

# SECTOR-SPECIFIC STRUCTURE OF THE REGIONAL ECONOMY AS A FACTOR OF ELEVATION OF RISKS TO ITS ECONOMIC SECURITY

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## **Abstract:**

*The article analyzes a sector-specific specialization of the regional economy in Ukraine. It also reveals possibility and conditions of transformation of a sector-specific specialization of the region and risks to its economic security. The article suggests an assessment of influence of a sector-specific specialization on occurrence of threats to the economic security of the region.*

**Key words:** a sector-specific specialization of the region, structural changes in economy, economic security of the region.

**JEL classification:** P25, R10

## **1. INTRODUCTION**

Socioeconomic development of the regions of Ukraine in 2015 – in the beginning of 2016 showed a large dependence of the regional economy on external conjuncture and vulnerability of socioeconomic sphere of the regions, which is caused by the sectoral structure of the regional economy. Structural imbalances of the regional economy lead to the situation when it cannot quickly adapt to changes, and this, in its turn, leads to stagnation and gradual downswing of the economic complex of the region. Such situation is also caused by a narrow specialization of economic complexes of the regions, even by sector-specific specialization, and crisis only intensifies these trends. All these require taking a number of measures towards protecting regional economies against further degradation. Such problems cause a necessity for developing a line of measures as to preventing turning of negative development trends of the regions into risks and threats to their economic security. Given issues precondition topicality of the given research.

Many authors are engaged into study of economic security of the regions and separate territories, namely Humeniuk A.M., Kosmarova N.A., Loiko V.V., Kozachenko H.V., Petrykova O.M., Stetsenko S.P. In their works they pay insufficient attention to the issues of dependency of the economic security of the region from specialization of the region, as well as to the issues of vulnerability of the region due to sector-specific specialization. That is why the purpose of the given research is to study the influence of the sectoral specialization of the region, including sector-specific specialization, on emergence of new risks to economic security of the region. Achievement of the purpose is based on the tasks fulfillment: to analyze a sector-specific specialization of the regional economy in Ukraine, to show conditions of transforming sector-specific specialization of the region into a risk to its economic security, to suggest assessment of influence of sector-specific specialization on occurrence of risks to economic security of the region.

## **2. STATEMENT OF BASIC MATERIAL**

Security of the regional level in its socioeconomic dimension has to ensure effective interaction of economic, social and natural environment, which stipulates balance of economic complex of the region, increase of economic independence, expansion of domestic market and creation of conditions for manufacturing of competitive products, ensuring safe ecologic environment, establishment of adequate living standards of citizens. Substantial attention within

this context should be paid to economic security as it embodies relations of authorities and local self-government of the region with central authorities, as well as relations of the region with other regions under the condition of reaching acceptable level of competitive ability of regional manufacturers and their solid positions in the markets. Important aspects of the economic security of the region are the ability to establish sufficient conditions for business development and investments attraction and the ability to develop (sell innovative activity, modernize production, improve quality of human capital). Moreover, economic security means ability of the authorities and local self-government to use effectively natural resources potential, to establish steadiness and ability to survive under crisis conditions, to contribute to establishment of diversified economy in the context of representing various business patterns.

Regional economic security is an ability to manage effective resource use, to contribute to economic development and growth, provide competitive ability of the products on external markets, ensure saturation of domestic market and availability of steady positions on external markets, as well as to counteract internal and external threats. Within this context it is obvious that in regional economy narrow specialization becomes an obstacle to economic development of the regions and causes intensification of dependence on foreign manufacturers – in particular, due to the fact that extensive way of economic development leads to necessity for using foreign technologies. That is why there is a need of studying the problem of narrow sector specialization of the regions within the context of their influence on economic security of the region.

Sectoral specialization of the regions in Ukraine is multifarious. Sectoral structure of the regions was established as a result of policy of allocating productive forces and reaching maximum effectiveness from development of certain one or two types of production, which was justified under the conditions of one single economic complex of the USSR. However, under the conditions of independent Ukraine all these became a reason of regional disproportions growth and oversaturation of economic of the state with development of some sectors and weakness or decline of the others. And regardless of a 25-year experience of political independence, in economic terms Ukraine continued developing established sectors of industry and agriculture within the same regions. As a result of this one can observe oversaturation of economic system with sectors of heavy industry and machine engineering, which products cannot meet demand within domestic market. As to foreign market, it is worth saying that under the conditions of violating economic relations with the Russian Federation and enforcement of mutual sanctions, there emerges a task for manufacturers of the regions to find new sales markets, in particular EU and Oriental countries.

