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Analysis of Industrial Production Potential in Ensuring the Economic Security of the Regions

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Abstract

In this paper have been analyzed industrial production potential in ensuring the economic security of the regions. By authors were proposed improving economic mechanisms to encourage efficient use of industrial production power in Kashkadarya region. One of the important components of the country's industrial production potential is the technical and technological potential of production. In turn, one of the important indicators of the technical potential of production is the physical depreciation of fixed assets.

Key-words: Economic Security, Production, Potential, Labor Productivity, Regions, Industry, Economic Growth, Competitiveness, Risks.

1. Introduction

Economic security is about access to the resources, finance and markets necessary to maintain an acceptable level of wealth and power in the region. In addition, the concept of economic security

refers to the long-term security of access to economic opportunities in markets and resources such as people (human capital), finance, energy, water, technology, and education. This concept is crucial for nations, since only free people can build a free society, and their freedom rests on economic security.

The long-term internal stability of each region is a key factor in economic security. However, without economic growth and opportunities for individuals to freely choose economic activities, there can be no stability.

Industry is considered one of the main structures of the economic complex of all modern developed and developing countries. It includes, as a rule, many enterprises, industries of various industries, providing extraction and processing of natural resources and for other areas of activity. The study of the functioning of regions deserves special attention in the process of analyzing the state of industry.

2. Literature Review

The issues of scientific study of regional economic problems and their solution have always been in the focus of economists. In particular, the theoretical and practical aspects of this issue, in particular, the issues of increasing regional competitiveness are greatly contributed by foreign economists V.Mamgain [1], A. Venables, H. Glenn, P. Krugman, B. Robert [3], M. Fujita [4], B. Shaun, M. Enright [5] and others. added.

Among the economists of the CIS countries are A.G. Granberg, Yu.A. Gadjiev, O.G. Dmitrieva, N. Zubarevich, S.V. Kazantsev, I.N. Merenkova, A.N. Nosov, O.I. Panteleeva, D. Sepik, L.A.Serebryakova and others paid special attention to the theoretical issues of regional economic development, management of regional economic growth and development, diagnostics of regional economic development, increasing regional economic potential and competitiveness.

In Uzbekistan, the issues of development and management of the regional economy, the effective use of the economic potential of the regions are the areas of scientific interest of economists in this area. In particular, issues such as modeling the socio-economic development of regional industrial complexes, integrated development of regions, territorial location and management of productive forces, improving the methodological framework for increasing the competitiveness of the country's regions were discussed by Uzbek economists A. Burkhanov [7], Kalandarovna, A.G. [8], B. Tursunov [9;13], S. Najimudinova [10], Sh.B. Imamov, P.Z. Khashimov, F.T. Egamberdiev, A.J. Siddikov, I.O. Yakubov and others. Economic and socio-cultural impacts of the world nomad games [11], A fuzzy methodology for local entrepreneurial culture evaluation [12], Tourism Competitiveness

in Central Asian Turkish Republics [16] were investigated by Maksudunov A., Asanbekova M. [15] and others.

3. Analysis and Results

One of the important components of the industrial production potential of Kashkadarya region is the technical and technological potential of production. In turn, one of the important indicators of the technical potential of production is the physical depreciation of fixed assets.

Physical depreciation is the depreciation of fixed assets during the production process, over time, fixed assets become physically unusable and are replaced with new ones or some parts are overhauled. As fixed assets become obsolete, the production capacity of the industrial sector also declines.[16]

According to statistical analysis, the depreciation rate of fixed assets in the regional industry in recent years is 35.8% (Table-1).

According to the analysis, the level of depreciation of fixed assets in the general industry of Kashkadarya region in 2015 was 36.7%, and in 2018, this figure decreased by 0.9% compared to the previous year, reaching 35.8%.

