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Analysis of the Current State of the Social-Economic Process of the Republic of Uzbekistan

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Abstract

A comprehensive macroeconomic study of the country on the basis of statistical indicators determines the period of cyclical values. Factor relationships between the main indicators and with the help of mathematical methods gives predictive data from real calculated values. As a comprehensive scientific study, the authors of the article chose the main macroeconomic indicators, geographical and socio-economic data of the Republic of Uzbekistan.

The purpose of scientific research is to determine the main components of the dynamics of development of the national economy of Uzbekistan. The presented article sets out a general assessment of the state of the geo-economic situation of the Republic of Uzbekistan in the period 1990-2021. On the basis of the statistical data of the "Committee of the Republic of Uzbekistan on Statistics", theoretical and practical methods and models for the study of geographical, economic, mathematical analysis of domestic as well as foreign scientists and specialists have been studied and applied.

The dynamics of exports and imports of the Republic of Uzbekistan for the period from 1991 to 2020 is analyzed. The most promising directions of economic entities of the economy have been determined, the development potential, the conditions for reforming and diversification have been studied. The main parameters that influenced certain socio-economic changes in different periods of the country's existence are identified and analyzed. Examples of cyclical changes in the economy from the moment of gaining independence to the present are given. As a methodological apparatus, a linear correlation-regression model was used that describes changes in the structure of the country's economy. The purpose of the correlation analysis was to identify an estimate of the strength of the relationship between random calculated values and real values. As the values of the coefficient of correlation analysis, the observed values were used by the comparative method of Student's criteria. Also, the equations of paired linear regression were applied, where the value of the dependent variable is the gross domestic product, the explanatory variables, respectively, were chosen the dynamics of the population, the value of exports and imports, and the amount of investment.

Multifactorial economic-statistical models of dependence between the main macroeconomic indicators of the country have been developed. According to the results of the calculations, a strong correlation was revealed between the gross domestic product and the size of the population, the size of exports and imports, and the size of investments. The predicted values are located as close as possible to the residuals, which indicates that the resulting regression equation has a high degree of accuracy.

Prospects for the study: the results of the study can be used to identify significant factors in the development of the national economy and economic sectors of the Republic of Uzbekistan.

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Keywords: *Republic of Uzbekistan, economic and geographical location, demographic indicators, structure of the economy, macroeconomic indicators, paired correlation and regression coefficient, Student's criterion.*

Introduction

The relevance of the topic of scientific research is undoubted, since macroeconomic statistics makes it possible to provide a comprehensive description of the state and development of the state economy. Macroeconomic statistics is an applied statistical discipline, which is based on the methodology of statistical research of mass socio-economic phenomena and processes, in order to identify patterns of their development at the macro level. The importance of statistical studies of macroeconomic processes increases the potential for the development of socio-economic relations. For example, they provide justification for state, comprehensive scientific, technical and socio-economic programs [**Error! Reference source not found.**]. Macroeconomic statistics reveals the statistical patterns of the operation of economic laws, gives their quantitative characteristics.

In connection with the stated relevance of the work, the goal is to analyze macroeconomic indicators on the example of the Republic of Uzbekistan, to identify a comprehensive characteristic based on statistical and mathematical methods.

Many authors dealt with the problems of studying statistical and mathematical methods for analyzing macroeconomic indicators, the most famous of them are: V.Verma, M.V. Panasyuk, V.A. Rubtsov, A.V. Vakhabov, M. Mekhran, M.T. Alimova , A.Kh. Dzhumaev and others. The information base of the scientific research was the literature, textbooks on the problem under study and macroeconomic statistical reporting of the Republic of Uzbekistan.

Scientific research on the assessment of the economic-geographical, macroeconomic and socio-economic situation of the country makes it possible to determine the role and place of the region, the country in the international arena, as well as to determine the geopolitical interests and economic model of development, taking into account the natural resource and economic potential [25; **Error! Reference source not found.**;]. If geographical and cartographic studies of a country determine its geopolitical location, then historical and cultural values, climatic conditions, resource potential, etc. reveal tourism potential [14; **Error! Reference source not found.**]. Consequently, the study of macroeconomic indicators contributes to the analysis of the current socio-economic situation, medium-term, forecasting the development of the economy.

The macroeconomic scientific study of the Republic of Uzbekistan conducted in the article reveals the problems and prospects for the development of a particular sector of the economy and reveals the need to open and improve new promising areas of the economy. Also, when studying the demographic potential of the country, a forecast was developed based on further population growth within the development for the periods from 1990 to 2021.

The economic-geographical macroeconomic, demographic position of the country is of particular importance in the analysis of its socio-economic situation [**Error! Reference source not found.**]. Climatic conditions, fruitful land resources contribute to the development of the agro-industrial sector. The presence of minerals and precious metals contributes to the development of the industrial sector of the national economy. Historical and cultural heritage, flora and fauna will play an important role in the development of the tourism industry and the development of the hospitality industry.

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Materials and methods of research

In the study of the state of the economy and the socio-economic situation, statistical data on macroeconomic indicators of Uzbekistan were used [11; 1]. And the economic and geographical data were obtained using geographic information systems. When studying changes in socio-economic indicators, mathematical methods and models are used [**Error! Reference source not found.**]. In particular, a linear correlation-regression model was used to identify the relationships between indicators. A linear correlation was determined between the gross domestic product and four indicators. The purpose of correlation analysis is to assess the strength of the relationship between random variables (features). When calculating the correlation coefficient, the following formula was applied:

$$r = \frac{\Sigma(x_i - x_{\text{средн.}})(y_i - y_{\text{средн.}})}{\sqrt{\Sigma(x_i - x_{\text{средн.}})^2 * \Sigma(y_i - y_{\text{средн.}})^2}}, \text{ где} \qquad (1)$$

y – dependent variable;

x – explanatory variable.

