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STRUCTURAL CHANGES IN ECONOMY AND THE LABOR MARKET: EUROPEAN UNION AND UKRAINE

Abstract. Development of Ukrainian economy is currently going under the influence of strong globalization processes that stimulates the process of state economy transformation due to activation of structural shifts in economic activities (inside the types of economic activities). The result of the public policy implementation, which is aimed at enhancing the structural shifts in the economy, is the growth of macroeconomic indicators and the transition to neoeconomy [1]. *The purpose* of the article is to determine the intensity of structural changes in the investment and labor sectors of the economy using methods of structural and dynamic analysis. *The results* of the work are strongly marked character of changes in the structure of employment, production, investment in economy and on the labor market in European Union and Ukraine. *Conclusion.* Within the global processes of restructuring of the world economy, retreat from the industrial and agricultural sectors and its transition to the service sector, acceleration of structural shifts in the Ukrainian economy leads to an increase in structural changes that facilitates the transition to neoeconomy.

Keywords: economic development; structural changes; employment; investment; production structure.

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СТРУКТУРНІ ЗМІНИ В ЕКОНОМІЦІ ТА НА РИНКУ ПРАЦІ: ЄВРОПЕЙСЬКИЙ СОЮЗ І УКРАЇНА

Анотація. У статті проаналізовано процеси структурних змін в економіці держав, проведено оцінку інтенсивності структурних зрушень в інвестиційній і трудовій сферах національного господарства за допомогою методів структурно-динамічного аналізу. Визначено, що в рамках світової та європейської економіки відбуваються процеси структурної перебудови, звуження промислового й аграрного секторів на користь сектору послуг. Обґрунтовано висновок, що прискорення і збільшення масштабів структурних зрушень в українській економіці, які відповідають міжнародним тенденціям, сприяють її переходу до неоекономіки.

Ключові слова: економіка, структурні зміни, ринок праці, інвестиції, структура виробництва.

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СТРУКТУРНЫЕ ИЗМЕНЕНИЯ В ЭКОНОМИКЕ И НА РЫНКЕ ТРУДА: ЕВРОПЕЙСКИЙ СОЮЗ И УКРАИНА

Аннотация. В статье проанализированы процессы структурных изменений в экономике стран, проведена оценка интенсивности структурных сдвигов в инвестиционной и трудовой сферах национального хозяйства с помощью методов структурно-динамического анализа. Определено, что в рамках мировой и европейской экономики происходят процессы структурной перестройки, сужение промышленного и аграрного секторов в пользу сектора услуг. Обоснован вывод о том, что ускорение и увеличение масштабов структурных сдвигов в украинской экономике, которые соответствуют международным тенденциям, способствуют ее переходу к неоекономике.

Ключевые слова: экономика, структурные изменения, рынок труда, инвестиции, структура производства.

Introduction. The development of Ukrainian economy is currently going under the influence of strong globalization processes that are revealed in the rapid development of modern communications, foreign trade, increasing openness of the world economies. The impact of these factors on the economy stimulates the process of state economy transformation due to activation of structural shifts in economic activities (inside the types of economic activities), which, in turn, has an impact on the growth of competitiveness of Ukraine and its regions in the world, productivity and quality of life. The end result of the implementation of public policy, which is aimed at enhancing the structural shifts in the economy is the growth of macroeco-

omic indicators and the transition to neoeconomy. It should be noted that economic growth in the national economy must be more than just an increase in the actual level of the main macroeconomic indicators comparing to the previous ones, and must have an opportunity to grow to the potentially possible level, on condition that it fully utilize available economic resources [2; 3]. Thus, the practical implementation of structural policy will allow to correspond to the principles of production and distribution efficiency which characterize not only creating the essential public goods, but also their production with minimal social costs, which in conditions of globalization has particular relevance.

The purpose of the article is to determine the intensity of structural shifts in the investment and labor sectors of national economy by using dynamic analysis.

Brief Literature Review. Research on employment, labor market and its regulation has a long history of development. The basis of modern conceptual positions of foreign and domestic researchers about nature of the labor market at different times laid down by such scientists of global importance as K. Marx, W. Petty, D. Ricardo, A. Smith. Fundamental concepts of employment provisions, approaches to the analysis of the place, role and methods of labor market regulation outlined in the works M. Mussa, C. K. Elwell, O. Novikova, E. Libanova, L. Lisogor and other scientists. However, research of structural changes, their causes and consequences remains relevant within the current development of countries.