Statistics show that in the general industry of Kashkadarya region in the mining industry and open pit mining in 2017 (43.4% compared to the end of the year), in the manufacturing industry in 2018 (37.9% compared to the end of the year), electricity, gas, steam water supply and air conditioning in 2015 (43.7% compared to the end of the year) and water supply; in the sewerage system, waste collection and disposal network in 2018 (35.3% compared to the end of the year) the level of depreciation of fixed assets was the highest.

Table 1- The Main Branches of Industry of Kashkadarya Region Depreciation Rate of funds (As a Percentage at the End of the Year)

Indicators	2015	2016	2017	2018
Industry - total	36,7	38,1	37,9	35,8
Mining industry and open pit mining activities	38,2	38,0	43,4	30,7
Manufacturing industry	34,8	36,3	34,3	37,9
Electricity, gas, steam supply and air conditioning	39,2	43,7	36,1	36,1
Water supply; sewage system, waste collection and disposal	30,9	32,6	35,3	29,6

Data of the State Statistics Committee of the Republic of Uzbekistan.

Currently, in the general industry of Kashkadarya region, the level of depreciation of fixed assets of the manufacturing industry is the highest, which at the end of 2018 amounted to 37.9%.

According to the analysis of the level of depreciation of fixed assets in the processing industry of Kashkadarya region at the end of 2018, the level of depreciation of fixed assets in tobacco production is 82.0%, coke and oil refining - 65.6% and in the production of vehicles, trailers and semi-trailers - 57 , Was 1 percent (table-2).

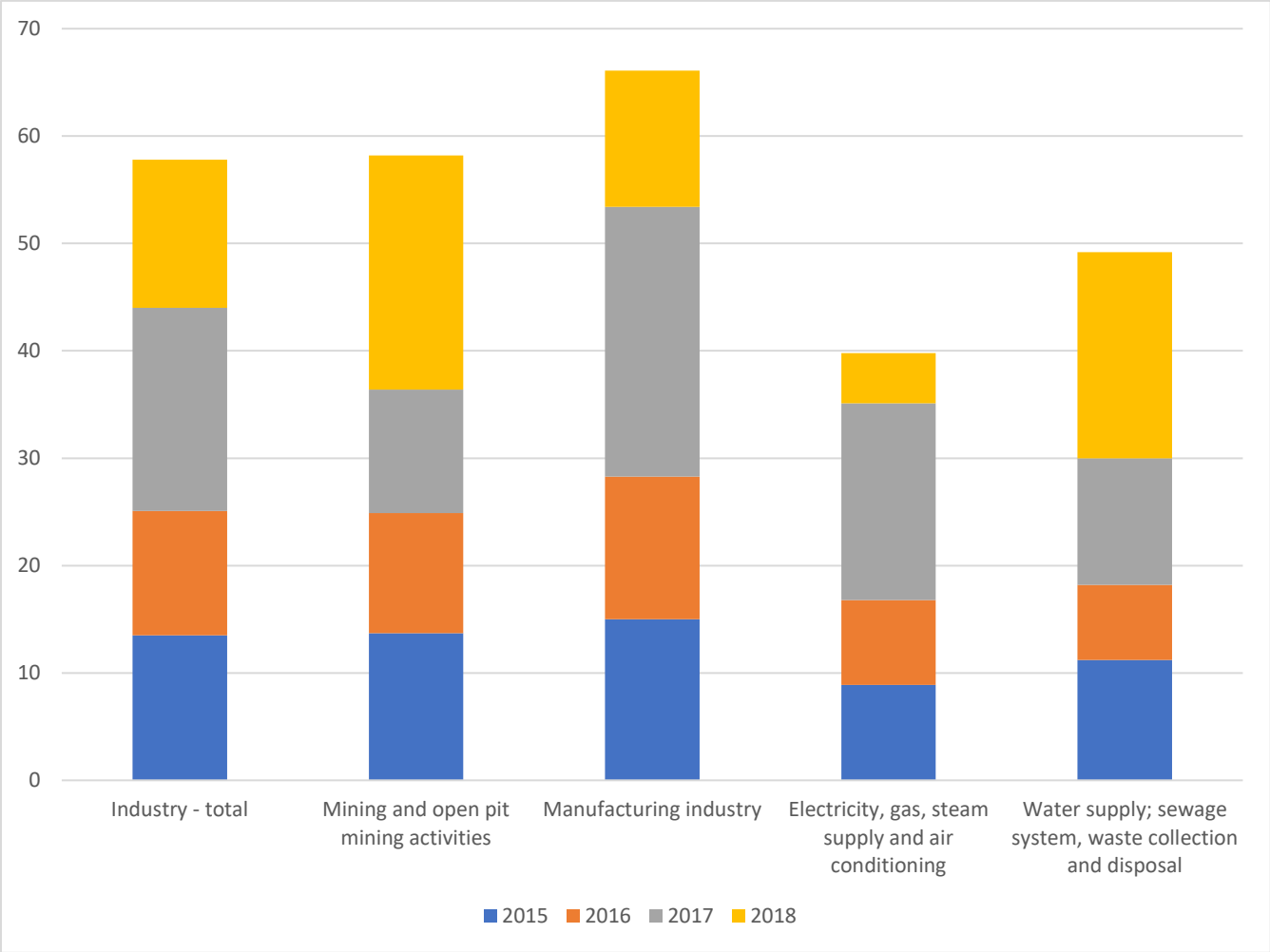
Table 2- In the Processing Industry of Kashkadarya Region Depreciation Rate of Fixed Assets (As a Percentage at the End of the Year)