The dependent variable is the gross domestic product. The explanatory variables are population, exports, imports, and investments.

The calculated correlation coefficients were evaluated using Student's t-test. For this, the observed values were found according to the Student's criterion according to the following formula:

$$T_{\text{набл}} = r_B \sqrt{n-2} / \sqrt{1 - r_B^2} \quad (2)$$

The observed values were compared with the tabular values of the Student's t-test found at a significance level of α=0.01.

For the gross domestic product, paired linear regression equations were compiled using the formula:

$Y_i = a + bx_i$, где (3)

y – dependent variable;

x – explanatory variable.

The dependent variable is the gross domestic product. The explanatory variables are population, exports, imports, and investments.

The statistical and mathematical methods used helped to determine the correlation between macroeconomic indicators and determined accurate forecast data.

The study uses data from the State Committee of the Republic of Uzbekistan on Statistics, supplemented by data from other official sources in the country. The main indicators are considered in the periods from 1990 to 2020. Selected indicators are reviewed up to September 2021. [12]. Based on the analysis of socio-economic indicators, the authors give a short-term forecast for the development of the country's economy.

Results and discussion

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Uzbekistan is located in the center of the Central Asian region. This is a sovereign state, formed on September 1, 1991 on the basis of the former republic of the Soviet Union [9]. Features of the continental position affects not only the formation of the climate, but also the process of implementing the socio-economic and geopolitical interests of the country (Figure-1) [15].

Uzbekistan borders on five states: in the north and northeast it borders on Kazakhstan; in the east with Kyrgyzstan; in the east and southeast with Tajikistan; in the south with Afghanistan; in the south and west with Turkmenistan [2].

Uzbekistan has a central, at the same time transit economic and political-geographical position in Central Asia. However, the neighborhood with Afghanistan, where social and political stability has not yet been achieved to a greater extent, has a restraining effect on the economic development of the country. It is to enter the oceans that he needs to cross Afghanistan and Iran [**Error! Reference source not found.**]. Despite this, in recent years, Uzbekistan has begun close cooperation with Afghanistan, especially in trade relations, transport, etc. One of the main events is the construction of a railway to Mazar-i-Sharif, on the initiative of Uzbekistan, which allows both countries to develop their economies and, in the future, continue building transport routes to access the world's oceans.

Fig. 1. Geographical location of the Republic of Uzbekistan

The total area of Uzbekistan is 448.9 thousand km2, of which 425.4 thousand km2 (95%) are land, 22 thousand km2 are water areas, [10] this is only 5% of the total territory, two-thirds of the territory is the Kyzylkum and Aralkum deserts, the Mirzachul steppes and the Tien Shan mountains, the Gissar Range. On the northwestern border is the now drying Aral Sea. From the northern borders, the Syr Darya River stretches, from the southern borders, the Amu Darya and both rivers flow into the Aral Sea.

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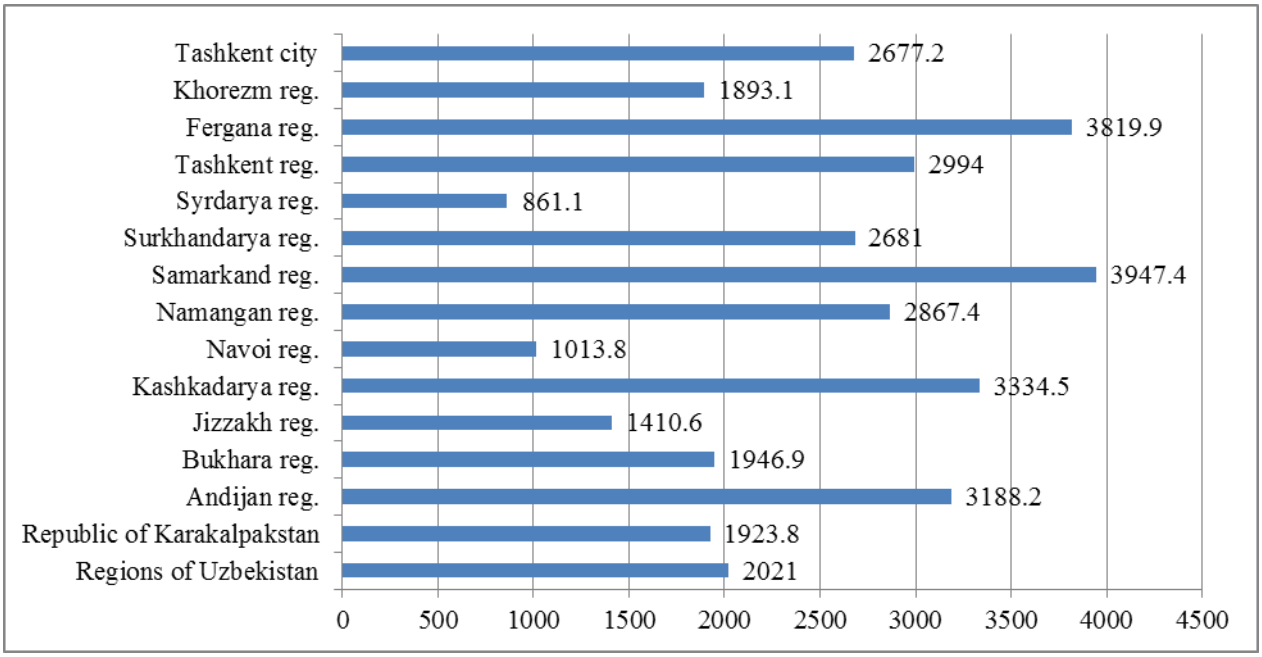

