



# STATISTICAL ASSESSMENT OF THE ROLE OF INDUSTRY AND OTHER SECTORS IN THE DEVELOPMENT OF THE ECONOMY OF UZBEKISTAN

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Article history:	Abstract:
<b>Received:</b> 3 <sup>rd</sup> October 2023 <b>Accepted:</b> 3 <sup>th</sup> November 2023 <b>Published:</b> 4 <sup>th</sup> December 2023	The article analyzes the place and role of industries in ensuring economic development, the share of industries in the production of industrial products and their dynamics based on international classifications and outlines the directions for further strategic development of the industry.

**Keywords:** Industry, products, sector, GDP, production, structural shifts, share of sectors, rate of change.

## INTRODUCTION

In the economy of Uzbekistan industry occupies an important place and is a leader in comparison with other scopes. About 26 percent of the gross domestic product in the Republic of Uzbekistan is created in the industrial sector. The key to successful growth in all sectors of the economy depends on the pace of development of the industrial sector.

Today for the sustainable development of the economy of the country, all opportunities are being created to strengthen the export potential through the sale of finished products that can withstand competition in the world market by increasing production volumes in industries and sectors of the economy that create high added value.

In this regard, the President of the Republic of Uzbekistan Sh. M. Mirziyoyev in his address on December 29, 2020 noted that "...economic growth is achieved primarily through the creation of competitive production chains and increased investment in such projects" [1].

As a result of directing investments in production areas, completely new industries have been created in the country over the years of independence, including the automotive industry, petrochemicals, oil and gas engineering, the modern building materials industry, railway engineering, consumer electronics, and pharmaceuticals, modern food and textile industry and others.

During the years of independence (1991-2020), 23.2 percent of the additional GDP growth rate occurred due to an increase in the number of people employed in the economy, while the effect of increasing labor productivity and saving material costs amounted to 58.2 and 18.6 percent, respectively.

The development of enterprises in the real sector of the Republic of Uzbekistan and the creation of a competitive environment among them, the unique role of

enterprises in the real sector in the growth of the country's gross domestic product increased their desire to produce competitive and highly productive products. In Resolution of the President Sh.M. Mirziyoyev #4302 dated May 1, 2019 "On measures to further develop industrial cooperation and expand the production of demanded products", it was noted that for the production of industrial products that are in high demand, it is necessary to attract small businesses, as well as strengthening and developing industrial cooperation, reducing the cost of products" [2].

## LITERATURE REVIEW

The role of industrial products in ensuring the stable development of the economy of the country is incomparable. Therefore, the relevance of the development of an industrial network is constantly in the focus of attention of researchers. In particular, foreign scientists Yu. Rodionov, R. S. Porter, D. Deveryuks, B. Roberts, R.N. Nureyev created scientific innovations, a number of scientific studies were carried out by Uzbek scientists: A. Abdukhamidov, U. Mukhitdinov, A. A. Artikov, H. Ishbutaeva, Sh. Nizomova, E. Kh. Makhmudov, M. Isakov, Kh. D. Khudzhakulov.

For example, Artikov A. stopped about "A number of opportunities, geographical and economic factors for the development of the industry of Uzbekistan" [5], Narzikulov M.P. paid special attention "... to structural changes in the development of an industrial development strategy" [6], and E.Kh. Makhmudov drew attention to the "Strategic directions for creating conditions for the development of industries, creating a favorable macroeconomic environment, including such tools as budgetary, tax, monetary, price and foreign exchange policy" [7], Khudzhakulov Kh.D., Saifullaev S. .N. conducted a "Statistical study of structural changes in the industrial sector of Uzbekistan based on the



international classification" [8], Mamadjanov D.G. "... he especially focused on assessing the economic efficiency of the development of the industrial sector of Uzbekistan" [9].

### METHODOLOGY

In the course of the study, methods of economic and statistical analysis, synthesis, statistical grouping, peer review and scientific abstraction were used.

### ANALYSIS AND RESULTS

According to the preliminary results of 2021, the gross domestic product of our country increased by 7.4% (1.9% in 2020), the volume of value added in industry increased by 8.7% (0.9% in 2020), and almost 70 percent of finished goods with high added value. The volume of industrial output produced by the enterprises of our republic in 2021 in current prices is 451.6 trillion uzbek soums compared with 2010, the growth rate of value added created in industry amounted to 184.7 percent (166.5:90.2), the average annual rate of additional growth was more than 5.7 percent (table No. 1, graph No. 1) .