Indicators	2015	2016	2017	2018
Food production	29,6	31,2	32,1	32,3
Beverage production	51,8	53,8	54,1	55,8
Manufacture of tobacco products	77,9	77,4	79,8	82,0
Manufacture of textile products	26,7	27,2	30,6	31,3
Manufacture of clothing	27,7	29,3	26,2	19,3
Manufacture of leather and related products	23,5	25,5	27,9	27,0
Manufacture of wood and foam products (except furniture), straw and textile materials	22,1	25,7	29,2	18,9
Manufacture of paper and paper products	27,5	27,1	30,0	31,7
Publication and reflection of written materials	43,5	44,1	46,7	48,2
Production of coke and oil refining products	52,9	60,3	60,4	65,6
Manufacture of chemical products	42,2	40,0	15,0	23,7
Manufacture of basic pharmaceutical products and drugs	31,3	26,9	29,1	33,6
Manufacture of rubber and plastic products	32,5	32,2	32,0	31,4
Manufacture of other mirror mineral products	37,5	36,5	35,8	38,6
Furniture production	30,6	34,1	30,9	27,6
Manufacture of other finished products	28,0	21,8	24,3	24,4
Repair and installation of machinery and equipment	41,4	32,2	40,5	48,9
Manufacturing industry	34,8	36,3	34,3	37,9

Source: Data of the State Statistics Committee of the Republic of Uzbekistan

It should be noted that high levels of obsolescence are also observed in high-tech industries. For example, the depreciation rate of fixed assets in the production of basic pharmaceuticals and drugs in 2018 was 33.6%, while in the production of computers, electronics and optics this figure was 40.8%. At the same time, the level of depreciation of fixed assets in the medium-tech sectors of the processing industry is much higher than in other industries.[17]

Fig. 1- The Main Branches of Industry of Kashkadarya Region Renewal Rate of Funds (As a Percentage at the End of the Year)



Source: author`s elaboration according to data of the State Statistics Committee of the Republic of Uzbekistan

According to research, the growth rate of the processing industry determines the economic growth rate in the region [1]. The main focus here is on the development of technology, and the regular renewal of fixed assets in production plays a very important role in ensuring it. One of the important indicators of this process is the renewal rate of fixed assets.[18]

Renewal ratio of fixed assets in the general industry of Kashkadarya region in the mining industry and open pit mining (21.8% compared to the end of the year) and water supply; sewerage, waste collection and disposal (19.2% at the end of the year), electricity, gas, steam and air conditioning (4.7% at the end of the year). (table-3).[19].

