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PECULIARITIES OF GDP FORMATION AND APPLICATION IN UKRAINE AND IN THE EU COUTRIES UNDER THE STRUCTURAL POLICY OF PROPORTIONALITY

Summary

In recent decades increased integration with globalization processes and crisis manifestations in the global economy resulted in significant changes in the main trends of the world economy and actualized changes in the economic structure of many countries. Formation of a new economic paradigm of the world reflected accordingly in the international division of labour, nature and principles of economic relations and structural transformation of national economies. Subject of structural transformation becomes increasingly urgent for Ukraine, which is caused by the need to overcome the consequences of the financial-economic crisis and qualitative renewal of the economic system based on the implementation of effective economic policy, especially structural one, that should provide economic growth and promote economic development in the long term.

Introduction

According to domestic and foreign experience, structural policy is a double-edged weapon, which should be used quite carefully to avoid damage.

Compliance with safety rules means foremost availability of carefully considered strategy that takes into account main direct and indirect, positive and negative effects. Still Ukraine does not have totally objective information about real and potential competitive advantages of domestic industries and sectors.

Ukraine has the highest level of interregional disproportion among the EU member states. Main reasons for maintaining a high level of intra-regional

disproportionality consist in inefficient state regional policy, implemented mainly based on two instruments: fiscal equalization (through subsidies and subventions from the state budget) and financial incentives (through the State Regional Development Fund (SRDF), aimed to create favourable opportunities for formation of «points of contact» in order to attract additional investment to problem regions of the country). Using these tools would have a synergistic effect in overcoming interregional disproportionality of economic development, but instead it furthered old and new risks for regional economic development [1].

The end of the twentieth century was marked by large-scale social transformation at global, regional and national levels. A special place among them was occupied by post-socialist transformation, analyzed by numerous domestic and foreign researchers. However, after more than twenty years since the beginning of «velvet revolutions» in Central and Eastern Europe results require in-depth analysis of transformational change, improvement of research methodology of the theory of transient economic processes, including such important issues as the characteristics of the starting point of transformation, driving (national and international) forces of fulfilled reforms, the criteria for transition completeness and many others.

Researchers O. Amosh, V. Antoniuk, S. Bandura, I. Baranovska, I. Bevz, B. Brytch, V. Blyzniuk, I. Hnybidenko, O. Hryshnova, A. Kolota, S. Kuznets, E. Libanova, L. Lisohor, V. Mandybura, O. Makarova, O. Novikova, I. Petrova, O. Sukhariov, L. Shynkaruk and others dedicated their works to theoretical and applied aspects of structural disproportion problems. However, study of structural imbalances problems in the labour sphere, synthesis and classification of the main determinants of these processes, assessing their impact on makroproportions of a country are quite topical and timely.

Analysis of empirical research proved the existence of scientific and practical direction to assess the impact of structural changes on the effectiveness of economic development in the long run.

Part 1. Essence of Structural Transformations in terms of Macroeconomic Disproportions

The development of market relations in Ukraine led to the need for deeper theoretical and methodological research of structural transformation in the national economy. «*Structural transformation* is the process of significant changes in the economy, which means a scale transfer of resources from the

primary to the manufacturing sector of the economy, as it happened in many newly industrialized countries (NICs). It may involve changes in the methods of economic organization – from a planned to a market economy, as in many countries of the former Soviet Union, Central and Eastern Europe» [2].

Structural transformation is any change in general, without considering nature of outcomes of this process. Transformation without development is a lack of positive economic change in social production (which is typical for Ukrainian structural transformation), and development is a positive economic change. Important features of structural transformation in the economy are their quantitative determinacy, the duality of nature (that is description as a dynamic process and a result of development) and inevitability.

In other words, structural transformation as a qualitative leap is preceded by gradual quantitative accumulation of structural changes that go into structural changes. This process occurs in a situation when the structural transformation is present and development of the domestic economy is almost absent. Transformation without development is the absence of positive economic change in social production (namely, characteristic to Ukrainian structural transformation), because development itself is a positive economic change.

Analysis of structural cut of economic development of Ukraine allows revealing the main macroeconomic imbalances inherent in the domestic economy, and showing that macroeconomic balance of the country is possible only via structural transformation.

It should be borne in mind that Ukraine's economy is a complex system that is formed by a set of different types of structures (reproductive, institutional, administrative, sectoral, industrial and technological, regional, foreign trade, etc.), which action is implemented through the multi-level socio-economic relations.

But the integrity of the domestic economy and the positive implementation of its growth potential can be achieved only if these mentioned structures operate smoothly on the basis of such a development model that meets national and state interests. With the deployment of globalization and increasing openness of an economy, structural changes in the global economy, which can be both positive and negative, have considerable influence on economic processes in the country.