**Table 1. Volume and dynamics of the main macroeconomic indicators of Uzbekistan**

Years	The volume of GDP and GVA in 2020 prices, trillion Uzbek soums			Per capita in 2020 prices, thousand soums		
	GDP	Gross value added of industries		GDP	GVA	
		total	including industry		across sectors	all
A	1	2	3	4	5	6
2010	338.9	311.3	90.2	11865.2	10898.9	3158.0
2011	364.4	335.3	94.1	12420.2	11428.3	3207.3
2012	390.2	360.4	99.5	13105.2	12104.3	3341.8
2013	418.7	387.1	106.9	13844.4	12799.6	3534.7
2014	447.6	414.2	111.8	14552.5	13466.5	3634.9
2015	479.8	444.4	117.7	15329.6	14198.6	3760.5
2016	508.1	471.1	124.0	15954.0	14792.2	3893.5
2017	530.5	491.3	130.5	16379.2	15168.9	4029.2
2018	559.1	517.4	144.6	16965.0	15699.7	4387.7
2019	591.0	547.4	151.8	17599.4	16301.1	4520.5
2020	602.2	557.8	153.2	17591.7	16294.6	4475.3
2021	646.8	599.6	166.5	18524.9	17173.1	4768.7

Source: Author's calculation based on data from the State Statistics Committee of the Republic of Uzbekistan

In general, industry is one of the main sectors of the economy of the Republic of Uzbekistan. Because the industry is fundamentally different from other areas and industries in its creation of added value, its role in meeting the needs of the population and its high production locomotive. The development of the production network leads to the development of the national economy at a sustainable pace. Diversification processes will be improved through the processing of all resources extracted and grown in industry, the production of new products from them, and an increase in the range.

In addition to being a major production institution, the industrial sector is also important in providing employment and creating new jobs. The number of people employed in the industry in 2010 amounted to 1605.7 thousand people, in 2015 - 1768.7 thousand people, in 2020 - 1809.5 thousand people, in 2021 - 1883.3 thousand people. people or 13.8 employed in

the economy, respectively; 13.5; It was 13.7 and 13.9 percent.

As a result, in 2021, compared to 2010, the number of people employed in the industry increased by 17.3%, and in the economy as a whole, this figure was 16.4%. Another important feature of the manufacturing industry in increasing employment is related to its processing and value-adding activities. That is, as the number of processing enterprises increases and the value added increases, the number of people employed in the industry also increases. From this it can be seen that there is a direct relationship between the increase in value added, processing and changes in the number of people employed in the industry. The industry helps to coordinate the processes of economic integration between the countries participating in the world economy and to ensure a balance between sectors of the economy. As a result, the natural, labor and financial resources of all countries, as well as the



achievements of science and technology, will be rationally used. This, in turn, will increase the production of high value-added products in the chemical, oil and gas and petrochemical industries,

mechanical engineering, metalworking, construction materials production, light, high-tech food industries and other industries.

