

INTEGRATED ASSESSMENT COMPETITIVE ADVANTAGES OF THE UKRAINE AND POLAND INDUSTRIAL SECTOR IN TRANSBORDER ECONOMY OF LVIV REGION AND PODKARPACIE VOIVODSHIP

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ABSTRACT

The introduction of a free trade area between Ukraine and the European Union member states will update the implementation of cross-border comparative statistical assessments in order to identify the level of competitiveness of the industrial sector of the Ukrainian economy in the foreign market. Such an assessment is correct for Ukraine and the Republic of Poland, as neighboring countries, whose industry is similar in many structural and quantitative parameters, as well as the potential for development. The purpose of the article is to carry out a comparative integral assessment of the competitive advantages of the industry of Ukraine and Poland at the national and regional levels. By integrating the set of primary indicators reflecting the activity (production, export, investment, capital, innovation) and the efficiency (economic and resource) of the subjects of industrial activity, the corresponding indices are calculated, which together determine the level of competitiveness of the industrial sector of the economy of Ukraine and Poland and their border regions (Lvov region and Podkarpackie Voivodship) during 2011–2016. Based on the analysis of general and partial (on separate segments of industrial and economic activity of industry) integrated indices of competitive advantages of the industrial sectors of the economy of Ukraine and Poland, the strengths and weaknesses of the Ukrainian industry were identified, the causes of the latter were indicated, and the ways of their elimination were suggested, in particular, in order to increase the efficiency of investments and the level of implementation of innovations in production.

Key words: industry, competitive advantages, activity, efficiency, integral indices.

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1. Introduction

The problems of the functioning of industry in Ukraine have a negative impact on the level of its competitiveness. As a result, industrial products of many domestic producers today are not competitive on external markets, and with the introduction of a free trade area with EU member states may lose a significant part of the domestic market due to low quality and price parameters. It is obvious from this that the assessment of the competitiveness of the industrial sector of the economy of Ukraine and its regions, in particular the border regions, is important in order to determine the prospects of their participation in the competition for global product markets. Such an assessment is correct for the Ukrainian industry and the Republic of Poland as neighboring countries, similar in many socio-economic characteristics.

The purpose of the article is to compare the competitive advantages of the industry of Ukraine and Poland at the national and regional levels in the system of indicators, which characterize the level of efficiency and activity of the subjects of industrial activity.

2. Research methodology

The indicators of realization of the competitive potential of the industry are the results (expressed by absolute and relative indicators) of its functioning. The place of the country among competitors on these indicators reflects the actual competitiveness or *competitiveness* of the industrial sector. Competitiveness (achievement of high competitive positions) is determined by the presence of certain advantages. These advantages, on the one hand, are conditions for ensuring competitiveness, and on the other – its features (results).

The main competitive advantages of the industrial sector include: *activity* (production, export, investment, capital and innovation) and *efficiency* (resource and economic) of the subjects of industrial activity. For a thorough characterization of each of the selected competitive advantages of the industry an appropriate system of indicators has been formed (Table 1).

The integral assessment of the competitive advantages of the industry of the countries or their regions takes place in three stages.

At the *first stage*, primary indicators are calculated (shown in), which collectively reflect different aspects of the activity and efficiency of the industry.

Table 1. The indicators characterizing the competitive advantages of the industrial sector of the economy

COMPETITIVE ADVANTAGES						
Activity					Efficiency	
<i>Industrial</i>	<i>Export</i>	<i>Investment</i>	<i>Capital</i>	<i>Innovation</i>	<i>Resource</i>	<i>Economic</i>
the rate of growth of the volume of industrial products sold	the share of industrial goods in the export of goods and services	the growth rate of capital investments of industrial enterprises	the rate of growth of non-current assets	the share of enterprises introducing innovations in the total number of industrial enterprises	donation fund	profitability of turnover
share of industrial production in the volume of sales of products (goods, services)	the share of exports in the volume of industrial products sold	the rate of growth of foreign direct investment in industry	share of non-current assets in assets	the share of realized innovative products in the total volume of industrial products sold	product labor	profitability of operating activities
–	–	the share of industry in the total volume of direct foreign investment inflows	–	the share of expenses on innovations in the total volume of capital investments	–	profitability of assets

Source: Developed by the author.