The structural changes are significantly affected by the governmental economic policy and economic and legal norms. If structural policy is based on the objective laws, then it accelerates progressive structural changes; and if it is directed against the objective economic development, then it inhibits it. That's why a well-considered state policy in the area of structural modernization and sustainable economic development is absolutely necessary.

Contradiction is in the basis of each structural change. The problem of the contradiction between the elements as sources of structure development is one of the major problems studying the dynamics of socio-economic structures. All economic systems are characterized by certain sustainability and variability. The notion «structure» characterizes, first of all, sustainability of the system. System division into opposites ensures its relative equilibrium and possibility of long-term existence, during which changes occur mainly in the quantitative proportion of opposing elements.

As a result, quantitative changes inevitably lead to qualitative ones. Insoluble contradictions between the old structure of the national economy and its corresponding allocation of resources lead to conflict with the changed structure of national needs. The inertia of the old structure hampers restructuring, complicating it and continuing in time. And while the established structure yet prevails, the overall rate of growth falls sharply; it disrupts functioning of markets and financial sector, and the general conditions of economic situation remain negative.

The main feature of the structural crisis is increasing moral and physical wear of fixed assets, which leads to burdening the economy by old manufacturings and by output of poor quality goods, not able to compete with imported counterparts. Structural crisis is overcome when old structure is finally starting to give way to new industries and sectors of the economy, new organization forms and production regulation.

J.Fourastie noted that consumption becomes dominant factor in new society and that there is profound modification of the structure based on it. In particular, he mentioned that rapid growth of the tertiary sector in the «public services». The optimal structure of this society can be achieved when tertiary sector will be about 85% of the economically active population, and the secondary will be 10% and the primary will be 5% [3].

Structural changes form a new system of proportions taking off ratio prevailing between the needs structure and the structure of resources allocation, consumption and production patterns. In this sense, one of their

main functions is to ensure their dynamic compliance between indicated structures.

Basic contradiction results in derivative contradiction of structural changes in the economy, such as the conflict between exogenous and endogenous structural changes. Its variation is a contradiction between global changes in the structure of the world economy and local structural changes within economy of the country.

Research of this contradiction is particularly important at the present stage of economic globalization.

All listed contradictions of structural changes can be divided into solvable and unsolvable (antagonistic) within a particular economic structure. Deepening the former ones causes economic structure modernization in an evolutionary way; others favour a revolutionary transformation, destruction of developed relationships, and appearing new ones when one economic system comes instead of another one.

Nature of structural changes is linked to the objective interdependence, balance and proportionality of all reproduction factors for an extended and intensive character of this process. Alexander Sukharev considers «an innovative causality to be the basis of the structural transformation of the economy. Depth and efficiency of economic transformation are defined by modifications in its structure, changes in the proportions of labour division, investment, gross output and GDP, exports and imports between the various branches, reproductive sectors and regions. The nature and changes in the structure of the economy determine eventually its commitment, competitiveness and efficiency» [4].

As a system economic process, structural changes to a certain extent cover all aspects of the economic system structure, including reproductive, industrial, production, innovation, spatial, technological, personnel, raw material, export-import and other subsystems of the economic structure of the country.

According to S.Kuznets, there are four main types of structural changes in the economy [5]:

- technological structural changes that determine the appearance of fundamentally new classes of hardware that found a new economic structure;
- institutional structural changes, which result in their objects, namely, local system of economic institutions and institutes, industry and administrative structure;

- reproductive structural changes associated with changes in the proportions of sectors, areas and segments of the national economy: public and private sector, industrial and agricultural production, production and circulation;
- spatial structural changes that determine definition and displacement of boundaries of clusters, regions and economic zones.

We believe that the structural changes in the economy are qualitative changes in the relationships between comparable elements of the macroeconomic system caused by uneven dynamics of their quantitative characteristics correlation. It is possible to distinguish the point when a change in the economic structure develops into a structural shift.