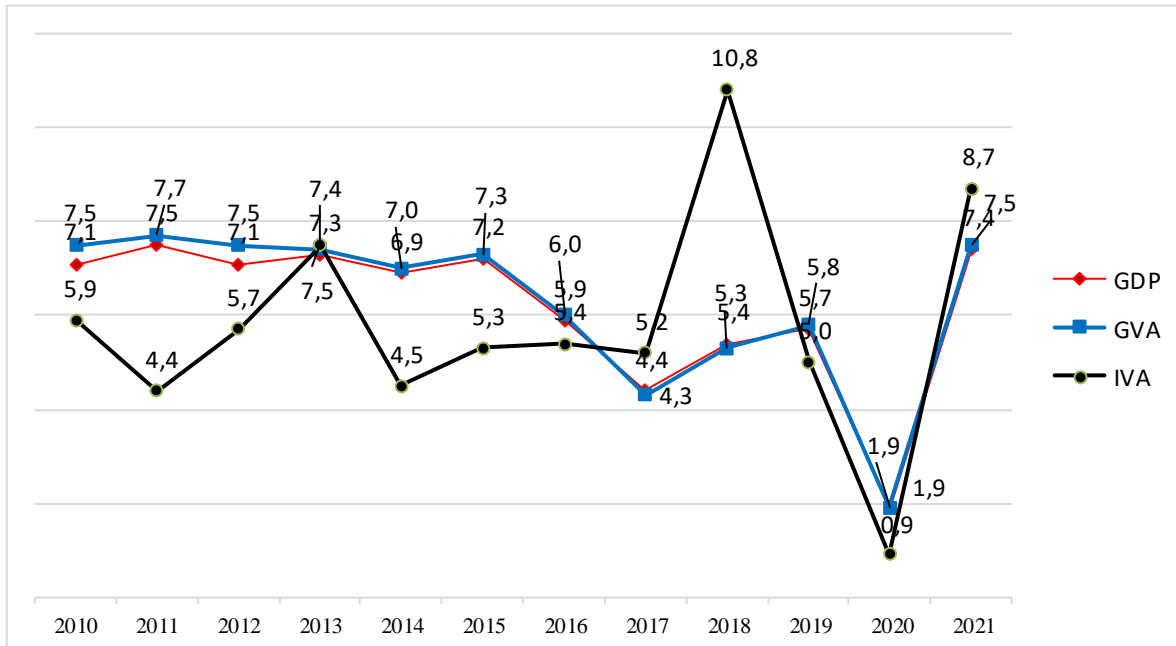


Diagram #1. Growth rates of gross domestic product (GDP), sectoral gross value added (GVA) and industrial value added (IVA) in percent.

In the Decree of the President of the Republic of Uzbekistan "On the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021", quality aimed at the rapid development of high-tech processing industries, primarily the production of finished products with high added value based on the deep processing of local raw materials, further modernization and diversification of the industry by transferring it to a new level" [3] - especially emphasized.

It should be noted that in recent years, structural changes have taken place in industries and sectors of the economy. In 2021, compared with 2010, the contribution of industry to GDP and gross value added, the share of the industry increased by 9.3 and 9.1 percent, respectively, in construction - by 1.4 and 1.3 percent, and in agriculture, forestry and fish farms - by 2.0 and 3.7 percent. We see that it decreased by 4.2 and 6.7 percent in the service sector.

**Table 2 Changes in GDP and gross value added (GVA) in sectors of Uzbekistan**

Years	Rates of change in GDP and GVA, %			Share of the GVA industry in GDP, %			Share of industrial value added, %	
	GDP	GVA		In all sectors	Including industry	in	In the GVA of industries	In the volume of industrial production
		In all sectors	Including industry					
A	1	2	3	4	5	6	7	
2010	107.1	107.5	105.9	88.0	16.5	18.7	34.1	
2011	107.5	107.7	104.4	88.7	15.4	17.4	33.5	
2012	107.1	107.5	105.7	88.8	16.1	18.1	35.6	
2013	107.3	107.4	107.5	89.6	16.6	18.5	35.9	
2014	106.9	107.0	104.5	90.2	17.2	19.1	38.3	
2015	107.2	107.3	105.3	90.9	17.4	19.1	39.4	



2016	105.9	106.0	105.4	91.2	17.8	19.5	40.6
2017	104.4	104.3	105.2	89.0	18.8	21.1	40.0
2018	105.4	105.3	110.8	89.3	22.6	25.3	40.1
2019	105.7	105.8	105.0	91.5	25.7	28.1	42.2
2020	101.9	101.9	100.9	92.6	25.4	27.5	41.5
2021	107.4	107.5	108.7	92.8	25.8	27.8	42.0

Source: Author's calculation based on data from the State Statistics Committee of the Republic of Uzbekistan.

As a result of these structural changes, the share of GVA in GDP increased by 4.8 percent, while the share of net taxes on products decreased from 12 percent to 7.2 percent (Tables 2 and 3).

According to preliminary data, in 2021, compared with 2020 and 2010, the GDP growth rate in our republic will be 107.4 and 190.8 percent, the gross value added of industries will be 107.5 and 192.6 percent, and the added value created by in the industrial sector will be 108.7 and 184.6 percent, the average annual additional growth rate in 2010-2021 in terms of GDP, sectors and value added of industry - 6.0; is equal to 6.1 and 5.7

percent, and the coefficient of advance value added in industry is 0.967 or 96.7 percent (1.846:1.908) and 0.958 or 95.8 percent (1.846:1.926) in relation to GDP and gross value added of industries, respectively. These data indicate that the pace of production growth in the industrial sector was somewhat lower in dynamics. Based on the conducted research and analysis, it can be observed that in 2010-2021. GDP per capita and GVA of industries increased by almost 1.6 times, and value added in the industrial sector increased by 1.5 times (Tables 1 and 2).

