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**MODERNIZATION OF ECONOMIC STRUCTURE OF  
UKRAINE'S REGIONS IN TERMS OF INTENSIFICATION OF  
INTEGRATION PROCESSES**

**Abstract:** Current economic and political situation – signing of the Association Agreement between Ukraine and the European Union (EU), revolutionary and military events of recent years – all this led to dynamic changes in the structure of regional economy of Ukraine. The article analyzes structural changes of economy of regions in the context of the Association Agreement between Ukraine and the EU. Basic problems of development of the structure of regional economy. It is ascertained that the priority should be focused on following issues: structural adjustment and industrial upgrading of production of regions based on new technologies; changing proportions of economic activities in the regions; formation of optimal territorial structure of regional economies; restructuring of agricultural sector of economy of regions; increasing of inner demand for products innovation and investment in regions of origin; increasing of the share of innovative activity of small enterprises in the regions; increasing of investment activity of regions; reducing of disproportionality of regional investment and so on. Possible ways of successful process of implementation of the Association Agreement between Ukraine and the EU are proposed.

**Keywords:** European integration processes, industry, regional structural policy, economic structure, the Association Agreement between Ukraine and the EU.

**JEL Classification:** R 58, O 52, H 10

**Introduction**

Economic development of Ukraine's regions is characterized by dynamic environment with increased degree of uncertainty. The basis for solving variety of problems of regional socio-economic systems is clear anti-crisis structural policy in the region. At the same time the Association Agreement between Ukraine and the EU serves as a strategic guide for structural reforms in the economy of Ukraine. It defines a new format of relations between Ukraine and EU member states on the principles of political association and economic integration. Thus, the Agreement ensures deep and comprehensive free trade zone between Ukraine and the

EU, significantly brings Ukraine's economy to the economic system of the EU on the basis of mutual liberalization, especially in the direction of increasing the flow of goods, capital and services, harmonization of approaches and principles that form industry policy of regions and the system of regulation of industrial and commercial activities.

Many domestic scholars, including S. O. Bila, M. P. Butko, Z. S. Varnaliy, M. S. Habrel, P. D. Dudkin, M. O. Karpiak, M. O. Kobzystyy, O. M. Lutsiv, M. V. Maksymchuk, A. F. Melnyk, N. M. Popadynets, I. Z. Storonyanska, L. V. Shynkaruk, S. L. Shults and others worked on researches about structural changes in economy and its relationship with economic development. However, problems of formation of structural processes of regions' economy in the context of Ukraine's European choice are still hardly studied, as well as there is no comprehensive strategic approach that consider today's realities and prospects of their development.

### **The purpose of the article**

The aim of the article is to study and analyze structural changes in the economy of regions of Ukraine and to outline fundamental elements of structural changes in the context of the Association Agreement between Ukraine and the European Union and its successful implementation.

### **Research results**

#### **1. The essence of the Association Agreement between Ukraine and the European Union**

Successful process of implementation of the Agreement requires from Ukraine profound work on formation of modern structural policies. This policy should be aimed at qualitative transformation of new sectors in each region. So, it is needed more profound and systematic work on following points: cooperation on implementation of state structural policies; integration of Ukraine's economic sectors to base EU sectoral programs; industrial and technological cooperation of industry of Ukraine and EU member states.

The Agreement pays attention to economic and sectoral cooperation (Section V), which is reflected in such areas of cooperation, as policy in the sphere of industry and entrepreneurship (Chapter 10) and macroeconomic cooperation (Chapter 2). Consequently, enhanced cooperation in these areas will improve administrative structure and legal framework for Ukrainian and European businesses in Ukraine and the EU. This will facilitate Ukraine's integration into internal market of the EU and united regulatory space in most sectors. According to the Articles 379 and 373 the

parties cooperate for (Supreme Council of Ukraine, 2014, Available from: [http://www.kmu.gov.ua/control/uk/publish/article?art\\_id=248387631](http://www.kmu.gov.ua/control/uk/publish/article?art_id=248387631)):

- creation of better basic conditions through the exchange of information, including sharing with best practices in relation to development strategies, helping to increase competitiveness;

- simplification and streamlining of regulations and practices with particular emphasis on the exchange of experiences on leading legal and regulatory methods;

- analysis of economic issues of mutual interest, including actions of economic policy and tools for their implementation, such as methods of economic forecasting and processing of documents of strategic policy to strengthen abilities of Ukraine in creation of policy that meets principles and practice of the EU;

- promotion of innovation policy;

- promotion of broadening relationships between private enterprises of Ukraine and the EU and between enterprises and government of Ukraine and the EU;

- facilitation of modernization and restructuring of certain industries of Ukraine and EU member states.