At the *second stage*, the partial integral indices (in the context of the 7 groups) of the competitive advantages of the industry of the countries (or regions) are determined by the valuation of the values of the primary indicators calculated in the first stage and their further integration by the method of the arithmetic mean.

The *third stage* defines the general integral index of the competitive advantages of the industry of the countries. We accept the condition of competitive advantages are equivalent. Thus, the general integral index of the competitive advantages of the industrial sector of the economy of each country is calculated by the next formula:

$$I_I^K = \sqrt[7]{I_i^{prod} I_i^{ex} I_i^{inv} I_i^{cap} I_i^{inn} I_i^{res} I_i^{econ}}$$

where I_I^K – the general integral index of competitive advantages of industry of the country;

- I_i^{prod} – the integral index of production activity of the i -st country;
 I_i^{ex} – the integral index of export activity of industry of the i -st country;
 I_i^{inv} – the integral index of investment activity of industry of the i -st country;
 I_i^{cap} – the integral index of the capital activity of the industry of the i -st country;
 I_i^{inn} – the integral index of innovation activity of industry of the i -st country;
 I_i^{res} – the integral index of resource efficiency of industry of the i -st country;
 I_i^{econ} – the integral index of economic efficiency of industry of the i -st country.

The integral index can acquire values from 0 to 1. The greater the value of the index, the higher the competitiveness of the industrial sector of the economy of the region.

3. Estimation of the competitive advantages of the industrial sector of the economy of Ukraine and Poland

Calculations of the partial integral indices (conducted in the context of the seven competitive advantages) of the Ukrainian and Polish industries revealed the prevalence of the values of most of the indicators of the latter, which is a sign of the higher level of activity and efficiency of the functioning of the industrial sector of the economy of this country (Table 2).

The most important competitive advantages of the Polish industry were identified in terms of *economic efficiency* – during the period under review, with the strengthening of negative trends since 2011, when the difference between indices of integrated indices in favor of the Polish industry was 0.032 points (or 1.77 in times), and in 2016 reached 0.52 points (or 5.39 in times). This is due to higher values in Poland of indicators of both profitability and return on assets (the negative in Ukraine since 2014) and operating profitability (by 0.16 points (or 1.62 in times in 2016).

By the *resource efficiency* in 2016, the Polish industry dominated at the Ukrainian 3.29 in times (compared to 2.66 in times in 2011). This is due to a significantly higher value of the Polish labor productivity index (by 0.346 points or 3.6 in times in 2016). At the same time, the average number of workers in the Polish industry surpassed the same indicator in Ukraine at 1.11 in times (or 272.2 thousand people), where as in 2011, by contrast, the number of workers in the Ukrainian industry was higher than 1.25 in times (or for 671.4 thousand people).

By the level of *innovation activity* in 2016, the Polish industry prevailed in Ukraine 1.6 in times (vs. 3.09 in times in 2014), which was a sign of the gradual restoration of the innovation activity in Ukraine. The most (8.89 in times in 2015 compared to 4.65 in times in 2014), the Ukraine yielded Poland by the value of the indicator of the share of realized innovative products in the total volume of industrial products sold, the data of which since 2016 are absent from official sources of the State Statistics Service of Ukraine.

Also, a significant predominance of Polish industry during the analyzed period was observed in the share of enterprises that introduced innovations in the total number of industrial enterprises (more than in twice) and an indicator of the share of expenses on innovations in the total volume of capital investments (2.77 in times in 2014). At the same time, it should be noted that in 2016, compared to the previous year, in Ukraine the values of these indicators increased by 1.4 percentage points (next time – pp.) it's up to 16.6% and 5.0 pp. (up to 20.8%) respectively.