**Table 3 Change in the share of industries in the volume of GDP and GVA in Uzbekistan (percentage)**

Years	The volume of GDP, at current prices, trillion soums	Share of networks, % (without industrial network)					
		Agriculture, forestry and fisheries		Construction		Services	
		in GDP	in the GVA of industries	in GDP	in the GVA of industries	in GDP	in the GVA of industries
A	1	2	3	4	5	6	7
2010	78,9	27.0	30.6	4.8	5.4	39.9	45.3
2011	103.2	29.7	33.5	4.4	4.9	39.2	44.2
2012	127.6	28.9	32.6	4.4	4.9	39.4	44.4
2013	153.3	27.8	31.0	4.8	5.3	40.5	45.2
2014	186.8	28.7	31.8	4.9	5.4	39.4	43.7
2015	221.4	29.2	32.1	5.1	5.7	39.1	43.1
2016	255.4	29.3	32.1	5.1	5.6	39.0	42.8
2017	317.5	28.7	32.2	4.8	5.4	36.8	41.4
2018	424.7	26.8	30.0	5.2	5.8	34.8	38.9
2019	529.4	24.6	26.9	5.8	6.3	35.3	38.7
2020	602.2	25.1	27.1	6.2	6.7	35.8	38.7
2021	734.6	25.0	26.9	6.2	6.7	35.7	38.6

Source: Author's calculation based on data from the State Statistics Committee of the Republic of Uzbekistan.

Structural changes in the production of industrial products and the share of industries according to the new structure of the VFU in the Republic of Uzbekistan are characterized by the information presented in Table. 4. It can be seen from the table that in 2010, 13.4% of the total volume of industrial production was created in the mining of minerals (B) and 75.4% in the manufacturing industry (C), in 2021 these the indicators will be 9.5 and 83.0, respectively. percent, that is, compared with 2010, it decreased by 3.9 percent and increased by 7.6 percent. In the field of manufacturing

(S-section), the largest share is in the steel industry, accounting for 25.7 percent in 2021 and an increase of 12.9 percent compared to 2010.

The State Committee of the Republic of Uzbekistan on Statistics determines the growth rates and dynamics of industrial production based on the indicator of the physical volume of value added created in the industry. It must be admitted that such a calculation is methodologically correct, since not all manufactured products will be final products in the economy, which is explained by the presence of repeated calculations and



intermediate consumption. However, it is advisable to analyze the economic process, determining the volume of production and its dynamics for individual economic entities.

The most important factor in improving the efficiency of the economy is to reduce the cost of production.

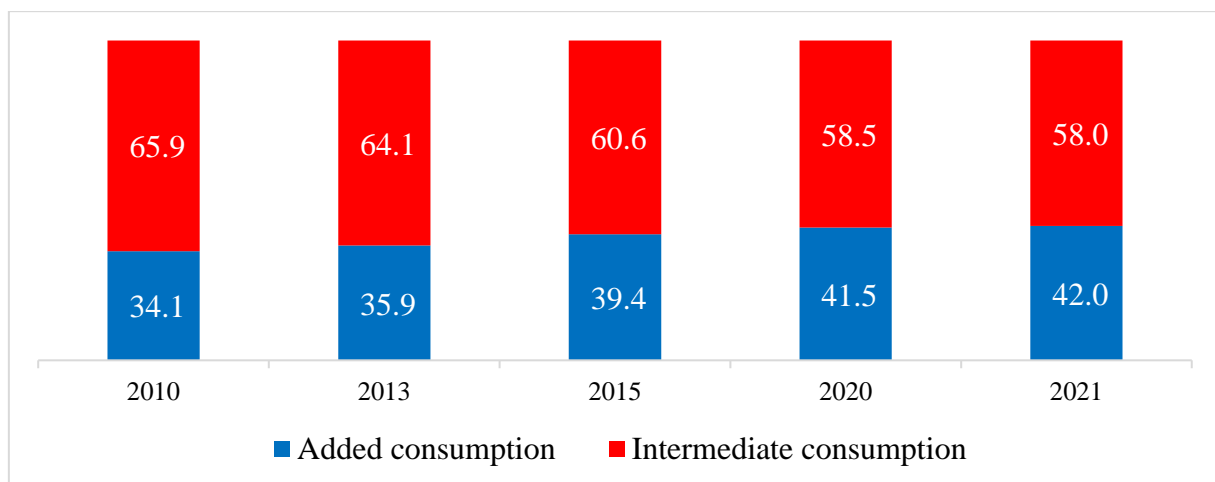
**Table 4. Structural changes and the share of industries in the production of industrial products**

