR2_{11}^{2021} = LTR1_{11}^{2021} \div LTR1_{11}^{2020} = 1,207 \div 1,095 = 1.103$$

(7 columns and 13 rows) or 110.3%.

LTR3 is also an indicator that indicates how the prices (tariffs) of general products (services) have changed in each quarter of the current year compared to the previous quarter.

LTR3 is calculated by dividing the sum of the three months in each quarter by the sum of the three months in the previous quarter, i.e.:

$$LTR3_1^{2021} = (LTR1_{13}^{2021} + LTR1_{14}^{2021} + LTR1_{15}^{2021}) \div (LTR1_{10}^{2020} + LTR1_{11}^{2020} + LTR1_{12}^{2020})$$

$$LTR3_2^{2021} = (LTR1_{16}^{2021} + LTR1_{17}^{2021} + LTR1_{18}^{2021}) \div (LTR1_{13}^{2021} + LTR1_{14}^{2021} + LTR1_{15}^{2021})$$

$$LTR3_3^{2021} = (LTR1_{19}^{2021} + LTR1_{20}^{2021} + LTR1_{21}^{2021}) \div (LTR1_{16}^{2021} + LTR1_{17}^{2021} + LTR1_{18}^{2021})$$

$$LTR3_4^{2021} = (LTR1_{22}^{2021} + LTR1_{23}^{2021} + LTR1_{24}^{2021}) \div (LTR1_{19}^{2021} + LTR1_{20}^{2021} + LTR1_{21}^{2021})$$

LTR4 is an indicator showing the ratio of each quarter of the current year to the corresponding quarter of the previous year.

To calculate LTR4, the sum of the three months in each quarter is determined by dividing the sum of the three months in the corresponding quarter:

$$LTR4_1^{2021} = (LTR1_1^{2021} + LTR1_2^{2021} + LTR1_3^{2021}) \div (LTR1_1^{2020} + LTR1_2^{2020} + LTR1_3^{2020})$$

$$LTR4_2^{2021} = (LTR1_4^{2021} + LTR1_5^{2021} + LTR1_6^{2021}) \div (LTR1_4^{2020} + LTR1_5^{2020} + LTR1_6^{2020})$$

$$LTR4_3^{2021} = (LTR1_7^{2021} + LTR1_8^{2021} + LTR1_9^{2021}) \div (LTR1_7^{2020} + LTR1_8^{2020} + LTR1_9^{2020})$$

$$LTR4_4^{2021} = (LTR1_{10}^{2021} + LTR1_{11}^{2021} + LTR1_{12}^{2021}) \div (LTR1_{10}^{2020} + LTR1_{11}^{2020} + LTR1_{12}^{2020})$$

One of the most important indicators of this chart is the LTR5 indicator.

LTR5 is determined in the ascending method. For example, January of this year to January of last year, January-February of this year to January-February of last year, and how much the prices in January-December of this year have changed compared to prices in January-December of last year [15].

LTR5 is an indicator of how much the inflation rate was in the current year compared to the previous year (year-to-year), and it is calculated using the following formula.

$$LTR5_1^{2021} = LTR1_1^{2021} \div LTR1_1^{2020}$$

$$LTR5_2^{2021} = (LTR1_1^{2021} + LTR1_2^{2021}) \div (LTR1_1^{2020} + LTR1_2^{2020})$$

$$LTR5_4^{2021} = (LTR1_{10}^{2021} + LTR1_{11}^{2021} + LTR1_{12}^{2021}) \div (LTR1_{10}^{2020} + LTR1_{11}^{2020} + LTR1_{12}^{2020})$$

$$LTR5_{12}^{2021} = (LTR1_1^{2021} + LTR1_2^{2021} + LTR1_3^{2021} + \dots + LTR1_{12}^{2021}) / (LTR1_1^{2020} + LTR1_2^{2020} + LTR1_3^{2020} + \dots + LTR1_{12}^{2020})$$

To calculate the average monthly INI, it is enough to multiply the monthly inflation (STR) for the total of 12 months and take the twelfth root, that is:

$$\overline{STR} = \sqrt[12]{STR_1 \cdot STR_2 \cdot \dots \cdot STR_{12}}$$

Table 3 shows that the average monthly increase in the prices of goods and services (3 columns, 16 rows) was 1.15%, and compared to December 2020, it was 1.041% in December 2021 (6 columns, 14 rows). the inflation rate was observed. The inflation rate in the first quarter of 2021 compared to the first quarter of 2020 (9 columns, 3 rows) was 1.113%, the second It was 1.108% in the third quarter (9 columns 6 rows), 1.110% in the third quarter (9 columns 9 rows) and 1.103% in the fourth quarter (9 columns 12 rows). In general, it is possible to comprehensively analyze the level of inflation through the data of this table. This table can be used not only for inflation, but also for the analysis of the activities of all sectors and industries, for example, the annual activity of organizations and institutions such as enterprises, banks.

