



Statistical Assessment of the Impact of Industries and Sectors on the Economy in Uzbekistan

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ABSTRACT:

In the article, the place and role of industries in ensuring economic development, the weight and dynamics of products in the structure of industrial production based on international classifications by types of economic activity are analyzed, as well as directions for more strategic development of economic industries are noted.

Key words: network, industry, agrarian sector, services, products, GDP, GNI production, structural shifts, share of sectors, rate of change.

The development of industries in the country's regions will play a crucial role in supplying the local market with affordable and high-quality products, creating jobs, increasing employment rates, and enhancing export potential. One of the sectors that has significantly contributed to the growth of Uzbekistan's economy is industry. Today, the industrial sector in the country is growing, reaching a point where it can easily compete with foreign products in certain product categories. This achievement is the result of structural changes in the industrial sectors that produce key industrial goods for both domestic and international markets.

Among the sectors producing material goods, industry holds the most important position and is a leader. In 2024, the value added (V) in the industrial sector of our republic accounted for 25.2% of the gross domestic product (GDP) and 26.4% of the gross value added (GVA) across sectors. With a GDP growth of 6.5%, 1.7% of this growth came from the industrial sector. The success of all sectors in the economy largely depends on the level and pace of development of this sector.

The Presidential Resolution of our country, Sh.M. Mirziyoyev No. PP-4302 dated May 1, 2019, "On measures to further develop industrial cooperation and expand the production of high-demand products," outlines the goals of "further expanding industrial production, involving small business entities more widely in industrial activities, strengthening and developing industrial cooperation, and reducing the cost of manufactured products." [1].

Currently, to ensure the sustainable development of the nation's economy, efforts are being made to enhance export potential by increasing the production volume in sectors that generate high added value, thus creating finished goods capable of competing in the global market.

In this context, President Sh. M. Mirziyoyev, in his Address to the Oliy Majlis on December 29, 2020, highlighted that: "Economic growth is primarily driven by the establishment of competitive industrial chains and increased investment in such projects" [2].

Thanks to the shift in investments towards production sectors, entirely new industries have emerged in the country during the years of independence, including sectors such as the automotive industry, petrochemicals, oil and gas machinery, modern building materials, railway machinery, consumer electronics, pharmaceuticals, and modern food and textile industries. This transformation is evident in the fact that the industrial sector's share in fixed capital investments for economic activities increased by 25 percentage points by 2024 compared to 2010, reaching 56.5%.

The development of enterprises in the real sector of Uzbekistan and the establishment of a competitive environment among them have played a crucial role in the country's GDP growth. These enterprises are now increasingly focused on producing competitive, high-quality products.

The real sector plays an essential role in ensuring the sustainable development of our nation's economy. As a result, the development of the industrial sector has consistently been a focal point for researchers. Notable foreign scholars such as Yu. Rodionov, R. S. Porter, D. Devereux, B. Roberts, and R. N. Nureyev have made significant scientific contributions to this field, while local experts, including A. Abdukhamidov, U. Mukhitdinov, A. A. Ortikov, H. Ishbutaeva, Sh. Nizomova, E. Kh. Makhmudov, M. Isakov, and H. D. Khuzhakulov, have conducted numerous studies.

For instance, A. Ortikov examined "Various opportunities for industrial development in Uzbekistan, focusing on geographical and economic factors" [6], M.P. Narzikulov emphasized the importance of structural changes in industrial development strategy [7], E. Kh. Makhmudov discussed "Strategic directions for creating conditions for industrial sector development, focusing on the creation of a favorable macroeconomic environment, including tools such as budget, tax, monetary, credit, price, and exchange rate policies" [8], Khujakulov K.D. and Sayfullaev S.N. conducted a "Statistical study of

structural changes in Uzbekistan's industrial sector based on international classification" [9], and Mamadzhanov D.G. focused on "Assessing the economic efficiency of the industrial sector's development in Uzbekistan" [10].

The research employed various methods, including economic-statistical analysis, synthesis, statistical grouping, expert evaluation, and scientific abstraction.