Fig. 2. Demographic indicators of the Republic of Uzbekistan (mln.people)

The country is a multinational state, in which representatives of more than 130 nationalities and ethnic groups live. The bulk of the population are Uzbeks - 83% for 2020, whose share in the total population is systematically increasing due to natural growth. The second place is occupied by Tajiks - 4.8%, Kazakhs, Karakalpaks, Kirghiz, Turkmens and others. Russians remain one of the largest ethnic minorities - 2.6% (the largest community in Central Asia, but the number is declining every year and in 2020 the number of the Russian community was 720 thousand. Since 1991, it has decreased by 45%, which was more than 1, 6 million people). The Uzbek language is considered the state language, but the national composition of the population of different regions of the republic is not the same, which has a certain impact on the language structure of education. In educational institutions of Uzbekistan, education is conducted in seven languages based on the region - Uzbek, Russian, Karakalpak, Kazakh, Tajik, Kyrgyz and Turkmen) [20].

The administrative-territorial structure of the republic has one autonomous republic - the Republic of Karakalpakstan (the capital is Nukus), 12 regions and so many central cities of the region - Andijan (Andijan), Bukhara (Bukhara), Jizzakh (Jizzakh), Kashkadarya (Karshi), Navoi (Navoi and Zarafshan), Samarkand (Samarkand), Fergana (Fergana), Khorezm (Khorezm) and the city of Tashkent as an administrative-territorial unit, which is the capital of the republic [**Error! Reference source not found.**]. The largest in terms of territory is the Republic of Karakalpakstan - 166.6 thousand km^2 and Navoi region - 111.0 thousand km^2. The number of urban settlements is 1071, rural settlements 11016 (Fig. 1).

A distinctive feature of Uzbekistan among the CIS countries is its high birth rate. Thus, the country leads in terms of population and ranks third after Russia and Ukraine. The number of resident population of the Republic of Uzbekistan as of January 1, 2021 amounted to 34558.9 thousand people and since the beginning of 2020 has increased by - 653.1 thousand or 2% [**Error! Reference source not found.**]. By regions, Samarkand region is the leader - 3947.4 thousand inhabitants, followed by Ferghana region - 3819.9 thousand people, then Kashkadarya region - 3334.5 thousand, Andijan region - 3189.2 thousand. Less than a million inhabitants are in Syrdarya region - 861.1 thousand inhabitants. (see Fig. 2) From 1991 to 2021, the population of the country

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increased by an average of 1.7% per year (in 1991, the population was 20,857.0 thousand) due to its natural reproduction, while natural growth compensated negative balance of external migration, which in some years (1995-2008) was very high, reaching an average of 100-150 thousand people [1]. (fig.3)

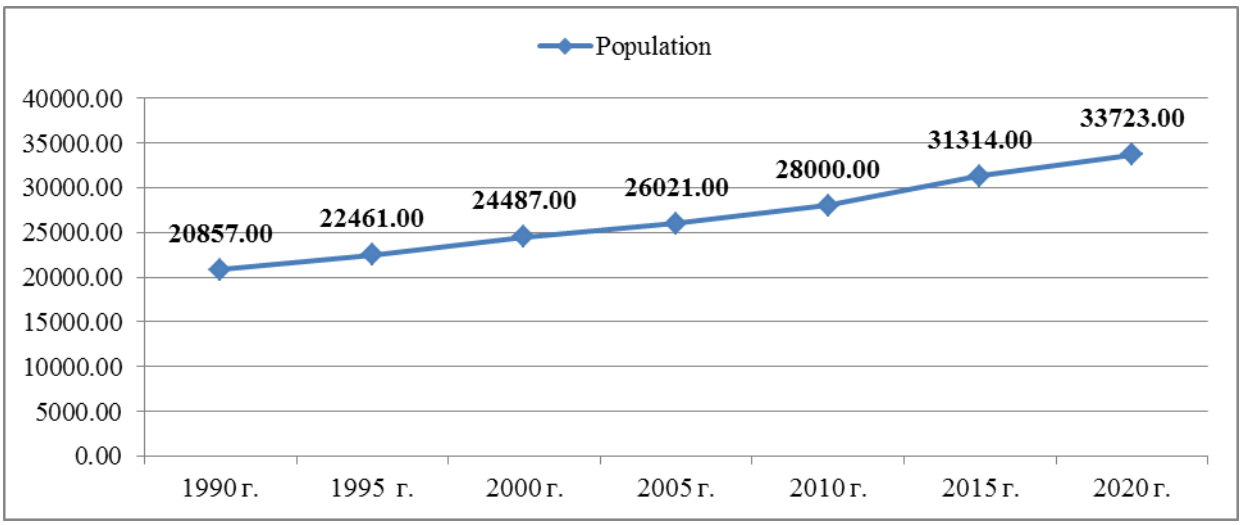

Fig. 3. Dynamics of the population of Uzbekistan

The Republic is rich in natural resources, which makes the development of its national economy more independent. The reserves of non-ferrous metals, including precious metals, stand out especially. The country ranks 14th in the world in terms of natural gas production, 3rd in exports and 6th in cotton production, 7th in the world in terms of uranium reserves (4% of the world's uranium reserves), in total gold reserves in 4th place, in terms of production of the yellow metal has the 7th line of the world ranking [4].