Considering current economic realities of Ukraine, including unreasonable banking processes and unstable political situation, significant structural changes should be the fundamental elements of structural change in the economy of the regions and their adaptation to EU standards.

## **2. Structural changes in industry and other economic activities**

Significant changes in economy occurred during the years 2010-2015. Unfortunately, the crisis just intensified; from 2012 decreasing of industrial production has accelerated. Crucial factor in the loss of industrial capacity in most industrial-intensive areas is open military aggression from Russia. It led to the collapse of production facilities, destruction of raw-material resources, criminal gangs kidnapping of industrial equipment of high-tech production with further export to Russian Federation. However, forced gap of industrial and technological links between enterprises of the East, South and other regions of Ukraine occurs. This crisis has affected the pace of industrial development in the Donetsk and Lugansk regions, especially it has effected mining industry. In 2015 its share decreased by 22.5% in Donetsk region and 8.4% in Lugansk region comparing with the rate in 2010.

Having reviewed the structure of the industry of regions of Ukraine in 2015, we see that manufacturing industry takes main place—from 46.3% in Ivano-Frankivsk region to 87.2% in Cherkasy (State Statistics Service of Ukraine 2016, Available from:

<http://www.ukrstat.gov.ua>). However, despite this, compared to 2010, almost all regions show tendency to reduce the share of processing industry. During the same period only Volyn, Donetsk, Zhytomyr, Kirovograd, Ternopil, Khmelnytsky, Cherkasy and Chernivtsi regions managed to maintain a growing trend. Dnipropetrovsk, Donetsk, Zhytomyr, Ivano-Frankivsk, Luhansk, Poltava, Sumy and Chernihiv regions refer to regions, that occupy a large share in the structure of the mining industry (10% or more). Specialized regions of commodities production is Vinnitsa, Kirovograd, Ternopil, Kherson, Cherkasy and Chernihiv regions, their share in the industrial structure exceeds 40%. The largest share of chemical industry recorded in Odessa (16%), Rivne (14.6%), Sumy (10.5%) and Cherkassy (17%) regions. Regions – leaders of metallurgical production as in 2010 and in 2015 remain Dnipropetrovsk and Zaporizhia regions with shares of 35% and 38% respectively. Regarding engineering, the largest share of the industry takes Zakarpattia region (40.8%) and slightly lower Volyn, Zaporizhia, Sumy and Kharkiv regions. It is also worth noting that among specialized regions of coke and refined petroleum products with a significant share in the structure of industry is only Poltava region (22.9%). Lugansk region, which had a share of this industry in the industrial structure of the region 26.1% in 2010, in 2015 lost its position and its share was 0.01% (State Statistics Service of Ukraine 2016, Available from: <http://www.ukrstat.gov.ua>). In all other regions the share of this sector is less than 5%. It should be mentioned that mining and raw, low-tech production dominate in the structure of industry in most regions, so the change of structural benchmarks should focus on high-tech and middle-tech production. However, the performance of the Agreement prominence should be given to the development of industries in regions with high technological way of placing them in the centers Kiev, Lviv, Dnipropetrovsk, Kharkiv and Odessa.