The values of the indicators of capital activity of the Polish industry during the analyzed period (except for 2014) prevailed in similar indicators of the Ukrainian one, in particular, in 2016 at 1.24 in times. This is due to the higher share of non-current assets in the total assets of the industrial sector of the Polish economy and the declining trend in Ukraine in this indicator (45.6% in 2016 compared to 54.5% in 2012). At the same time, the growth rates of non-negotiable assets of industry in Ukraine were higher than in Poland, in particular 2.1 in times in 2016.

Table 2. The indicators of the state and performance of industry in Ukraine (Ukr) and Poland (Pl)

Indicator	2011		2012		2013		2014		2015		2016	
	Ukr	Pl	Ukr	Pl	Ukr	Pl	Ukr	Pl	Ukr	Pl	Ukr	Pl
1	2	3	4	5	6	7	8	9	10	11	12	13
The production activity												
The rate of growth of the volume of industrial products sold	0.251	0.154	0.048	0.036	-0.033	0.004	0.080	0.023	0.243	0.038	0.215	0.057
The share of industrial products in the volume of sales	0.311	0.310	0.307	0.312	0.305	0.304	0.320	0.309	0.311	0.308	0.314	0.312
The integral index	0.281	0.232	0.177	0.174	0.136	0.154	0.200	0.166	0.277	0.173	0.264	0.185
The export activity												
The share of industrial goods in the export of goods and services	0.757	0.601	0.692	0.577	0.668	0.574	0.670	0.559	0.609	0.547	0.595	0.529
The share of exports in the volume of industrial products sold	0.411	0.353	0.350	0.355	0.330	0.372	0.362	0.378	0.359	0.388	0.326	0.387
The integral index	0.584	0.477	0.521	0.466	0.499	0.473	0.516	0.469	0.484	0.467	0.460	0.458

1	2	3	4	5	6	7	8	9	10	11	12	13
The investment activity												
The rate of growth of capital investment in industry	0.421	-0.013	0.164	0.139	0.065	0.025	-0.116	0.146	0.016	0.154	0.343	-0.259
The rate of growth of foreign direct investment in industry	0.085	1.626	0.127	-0.392	0.049	-0.545	-0.177	0.935	-0.104	-0.023	-0.284	0.247
The share of industry in the total volume of foreign direct investment (FDI)	0.347	0.356	0.315	0.671	0.310	0.696	0.323	0.259	0.306	0.198	0.255	0.258
The integral index	0.284	0.656	0.202	0.139	0.141	0.059	0.010	0.446	0.073	0.109	0.105	0.082
The capital activity												
The rate of growth of non-current assets	0.130	0.118	0.452	0.089	0.079	0.060	0.034	0.052	0.081	0.037	0.103	0.049
The share of non-current assets in assets	0.476	0.611	0.545	0.639	0.552	0.647	0.531	0.647	0.490	0.648	0.456	0.644
The integral index	0.303	0.364	0.499	0.364	0.315	0.353	0.283	0.350	0.285	0.342	0.279	0.347
The innovative activity												
The share of enterprises that introduced innovations in the total number of industrial enterprises	0.128	0.350	0.136	0.342	0.136	0.365	0.121	0.362	0.152	0.363	0.166	0.363
The share of realized innovative products in the volume of industrial	0.038	0.118	0.033	0.124	0.033	0.115	0.025	0.116	0.014	0.125	-	0.104
The share of the cost of innovation in the total volume of capital investment	0.182	0.285	0.125	0.262	0.098	0.246	0.089	0.248	0.158	0.275	0.197	0.208
The integral index	0.116	0.251	0.098	0.242	0.089	0.242	0.078	0.242	0.108	0.254	0.182	0.286
The resource efficiency												
The return on assets	0.020	0.016	0.014	0.016	0.013	0.015	0.013	0.014	0.015	0.014	0.017	0.014
The productivity	0.144	0.419	0.167	0.441	0.160	0.450	0.131	0.452	0.119	0.464	0.133	0.480
The integral index	0.082	0.218	0.090	0.228	0.086	0.232	0.072	0.233	0.067	0.239	0.075	0.247
The economic efficiency												
The cost effectiveness of operating activities	0.047	0.075	0.034	0.059	0.030	0.061	0.016	0.059	0.009	0.057	0.042	0.068
The return on assets	0.042	0.077	0.012	0.059	0.007	0.059	-0.083	0.053	-0.077	0.047	-0.003	0.060
The profitability of turnover	0.045	0.078	0.016	0.060	0.010	0.063	-0.116	0.057	-0.102	0.051	-0.004	0.065
The integral index	0.045	0.077	0.021	0.059	0.016	0.061	-0.061	0.057	-0.057	0.051	0.012	0.064
The general integral index	0.259	0.339	0.205	0.249	0.163	0.215	-0.139	0.286	-0.203	0.233	0.184	0.237