In general, the presence of minerals allows the development of non-ferrous metallurgy, fuel (mainly gas), chemical industry and production of building materials. At the same time, the opportunities for the development of other sectors of heavy industry, for example, full-cycle ferrous metallurgy, forestry, woodworking and pulp and paper industries are somewhat limited.

An important factor in economic growth is natural and climatic, more precisely, agro-climatic resources. The abundant confluence of the sum of active temperatures, the abundance of sunny days (an average of 285 sunny days a year) make it possible to grow heat-loving agricultural crops (in particular, cotton), to intensively develop fruit growing and viticulture, vegetable growing and melon growing. However, the lack of sufficient water resources is a serious limiting factor in the development of the agricultural economy.

The main rivers - the Syr Darya, the Amu Darya, and the Zarafshan - have a transboundary character; their flow is formed outside of Uzbekistan. Tashkent, Andijan, Samarkand and Surkhandarya regions can be considered relatively well-supplied with water and fertile soil, while vast areas of flat deserts (Bukhara, Navoi, Khorezm, Kashkadarya regions, the Republic of Karakalpakstan) experience an acute lack of moisture. Against this background, the problem of the Aral Sea and the Aral Sea region is becoming more and more aggravated: the sea continues to dry up, forming the vast sandy Aralkum desert. The ecological catastrophe is taking on a global scale and its solution is in dire need of the help of international efforts.

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According to the sectoral location, the regions of Uzbekistan can be conditionally divided into several peripheral centers, where separate sectors of the economy were actively formed. In particular, the main natural resources and heavy industry are located in the central Navoi, Kashkadarya, north-eastern part, Tashkent regions. Agriculture and agrarian industry are concentrated near the rivers Syrdarya, Amudarya, Zarafshan and other wastewater rivers from mountain ranges. The tourism industry was formed from the ancient cities of the cultural and historical era like Samarkand, Bukhara, Khiva and Tashkent [**Error! Reference source not found.**].

After gaining independence, the country experienced several cyclical phases in the development of the economy. Period from 1991-2016 contributed to positive developments and social stability. Liberal market mechanisms and the strengthening of the State system of government were gradually introduced. The phase of stagnation falls on the period 1991 to 1995. During these years, the country had to rebuild the economy and properly allocate resources. Periods of growth are observed from 1996 to the present day. The nature of the direction and priorities of development in the first place were reduced mainly to the democratization of society and the transition to market relations.

Characteristic features of GDP development in relation to the amount of population growth can be observed in Figure-4, where a noticeable increase in population was accompanied by GDP growth. A more detailed relationship between these parameters was calculated by the authors using statistical methods.

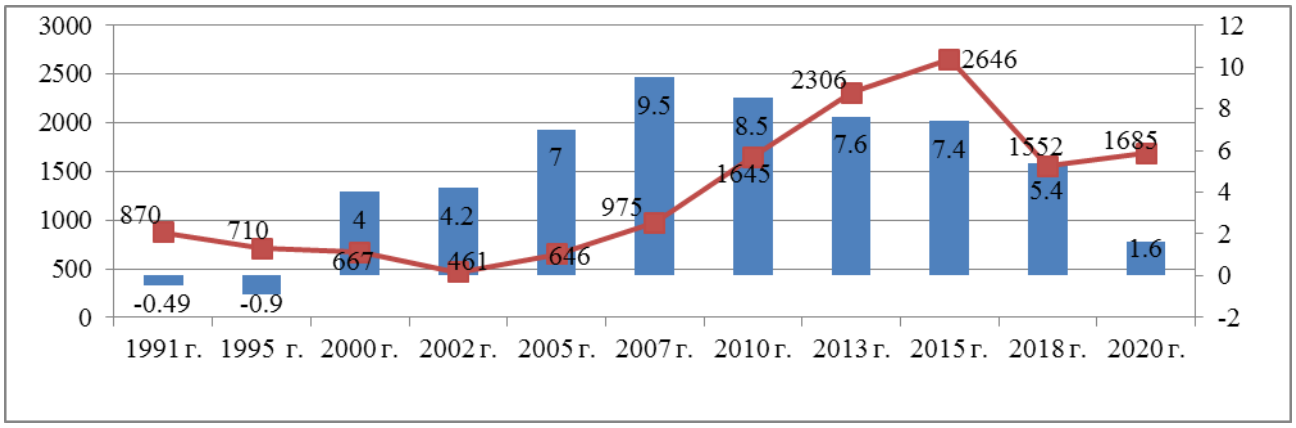

Fig. 4. Dynamics of GDP in% and per capital in US dollars (period1991-2020) [3]

A distinctive feature is that the national economy developed moderately progressively and contributed to the growth of private enterprises and the development of the domestic consumer market. Strengthened industrial potential. Large leading branches in mechanical engineering were created - Uz auto Motors, SamAuto, MAN Auto-Uzbekistan, the national airline UzAirways and others.

A significant rise in the country's economy, as noted above, was traced from 2005 to 2011, which was the first peak of the economic cycle. The annual GDP growth averaged 8%. Growth was also monitored in other sectors of the economy such as the agricultural industry, construction, transport and communications, the tourism industry and the service sector, etc.