Branches by enlarged sections	Years							
	2010	2015	2016	2017	2018	2019	2020	2021
Volume of industrial production (B, C, D, E) - total, billion soums	38119.0	97598.2	111869.4	148816.0	235340.7	322535.3	368740.2	451633.9
Total value in % :								
B. _ Mining and quarrying	13.4	9.7	8.1	10.3	12.3	13.5	9.0	9.5
C. _ Industry	75.4	80.5	81.8	81.1	80.6	79.0	83.0	83.0
D. _ Electricity, gas, steam and air conditioning	10.7	9.2	9.4	7.8	6.2	6.8	7.4	6.8
E. _ Water supply, sewerage, waste collection and disposal	0.5	0.6	0.7	0.8	0.9	0.7	0.6	0.7
Index of physical volume of industrial production in % :								
Across the industry	105.9	105.3	105.4	105.2	110.8	105.0	100.9	108.7
B section	94.8	102.9	100.8	117.6	126.5	99.4	78.0	110.7
C section	108.9	105.9	106.7	104.2	107.9	106.6	107.9	108.2
D section	118.5	105.1	103.6	95.5	103.1	105.1	106.8	113.0
E section	118.6	106.8	110.0	108.0	111.3	102.2	99.1	82.3

Source: Author's calculation based on data from the State Statistics Committee of the Republic of Uzbekistan.

Therefore, it is necessary to ensure savings in intermediate consumption costs in the production of products and services using advanced modern high technologies. Although the share of intermediate

consumption in industrial production decreased from 65.9% in 2010 to 58.0% in 2021, it still has a high weight (Table 2 and Chart 2).



**Diagram 2. Share of value added and intermediate consumption in industrial output (as a percentage of the total volume).**

In the development of the economy, the use and widespread introduction of advanced science-intensive

technologies in industries and areas is of great importance. The volume of work carried out in this



direction does not yet correspond to the level of demand. Suppose that in the manufacturing industry, which is considered the driver of the economy, the share of high-tech industries in 2020 was 2.0%, medium-tech - 22.4%, medium-low-tech - 39.9%. and low-tech - 35.7%, and in 2021 these figures amounted to 2.7, respectively; 20.1, 39.4 and 37.7 percent.

Therefore, based on this situation, it is advisable to increase the weight of high-tech industries.

Indices of the physical volume of industrial production by sections in 2021 compared to 2010 amounted to 127.8% for section B, 220.7% for section C, 133.6% for section D, 173.8% for section E, with an average annual incremental growth rate corresponding to 2.2 ; 7.5; 2.7 and 5.2% (table No. 4).

### **CONCLUSION AND RECOMMENDATIONS**

In order to increase the contribution of the industrial sector to the gross value added of industries, it is necessary to implement comprehensive measures to support and stimulate enterprises that carry out structural transformations, production based on deeper processing of local mineral raw materials, active diversification and modernization of leading industries. Limited to the supply of products to the domestic market, does not contribute to an increase in the share of export products of the industry at the level of demand.

We recommend the following directions that will ensure the development of the country's industry in the future:

- development of investment production, development of science-intensive projects aimed at meeting large-scale needs;
- increasing the innovative potential of enterprises, creating new enterprises that require science-intensive and high technologies, and producing products that can compete with imported products;
- accelerating the policy of importing modern equipment and technologies from developed countries for the production of industrial products;
- to increase the share of the private sector and small business in industry.

In the Decree of the President of the Republic of Uzbekistan "On the Development Strategy of New Uzbekistan for 2022-2026", three directions are outlined "Continuing the industrial policy aiming at ensuring the stability of the national economy and increasing the share of industry in the gross domestic product, increasing the volume of industrial production by 1.4 times" [4].

In conclusion, it should be noted that all the reforms carried out in the Republic are aimed at ensuring and

increasing the macroeconomic stability of the country and improving the living conditions of the population.

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