Table 3- In the Processing Industry of Kashkadarya Region the Renewal Rate of Fixed Assets (As a Percentage at the End of the Year)

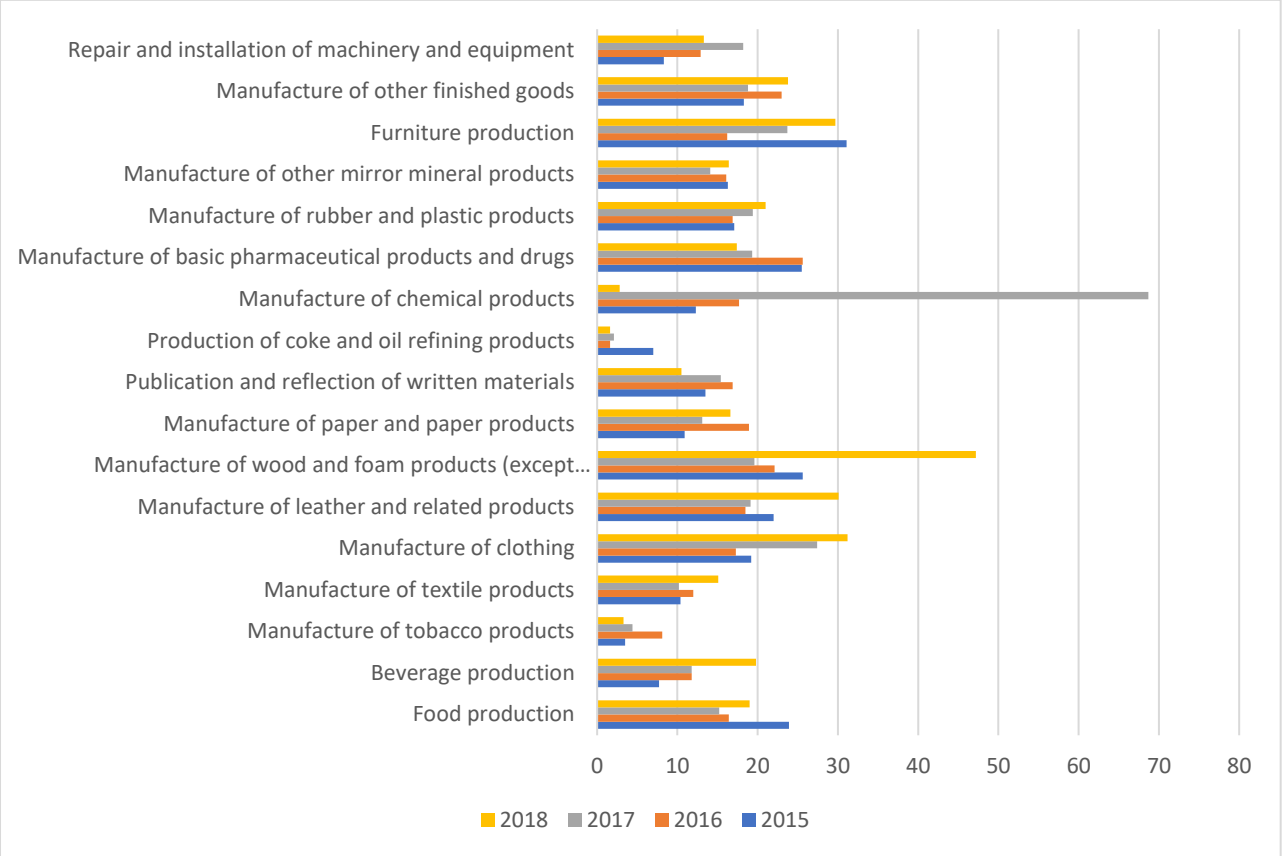
Indicators	2015	2016	2017	2018
Food production	23,9	16,4	15,2	19,0
Beverage production	7,7	11,8	11,8	19,8
Manufacture of tobacco products	3,5	8,1	4,4	3,3
Manufacture of textile products	10,4	12,0	10,2	15,1
Manufacture of clothing	19,2	17,3	27,4	31,2
Manufacture of leather and related products	22,0	18,5	19,1	30,1
Manufacture of wood and foam products (except furniture), straw and textile materials	25,6	22,1	19,6	47,2
Manufacture of paper and paper products	10,9	18,9	13,1	16,6
Publication and reflection of written materials	13,5	16,9	15,4	10,5
Production of coke and oil refining products	7,0	1,6	2,1	1,6
Manufacture of chemical products	12,3	17,7	68,7	2,8
Manufacture of basic pharmaceutical products and drugs	25,5	25,6	19,3	17,4
Manufacture of rubber and plastic products	17,1	16,9	19,4	21,0
Manufacture of other mirror mineral products	16,3	16,1	14,1	16,4
Furniture production	31,1	16,2	23,7	29,7
Manufacture of other finished goods	18,3	23,0	18,8	23,8
Repair and installation of machinery and equipment	8,3	12,9	18,2	13,3