Results. Matters of improving national economy structure become more relevant due to their long-term unsuccessful solution of the negative effects, which causes obstacles to effective socio-economic development increase [4, p. 5]. The second half of the twentieth century was characterized by acceleration of the world economy transition beyond the industrial system. According to the World Bank [5], the leader in terms of gross domestic product (GDP) of all economic sectors both in the world and in the European zone is the service sector (Figure 1 & Figure 2).

According to the data shown in figure 1, we can draw the following conclusions: in the whole world in 2012 comparing to 2000, it is observed the reduction of services share in GDP against the background of manufacturing sector and agricultural sector increasing share; observing regions separately, we can say that, for example, in the Euro area of 2012 the proportion of service sector increased, while the share of industry and agriculture declined. This trend is also observed in such regions, as Europe and Central Asia, South Asia; an increase of the industrial sector in Latin America and the Caribbean; at constant share of the industrial sector the share of service sector increased, and agricultural one decreased in such groups of countries, as East Asia and the Pacific, Sub-Saharan Africa. In all regions can be observed visible decline of the agricultural sector share in the gross domestic product. Thus, we can conclude that in the network of global economy of East Asia and the Pacific region the industrial sector is a leading one in the formation of gross domestic product. Ukraine is characterized by the following trend of gross value added distribution, which is shown in Figure 2.

The sphere of services is a leader in the formation of value added in Ukraine (Figure 2), and the dynamics of this process is positive. Slight decline in 2010-2011 had no significant effect on structural relations in the spheres of activity. In the background of this situation, growth of agricultural sector share of national economy and the reduction of industrial sector are observed. This happens, we suppose, because in terms of overcoming the crisis, the Ukrainian economy relies on activities which products are in demand on the world market, namely the agricultural sector.

Consequence of changes in the sector structure of national economy is a change in the structure of the employed population. Table 1 shows the distribution of regions of the world by share of employed people in various sectors of economy [7, p. 98; 8, p. 97].

According to the data of the table, we can conclude that in developed countries a significant share of employed is concentrated in the service sector. In East Asia, there is roughly proportional ratio of employed in three sectors. In other less developed regions of the world, there is a predominance of agriculture.

Regarding the distribution of employed in Ukraine's economy, it should be noted that in January 2013, according to the State Statistics

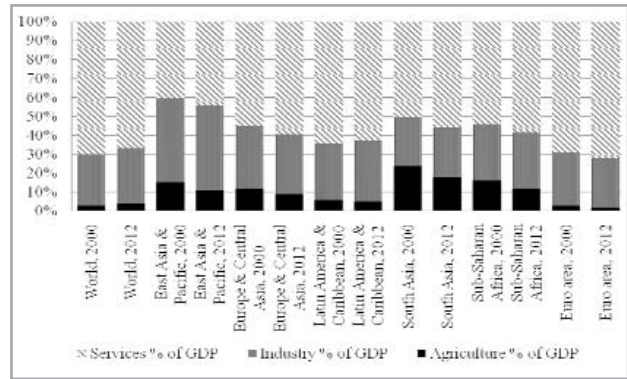


Fig. 1: Distribution of gross domestic product by sectors for 2000 and 2012 in selected groups of countries
Source: [5]

Service of Ukraine [9], 5.02% of 10195.1 thousands employees were employed in agriculture and forestry, 26.72% – in industry and 68.27% – in the service sector. Thus, the greatest share in the gross domestic product release takes the reclamation industry and trade, motorcars repair, household goods and personal consumption goods, transport and communication activities.

During 1991-2011, a steady (constant) decrease is observed in the proportion of the employed population in the industrial

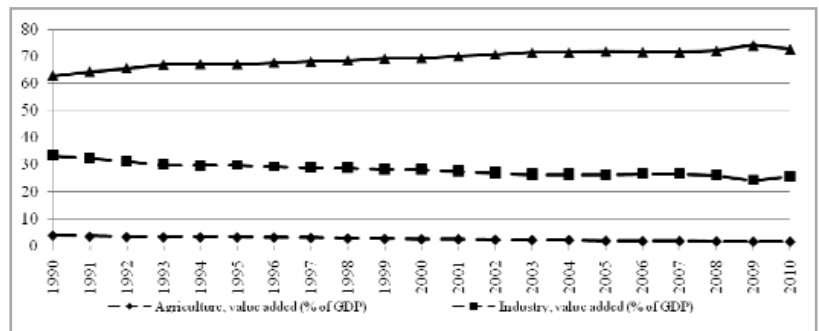


Fig. 2: Distribution of gross value added by sectors in Ukraine in 2002-2011
Source: [7]

sector. Thus, the overall decline during the analyzed period was 9.67%. The largest share of the employed population during the period from 2000 to 2012 is registered in such economic activities as: distributive trade; repairs; transport; accommodation, food services (share of employed for the period increased by 0.8%); professional, scientific, technical; administrative operations (share of employed for the last 13 years increased by 2.67%); education (share of employed for the period increased by 1.37%); health protection; public administration; industry, including energy production and distribution (share of employed for the period decreased by 3.67%) [9].