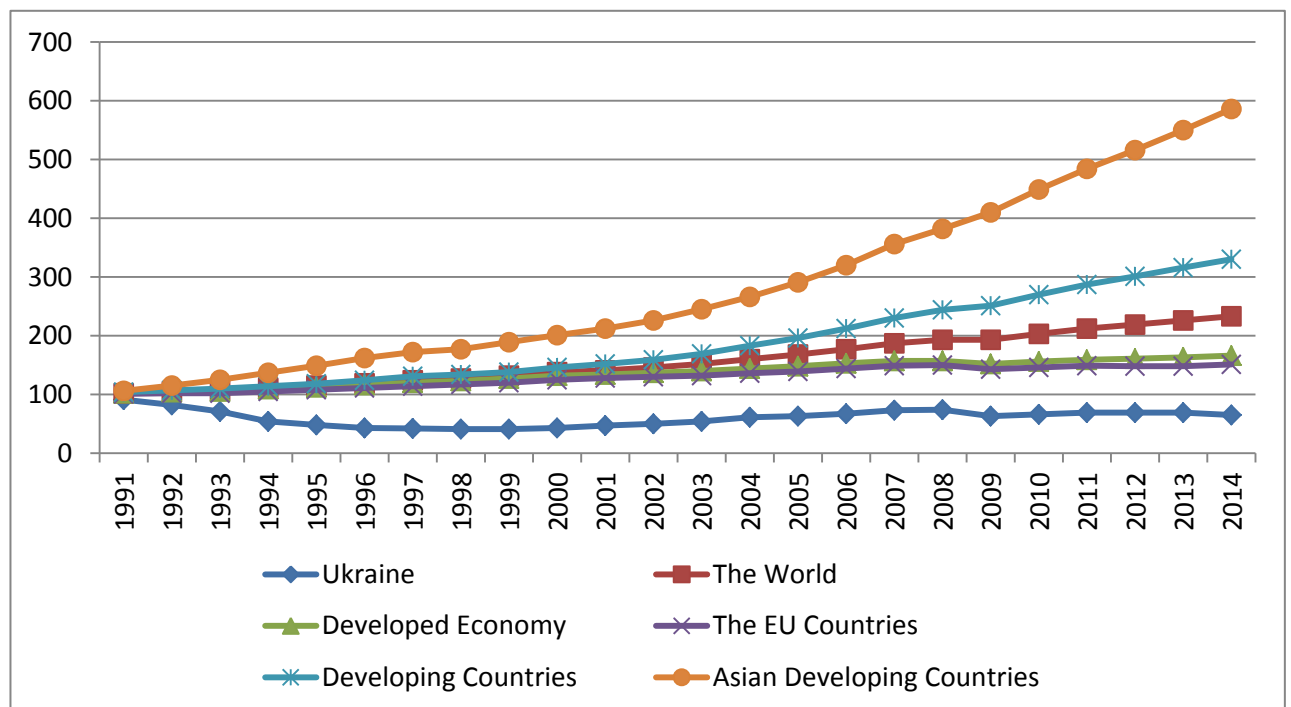


Fig. 1. GDP of the countries of the World, in order of sum increasing, 1990=100%

The prospect of the EU membership has become an engine of transformation that took place in Central and Eastern Europe. The EU has developed a clear strategy as involvement of the countries of Central and Eastern Europe: at early stages of the transformational reforms it provided financial assistance to countries through specially created funds (PHARE, ISPA, SAPARD), connecting countries to the activity of the European Bank of Reconstruction and Development; gradually it opened the market for products from Central and Eastern Europe (introduction of special

preferential regime, signing asymmetrical association agreements, etc.); in 1993 at the European Council in Copenhagen it developed and adopted criteria for the EU membership for countries seeking to join the integration association.

Table 1

GDP of countries of the World, % till 1990

| | Ukraine** | The World | Developed Economy | The EU Countries | Developing Countries | Asian Developing Countries |
|-------|------------------|------------------|--------------------------|-------------------------|-----------------------------|-----------------------------------|
| 1991 | 91 | 102 | 102 | 101 | 104 | 106 |
| 1992 | 82 | 105 | 104 | 102 | 107 | 115 |
| 1993 | 71 | 107 | 105 | 102 | 110 | 125 |
| 1994 | 54 | 111 | 109 | 105 | 114 | 137 |
| 1995 | 48 | 115 | 112 | 108 | 118 | 149 |
| 1996 | 43 | 119 | 116 | 111 | 124 | 162 |
| 1997 | 42 | 124 | 120 | 114 | 131 | 172 |
| 1998 | 41 | 127 | 123 | 117 | 134 | 177 |
| 1999 | 41 | 132 | 127 | 120 | 138 | 189 |
| 2000 | 43 | 138 | 132 | 125 | 146 | 201 |
| 2001 | 47 | 141 | 134 | 128 | 152 | 212 |
| 2002 | 50 | 146 | 137 | 130 | 159 | 226 |
| 2003 | 54 | 152 | 140 | 132 | 169 | 245 |
| 2004 | 61 | 160 | 144 | 136 | 183 | 266 |
| 2005 | 63 | 168 | 148 | 139 | 196 | 291 |
| 2006 | 67 | 177 | 153 | 144 | 212 | 320 |
| 2007 | 73 | 187 | 157 | 149 | 230 | 356 |
| 2008 | 74 | 193 | 157 | 150 | 244 | 382 |
| 2009 | 63 | 193 | 152 | 143 | 251 | 410 |
| 2010 | 66 | 203 | 156 | 146 | 270 | 449 |
| 2011 | 69 | 212 | 159 | 149 | 287 | 484 |
| 2012 | 69 | 219 | 161 | 148 | 301 | 516 |
| 2013 | 69 | 226 | 163 | 148 | 316 | 550 |
| 2014* | 65 | 233 | 166 | 151 | 330 | 586 |

One of the most popular indices that characterize economic dynamics of world development is the change of GDP. During the period from 1990 (Fig. 1) Ukraine has not only failed to increase GDP growth, but even it

didn't regain it which certainly negatively affected the structural characteristics of the GDP components and living standards [6].