PS.: The integral index of innovation activity of Ukraine and Poland for 2016 is calculated on the basis of two indicators.

PPS.: The labor productivity of Ukraine and Poland is calculated in PLN for the average yearly rate of the National Bank of Ukraine in corresponding years.

Source: author's calculations.

According to the level of *investment activity*, the Ukrainian industry prevailed in Poland in 2012, 2013 and 2016. This is due to a generally higher rate of growth of capital investments and FDI in Ukrainian industry, as well as a decrease in the share of industry in the total volume of FDI in Poland in 2014–2016.

In terms of *export activity*, the Ukrainian industry over the analyzed period prevailed in the Polish. However, this advantage was characterized by a declining trend – from 1.22 in times in 2011 – to more than once in times in 2016. The preponderance of the Ukrainian industry is the higher (but falling) share of industrial goods in the export of goods and services (59.5% in 2016 compared with 75.7% in 2011), while Poland has the highest (and growing) share of exports in the volume of trade sold (38.7% vs. 35.3% respectively).

The relatively higher level of *industrial activity* in Ukraine in 2014-2016 is due to higher rates of growth of the volume of industrial products sold in this period, in particular 21.5% vs. 5.7% in Poland in 2016. However, this activity is partly explained by the inflation factor. At the same time, the value of indices of the share of industrial production in the total volume of sales of products (works, services) in Ukraine and Poland almost coincides (31.4% vs. 31.2%). Its indicates the same level of industrialization of the economy of these countries.

The results of the analysis of the values of the overall integrated index of the competitive advantages of the industrial sectors of the economy of Ukraine and Poland for 2011–2016 revealed the predominance of Polish industry in all years of the analyzed period (Fig. 1). The largest gap was in 2015 (0.436 points), but in 2016 it dropped significantly, indicating a tangible increase in industrial activity in Ukraine.

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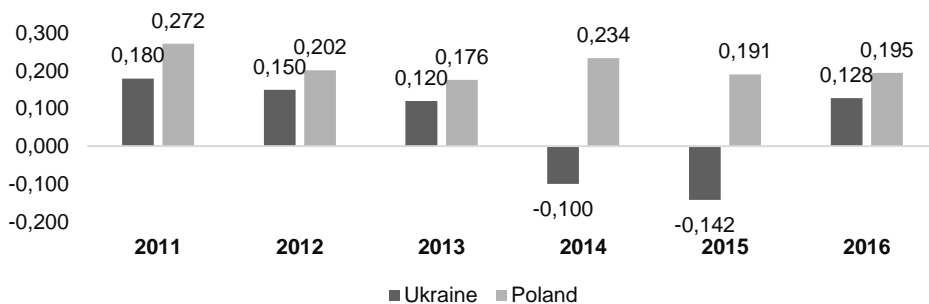


Figure 1. Integral index of competitiveness of industry of Ukraine and Poland, share of unit

Source: Built by the author.