Tab. 1: The share of employed population by sectors of the world economy as a whole and by regions in 2011, %			
Region	Agricultural sector	Industry	Services
World as a whole	33,3	22,6	44,1
Developed Economies and European Union	3,6	22,5	73,9
Latin America and the Caribbean	15,8	21,7	62,4
Central and South-Eastern Europe (non-EU and CIS including Ukraine)	19,8	24,6	55,6
Central Asia	6,1	26,6	67,3
North Africa	16,5	26,4	57,1
Southeast Asia and the Pacific	27,2	24	48,9
East Asia	40,8	19,0	40,2
Sub-Saharan Africa	33,4	29,8	36,8
South Asia	61,8	8,7	29,5
	51,0	21,0	28,1

Source: [7; 8; 9]

In Ukraine, the increasing number of employed population is observed in distributive trade, repairs; transport; accommodation, food services; agriculture, as well as in public administration. Hence, we can conclude that the structural changes that occur in field of forming the value added, lead to arising of the same processes in other areas of public life, in particular in labor market, through a change in demand for labor. To determine their speed and identify the possible consequences of such changes, it is suggested to use the methods of structural shifts dynamics analysis (Table 2).

of employment and in producing of value added. Small indicators of structural shifts in industry and service sector once again confirm the fact that the agricultural sector reduces the output of the added value comparing to the industrial sector and service sector, and therefore the movement of labor forces occurs in these sectors. It should be noted that during this period the employed structure changed more than the structure of production. Prerequisite for changes in the structure of economic sectors is a change in investments. The changes of the «Gross fixed capital formation» is reflected in Figure 5. As can be seen from Figure 5, the share of gross fixed capital formation in the gross domestic product has certain circularity.

As for the post-crisis period, the rates of increase in this index tend to decrease in comparison with the world rates. It should be noted, that the European Union has the lowest share of investment in gross domestic product (Figure 6). The highest values are observed in developing countries of Asia (including China).

Dynamics of the indicator «Gross fixed capital formation» for Ukraine is shown in Figure 7.

According to Figure 7, we conclude that since 2009, in Ukraine it is observed an increase of investment in fixed assets, which indicates an improvement in the investment climate of the state. Positive dynamics suggests that the structural changes, which occur in the national economy, will have their continuation, which will generally increase the competitiveness of the state on the global level.

Tab. 2: The methods of structural shifts dynamics analysis in the national economy	
Indicator	Formula
Relative indicator of the structure	$d = \frac{Y_i}{\sum_{i=1}^n Y_i} \times 100,$
Relative structural change	where $RSC = d/d_{i-1},$ where i and i-1 – the reporting and the previous periods accordingly
Absolute structural change	$ASC = d_i - d_{i-1}$
Growth rate	$T = \frac{Y_i}{Y_{i-1}} \times 100\%$
Rate of increase	$\Delta T = T - 100$

Source: [4]

Figure 3 shows the relative and absolute changes in the structure of employment and value added by sectors.

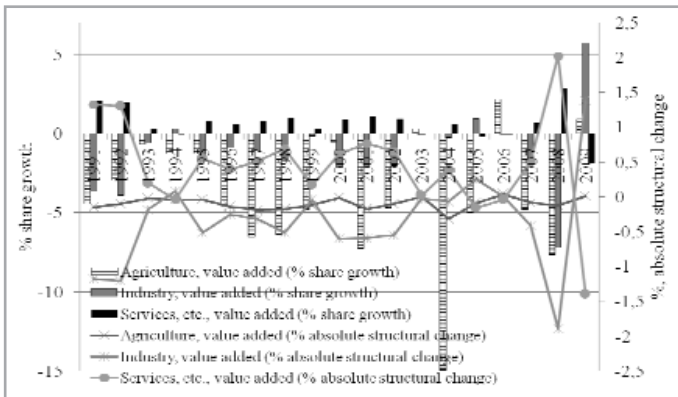


Fig. 3: Dynamics of relative and absolute structural changes in value added by sectors in the European Union in 1991-2009 (to the previous period)
Source: [5; 6]