Research of GDP (Table 1) shows a substantial backlog of Ukraine in terms of economic development as the global economy over the past 23 years has doubled; developed countries have increased GDP by 66%; the EU has increased it by half; developing countries tripled it and Asian developed countries increased it nearly sixfold, and Ukraine's GDP fell by 35% [6].

Thus, for the examined period Ukraine lowered its level by more than three times compared to the global economy growth and by 2.5 times compared with the EU countries, having moved from the group of middle development level to the group of developing countries. Instead, we should note faster growth of developing countries compared to developed countries, indicating the alignment of the world economic development.

Part 2. GDP of Ukraine and the EU countries under the Structural Policy of Proportionality

The share of agriculture in GDP of Ukraine (11.8%) is much higher than average values (Table 2) of the 28 EU countries (1.6%) and is close to such new EU members as Bulgaria (5.3%) and Romania (6.2%), the least developed countries of Europe. Compared with the crisis 2009 the share of agriculture in GDP of the country increased by 1.5 times, while its growth in European countries was more moderate (+7%).

The contribution of Ukrainian industry is close to European (19%), but tends to decrease (-9.7%), while in the EU, except in Sweden, it grew moderately (+ 2.7%). Instead, the processing industry of Ukraine, being at the average European level before the crisis, suffered a reduction of almost 20% and in 2014 (13.1%) was inferior (sometimes twice) to all countries selected for comparison, where its share remained stable (except France and Sweden).

Thus, while the share of Ukrainian industry is close to the EU level, its structure is imperfect, and the dynamics demonstrates the phenomenon of de-industrialization.