In 2024, compared to the previous year, the gross domestic product of our country grew by 6.5%, while the industrial sector's added value rose by 11.3%. Notably, nearly 70.0% of the products produced were finished goods with high added value. The total volume of industrial products manufactured by enterprises in our republic in 2024, at current prices, amounted to 885.8 trillion soums. When compared to 2010, the growth rate of added value in the industry was nearly 2.2 times higher (195.3:90.2), with the average annual growth rate standing at 5.7% (see Table 1).

Table 1. The main macroeconomic indicators in Uzbekistan volume and dynamics

Years	GDP and GNP in 2020 prices, trillion soums			Per capita income in 2020 prices, thousand soums		
	GDP	Net worth of networks		GDP	VAT	
		Total	from this in industry		across all sectors	from this in industry
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
2022	685.6	644.5	165.6	19232.4	18079.5	4534.8
2023	728.8	693.1	175.4	20015.2	19034.7	4701.7
2024	776.2	739.7	195.3	20881.6	19899.6	5254.0

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

In general, industry stands as one of the central pillars of the economy in our republic. It significantly differs from other sectors and industries due to its capacity to generate added value, its role in satisfying the population's needs, and its high production dynamics. The growth of the industrial sector contributes to the stable development of the national economy. Within the industrial sector, diversification processes are enhanced by the processing of all raw and agricultural resources, producing new products from them, and expanding the range and variety of goods.

Beyond being a major production force, the industrial sector also plays a crucial role in providing employment and generating new jobs for the population. In 2010, the sector employed an average of 1,605.7 thousand people; in 2015, the number rose to 1,768.7 thousand people; by 2020, it reached 1,809.5 thousand people, and in 2023, the figure remained the same at 1,809.5 thousand, accounting for 13.8%, 13.5%, 13.7%, and 13.1% of total employment in the economy, respectively. As a result, in 2023, the number of employees in the industrial sector grew by 13.7% compared to 2010, while the total growth rate in the economy stood at 20.5%.

An important characteristic of the industrial sector in terms of job creation lies in its activities related to processing and added value generation. As the number of processing enterprises and the level of added value increase, the number of workers employed in the sector also grows. This demonstrates a direct link between the rise in added value and processing activities and the change in employment levels within the industry.

Industry plays a key role in coordinating economic integration between countries within the global economy, ensuring a balance between different economic sectors. Ultimately, it allows for the rational use of the natural, labor, and financial resources of all nations, as well as the application of scientific and technological advancements. This requires high-tech industries, such as those in the chemical, oil and gas, petrochemical, machine-building, metal processing, construction materials, and light and food industries. These sectors are critical for increasing the production of goods with high added value.

The Decree of the President of the Republic of Uzbekistan, "On the Strategy of Actions in Five Priority Areas of Development of the Republic of Uzbekistan in 2017-2021," specifically highlights the need for "further modernization and diversification of industry through a transition to a qualitatively new stage, aimed at the accelerated development of high-tech processing industries, primarily focused on the production of finished products with high added value based on the deep processing of local raw materials" [3].