However, low innovative activity, along with inefficient capital investment and high cost of economic activity, negatively affects the level of competitiveness of Ukrainian industry. As a result, the products of many domestic producers today are not competitive on external markets, and with the introduction of a free trade area with EU member states may lose a significant part of the domestic market due to low quality and price parameters. Hence, the relevance of assessing the competitiveness of the industrial sector of the economy of the border regions is obvious in order to determine the prospects for their participation in the competitive struggle for the European market of products.

4. Assessment of the competitive advantages of the industrial sector of the economy of Lvov region and Podkarpackie Voivodship

By the level of *economic efficiency*, the Polish industry on the meso-level (as at the macro level) completely prevailed in Ukraine (Table 3). In particular, the indicators of profitability of operating activity, turnover and assets in the Podkarpackie Voivodship were higher during the analyzed period than in the Lvov region, and in the years 2014–2015, this advantage was further exacerbated by the negative financial result prior to the taxation of the industry of the latter.

The *resource efficiency* of the Podkarpackie Voivodship industry was 3.37 in times higher in 2011–2016. A key advantage of the voivodship industry (as well as Poland in general) is the relatively high level of labor productivity (4.19 in times higher than in the oblast). At the same time, it should be noted that the average number of workers in the industry of Lvov region is 1.16 in times higher than in the voivodeship.

The level of *innovation activity* of the industry in Podkarpackie Voivodship is more than 3 times higher than in the Lvov region. This is due to the relatively higher values of all the indicators analyzed, which characterize this competitive advantage.

Instead, according to the level of *capital activity* of the industry, the Lvov region dominated the voivodship in 2013–2014 due to the substantially higher (in particular, more than 5 in times in 2013) the rate of growth of non-current assets. However, the share of non-current assets in the industry's assets in the region, as compared to the voivodship, is low and tends to further decrease – 37.4% in 2016, against 53.7% from 2013.

In terms of the *investment activity*, Lvov region prevailed in Podkarpackie Voivodship during 2013–2016. This is due to higher rates of growth of capital and FDI in the region industry. In contrast, the province has the highest share of industry in total foreign direct investment, due to the higher level of investment attractiveness of the economy of this region.

The *export activity* of the industry in the Lvov region during the analyzed period was higher than in the Podkarpackie Voivodship and resulted in a higher (by 6.8 pp. in 2016) the share of industrial goods in the export of goods and services, which, however, tended to decline. Instead, for the voivodship, the share of exports in the volume of industrial products sold is slightly higher (by 1.6 pp.).

Table 3. The indicators of the state and performance of industry in the Lvov region (LR) and Podkarpackie Voivodship (PV), share of the unit

Indicator	2011		2012		2013		2014		2015		2016	
	LR	PV	LR	PV	LR	PV	LR	PV	LR	PV	LR	PV
1	2	3	4	5	6	7	8	9	10	11	12	13
The production activity												
The rate of growth of the volume of industrial products sold	0.263	0.151	0.077	0.046	-0.007	0.031	0.143	0.001	0.478	0.032	0.152	0.041
The share of industrial products in the volume of sales	0.265	0.283	0.264	0.290	0.264	0.293	0.264	0.310	0.326	0.325	0.329	0.330
<i>The integral index</i>	0.264	0.217	0.171	0.168	0.129	0.162	0.204	0.155	0.402	0.179	0.241	0.185
The export activity												
The share of industrial goods in the export of goods and services	0.857	0.721	0.824	0.715	0.731	0.672	0.702	0.621	0.665	0.612	0.676	0.608
The share of exports in the volume of industrial products sold	0.287	0.285	0.295	0.312	0.285	0.324	0.362	0.375	0.391	0.412	0.399	0.415
<i>The integral index</i>	0.572	0.503	0.560	0.514	0.508	0.498	0.532	0.498	0.528	0.512	0.538	0.512
The investment activity												
The rate of growth of capital investment in industry	0.207	0.191	0.110	0.055	0.319	0.001	-0.213	0.066	0.327	-0.008	0.745	-0.122
The rate of growth of foreign direct investment in industry	0.018	1.100	0.718	0.014	0.138	0.084	-0.283	-0.224	-0.119	-0.128	-0.091	0.249
The share of industry in the total volume of foreign direct investment (FDI)	0.273	0.466	0.390	0.663	0.425	0.427	0.378	0.423	0.367	0.421	0.380	0.426
<i>The integral index</i>	0.166	0.586	0.406	0.244	0.294	0.171	-0.039	0.088	0.192	0.095	0.345	0.184