During the period of 2010-2015 proportion changes in the sectoral structure of regional economies, including development of new economic activities with high value added have undergone minor changes. While in 2015 the share of industry and trade in the economic structure of Ukraine amounted to 34.5% and 41.2% respectively, compared to 2010 the share of industry increased by 4.9%, while the share of trade in the structure of economy has decreased by 1.3%. However, the share of agriculture and construction industry during this period also increased by 1.5% and 0.9% respectively. In regional profile, both growth and recession in the shares of volume of sales are observed. In agriculture, growth was recorded in Vinnytsia, Dnipropetrovsk, Poltava, Khmelnytsky and Chernihiv regions (from 2.2% to 3.3%), decline also occurred in Donetsk, Luhansk and Mykolaiv regions (from 0.1% to 3%). In construction there was a decline in all regions of Ukraine (from 0.01% to 6.1%), while growth was only in

Ivano-Frankivsk region and Kyiv (4% and 3.4% respectively). Similar situation as in the construction industry is observed in trade, growth was registered in Kyiv, Ternopil regions and the city of Kyiv (3.2%, 1.8%, 4.4% respectively), and decline in all other regions of Ukraine (from 0.01% to 9.8%) (State Statistics Service of Ukraine 2016, Available from: <http://www.ukrstat.gov.ua>). According to gradual decline in the share of trade in economy of Ukraine the Agreement should establish and the parties should take actions that can prevent negative trends in the industry. It is also needed to ensure suitable conditions in regions that have the upward trend in industry, construction and agriculture.

Nowadays there are differences in organizational and territorial concentration of undertakings in regions. The largest share of business entities, taking into account all legal forms, is focused in the city of Kiev – 25.6% of subjects of United State Register of Enterprises and Organizations of Ukraine, Dnipropetrovsk – 7.6%, Kharkov – 7.3%, Odessa – 7.01%, Lviv – 5.4% and Kyiv regions – 5.2%. And the smallest share of business entities is in the following regions: Luhansk (0.94%), Chernivtsi (1.2%), Rivne and Ternopil (1.5%), Volyn (1.6%), Sumy (1.7%) (Habrel 2015, p. 30). It should be noted that Donetsk and Lugansk regions experienced its greater decline in entrepreneurial activity than other areas due to military conflict in the east. During 2010-2015 in Donetsk and Lugansk regions appropriate shares decreased from 13.3% to 3.3% and from 2.89% to 0.94% respectively. This indicates that potential of institution of property is used in regions of Ukraine not enough. That is why complex issues of regulation of business entities should be solved through both improving existing legislative and regulatory framework, and adjustment of process of business entities registration on the territory of their real location.

Many differences exist at branch, fertile and organizational structure, also increasing of distinction in economic competitiveness of East, Center and West of the country and Donnas can be observed. Thus, experts have confirmed reduction of competitive opportunities of Donetsk, Luhansk and Dnipropetrovsk regions during 2010-2015. It should be noted that the least interregional competitiveness was demonstrated in the service sector (trade, health, education, etc.), with some exception of areas – in trade and health (Kyiv, Kirovohrad, Ivano-Frankivsk regions) and in education (Kiev region).

Restructuring of the agricultural sector of regions should be expressed by gradual transition from export of crops to trade in environmentally friendly food. After all, Ukraine has significant opportunities at this area. We should note the fact that the share of environmentally friendly agricultural products at the EU market does not exceed 2%, and half of these products are imported. Here Ukraine, however, has also miserable

performance. Environmentally friendly products take only 0.1% of domestic market and we do not even have reliable information about export (Haidutsky 2014, p. 167). So more valuable is not amount of produced agricultural products at any price, but high quality products at rational costs.

Financial and monetary stabilization in the country and insurance of availability of resources of financial markets for real economy will contribute to financing of scientific research and technological innovation of production processes in industry, including investment from the EU to build a new industrial base of regional economies.

Amount of employed population of regions also plays important role in modernization of economic structure of Ukraine's regions. During 2010-2015 total number of employed decreased in different regions from 1% to 11% (excluding Rivne region). During the same time period in all regions decreased number of employees in industry, agriculture, construction, financial activities, health care and utilities sector. It should be noted that the largest share of employed population works in trade – 21.9% (except Zakarpattia, Kirovohrad, Mykolaiv, Ternopil, Kherson, Cherkasy, Chernivtsi and Chernihiv regions), agriculture – 17.1% (excluding the city of Kyiv and Kyiv region) and industry – 16% (except Ternopil, Kherson and Chernivtsi regions) (State Statistics Service of Ukraine 2016, Available from: <http://www.ukrstat.gov.ua>). Thus, while implementing the Association Agreement between Ukraine and the EU, creation of suitable conditions for increasing number of employed population should be a strategic priority. It will stimulate development of domestic labor market in Ukraine and reduce its deformation processes.