If the peak of GDP growth was in 2007 - 9.5%, then in 2020 it was only 1.6%. The reason for the decline can be conditionally identified as the efforts to modernize the economy since 2017, which led to some weakening, which was also accompanied by the 2019 pandemic, which hit hard all

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sectors of the Starna economy. The consequences from the pandemic, according to experts, will still be followed at least until 2022. GDP per capita on average over 30 years has grown by 60%, the peak of growth occurred in 2015 amounting to $ 2646, the minimum value was revealed in 2002 was $ 461 [24] (fig.4).

Let us analyze the relationship between GDP and population. The correlation coefficient is 0.855, which indicates the presence of a strong relationship between the analyzed indicators. Let's evaluate the obtained correlation coefficient using Student's criterion. The observed value of Student's t-test is 8.7296. Since the observed value is greater than the critical one, we reject the null hypothesis that the general correlation coefficient is equal to zero. In other words, there is a significant correlation.

Let us construct regression equations, where GDP is the dependent variable, and population is the explanatory variable:

$\bar{y}_I = - 105{,}173 + 5{,}196\, x_i$ (4)

Y – design value ВВП, X – population

This equation shows that, with an increase in population by 1 million people, GDP should increase by $5.2 billion.

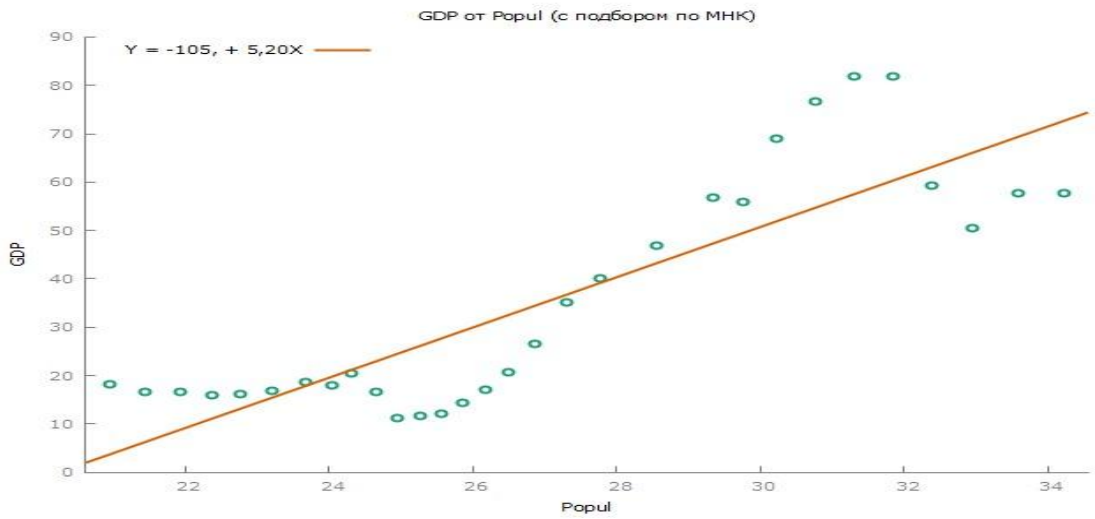

Fig.5. Regression model of dependence of GDP on population.

Figure 5 shows a direct regression of comparison between the population size and real GDP values. It can be observed that, in general, the trend described above is observed. But at the same time, it is clear that with an increase in the population in the range from 23 to 27 million people, GDP growth lagged behind the model described by the regression equation, and in the range from 27 to 32 million people it was ahead.

The size of the gross domestic product of macroeconomic structures shows that during 1991-2015, the share of agriculture decreased by half from 37.4% to 19.2%, while the share of industry increased by a third from 26.3% to 35.5% [1] (Table 1). The growth trend of non-agricultural industries from 2000 to the present is especially noticeable. Today industry provides 1/4 of the GDP.

Table 1 Sectoral structure of Uzbekistan's GDP in % (1991-2020)

Industries	1991	1995	2000	2005	2011	2015	2020

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Total GDP %	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Including:							
Industry	26.3	17,1	14,2	20,7	24,0	38,8	35,5
Agriculture	37.4	28,1	30,1	25,0	17,6	6,8	28,2
Construction	10,4	7,1	6,0	4,9	6,0	17,8	7,0
Transport and communications	4,2	7,3	8,1	11,3	11,7	11,2	7,2
Trade and general catering	3,9	5,2	7,5	9,2	8,8	5,6	7,0
other services	18,0	22,1	21,6	17,9	23,9	11,3	22,1
Net taxes on products	-0,3	13,1	12,5	11,0	7,8	8.8	7,6

Cardinal changes in all spheres of the country began to occur since 2017. From this period, Uzbekistan began an era of accelerated integration into the world economy, relations began to strengthen and the opening of borders (now closed) with neighboring countries, visa procedures for the entry of foreign citizens were simplified, the creation of new enterprises contributed to the development of competition and the emergence of new branches of economic entities. The business environment has improved, trade with neighboring countries, especially with the Russian Federation, has increased, the country's social infrastructure is being renovated and strengthened. Investment activity has grown by $6 billion in the current period. The investment of foreign investments in enterprises has grown especially noticeably, thereby increasing productivity and turnover.

During 1991-2020. Uzbekistan's investments in current prices increased by $17.1 billion (3.9 times) to $23.1 billion. Changes occurred by $3.7 billion, due to population growth, by $13.5 billion. The average annual increase in the country's private investment is $0.59 billion or 4.8%. Over the same period, private investment per capita increased by $408.2 (2.4 times) to $699.0. The average annual increase in private investment per capita at current prices is $14.1 or 3.1% [24].