According to some scientists, modern stage of Ukrainian economy development and its regions is caused by a disproportion of industrial and sectoral structure, which is a consequence of ineffective economic reforms and political instability. A number of negative phenomena can be observed caused by loss of production potential, low intensity of structural changes, and insufficient level of entrepreneurial activity, nonconformity of economic structure of the region with the necessities of expanding innovative and postindustrial economy. A figure of array of structural changes that characterizes their scale speaks for peculiarities of structural processes dynamics. During 2006-2014 the highest values of this figure were recorded in production sector. The same processes were peculiar to construction, a share of which in economy structure of the region went down.

Structural changes in economy of the regions are peculiar to all regions. The highest values of structural changes in production sector were observed in Khmelnytsk (24.7%), Sumy (15.7%), Luhansk (13.1%) and Zaporizhzhia (10.9%) regions. In other regions scale of structural changes in this field were lower than an average value throughout Ukraine. Such situation certifies that production sector although losing its positions preserves its structure forming status. Increase of aggregate of structural changes during 2006-2014 in general throughout Ukraine also were demonstrated by agriculture, hunting, forestry (1.5%), wholesale and retail trade, repair of motor vehicles, temporary allocation and organization of nutrition (2.4%) and operations with immovable property (4.4%). In terms of other types of economic activity scales of structural changes were lower than average value throughout Ukraine.

In the majority of the regions, save for Volyn, Zakarpattia, Kyiv and Lviv region, increase of agriculture share in gross added value affected scale of structural changes. In terms of this figure leading positions were occupied by Mykolaiv (0.94%) and Kherson (0.86%) regions. Moreover, in recent years decrease of structural volume of financial services has been observed in the majority of the regions of Ukraine (these changes do not relate to Volyn, Zhytomyr, Zakarpattia, Sumy, Ternopil, Kherson, Khmelnytsk regions and the city of Kyiv).

Results of the assessment of the scale of structural changes in terms of sectoral aspect should be completed with the figures of their intensity and speed. The highest speed of structural changes is peculiar for sectors of service industry, in particular due to increase of relative share of operations with immovable property and trade. The most intensive these changes were in Volyn region (1.01). Reduction of trade contribution into creation of Gross Value Added was observed in 10 regions. The largest losses are peculiar for production sector, construction and financial activity. During 2006-2014 the most intensive in the economy structure were losses of production sector share in Gross Value Added – speed of reduction of its share made up 1.01 per year. Instead, speed of structural changes in transportation, communication, state administration, education sector is low, which speaks for preservation of their structural proportions. During 2006-2014 coefficient of structural changes intensity within the regions of Ukraine made up 0.182, which speaks for the absence of speed and radical structural changes.

In general, we may state that types of economic activity, occupying a considerable share in Gross Value Added of the regions (production sector, agriculture, service industry) are more steady in time than those that have a small relative share (service industry, healthcare sphere) (Shults S.L., Lutskiv O.M., 2016).

More severe narrow specialization of the regions occurred due to an armed conflict on the East of Ukraine. It became a reason of economic decline of Donbass territories, when due to the armed conflict relations of the enterprises in this region with the Russian Federation enterprises were destroyed. According to the experts, economy of Donetsk and Luhansk regions heavily suffer from the broken economic relations with the Russian Federation, which negatively affected figures of foreign economic activity. Having solid relations with the Russian Federation and being on the positions of highly-developed industrial region separate industries were affected by negative economic shocks caused by openness of trade with the EU, trade restrictions and embargo with the RF. Machine-building industry, which currently requires import substitution most of all and as for now has no export markets, depends heavily on export to the RF. Metallurgical industry depends less of all from the RF market, which currently has only potential advantage from trade with the EU countries. Mining industry to the highest extent depends on donations from the State Budget of Ukraine and also as for now has only potential advantage from cooperation with the EU countries. With the high concentration of the enterprises that depend on the export to the RF, Donbas turned to be the most vulnerable to negative economic shocks with its large state subsidies and traditionally protected against competition (Zhukov Y., 2015).

All these certify that specialization of the regional economy is a substantial factor of economic security. Economic security has to demonstrate a high level of protection against risks, analyzed in terms of their occurrence and importance. Moreover, risks can grow into threats to economic security under the favorable conditions and in the absence of sufficient governance on the part of the state authorities. Within the context of the sector-specific specialization of the regional economy risks can turn into the factors of worsening level of economic security given that such sector-specific specialization creates the following trends, negative for the development of socioeconomic sphere of the region: sharp changes in demography, population migration, unemployment level increase, territory desolation, increase of norm of man-caused load on to the economy of the region, worsening of the ecological situation and non-controlled extensive usage of natural resources, sharp reduction of manufacturing volumes, necessity for rapid change of production specialization, which means a necessity for large capital assets, professional retraining of the employees, their release establishes load onto the labor market and sphere of social provisioning, dependence of the manufacturing on import suppliers, insufficient quantity of funds to

conduct modernization of production, low level of branching of infrastructure networks.