1	2	3	4	5	6	7	8	9	10	11	12	13
The capital activity												
The rate of growth of non-current assets	0.082	0.241	0.215	0.144	0.193	0.037	0.072	-0.173	0.074	-0.058	0.097	0.021
The share of non-current assets in assets	0.487	0.670	0.513	0.640	0.537	0.660	0.481	0.660	0.447	0.650	0.374	0.651
The integral index	0.285	0.456	0.364	0.392	0.365	0.349	0.277	0.244	0.261	0.296	0.235	0.336
The innovative activity												
The share of enterprises that introduced innovations in the total number of industrial enterprises	0.098	0.420	0.108	0.398	0.120	0.428	0.126	0.407	0.184	0.445	0.186	0.461
The share of realized innovative products in the volume of industrial	0.015	0.121	0.021	0.132	0.030	0.125	0.021	0.118	0.019	0.131	-	0.112
The share of the cost of innovation in the total volume of capital investment	0.067	0.298	0.104	0.293	0.074	0.277	0.080	0.351	0.076	0.347	0.067	0.349
The integral index	0.060	0.280	0.078	0.274	0.075	0.277	0.076	0.292	0.093	0.308	0.127	0.405
The resource efficiency												
The return on assets	0.018	0.013	0.016	0.012	0.013	0.012	0.014	0.014	0.019	0.015	0.022	0.019
The productivity	0.074	0.273	0.089	0.291	0.086	0.306	0.068	0.301	0.068	0.309	0.075	0.314
The integral index	0.046	0.143	0.053	0.152	0.050	0.159	0.041	0.157	0.043	0.162	0.048	0.166
The economic efficiency												
The cost effectiveness of operating activities	0.032	0.078	0.017	0.067	0.038	0.082	0.015	0.07	0.011	0.082	0.039	0.087
The return on assets	0.020	0.038	0.007	0.038	0.018	0.043	-0.059	0.039	-0.05	0.050	0.013	0.058
The profitability of turnover	0.024	0.046	0.009	0.049	0.026	0.056	-0.059	0.045	-0.059	0.056	0.010	0.069
The integral index	0.025	0.054	0.011	0.051	0.027	0.060	-0.034	0.051	-0.033	0.063	0.021	0.071
The general integral index	0.126	0.251	0.130	0.209	0.132	0.200	0.103	0.169	-0.146	0.187	0.145	0.224

PS.: The integral index of innovative activity of Lviv region and Podkarpackie Voivodship for 2016 is calculated on the basis of two indicators.

PPS.: The productivity of the Lviv region and Podkarpackie Voivodship is calculated in PLN for the average yearly rate of the National Bank of Ukraine in corresponding years.

Source: author's calculations.

The level of *industrial activity* in the Lvov region was generally higher than in the Podkarpackie Voivodship. This is due to the growth in the growth of volumes of industrial products sold, especially in 2014–2016. At the same time, the province's industry dominated (except for 2015) by the share of industrial output in the volume of sales of products (goods and services), which is a sign of a somewhat higher level of industrialization of the economy of this region.

To summarize, it can be argued that in 2015–2016 the gap between the levels of competitive advantage of the industry in Lvov region and Podkarpackie Voivodship increased significantly in favor of the latter. The highest advantages of the voivodship are due to the significantly higher level of economic, resource and innovation activity of its industry, as well as the higher level of capitalization of the latter. It follows that the industrial sector of economy of the Podkarpackie Voivodship (in comparison with the similar sector of the economy of the Lvov region) is more efficient and innovative. The similar advantages exist at the macro-level.