According to the data shown in Figure 3, it can be concluded that the industry has a positive trend towards the acceleration of structural shifts. It confirms that in the European Union this sector is as important as the service sector in formation of national income. It should be noted that services reserves the positive dynamics, though in the future it will affect the growth of national income of European countries. As for absolute structural changes of these parameters, the largest changes are observed in the service sector. In absolute terms for 1991-2009 it was: agriculture has absolute structural change which is equal -1.87 percentage points; industrial sector has absolute structural change which is equal -6.64 percentage points, the services sector has absolute structural change which is equal +8.46%.

Thus, we can conclude that acceleration of structural shifts in sectors of the national economy is observed. As it was mentioned earlier, changes in value added imply changes in labor market. Figure 4 shows the dynamics of the absolute and relative changes in structure of employed by sectors.

Analysis of Figure 4 allows us to conclude that the greatest changes are observed in «agricultural» sector both in the field

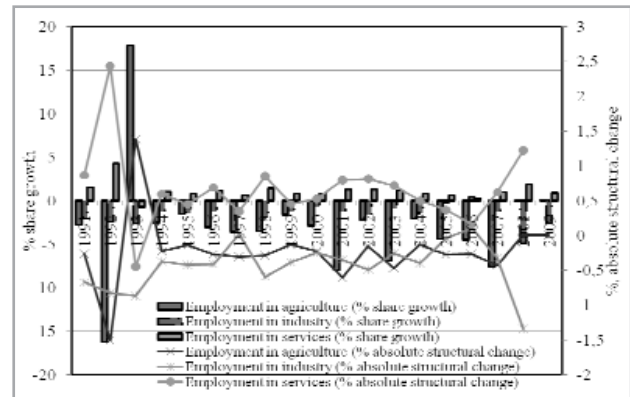


Fig. 4: Dynamics of relative and absolute structural changes of the employment by sectors in the European Union for 1991-2009 (to the previous period)
Source: [7; 8]

These studies suggest the following **conclusions**: in the global economy happen processes of restructuring of the

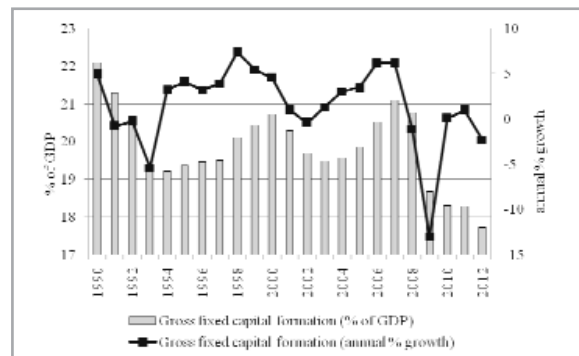


Fig. 5: Dynamics of the indicator «Gross fixed capital formation» in the European Union for 1990-2012
Source: [5; 6]

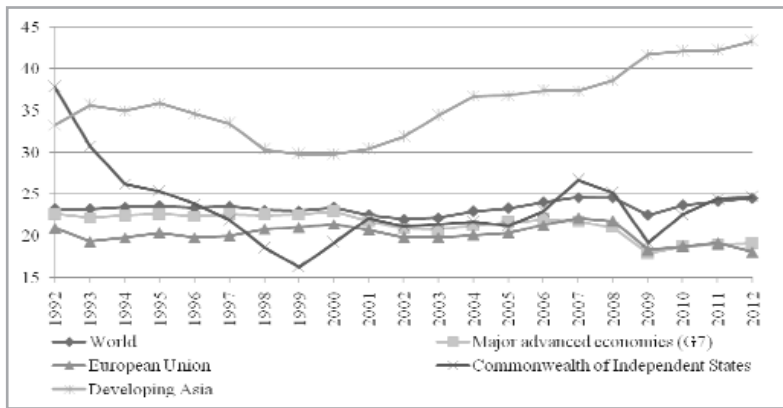


Fig. 6: Dynamics of the indicator «The share of investment in GDP» by groups of countries, 1992-2012
Source: [5; 6]

world economy, a retreat from the industrial and agricultural sectors and the transition to the service sector; the Ukrainian economy as part of the world one being transformed under the influence of global processes becomes more competitive; acceleration of structural shifts in the economy leads to increase in structural changes which facilitates the transition to the neo-economy.