Establishing systems for ensuring economic security of the region we should understand that sector-specific specialization of the regional economy within the region may cause emergence of risks and threats to stable situation of the region. However, throughout entire country a sector-specific specialization may be a considerable effective phenomenon, unless occur factors causing transformation of a sector-specific specialization into negative characteristic – in particular, this increase of dependence on import carriers, violation of traditional cooperation relations with the enterprises of other regions, markets foreclosure.

Tasks of the system for ensuring economic security are as follows:

- supporting activity of the objects of crucial infrastructure;
- establishing effective work of the objects of social infrastructure and municipal services;
- contributing to development of structure establishing enterprises, as well as those enterprises that have long-term economic advantages in general system of territorial labor division;
- developing transport system and ensuring equal access to important objects of the life support systems within peculiar territory;
- increasing level of investment attraction of the economic objects within peculiar territory;
- ensuring expanded reproduction of economic structure of the region;
- calculating and assessing dependence on the import of goods – in particular, essential commodities and energy carriers;
- complying with good service standards as to the needs of the population.

And if risks from sector-specific specialization of the region do not worth the situation in the mentioned above spheres, than in such case sector-specific specialization is not a reason of emergence of risks to economic security.

Modern regional economic security is an aggregate of the following qualitative characteristics: level of small business development and entrepreneurial activity, contributing to scientific and research activity and level of innovations implementation, investment climate, and quality of human capital and standard of population living. That is why sectoral specialization of the region that establishes figures of its development should ensure all characteristics of economic security on the high level. These very internal characteristics of the development should also include ability to adapt quickly to changes on foreign markets. The result is that if industry/industries of the regional economy able to ensure specified characteristics on the high level, than a mono-functional specialization is not a risk of reducing level of economic security. In other case it is wise to introduce structural changes of the economy of a separate region.

A sector-specific specialization of the region clearly depicts that fact that system for ensuring economic security is a prerogative of the state as an institution, not of a market, as far as for the market it would be more beneficial to establish by itself a specialization of the regions based on the comparison and equalization of profit rate. However, as far as issue of location of economic activities is tangent to the issues of social equality, equitability of incomes, ensuring of safe ecological situation, than issues of a sector-specific specialization are institutional leverage of the state onto the regional economy and a constraining factor for realizing all “wishes” of the regional manufacturers. A system for ensuring economic security is exactly has to be aimed at achieving balance of economic, social and ecological interests of the state, i.e. ensuring sustainability of the development.

A sector-specific specialization of the region is a starting point for assessment and forecasting of economic security risks, their change, that is why it is necessary to reveal possibility of their occurrence and their threshold values, on the one part, and preventing occurrence of the risks, on the other part, which envisages elaboration of a measures complex as to preventing emergence of these threshold values. The largest risks are: increase of rates of drop in production, destroying scientific and research potential, deindustrialization of economy, inequality of population income, and loosening of labor motivation, and energy dependence.

A system for ensuring economic security of the region is based on preventing occurrence of threats and effective counteraction to occurrence of existing threats. Threats can be divided into

internal (increase of volumes of production, worsening of investment climate, reduction of share and output of innovation products, level of dependence on imported energy carriers) and external (worsening of conjunction of certain markets, reduction of currency inflow). Joint action of authorities, local self-administration authorities and public organizations should be aimed at prevention of occurrence of such threats or their neutralization in a subjective aspect. In a conceptual aspect such threats could be counteracted if one could solve a problem of a sector-specific specialization of the regions and if a sector-specific specialization could be directed into a constructive channel.

That is why improvement of a situation in the field of sector-specific specialization of the regional economy may be reached in two ways: to develop by all possible means an available specialization on the basis of determining dominating industries and to search for the sales markets inside and outside the country, or to diversify structure of such economy, if possible. The most effective is a way that could combine two mentioned above ways: under the condition of high figures of development of a given industry to contribute to its further existence and market expansion; the other enterprises that do not demonstrate such positive figures require diversification and change of profile. Moreover, negative consequences from overcoming sector-specific specialization can be loosened due to strengthening of manufacturing relations between enterprises inside the country. It is also wise to calculate comparative advantages of certain industries in their correlation with the same industries inside the country and abroad, in order to understand whether it is necessary to preserve a sector-specific specialization of the regional economy.