Source: Data of the State Statistics Committee of the Republic of Uzbekistan

The coefficient of renewal of fixed assets in the general industrial sectors of Kashkadarya region in 2018 compared to 2015 in the mining industry and open pit mining by 8.1%, water supply; sewerage, waste collection and disposal increased by 7.0%. In other processing industries, the trend has been reversed. In particular, the renewal rate of fixed assets in the manufacturing industry in 2018 decreased by 2.3% compared to 2015 and 12.4% compared to 2017, while in the electricity, gas, steam and air conditioning sectors, this figure was 4.2 and 13, respectively. Decreased by 6%. (Table-3) [19].

In the processing industry of Kashkadarya region, the rate of renewal of fixed assets varies significantly. In particular, the renewal rate of fixed assets in the production of wood and foam products (except furniture), straw and textiles (47.2% at the end of the year), clothing (31.2% at the end of the year) and leather and leather products coke and oil refining products (1.6% at the end of the year), chemical products (2.8% at the end of the year), and tobacco products (at the end of the year). relatively 3.3 percent) had the lowest rates.[19]

Fig. 2- In the Processing Industry of Kashkadarya Region the Renewal Rate of Fixed Assets (As a Percentage at the End of the Year)



In the manufacturing of computers, electronics and optics, which are part of the high-tech industries of the processing industry, this figure was 16.9%, 17.4% in the production of basic pharmaceuticals and drugs, and 27.0% in the production of electrical equipment (table-2).

One of the important components of the industrial production potential of Kashkadarya region is labor potential. As a result of effective use of labor potential in industry, labor productivity will increase.

Econometric analysis has shown that a 1% increase in the level of fund armament in the industrial sector could lead to an additional 1.21% increase in labor productivity in the sector:

$$Y/L = 3.13 \cdot (F/L)^{1.21},\ R^2 = 0.982,\ F_{хак} = 672.1,\ t_{a_0} = 5.15,\ t_{a_1} = 25.9 \qquad (1)$$

Econometric analyzes confirm that there is a non-linear positive correlation between the growth rate of production in the processing industry and the growth rate of labor productivity in the processing industry, according to which the development of the processing industry can stimulate the development of the processing industry.

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It can be seen that the growth rate of production in the processing industry is the main source of gross productivity in the economy:

$$\ln p_{nm} = \underset{(0.66)}{0.04} + \underset{(4.12)}{0.69} \ln g_m, \; R^2 = 0.53, \; F = 17.02, \qquad (2)$$

here, p_{nm} – the rate of growth of labor productivity in non-manufacturing sectors.

One of the next important elements of production capacity in the industrial sector is energy potential. Improving energy efficiency is the most important condition for sustainable development in industries.