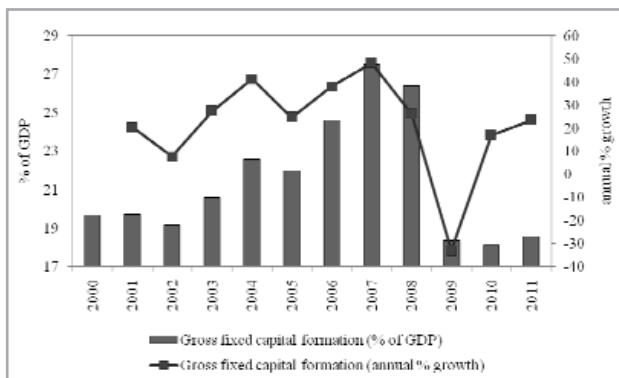


Fig. 7: Dynamics of the indicator «Gross fixed capital formation» in Ukraine, 2000-2011
Source: [10]

References

1. *The NeoEconomy* (2010). Retrieved from <http://www.ericbinaryworld.com/2010/05/12/the-neeconomy/>
2. Mussa, M. (2006). *Global Economic Prospects 2006/2007: Continued Solid Growth in 2006, Rising Risks for Inflation, Financial Markets, and*

Growth for 2007. Retrieved from <http://www.iie.com/publications/papers/mussa0406.pdf>

3. Elwell, C. K. (2013). *Economic Recovery: Sustaining U.S. Economic Growth in a Post-Crisis Economy*. Retrieved from <http://www.fas.org/sgp/crs/misc/R41332.pdf>

4. Novikova, O. F., & Pokotylenko, R. V. (2006). *Economic security: a conceptual definition and ensure mechanism*. Donetsk: Institute of Industry Economy (in Ukr.).

5. The World Bank (2013). *World Development Indicators*. Retrieved from <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators>

6. The International Monetary Fund (2013). *World Economic Outlook Database*. Retrieved from <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/index.aspx>

7. Global Employment Trends 2013. *Recovering from a second jobs dip* (2013). Geneva: ILO.

8. Global Employment Trends 2014. *Risk of a jobless recovery?* (2014). Geneva: ILO.

9. The State Statistics Service of Ukraine (2013). *Number of working time and wages of employees in January 2013* (Quick Release from 02.26.2013 No 09.3-29/73). Retrieved from <http://www.ukrstat.gov.ua> (in Ukr.).

10. *The State Statistics Service of Ukraine* (2013). Retrieved from <http://www.ukrstat.gov.ua> (in Ukr.).

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References (in language original)

1. The NeoEconomy [Electronic resource]. – Accessed mode : <http://www.ericbinaryworld.com/2010/05/12/the-neeconomy/>

2. Mussa M. *Global Economic Prospects 2006/2007: Continued Solid Growth in 2006, Rising Risks for Inflation, Financial Markets, and Growth for 2007* [Electronic resource]. – Accessed mode : <http://www.iie.com/publications/papers/mussa0406.pdf>

3. Elwell C. K. *Economic Recovery: Sustaining U.S. Economic Growth in a Post-Crisis Economy* [Electronic resource]. – 2013. – Accessed mode : <http://www.fas.org/sgp/crs/misc/R41332.pdf>

4. Новікова О. Ф. Економічна безпека: концептуальне визначення та механізм забезпечення : монографія / О. Ф. Новікова, Р. В. Покотиленко ; НАН України, Ін-т економіки промисловості. – Донецьк, 2006. – 408 с.

5. World Development Indicators [Electronic resource]. – 2013. – Accessed mode : <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators>

6. World Economic Outlook Database [Electronic resource]. – October 2013. – Accessed mode : <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/index.aspx>

7. Global Employment Trends 2013. *Recovering from a second jobs dip* // International Labour Office. – Geneva : ILO, 2013. – 239 p.

8. Global Employment Trends 2014. *Risk of a jobless recovery?* // International Labour Office. – Geneva : ILO, 2014. – 120 p.

9. Кількість, робочий час та оплата праці найманих працівників у січні 2013 року [Електронний ресурс] // Експрес-випуск. – 26.02.2013. – № 09.3-29/73. – Режим доступу : <http://www.ukrstat.gov.ua>

10. Офіційний сайт Державної служби статистики України [Електронний ресурс]. – Режим доступу : <http://www.ukrstat.gov.ua>

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