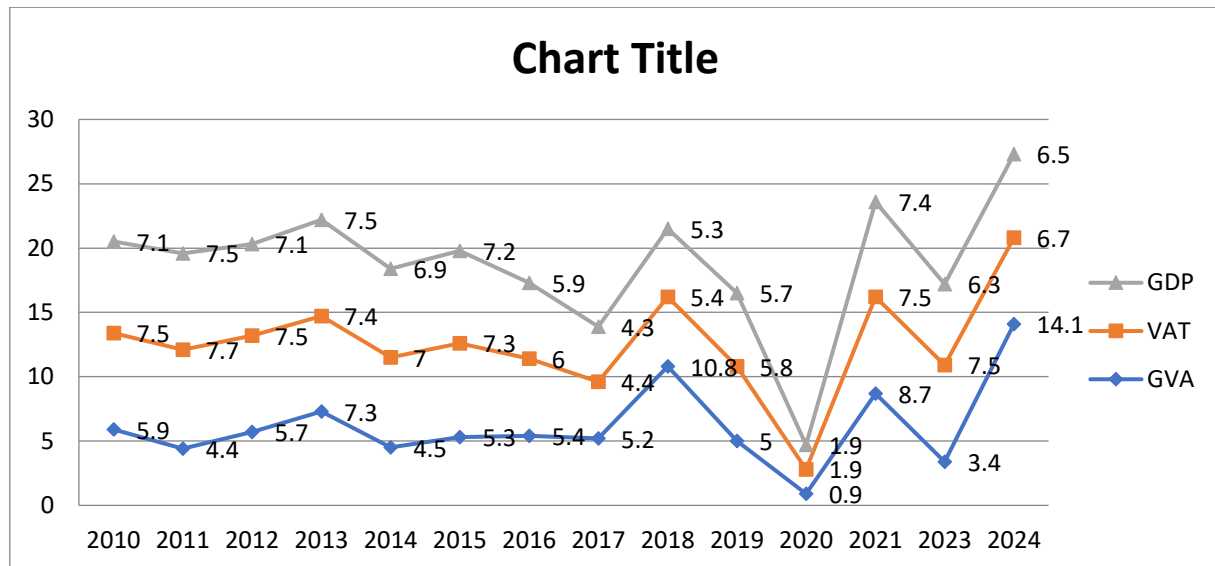


Diagram 1. Incremental growth rates of gross domestic product (GDP), sectoral gross value added (GVA) and industrial value added (VAT), in percent.

It is important to note that significant structural changes have taken place in various sectors of the economy in recent years. In 2024, compared to 2010, the share of industry in the GDP structure and gross value added by sectors increased by 8.7 and 7.7 percentage points, respectively. Construction saw an increase of 1.9 and 1.6 percentage points, while the services sector grew by 5.3 and 2.1 percentage points. Conversely, the agriculture, forestry, and fisheries sectors experienced a decline of 8.7 and 11.4 percentage points.

According to the analysis results, in our republic, the GDP growth rate in 2024 compared to 2023 and 2010 will be 106.5% and 229.0%, respectively. The gross value added by sectors will grow by 106.7% and 237.5%, while the added value created in the industrial sector will increase by 111.3% and 216.6%, respectively. The average annual growth rate for GDP, sectoral value added, and industrial added value from 2010 to 2024 will be 6.1%. The coefficient of decline in value added in the industrial sector, relative to GDP and gross value added by sectors, was 0.946 or 94.6% ($2.166:2.290$) and 0.912 or 91.2% ($2.166:2.375$), respectively, indicating a decrease of 6.3% and 5.7%.

Table 2. Indicators of changes in GDP and gross value added (GVA) by sector in Uzbekistan

Years	Rate of change of GDP and GNI volume, %			Sectors share of VAT in GDP, %		Share of added value of industry, %	
	GDP	VAT					
		across all sectors	from this in industry	across all sectors	from this in industry	Networks in the NWO	In the volume of industrial products
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	41.1
2022	106.0	107.5	100.0	94.0	24.1	25.7	43.5
2023	106.3	107.5	103.4	95.1	23.5	24.7	43.7
2024	106.5	106.7	114.1	95.3	25.2	26.4	41.3

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

As a result of these structural changes, the share of sectoral VAT in GDP increased by 7.3%, while the share of net taxes on products decreased from 9.2% to 4.7% (Tables 2 and 3).

These figures suggest that the growth rate of production in the industrial sector has been somewhat slower in comparison. Based on the research and analysis conducted, it is evident that from 2010 to 2024, the volume of GDP per capita, sectoral gross value added (GVA), and industrial GVA increased by factors of 1.760, 1.826, and 1.664, respectively (Tables 1 and 2).