Table 2

**Sectoral Structure of Gross Added Value
(% before GAV according to the 2008 SNA methodology)**

| Types of activity acc.to NACE (Ukr.KBE/2010) | Years | Ukraine* | EU-28 | Bulgaria | Czechia | Germany | France | Hungary | Poland | Roumania | Slovenia | Slovakia | Sweden |
|--|----------------|----------|-------|----------|---------|---------|--------|---------|--------|----------|----------|----------|--------|
| Agriculture, Forestry and Fish industry | 2009 | 7,9 | 1,5 | 5,1 | 1,8 | 0,8 | 1,5 | 3,5 | 2,9 | 6,0 | 1,9 | 3,3 | 1,5 |
| | 2010 | 8,4 | 1,6 | 5,1 | 1,7 | 0,7 | 1,8 | 3,6 | 3,0 | 6,3 | 2,0 | 2,8 | 1,6 |
| | 2011 | 9,4 | 1,7 | 5,4 | 2,4 | 0,8 | 1,8 | 4,7 | 3,3 | 7,3 | 2,3 | 3,4 | 1,6 |
| | 2012 | 9,0 | 1,7 | 5,4 | 2,6 | 0,9 | 1,9 | 4,5 | 3,2 | 5,3 | 2,2 | 3,6 | 1,5 |
| | 2013 | 9,9 | 1,7 | 5,5 | 2,6 | 0,9 | 1,7 | 4,4 | 3,3 | 6,2 | 2,1 | 4,0 | 1,4 |
| | 2014 | 11,8 | 1,6 | 5,3 | 2,6 | 0,8 | 1,6 | 4,4 | 3,3 | : | 2,2 | 3,7 | 1,4 |
| | 2014 to 2009,% | 149,6 | 106,7 | 103,9 | 144,4 | 100,0 | 106,7 | 125,7 | 113,8 | : | 115,8 | 112,1 | 93,3 |
| Industry | 2009 | 25,3 | 18,5 | 21,7 | 30,0 | 23,5 | 13,8 | 25,0 | 24,8 | 26,3 | 23,6 | 24,3 | 21,1 |
| | 2010 | 25,3 | 19,2 | 20,8 | 29,9 | 25,7 | 13,5 | 26,3 | 24,7 | 31,3 | 24,2 | 26,5 | 23,0 |
| | 2011 | 25,2 | 19,4 | 23,8 | 30,9 | 26,0 | 13,7 | 26,1 | 25,4 | 32,5 | 25,0 | 26,8 | 22,5 |
| | 2012 | 24,8 | 19,2 | 24,2 | 31,2 | 26,1 | 13,8 | 26,6 | 25,2 | 27,8 | 25,9 | 26,4 | 21,3 |
| | 2013 | 22,7 | 19,2 | 23,2 | 31,1 | 26,1 | 13,8 | 26,3 | 25,8 | 27,0 | 26,7 | 24,7 | 20,4 |
| | 2014 | 22,8 | 19,0 | 23,5 | 32,6 | 25,9 | 13,8 | 26,4 | 25,9 | : | 27,1 | 24,7 | 19,7 |
| | 2014 to 2009,% | 90,3 | 102,7 | 108,3 | 108,7 | 110,2 | 100,0 | 105,6 | 104,4 | : | 114,8 | 101,6 | 93,4 |
| Processing Industry | 2009 | 16,3 | 14,8 | : | 22,9 | 19,8 | 11,5 | 20,4 | 18,3 | 21,6 | 19,6 | 17,7 | 17,3 |
| | 2010 | 14,8 | 15,4 | : | 23,4 | 22,0 | 11,3 | 21,9 | 17,5 | 23,9 | 20,2 | 20,9 | 18,6 |
| | 2011 | 13,6 | 15,7 | : | 24,5 | 22,7 | 11,4 | 22,1 | 18,1 | 24,5 | 21,0 | 21,3 | 18,3 |
| | 2012 | 14,1 | 15,4 | : | 24,9 | 22,6 | 11,4 | 22,6 | 18,0 | 21,5 | 21,6 | 21,0 | 17,2 |
| | 2013 | 12,7 | 15,3 | : | 24,9 | 22,2 | 11,3 | 22,8 | 18,8 | : | 22,3 | 20,2 | 16,5 |
| | 2014 | 13,1 | 15,3 | : | 26,7 | 22,2 | 11,4 | 23,3 | 19,2 | : | 22,8 | 20,4 | 16,0 |
| | 2014 to 2009,% | 80,4 | 103,4 | : | 116,6 | 112,1 | 99,1 | 114,2 | 104,9 | : | 116,3 | 115,3 | 92,5 |
| Construction Industry | 2009 | 3,0 | 6,2 | 9,2 | 6,7 | 4,2 | 6,3 | 4,8 | 8,3 | 11,4 | 7,8 | 9,8 | 5,8 |
| | 2010 | 3,7 | 5,8 | 7,0 | 6,9 | 4,3 | 6,1 | 4,1 | 8,3 | 10,1 | 6,4 | 9,0 | 5,9 |
| | 2011 | 3,5 | 5,7 | 6,2 | 6,2 | 4,4 | 6,1 | 4,0 | 8,3 | 9,1 | 5,9 | 8,8 | 5,8 |
| | 2012 | 3,2 | 5,5 | 5,9 | 5,8 | 4,5 | 6,1 | 3,8 | 7,6 | 9,6 | 5,8 | 8,9 | 5,6 |
| | 2013 | 2,9 | 5,4 | 4,8 | 5,6 | 4,6 | 6,0 | 4,0 | 7,4 | 7,4 | 5,3 | 8,5 | 5,5 |
| | 2014 | 2,6 | 5,4 | 4,8 | 5,3 | 4,8 | 5,7 | 4,3 | 7,5 | : | 5,7 | 8,3 | 5,9 |
| | 2014 to 2009,% | 86,3 | 87,1 | 52,2 | 79,1 | 114,3 | 90,5 | 89,6 | 90,4 | : | 73,1 | 84,7 | 101,7 |