Price is one of the main elements in the development of economic policy in the country, and it plays the role of the main tool and direction in making economic decisions at the enterprise level. According to the high or low levels of price growth, such as consumer prices, the inflation rate in each country is determined, or the GDP deflator is determined based on the prices of national goods and services, and based on the level of inflation or deflation processes. will be evaluated. So, the country acts as a price gauge in determining the standard of living of the population. Price is also the main force that drives the market.

It should also be noted that the volume of real GDP, determined on the basis of the GDP deflator, is also an important indicator in expressing the standard of living of the population in the country. GDP deflator, as we mentioned above, represents the general level of change in the price of all final goods and services created in the country. After the independence of Uzbekistan, large production enterprises in the country fell into crisis. The reason for this is that large production enterprises operated in cooperation with allied countries and these ties were broken.

In 2000-2021, stable growth of GDP was ensured. During these years, the growth of the country's GDP was ensured as a result of the opening of large production enterprises in the country (the Asaka automobile plant in Andijan, the oil refinery in Bukhara, etc.). It can be expressed as the result of consistent economic reforms in our country.

Table 3: Inflationary processes in the Republic of Uzbekistan in 2000-2021

Yillar	INI	YaIM defilyatori	Yillar	INI	YaIM defilyatori
<b>2000</b>	28,2	47,3	<b>2011</b>	7,6	21,6
<b>2001</b>	26,6	45,2	<b>2012</b>	7	15,4
<b>2002</b>	21,6	45,4	<b>2013</b>	6,8	12,0
<b>2003</b>	3,8	26,8	<b>2014</b>	6,1	14,0
<b>2004</b>	3,7	16,0	<b>2015</b>	5,6	10,5
<b>2005</b>	7,8	21,4	<b>2016</b>	5,7	8,9
<b>2006</b>	6,8	23,4	<b>2017</b>	14,4	19,1
<b>2007</b>	6,8	21,9	<b>2018</b>	14,3	27,0
<b>2008</b>	7,8	26,8	<b>2019</b>	15,2	17,9
<b>2009</b>	7,4	17,2	<b>2020</b>	11,1	11,7
<b>2010</b>	7,3	49,3	<b>2021</b>	10,0	13,6

As can be seen from this figure, the GDP deflator, that is, its level in 2021, was 13.6 percent.

It is appropriate to use comparative prices when calculating the rate of growth (decrease) of GDP, import-export and other macroeconomic indicators, including construction, industry.[15]

Table 4 shows the dynamics of the gross domestic product (GDP) in the Republic of Uzbekistan in 1991-2021. GDP in 1991 was only 61.5 million soums at current prices, but by 2021 it will reach 734.6 trillion soums. organized soums. This means that GDP has increased nominally by almost 11.9 million times compared to 1991, that is, by 3.6 times in real terms, or by 2.1 times per capita GDP. The rate of population growth in 2021 compared to 1991 was 171.4 percent. We can see that GDP per capita increased by 2.1 times during these years. This indicates that the standard of living of the population is improving.[14]

As can be seen from the table, a decrease in real GDP was observed until 1995 compared to 1991. At this point, I consider it appropriate that we achieved grain independence in 1995, growing more than 3 million tons of grain, and by 1996, real GDP stopped falling and began to grow. By 2001, real GDP was the same as in 1991. In 2021, this indicator increased by 362.6% compared to 1991.

Taking into account the growth rate of the population, in 2021 estimates, GDP per capita in 2017 was 18,923.6 thousand soums, and this indicator was 9,943.8 thousand soums in 1991. was equal (in 2021 prices).

Table 4: Dynamics of gross domestic product (GDP) in the Republic of Uzbekistan in 1991-2021

Years	YaIM (mlrd. so`m)		YaIMo`shisi (kamayishi), %		O`rtacha yillik doimiy aholi soni			1 kishiga YaIM, 2020y. baholarida	
	Joriy baholarida	2020y. baholarida	1991 y = 100%	Oldingi yilga nisbatan	mln Kishi	o`shisur`ati, %		ming, so`m	1991 y = 100%
						Oldingi yilga nisbatan	1991 y = 100%		
1	2	3	4	5	6	7	8	9	10
1991	0,0615	202 568,5	100,0	99,5	20,4	-	100,0	9 943,8	100,0
1992	0,4439	180 083,4	88,9	88,9	20,9	102,4	102,4	8 634,2	86,8
1993	5,1126	175 941,5	86,9	97,7	21,4	102,4	104,8	8 239,2	82,9
1994	64,9	166 792,6	82,3	94,8	21,8	102,3	107,2	7 634,6	76,8
1995	302,8	165 291,4	81,6	99,1	22,3	102,0	109,4	7 419,9	74,6
1996	559,1	168 101,4	83,0	101,7	22,7	101,8	111,4	7 410,6	74,5
1997	976,8	176 842,6	87,3	105,2	23,1	102,0	113,5	7 646,4	76,9
1998	1 416,2	184 446,9	91,1	104,3	23,6	101,9	115,7	7 828,7	78,7
1999	2 128,7	192 378,1	95,0	104,3	24,0	101,7	117,6	8 031,2	80,8
2000	3 255,6	199 688,5	98,6	103,8	24,3	101,5	119,3	8 213,7	82,6
2001	4 925,3	208 075,4	102,7	104,2	24,7	101,4	121,0	8 439,6	84,9
2002	7 450,2	216 398,4	106,8	104,0	25,0	101,3	122,6	8 666,0	87,1
2003	9 844,0	225 487,1	111,3	104,2	25,3	101,2	124,1	8 921,8	89,7
2004	12 261,0	242 173,2	119,6	107,4	25,6	101,1	125,5	9 473,2	95,3
2005	15 923,4	259 125,3	127,9	107,0	25,9	101,1	126,9	10 022,6	100,8
2006	21 124,9	278 559,7	137,5	107,5	26,2	101,2	128,4	10 648,4	107,1
2007	28 190,0	305 022,9	150,6	109,5	26,3	100,6	129,2	11 592,2	116,6
2008	38 969,8	332 474,9	164,1	109,0	26,7	101,4	131,0	12 455,8	125,3
2009	49 375,6	359 405,4	177,4	108,1	27,3	102,3	134,0	13 163,7	132,4
2010	78 936,6	384 901,4	190,0	107,1	27,8	101,7	136,3	13 861,8	139,4
2011	103 232,6	413 865,7	204,3	107,5	28,6	102,9	140,2	14 490,0	145,7
2012	127 590,2	443 260,3	218,8	107,1	29,3	102,7	144,0	15 108,0	151,9