Equally important point in the process of modernization of economic structure of regions of Ukraine is transition to energy and resource saving way of economic development of regions. In the context of this problem, closer cooperation with the European Investment Bank in energy conservation programs should be conducted. According to results of energy efficiency rating of regions of Ukraine – Ukrainian Energy Index – in 2013 the largest energy expenses are observed in industry, agriculture and housing. Meanwhile, Ukraine's GDP energy consumption is 0.390 kg n. e./USD. USA, which is much higher than in other European countries (Poland – 0.13, Germany – 1.108, France – 1,117) (BP Global 2014, Available from: <http://www.bp.com>).

### **3. Innovation and investment environment**

Increasing of intraproductive demand on products of innovative and investment origin will enhance the share of innovative activity of enterprises and reduce uneven spatial distribution of spending on innovation. Over 2011-2015 number of innovatively active enterprises in indus-

try of Ukraine decreased from 1679 to 1609 units. The dominant share of innovatively active enterprises are concentrated in Kharkiv (11.8%), Lviv (8%), Dnipropetrovsk, Zaporizhia (6.7%) regions and the city of Kyiv (10.4%) (Shults 2016, p. 182). A large proportion of costs, associated with research and development, is concentrated in city Kyiv, Kharkiv and Dnipropetrovsk regions.

It is also important to increase the share of innovative activity of small businesses in regions. In Ukraine only 9.2% of small enterprises can be considered as innovation and active, while in France – 33.3%, Great Britain – 35.1%, Sweden – 46%, Finland – 48.5%, Germany – 66.5% (UNESCO Institute of Statistics 2015, Available from: <http://data.uis.unesco.org>). Regional small businesses should exist not only in trade or in construction or repair, or domestic services, but also should be present in high-tech industries and services.

Despite the fact that Ukraine has made some progress in improving the investment climate we can observe decline in capital investment in all regions of Ukraine, except Ivano-Frankivsk (where the volume of mastered capital investments increased by 26.9%) and Khmelnytskyi (2.6%) regions. Simultaneously in 24 regions of Ukraine there was a significant reduction of foreign investment – nearly 11.1 billion dollars, accounting for nearly a fifth part of total volume of attracted foreign capital from the beginning of investment. The most significant decrease was observed in the city of Kyiv (-5.9 billion dollars), Dnipropetrovsk (-1.3 billion dollars) and Donetsk (-1.0 billion dollars) regions. Positive dynamics is observed only in Ivano-Frankivsk region, where growth of foreign direct investments amounted to 112.1 million dollars, or 13.8% in 2015. This indicates the greatest fall of investment attractiveness of regions. Regional disparity of investment also plays crucial role. As the main share of assimilated investments (55.5%) is concentrated in 4 regions, particularly in the city of Kyiv (30.9%), Dnipropetrovsk (9.2%), Lviv (8.9%) and Kharkiv (6.5%) regions, Kherson (1%) and Chernivtsi (0.76%) regions are considered as outsiders (State Statistics Service of Ukraine 2016, Available from: <http://www.ukrstat.gov.ua>).

### **Conclusion**

Therefore, it is necessary to point out that to achieve positive structural changes in economy of regions of Ukraine, including their adaptation to the basic rules of functioning of the EU, we need a fundamental change in the priorities of economic development in direction of transition from raw material orientation to innovative type of economic development of regions. We need to identify clearly all available resources (financial, material, organizational, human and humanitarian, etc.) to make necessary changes, define their sources and mechanisms of

mobilization. We should also focus on the fact that successful structural transformation in economy can be possible in case of substantial increase in proportion of investment rate (over 30% of GDP) due to activation of both domestic private and foreign investment. In Ukraine, in 2015 this proportion was less than 15%, indicating a “washout” of investment potential and potential of economic recovery. However, successful implementation of economic measures, mentioned in the Association Agreement, will largely depend on the quality of decisions of the political leadership, including efficiency of the state apparatus renewal, eradication of corruption in it. All these aspects can bring Ukrainian economy to the basic rules of functioning of the EU.

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