The calculation of values of the general integrated index of the competitive advantages of the industry of Lvov region and Podkarpackie Voivodship (Fig. 2) revealed a tendency to increase (except for 2014 and 2015) the overall level of development of the industrial sector of the region's economy. However, the index of competitive advantages of the Podkarpackie Voivodship industry over the analyzed period exceeded the value of a similar indicator in the Lvov region on average by 1.5 in times.

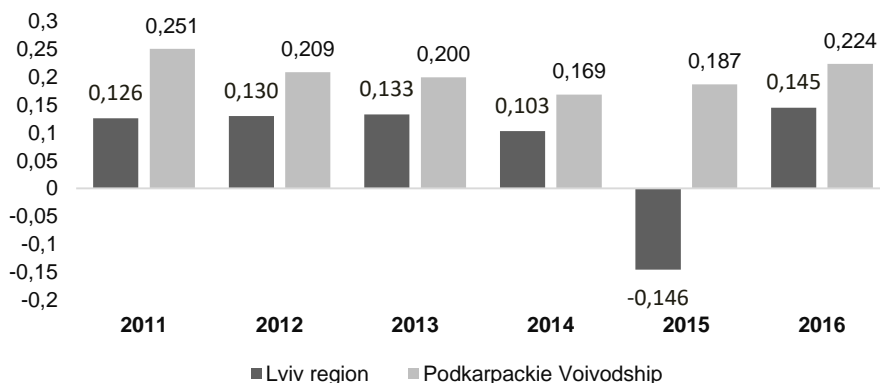


Figure 2. The integral index of industry competitiveness of Lvov region and Podkarpackie Voivodship, unit of unit

Source: Built by the author.

5. Conclusions and recommendations

To improve the innovation of the industrial sector of Ukraine's economy, on the one hand, it is necessary to improve the macroeconomic conditions of the operation of the subjects of industrial activity in the direction of promoting the expansion of domestic demand for domestic industrial products and increasing its supply, as well as improving the quality management system of industrial products and accelerating the international certification of enterprises. From the other hand, increase the efficiency of capital investments and the level of implementation of innovations in production. There is also a need for a gradual reorientation of investment flows in the development of high-tech industries, in particular through tax and customs incentives for domestic investors and state guarantees for foreign protection.

An effective tax incentive can be a reduction in the tax rate on income (or tax holidays) for high-tech manufacturers, while increasing the rate for commodity producers. It may be of interest and involve small and medium-sized businesses in the process of investing in high-tech manufacturing.

In its turn, the expansion of opportunities for the introduction of innovations into the industry requires to the next:

- development of innovation infrastructure by creating innovative clusters or technological parks (for example, Poland), in particular on the basis of institutes of the National Academy of Sciences of Ukraine;
- monitoring, on the one hand, the needs of enterprises in innovations, and, on the other hand, developments in the scientific and design institutions for sale, and the creation on this basis of the information catalog of innovations on the basis of the “supply-demand” principle;
- formation of an effective organizational and financial mechanism for the support and development of innovation activities by providing financial and credit assistance to economic entities that implement investment projects of innovative direction, in particular in energy and resource conservation;
- organization of an effective network of “science-production” based on the establishment of technology transfer centers for combining the potential of science, production and financial capital (with the involvement of small and medium-sized businesses).

In order to increase the access of the subjects of industrial activity to investment resources, in particular foreign ones, it is necessary:

- formation of a system of monitoring of investment projects implemented in the framework of public-private partnership, and continuous monitoring, in particular public, for their implementation in order to prevent inefficient use of capital investments;
- conducting an annual rating assessment of the investment attractiveness of the administrative-territorial units and leading commodity producers in the region, with further placement of its results on the investment portal of the region;

- creation of conditions for closer cooperation of the oblast with European organizations and funds involved in financial support for regional development within the framework of international cooperation programs, in particular EU funds through the Neighborhood and Partnership Instruments, border cooperation programs, other international programs and donors (World Bank, European Bank for Reconstruction and Development, European Investment Bank etc.).

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