Continuation of Table 2

| | | | | | | | | | | | | | |
|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Trade, Transport, Accommodation and public catering Industries | 2009 | 25,7 | 19,2 | 20,4 | 18,2 | 17,0 | 18,1 | 17,6 | 25,9 | 20,5 | 20,0 | 21,9 | 17,2 |
| | 2010 | 26,2 | 19,0 | 20,7 | 18,6 | 16,0 | 17,9 | 17,7 | 25,9 | 15,3 | 20,0 | 21,8 | 17,1 |
| | 2011 | 27,6 | 18,9 | 19,9 | 18,2 | 16,1 | 17,8 | 18,1 | 25,3 | 13,1 | 20,2 | 21,6 | 17,0 |
| | 2012 | 25,8 | 19,0 | 20,2 | 18,2 | 15,8 | 17,8 | 17,7 | 26,5 | 19,7 | 20,0 | 21,4 | 17,3 |
| | 2013 | 25,8 | 18,9 | 21,4 | 18,1 | 15,6 | 17,8 | 18,6 | 26,3 | 17,7 | 20,2 | 22,0 | 17,3 |
| | 2014 | 25,1 | 19,0 | 21,3 | 17,9 | 15,5 | 17,7 | 18,5 | 26,8 | : | 20,4 | 22,4 | 17,4 |
| | 2014 to 2009,% | 97,8 | 99,0 | 104,4 | 98,4 | 91,2 | 97,8 | 105,1 | 103,5 | : | 102,0 | 102,3 | 101,2 |
| Information and Telecommunications Industry | 2009 | 25,7 | 19,2 | 20,4 | 18,2 | 17,0 | 18,1 | 17,6 | 25,9 | 20,5 | 20,0 | 21,9 | 17,2 |
| | 2010 | 26,2 | 19,0 | 20,7 | 18,6 | 16,0 | 17,9 | 17,7 | 25,9 | 15,3 | 20,0 | 21,8 | 17,1 |
| | 2011 | 27,6 | 18,9 | 19,9 | 18,2 | 16,1 | 17,8 | 18,1 | 25,3 | 13,1 | 20,2 | 21,6 | 17,0 |
| | 2012 | 25,8 | 19,0 | 20,2 | 18,2 | 15,8 | 17,8 | 17,7 | 26,5 | 19,7 | 20,0 | 21,4 | 17,3 |
| | 2013 | 25,8 | 18,9 | 21,4 | 18,1 | 15,6 | 17,8 | 18,6 | 26,3 | 17,7 | 20,2 | 22,0 | 17,3 |
| | 2014 | 25,1 | 19,0 | 21,3 | 17,9 | 15,5 | 17,7 | 18,5 | 26,8 | : | 20,4 | 22,4 | 17,4 |
| | 2014 to 2009,% | 97,8 | 99,0 | 104,4 | 98,4 | 91,2 | 97,8 | 105,1 | 103,5 | : | 102,0 | 102,3 | 101,2 |
| Financial and insurance activity | 2009 | 6,2 | 5,7 | 6,3 | 4,5 | 4,7 | 4,0 | 4,7 | 3,9 | 2,4 | 5,3 | 3,9 | 4,4 |
| | 2010 | 6,3 | 5,6 | 8,2 | 4,7 | 4,6 | 4,5 | 4,7 | 4,1 | 2,6 | 5,4 | 3,6 | 3,9 |
| | 2011 | 5,1 | 5,4 | 8,5 | 4,7 | 4,1 | 4,3 | 4,5 | 4,3 | 3,2 | 5,2 | 3,7 | 4,1 |
| | 2012 | 4,9 | 5,4 | 7,8 | 4,5 | 4,1 | 4,2 | 4,3 | 4,0 | 3,4 | 4,3 | 3,6 | 4,3 |
| | 2013 | 5,1 | 5,3 | 7,2 | 4,8 | 4,1 | 4,4 | 3,9 | 3,9 | 3,4 | 4,0 | 3,6 | 4,5 |
| | 2014 | 5,1 | 5,5 | 7,7 | 4,6 | 4,0 | 4,7 | 3,8 | 4,3 | : | 4,4 | 3,9 | 4,6 |
| | 2014 to 2009,% | 83,1 | 96,5 | 122,2 | 102,2 | 85,1 | 117,5 | 80,9 | 110,3 | : | 83,0 | 100,0 | 104,5 |
| Real Estate Transactions | 2009 | 6,3 | 10,7 | 10,8 | 9,0 | 12,1 | 13,1 | 8,9 | 5,2 | 9,3 | 8,3 | 6,9 | 9,1 |
| | 2010 | 6,0 | 10,8 | 11,6 | 9,0 | 11,6 | 12,8 | 8,8 | 5,3 | 9,5 | 8,0 | 6,7 | 8,3 |
| | 2011 | 6,2 | 11,0 | 11,0 | 8,8 | 11,6 | 12,7 | 8,8 | 5,2 | 9,1 | 7,7 | 6,9 | 8,5 |
| | 2012 | 6,9 | 11,1 | 10,6 | 8,9 | 11,2 | 12,7 | 8,9 | 5,2 | 9,2 | 7,5 | 7,0 | 8,5 |
| | 2013 | 7,4 | 11,2 | 10,7 | 9,0 | 11,1 | 12,8 | 8,8 | 5,0 | 10,6 | 7,2 | 7,1 | 8,7 |
| | 2014 | 7,5 | 11,2 | 10,6 | 8,4 | 11,1 | 12,9 | 8,3 | 5,0 | : | 6,9 | 7,1 | 8,4 |
| | 2014 to 2009,% | 120,1 | 104,7 | 98,1 | 93,3 | 91,7 | 98,5 | 93,3 | 96,2 | : | 83,1 | 102,9 | 92,3 |
| Professional Activity and Administrative Servicing | 2009 | 6,3 | 10,7 | 10,8 | 9,0 | 12,1 | 13,1 | 8,9 | 5,2 | 9,3 | 8,3 | 6,9 | 9,1 |
| | 2010 | 6,0 | 10,8 | 11,6 | 9,0 | 11,6 | 12,8 | 8,8 | 5,3 | 9,5 | 8,0 | 6,7 | 8,3 |
| | 2011 | 6,2 | 11,0 | 11,0 | 8,8 | 11,6 | 12,7 | 8,8 | 5,2 | 9,1 | 7,7 | 6,9 | 8,5 |
| | 2012 | 6,9 | 11,1 | 10,6 | 8,9 | 11,2 | 12,7 | 8,9 | 5,2 | 9,2 | 7,5 | 7,0 | 8,5 |
| | 2013 | 7,4 | 11,2 | 10,7 | 9,0 | 11,1 | 12,8 | 8,8 | 5,0 | 10,6 | 7,2 | 7,1 | 8,7 |
| | 2014 | 7,5 | 11,2 | 10,6 | 8,4 | 11,1 | 12,9 | 8,3 | 5,0 | : | 6,9 | 7,1 | 8,4 |
| | 2014 to 2009,% | 120,1 | 104,7 | 98,1 | 93,3 | 91,7 | 98,5 | 93,3 | 96,2 | : | 83,1 | 102,9 | 92,3 |
| State Administration, Education and Healthcare | 2009 | 15,8 | 19,5 | 12,5 | 15,2 | 18,2 | 22,6 | 18,2 | 15,3 | 12,2 | 17,3 | 14,6 | 24,2 |
| | 2010 | 15,2 | 19,4 | 12,7 | 15,2 | 17,9 | 22,5 | 17,8 | 15,4 | 11,9 | 17,8 | 14,5 | 23,4 |
| | 2011 | 14,2 | 19,2 | 12,0 | 14,9 | 17,7 | 22,5 | 17,1 | 15,0 | 11,2 | 17,7 | 13,8 | 23,3 |
| | 2012 | 15,3 | 19,2 | 12,3 | 14,9 | 17,9 | 22,7 | 17,3 | 14,8 | 10,8 | 17,9 | 13,7 | 24,0 |
| | 2013 | 15,5 | 19,4 | 13,4 | 15,0 | 18,1 | 23,0 | 17,3 | 14,8 | 10,8 | 18,0 | 14,2 | 24,3 |
| | 2014 | 15,2 | 19,3 | 13,2 | 14,9 | 18,2 | 23,2 | 17,5 | 14,2 | : | 17,0 | 14,5 | 24,5 |
| | 2014 to 2009,% | 96,2 | 99,0 | 105,6 | 98,0 | 100,0 | 102,7 | 96,2 | 92,8 | : | 98,3 | 99,3 | 101,2 |