4. Discussion of Results

Studies show that structural and technological changes in the country are the main factors in reducing energy consumption, which in turn increases energy efficiency. [2]

The fact that the rate of consumption of energy resources is higher than the rate of growth of industrial products, leads to an increase in energy capacity in the network. The growth of energy capacity in industry, on the other hand, has a negative impact on economic stability.

The implementation of structural changes aimed at reducing energy consumption and the development of processing industries will reduce energy consumption of GDP.

Deterioration of the quality of fixed capital in production leads to unfavorable network changes in the order of energy consumption, resulting in increased energy consumption and energy capacity of the network in the production of goods.

According to econometric analyzes, there is a very strong exponential relationship between the level of industrialization of the economy and energy costs in industrial production, according to which the double correlation coefficient of these factors is 0.948. This confirms the increase in the level of industrialization of the economy, the growth of energy costs in industrial production on the basis of exponential laws.[19]

According to econometric analyzes, a 1% increase in energy return in the country's industrial sector will provide an increase in profits by 3.05% and gross value added in industry by 3.35%.

Particular attention is paid to reducing energy consumption in the industrial sectors of the country, including the President of the Republic of Uzbekistan "On the program of measures to reduce energy consumption in the economy and social spheres in 2015-2019, the introduction of energy-saving technologies" PP-2343 A number of measures have been taken to reduce energy consumption in the network.[19]

5. Conclusions

In summary, production capacity is a complex concept, and in order to increase the efficiency of its use, it is expedient to pay attention to the following:

- Accelerate the process of renewal of fixed assets of industrial production on the basis of the introduction of machines and mechanisms, advanced technologies;
- Development of effective mechanisms for attracting initial investment in industry and its sectors in order to increase the volume of private funds of industrial enterprises, bank loans and foreign investment;
- Concentration of resources on priority industries in order to develop export-oriented industries in the country.

This study analyzes the use of production capacity in the sustainable development of industry and examines the existing problems.

1. According to significant shifts in the sectoral structure of the country's GDP, the share of agriculture in this structure has significantly decreased, while the share of industry is growing. In 2018, the gross domestic product was 5.1 percent, the gross industrial output was 14.4 percent, and the additional growth rates of value added created in industry were 10.6 percent. This, in turn, means that the additional growth rate of gross industrial output exceeded the additional growth rate of gross domestic product by 9.3 percentage points.
2. The issue of sustainable industrial development in the regions has always been of great economic importance for the country, as the sustainable development of the country's industry depends in many ways on the development of regional industry, regional stability and economic growth, deep structural transformation in the regions. effective use of the potential of the region's industry in the implementation of tasks such as achieving the goal will allow to achieve the set goal faster.
3. The reasons for the differences in the share of regions in the industry of the republic depend on many factors. In particular, such factors as the area of the region, its favorable geographical location, climate, the level of rich natural resources of the industry, the quality and quantity of labor, the level of development of production infrastructure.
4. In carrying out the tasks set at the national level, it is expedient to take into account the economic potential and industrial potential of Kashkadarya region, which today has a special economic significance due to the rich local reserves of deep raw materials.

5. The growth rate of industrial production in Kashkadarya region is much higher than the national average, including the highest growth rate of industrial production in the region in 2008 (118.9%), the lowest growth rate in 2010 (96.8%). percent) were recorded.
6. Despite the huge production potential and opportunities in the region, there is a regional disparity in industrial production in this region. In Kashkadarya region, the number of districts with industrial production below the national average of 0.5% and above 1.0% remained unchanged in 2000, 2005 and 2018. However, the number of districts below 0.5% of the national average should have decreased, and the number of districts above 1.0% should have increased.
7. In the general industry of Kashkadarya region, the level of depreciation of fixed assets is the highest in the manufacturing industry, while the level of depreciation of fixed assets compared to the end of the year is 37.9%. In the medium-tech sectors of the processing industry, the level of depreciation of fixed assets is much higher than in other sectors.

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