Calculate the relationship between GDP and investment. The correlation coefficient is 0.9434, which indicates the presence of a strong relationship between the analyzed indicators. Let's evaluate the obtained correlation coefficient using Student's criterion. The observed value of Student's t-test is 15.0656. Since the observed value is greater than the critical one, we reject the null hypothesis that the general correlation coefficient is equal to zero. In other words, there is a significant correlation.

Let us construct regression equations, where GDP is the dependent variable, and investment is the explanatory variable:

$$\bar{y}_I = 5{,}789718 + 2{,}924506\, x_i \qquad (5)$$

Y – design value GDP, X – investments

As you can see, the equation shows that, with an increase in investment by $1 billion, GDP should increase by $3 billion.

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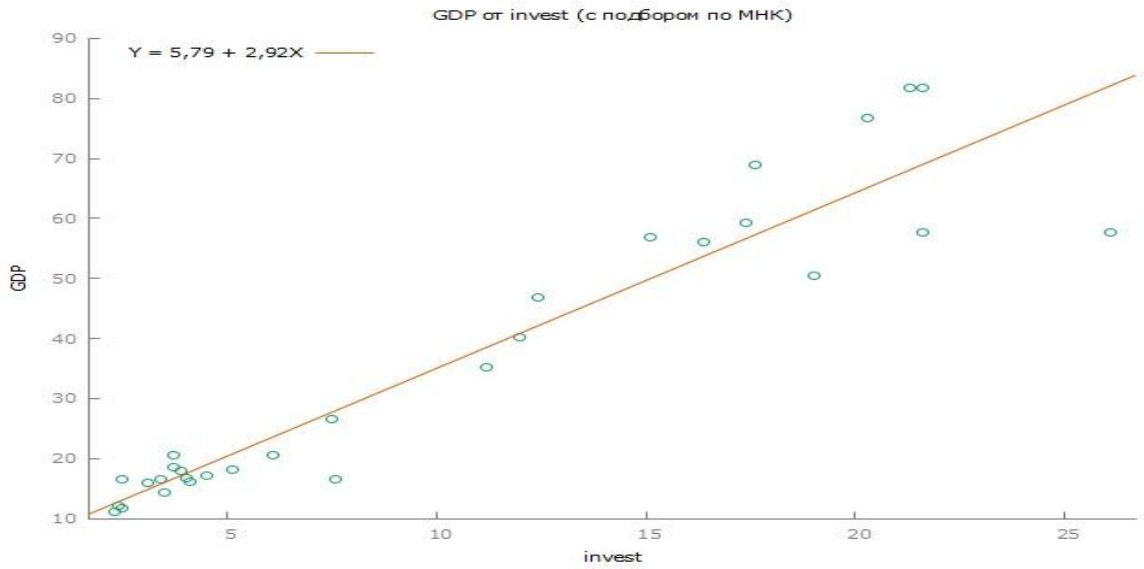

Fig.6. Regression model of dependence of GDP on investment.

Figure 6 shows a direct regression of comparing investment with real GDP values. It can be observed that, in general, the trend described above is observed. In addition, there are some deviations in the values of investment volumes, when GDP increased in the range from $26.5 to $40.2 billion, there was an advance in the value of investment, regressivity was observed in the ranges from $18 to $26 billion.

Currently, Uzbekistan carries out foreign trade with more than 120 countries of the world, the country's major trading partners among the Commonwealth countries are: Russia - 18% (of the total foreign trade turnover of Uzbekistan), Kazakhstan - 4.4% and Ukraine - 3.6%. Among non-CIS countries, the Republic of Korea - 13.4% (of the total foreign trade turnover of Uzbekistan), Germany - 5.5%, USA - 4.2%, Great Britain - 3.9% and Turkey - 3.6%. Geographically, the main foreign trade relations are directed primarily to Europe - 62% and Asia - 32.3% (Fig. 7) [4].

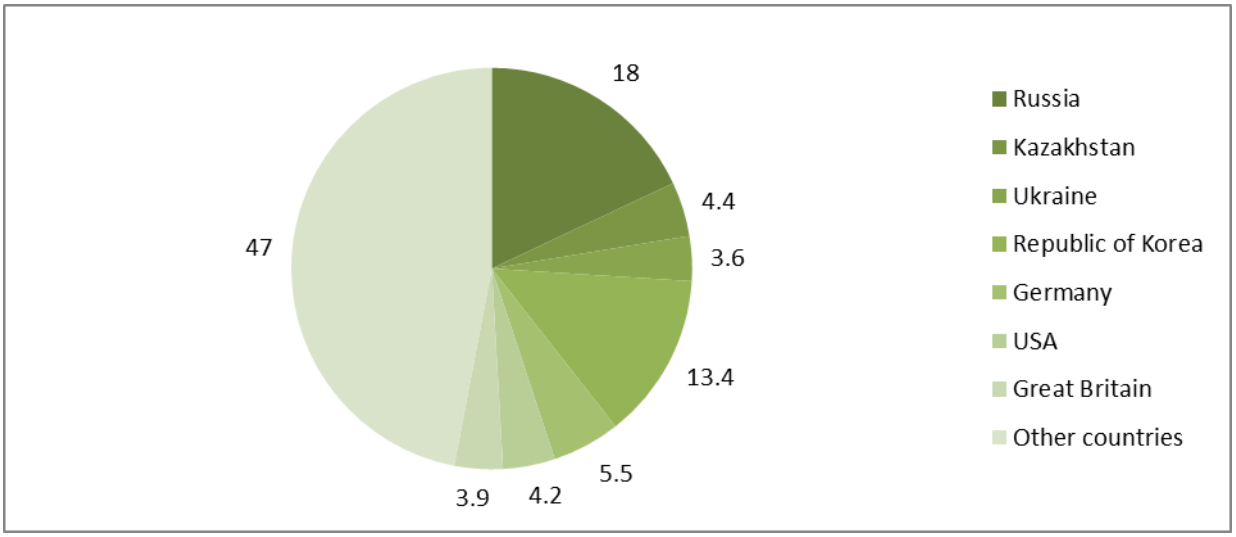

Fig.7. Dynamics of foreign trade turnover of the Republic of Uzbekistan in 2021.