Apart from a function of "protection", system of measures on ensuring economic security should also envisage a function of "ensuring significant and positive figures of socioeconomic development", which could be implemented owing to actualization of regional strategies based on inclusion of new sections to them, devoted to the issues of revealing and counteracting risks of economic security. Actions of the authorities aimed at resolution of issues of counteracting risks have to be adjusted in the main strategic documents of the regional policy (strategies of regional development) and strategies of ensuring national security of the country.

As far as economic security of the region is a flexible notion, depending on many factors, so for its assessment one should establish a specific, differing from general national, system for indicators. This should be implemented for assessment of crisis situations and threat of their emergence in socioeconomic field of the region, assessment of influence of regional threats onto the security of the states, and development of institutional instruments of ensuring economic security.

Among criteria of economic security specific importance has application of threshold values-indices in the analysis, which certify of approaching of a critical status of an industry and necessity for taking measures as to eliminating such critical status. Threshold value are boundary values (a minimum or a maximum), nearing to which violates stability of an industry development, affects other industries and creates general negative trends. Nearing of an indicator to a threshold value means necessity for taking measures in order to change a situation.

Development of a criterion of economic security or a threshold value of economic security is not a final one for development of measures as to removal of a sector-specific specialization of the region. A threshold value is a quantitative and qualitative assessment of socioeconomic situation in terms of the most important processes that reflect economic security of the state. Threshold value should be a dynamic figure, as far as manufacturing structure in itself is a variable one.

Indices-threshold values characterize situation only in a peculiar aspect. Figures should be considered in aggregate in order to have a realistic view on the level of threats. The same figures in all neighboring regions should be considered in the same way. Moreover, the analysis should also include figures of the regional level of economy as far as macroeconomic figures are analyzed according to other approaches.

Since it is hard to assess a risk in quantitative terms, then increases importance of expert methods in risk assessment. A role of risk management system is also strengthened, forecasting of critical situations in order to be able to respond on the risks timely. The result is that analysis of potential losses, which may occur as a result of a region specialization change and violation of its

established monopolization, should precede assessment of economic security level.

Respectively, for the most reliable assessment of economic security risks it is wise to define threshold values of a sector-specific specialization of a region. For the purpose of managing a sector-specific specialization it is preferable to define which industries are able to provide stability of the system, and which should be restructured.

The issue about size of each component of economic security is also topical – if figures are dependent on each other than it can be revealed by the analysis and, respectively, forecasting. Study of the level of economic security in terms of its components and assessment of level of influence of each component onto the security allows resolving problems in overall. Based on weight of each component in structural losses it is possible to assess importance of these components in a system of ensuring economic security. Calculation of weight of economic security components allows establishing a uniform characteristic of research, which is hard to assess in other ways, and that is why this method is effective when resolving problem of assessing functional components of economic security.

Owing to a need to respond to economic security risks of the region the following criteria of assessing influence of a sector-specific specialization of the region on occurrence of economic security risks can be suggested:

- a share of a separate industry in a structure of gross regional product and its dynamic during a specified period of time defined for analysis needs (to define potential threats);
- comparison of shares of certain industries among the regions of the state for the purpose of determining “weak” ones in terms of a sector-specific specialization of the regions (to develop measures of the state policy aimed at prevention of threats expansion);
- conducting factor analysis of socioeconomic development figures influence of the region onto the figure of gross regional product (for more detailed determination of a mono-specialization of a region);
- conducting correlation and regression analysis of influence of a separate industry share, which has a prevailing share in the structure of gross regional product of the region, onto the other socioeconomic figures of regional development – volume of production, construction works, involved investments, renovation of production capital funds, innovation implementation, population income size and its variation, unemployment, population migration etc.; defining cause-effect relationship of such influence (to determine relationship of a mono-specialization and other figures in dynamics);
- monitoring of an industry share change in the structure of gross regional product and forecasting of a figure of this share for a short-term and long-term perspective (to develop preventive measures of the state policy);
- expert assessment of outgrowth of economic security risks, established based on mono-specialization, for economic security of the region (for an unbiased assessment of mono-specialization as a factor of influence on economic security);
- development of a number of measures as to influence onto mono-specialization of the regions (for its possible change and assessment of a need of such change).

### 3. CONCLUSION

Thus, a situation with structural (sectoral) changes in the regional economy has been analyzed, reasons of occurrence of risks to economic security of the regions that occur due to a sector-specific specialization of the regional economic complex have been studied; components of assessment of influence of regional economy specialization on emergence of risks to economic security of the region have been suggested. To balance development of territories in terms of ensuring economic security it is necessary to use qualitatively new approaches that consider sectoral peculiarities of the given territory, as well as adjacent territories and the country in general, as well as possibilities of implementing structural reforms in the country.

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