Ending of Table 2

| | | | | | | | | | | | | | |
|---|----------------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Art, Sport, Entertainment and other types of activity | 2009 | 1,7 | 3,5 | 2,9 | 2,3 | 4,3 | 3,0 | 2,9 | 2,3 | 2,6 | 2,8 | 3,1 | 2,9 |
| | 2010 | 1,5 | 3,5 | 2,8 | 2,3 | 4,2 | 3,0 | 2,9 | 2,4 | 2,9 | 2,7 | 3,1 | 2,8 |
| | 2011 | 1,6 | 3,5 | 2,4 | 2,3 | 4,1 | 3,0 | 2,8 | 2,4 | 3,3 | 2,7 | 3,3 | 2,9 |
| | 2012 | 1,8 | 3,6 | 2,4 | 2,2 | 4,1 | 3,0 | 2,8 | 2,4 | 3,4 | 2,7 | 3,4 | 2,9 |
| | 2013 | 2,1 | 3,6 | 2,6 | 2,3 | 4,1 | 3,0 | 2,8 | 2,3 | 3,3 | 2,8 | 3,5 | 3,0 |
| | 2014 | 1,9 | 3,6 | 2,5 | 2,2 | 4,1 | 3,0 | 2,8 | 2,3 | : | 2,7 | 3,3 | 3,0 |
| | 2014 to 2009,% | 109,0 | 102,9 | 86,2 | 95,7 | 95,3 | 100,0 | 96,6 | 100,0 | : | 96,4 | 106,5 | 103,4 |
| Share of Commodity Production | 2009 | 36,1 | 26,2 | 36,0 | 38,5 | 28,5 | 21,6 | 33,3 | 36,0 | 43,7 | 33,3 | 37,4 | 28,4 |
| | 2010 | 37,3 | 26,6 | 32,9 | 38,5 | 30,7 | 21,4 | 34,0 | 36,0 | 47,7 | 32,6 | 38,3 | 30,5 |
| | 2011 | 38,1 | 26,8 | 35,4 | 39,5 | 31,2 | 21,6 | 34,8 | 37,0 | 48,9 | 33,2 | 39,0 | 29,9 |
| | 2012 | 37,0 | 26,4 | 35,5 | 39,6 | 31,5 | 21,8 | 34,9 | 36,0 | 42,7 | 33,9 | 38,9 | 28,4 |
| | 2013 | 35,5 | 26,3 | 33,5 | 39,3 | 31,6 | 21,5 | 34,7 | 36,5 | 40,6 | 34,1 | 37,2 | 27,3 |
| | 2014 | 37,2 | 26,0 | 33,6 | 40,5 | 31,5 | 21,1 | 35,1 | 36,7 | : | 35,0 | 36,7 | 27,0 |
| | 2014 to 2009,% | 102,9 | 99,2 | 93,3 | 105,2 | 110,5 | 97,7 | 105,4 | 101,9 | : | 105,1 | 98,1 | 95,1 |