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The foreign trade turnover of Uzbekistan since 1991 has tended to constant growth (Table 2).

Table 2 Foreign trade turnover of the Republic of Uzbekistan from 1991-2020 (mln.$)

	1991 г.	1995 г.	2000 г.	2005 г.	2010 г.	2015 г.	2020 г.
Foreign trade	2063,2	6612,6	6212,1	9500,1	21844,2	24924,2	36256,1
Including:							
Export	677,4	3719,9	3264,7	5408,8	13044,5	12507,6	15102,3
Import	1385,8	2892,7	2947,4	4091,3	8799,7	12416,6	21153,8

In the period from 1991-2020. there was a significant change in the structure of exports and imports of Uzbekistan. Moreover, if at the beginning until 2020 the main export commodity was energy carriers (more than 56% of exports), then its share gradually decreased and amounted to 25.5%. During this period, exports at current prices increased by $13.8 billion, (by 4.3 times) to $18.1 billion. The average annual increase in exports is 5.7%. The minimum export volume was in 1994 - $ 2.2 billion, the peak of export indicators was observed in 2019, which amounted to $ 18.1 billion [**Error! Reference source not found.**].

Let's determine the relationship between GDP and exports by analyzing the correlation dependence of the value at which the correlation coefficient is 0.888, which indicates a strong relationship between the analyzed indicators. Let's evaluate the obtained correlation coefficient using Student's criterion. The observed value of Student's t-test is 10.2236. Since the observed value is greater than the critical one, we reject the null hypothesis that the general correlation coefficient is equal to zero. In other words, there is a significant correlation.

Let us construct regression equations, where the dependent variable is GDP, and the explanatory variable is export:

$$\bar{y}_I = -1{,}25353 + 4{,}296057\, x_i \qquad (6)$$

Y – design value ВВП, X – export

This equation shows that if exports increase by $1 billion, GDP should increase by $4.3 billion.

Figure 8 shows a direct regression comparing exports and with real GDP values. It can be observed that, in general, the trend described above is observed. In addition, some deviations in the values of exports are noticeable, when GDP increased in the range from $13 to $16.5 billion, the export value was regressive, and with an increase in exports over $11.5 billion, a progressive value was observed in the real value of GDP.

Imports of the country in the periods 1991-2020 increased by $17.5 billion, (3.6 times) to $24.2 billion.

Consider the relationship between GDP and imports. The correlation coefficient is 0.8121, which indicates the presence of a strong relationship between the analyzed indicators. Let's evaluate the obtained correlation coefficient using Student's criterion. The observed value of Student's t-test is 7.3657. Since the observed value is greater than the critical one, we reject the null hypothesis that the general correlation coefficient is equal to zero. In other words, there is a significant correlation.

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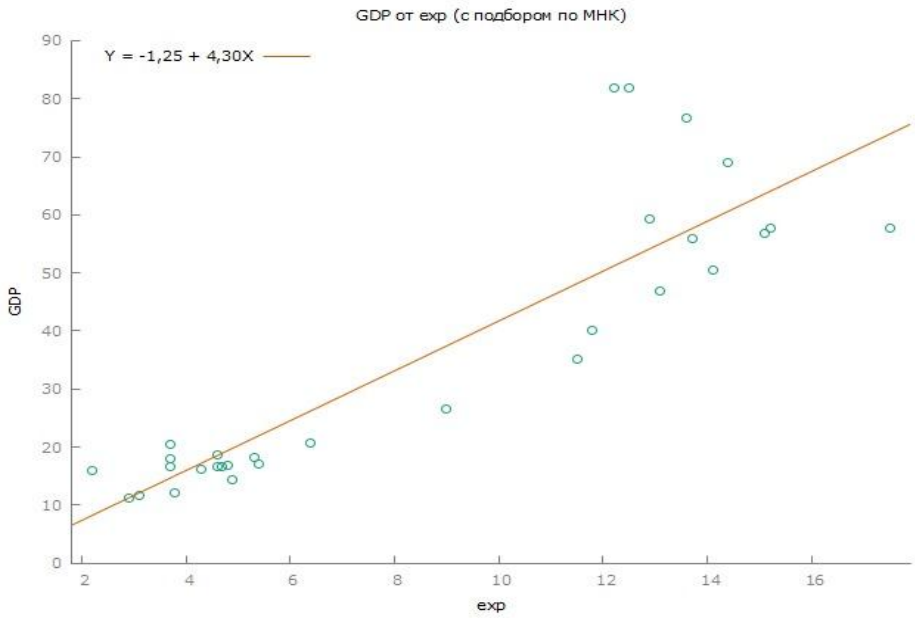

Fig.8. Regression model of dependence of GDP on exports.