2013	153 311,3	475 603,0	234,8	107,3	29,8	101,5	146,2	15 973,3	160,6
2014	186 829,5	508 295,2	250,9	106,9	30,2	101,6	148,5	16 806,6	169,0
2015	221 350,9	544 987,9	269,0	107,2	30,8	101,7	151,0	17 718,8	178,2
2016	255 421,9	577 317,4	285,0	105,9	31,3	101,8	153,6	18 445,0	185,5
2017	317 476,4	602 692,1	297,5	104,4	31,8	101,8	156,3	18 923,6	190,3
2018	424 728,7	634 966,2	313,5	105,4	33,0	103,6	162,0	19 242,4	193,5
2019	529 391,4	671 220,5	331,4	105,7	33,6	101,8	164,9	19 981,4	200,9
2020	602 551,4	683 973,6	337,7	101,9	34,2	101,9	168,0	19 981,4	200,9
2021	734 587,7	734 587,7	362,6	107,4	34,9	102,0	171,4	21 039,3	211,6

If we take the amount of GDP per capita as 100 percent in 1991, we observe that this indicator decreased until 2004 (Table 4). Since 2005, we can see that GDP per capita has increased year by year. By 2005, the amount of GDP per capita reached the level of 1991, and in 2021, this indicator was 211.6 percent compared to 1991.

To determine the real GDP, it is necessary to divide the nominal GDP by the price index. The GDP deflator is calculated based on nominal and real GDP. The ratio of nominal GDP to real GDP gives the GDP deflator.[16]

It should be noted that the GDP deflator determines the average level of price change for all final goods and services produced in the country. This means a change in the price of several hundred thousand types of goods and services. This is a complex process.

## 5. CONCLUSIONS AND SUGGESTIONS

The measures taken to deepen economic reforms and further liberalize the economy, structural changes in the real sector of the economy, sufficient devaluation of the national currency exchange rate had a significant impact on keeping inflation and the state budget deficit at a stable low level.

In order for the result of the fight against inflation to be positive, the causes of inflation must first be determined. It is known that the main causes of inflation are due to deficiencies in money and commodity markets. These shortcomings arise from the fact that aggregate demand is greater than aggregate supply, which means that anti-inflation measures taken by the state should include regulation of aggregate demand or regulation of aggregate supply.

Anti-inflationary measures should directly affect aggregate demand and supply, affecting imbalanced markets or inflationary factors. This, in turn, requires the development of an anti-inflation strategy.[17]

Anti-inflation strategy - includes long-term goals and methods that are carried out against inflation or aimed at reducing inflation. The anti-inflation strategy consists of several directions:

First, measures aimed at the development of production should be developed. For this purpose, measures are taken by the state to stimulate production. Among these measures, methods such as setting preferential tax rates for profits, providing low-cost loans to the production sector, and granting export-import incentives are used.[18]

The second direction is measures aimed at reducing the state budget deficit. In order to reduce the deficit of the state budget, it is necessary to increase revenues or reduce expenses financed by the state budget.

In the third direction, the rate of inflation is regulated by regulating the money supply. In this case, a sharp increase in the money supply will be limited and money emission will be strictly controlled.

The fourth direction is to reduce the influence of external factors. In order to implement this direction, a measure aimed at reducing the inflationary effect of the investment, short-term credit and debts entering the country will be determined.

Each country can quickly affect the rate of inflation using methods that have a short-term and long-term emergency character. These methods include:

- import of consumer goods from abroad;
- setting high interest rates for deposits of the population in banks;
- providing benefits to enterprises that produce products and provide services.

Thus, it can be said that anti-inflation measures are different and depend on the characteristics of each country

and the government's rational anti-inflation policy development and implementation.

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