Table 3. Changes in the share of sectors in GDP and GVA in Uzbekistan (in percent)

Years	GDP volume, at current prices, trillion soums	Share of networks, % (without industrial network)					
		Agriculture, forestry and fisheries		Construction		Services	
		In GDP	Networks in the NWO	In GDP	Networks in the NWO	In GDP	Networks in the NWO
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	738.4	25.0	26.9	6.1	6.6	36.8	39.6
2022	995.6	20.9	22.3	7.3	7.8	41.5	44.2
2023	1192.2	20.5	21.6	7.1	7.3	43.9	46.2
2024	1454.6	18.3	19.2	6.7	7.0	45.2	47.4

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

The structural changes and the share of sectors in the production of industrial products under the new structure of the Industrial Production and Mining Sector in our republic are outlined in Table 4. The data presented in the table reveal that in 2010, 13.4% of total industrial output came from the mining industry and open-pit mining (B), while the manufacturing industry (C) accounted for 75.4%. By 2024, these figures had shifted to 7.6% and 85.1%, respectively, reflecting a decrease of 5.8 percentage points for mining and an increase of 9.7 percentage points for manufacturing. Within the manufacturing industry (C-section), the metallurgical industry holds the largest share, contributing 22.7% in 2024, showing an increase of 9.9 percentage points compared to 2010.

The National Statistics Committee of the Republic of Uzbekistan determines the growth rate and dynamics of industrial production using the index of the physical volume of added value created in the sector. This approach is methodologically sound, as not all manufactured products are considered final products in the economy, due to factors such as repeated calculations and intermediate consumption. However, it is also beneficial to analyze the economic process by evaluating the volume of production and its dynamics for individual economic entities.

One of the key factors in improving the efficiency of the economy is reducing production costs.

Table 4. The weight and dynamics of products by types of economic activity in the structure of industrial production

Industrial sectors by enlarged sections	Years							
	2010	2015	2017	2018	2019	2020	2023	2024
Volume of industrial products (B, C, D, E) - total, trillion. soum	38.1	97.6	148.8	235.3	322.5	368.7	659.0	885.8
Including in % of the total:								
B. Mining and open pit mining	13.4	9.7	10.3	12.3	13.5	9.0	8.4	7.6
C. Manufacturing industry	75.4	80.5	81.1	80.6	79.0	83.0	84.4	85.1
D. Electricity, gas, steam and air conditioning supply	10.7	9.2	7.8	6.2	6.8	7.4	6.7	6.8
E. Water supply, sewage system, waste collection and disposal	0.5	0.6	0.8	0.9	0.7	0.6	0.5	0.5
Index of physical volume of industrial production (compared to last year, %)								
Across the industry	105.9	105.3	105.2	110.8	105.0	100.9	106.3	106.8
B. – by section	94.8	102.9	117.6	126.5	99.4	78.0	99.5	101.9
C. – by section	108.9	105.9	104.2	107.9	106.6	107.9	107.4	107.7
D. – by section	118.5	105.1	95.5	103.1	105.1	106.8	109.5	105.3
E. – by section	118.6	106.8	108.0	111.3	102.2	99.1	103.2	105.5

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

Therefore, it is necessary to ensure cost savings for intermediate consumption in the production of products and services using advanced modern high technologies. Although the share of intermediate consumption in the production of industrial products decreased from 65.9 percent in 2010 to 56.3 percent in 2023, it still has a high weight (Table 2, Diagram 2).