Let us construct regression equations, where GDP is the dependent variable and imports are the explanatory variable:

$\bar{y}_I = 8{,}092602 + 3{,}204023\ x_i$ (7)

where: Y - estimated value of GDP, X - imports

This equation shows that if imports increase by $1 billion, GDP should increase by $3.2 billion.

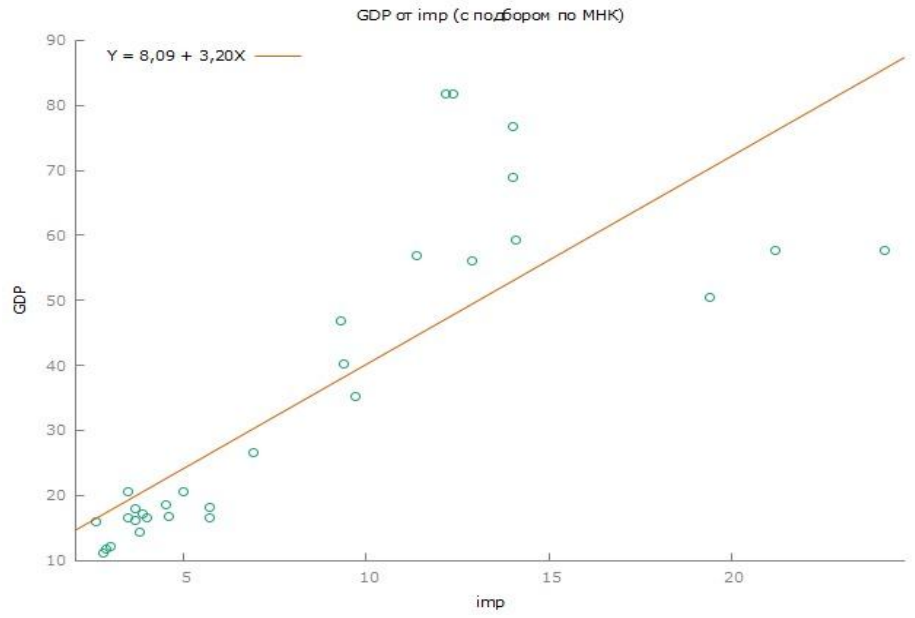

Fig.9. Regression model of dependence of GDP on imports.

Figure 9 shows a direct regression comparing imports with real GDP values. It can be observed that, in general, the trend described above is observed. In addition, some deviations in the values of imports are noticeable, when GDP increased in the range from 9 to 35.2 billion dollars, there was

an advance in the value of imports, regressivity was observed in the ranges from 50 to 57 billion dollars.

It is necessary to emphasize the integration of the economy of Russia and Uzbekistan. A particularly noticeable improvement, from 2017 to the present day, is taking place in almost all socio-economic structures between countries. Thus, by the decision of the EAEU commission, from December 11, 2020, Uzbekistan received the status of an EAEU observer [7], which will become the foundation of full membership in the EAEU in the near future and will allow deep economic and socio-political integration with members of this international organization. In 2020, the trade turnover between the countries increased by almost 16% and came close to the $6 billion mark, and over the 10 months since the beginning of 2021, its growth amounted to more than $6 billion." A number of projects are being prepared to improve the quality of Russian language teaching in kindergartens and schools in Uzbekistan. From 2022, according to the approval of the President of Russia V. Putin, there will already be 16 of them, and a branch of St. Petersburg State University will start operating in Tashkent [13].

Conclusions

Using the methods of mathematical statistical analysis, forecasting calculations of macroeconomic indicators were determined and the reasons for the discrepancy between the indicators were identified. The predictive method provides a clear definition and understanding of the economic development of promising directions in the future and a detailed comparison.

The used tools of correlation and regression analysis, including the calculation and analysis of correlation coefficients, the construction and evaluation of parameters of multifactorial regression models, the calculation and analysis of elasticity coefficients, contributed to the identification of factors affecting the volume of gross domestic product in Uzbekistan, determining the forecast values. Based on the results of the observed significance criteria, a strong correlation was revealed between the volume of GDP and the values of exports and imports, population size and investment volumes. It has been established that with an increase in the population by 1 million people, the volume of GDP will increase by $5.2 billion, with an increase in investment by $1 billion, there will be an increase in GDP by $3 billion, and an increase in exports by 1 $ billion, will cause an increase in GDP by $4.3 billion, with an increase in the size of imports by $1 billion, the volume of GDP will be $3.2 billion.

It has been established that the predicted values of the indicators of the volume of gross domestic product in terms of exports and imports, the size of investments and the population on the observed graph are relatively close, except for some discrepancies to the residual values, which indicates that the resulting regression equation has a high degree of accuracy.

The analysis showed that in recent years Uzbekistan has been leading in terms of the main parameters of socio-economic development, outstripping the countries of the Central Asian region in all structures. The development potential of the country's economy is largely determined by the indicators of the growth of small business and private entrepreneurship, which share in the structure of GDP is more than 56% and annually this figure increases by 2.0 - 2.5%.

In general, the noted main parameters reflect a relatively favorable and stable socio-economic situation, determining favorable conditions and prerequisites for doing business by economic entities, the policy of liberalizing production, modernizing and diversifying its structure by creating a more attractive investment environment in various sectors and sectors of the economy will allow realizing a full-fledged prosperous country in all aspects.

Further development in all socio-economic structures of the country can be linked to the direction of liberalization and the definition of new basic structures of the modern economy, improved communication and the development of digitalization. It is these aspects that will contribute to the improvement of regulatory systems and the strengthening of competition in all economic entities, which is the main provision of stable development.

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