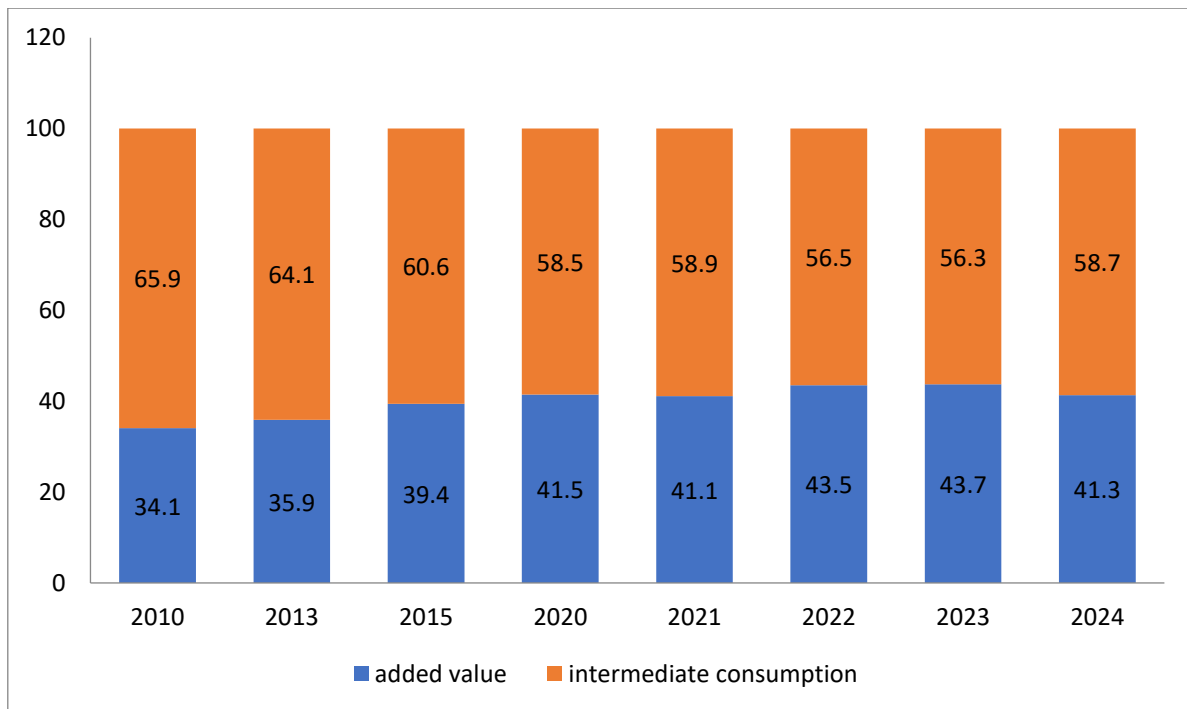


Diagram 2. The share of added value and intermediate consumption in the volume of industrial output (percentage of the total).

The application and widespread adoption of advanced high technologies in sectors and industries is crucial for the development of the economy. However, the scale of efforts in this regard has not yet reached the desired level. For instance, in the structure of manufacturing industries, which are considered key drivers of the economy, the share of high-tech production was 2.0% in 2020. Meanwhile, medium-high-tech industries accounted for 22.4%, medium-low-tech for 39.9%, and low-tech for 35.7%. By 2024, these figures are expected to change to 1.3%, 22.2%, 37.7%, and 38.8%, respectively. This indicates the need for an increased focus on high-tech industries.

In 2024, compared to 2010, the physical volume indices will be 221.0% for total industry, with the V section of industrial production at 132.0%, the C section at 269.4%, the D section at 174.8%, and the E section at 179.1%. The average annual additional growth rate will be 5.8%, 2.0%, 7.3%, 4.1%, and 4.2%, respectively (Table 4).

To enhance the contribution of industry to the gross value added by sectors, comprehensive measures should be implemented to support and encourage enterprises that are engaged in structural transformation. This includes the deep processing of local mineral raw materials, diversification, and modernization of key sectors.

Although structural changes in the industrial sector in recent years have considerably boosted the sector's potential in the national economy, investments in the industrial complex have not been able to significantly increase the share of exports from industrial products to the required level.

To ensure the future development of the country's industry, we propose the following directions: The development of investment production and science-based projects aimed at meeting large-scale needs.

Enhancing the innovative potential of enterprises, establishing new high-tech enterprises, and producing products that can compete with imports. Increasing export volumes by accelerating the policy of importing modern techniques and technologies for producing industrial products from developed countries. Expanding the share of the private sector and small businesses in the industrial sector. Increasing the share of joint ventures in industrial development. Expanding the export scope of manufactured products. The Decree of the President of the Republic of Uzbekistan "On the Development Strategy of the New Uzbekistan for 2022-2026" outlines three priority areas: "Continuing the industrial policy aimed at ensuring the stability of the national economy and increasing the share of industry in GDP, and increasing industrial production by 1.4 times" [3]. Additionally, in line with the 47th objective of the "Uzbekistan-2030" strategy, it aims to "Increase the volume of added value in industry to \$45 billion and create 2.5 million high-income jobs" [3].

In conclusion, it is essential to note that all reforms in the republic are designed to ensure macroeconomic stability and improve the living conditions of the population. These efforts are geared towards achieving long-term economic growth and prosperity.

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