Note: for Ukraine data of 2014 is given without considering temporarily occupied territory of AR Crimea and Sevastopol

The share of construction in GAV of Ukraine (2.6%) is almost twice lower than the EU-28 (5.4%), and reducing its contribution to GAV for the considered period (-13.7%) exceeds a similar reduction in the EU-28 (-12.9%), while in Germany, its share even increased. In trade, transport, accommodation and catering spheres a GAV share of Ukraine was more stable, decreasing only by 2.2%, resulting in the contribution of these sectors in 2014 (25.1%) was higher than the EU rates in general (19.0%) and most of considered countries, except Poland (26.8%). Ukrainian information activity indicator remained lower (3.5%) than the EU indices (4.7%).

Financial crisis led to a sharp reduction in financial and insurance activity, which from level exceeding the EU level in 2009 (6.2 as compared to 5.7%) declined to below the average (5.1 and 5.5%) respectively, and its physical volume decreased by 16.9%, which was similar to the reduction of this activity in Germany, Hungary and Slovenia.

Despite significant growth (+20.1%) contribution of transactions with real estate (7.5%) was almost twice lower than the average European (11.2%) and similar to new member states. The contribution of professional activity underwent a slight reduction remaining twice lower than the European level, which is typical for new EU member states. The contribution of public administration, education and health underwent certain reduction and stayed similar to new EU-28 countries as opposed to the old ones, where this sector is traditionally more significant. In comparison with 2009 the value added

share of material production industries in Ukraine has not changed substantially, remaining at 37.2%, which is typical for new EU member states. Lower level of material production was in Germany (31.5%), France (21.1%) and Sweden (27.0%).

GAV rate of change on certain economic activities of Ukraine differed significantly from EU-28 countries (Table. 3) [7]. For Ukrainian GAV a decline in 2009 (-14%) was one of the deepest among the EU-28 countries (-6%). A similar decline occurred only in the Baltic States. Among the EU member states Poland was the only country to not only prevent but also to ensure economic growth of 3%. Economic recovery in 2010-2011 in Ukraine was twice faster than in the EU-28 countries, but in 2012-2013 it was changed again by the second crisis wave that deepened by economic war of Russia in autumn of 2013 and which in 2014 trasfered into an open war. As a result of military operations, shutdown of enterprises in the east and breakdown of economic ties between the regions, GAV of Ukraine, even excluding the temporarily occupied territory of Crimea and Sevastopol, in 2014 it decreased by 7%, and in general during the whole period by 12%, actually staying at the 2009 crisis level. The EU-28 countries for the same period achieved the level similar to the one before the crisis in 2008. The greatest progress was demonstrated by Poland, which GVA for this period increased by 19%. Slovakia follows Poland in efficiency of economical performance during the crisis (+8%) [7].

In contrast to other activity types Ukrainian agriculture was quite quick and successful in its development, as during this period it increased by 31%. In the EU-28 countries its GAV remained at its pre-crisis level. Similar to Ukraine, although lower growth in this area was demonstrated by Slovakia (20%) and Poland (+9%).

Industry of Ukraine showed sharp decline since 2012, four times less compared to the pre-crisis 2008. It almost reached pre-crisis level in the EU-28 countries, although significant growth in this area was shown by Poland (+ 30%), Germany (+ 7%), Slovakia (+ 4%).

Added Value of Ukrainian processing industry catastrophically decreased in Ukraine. This reduction caused by the global financial crisis began in 2008 (-5%) and became catastrophic in 2009 (-22%).

Table 3

Gross Value of Activities (acc. to SNA-2008 methodology)

| Types of activity acc. to NACE (Ukr.KBEJ2010) | Years | Ukraine* | EU-28 | Bulgaria | Czechia | Germany | France | Hungary | Poland | Roumania | Slovenia | Slovakia | Sweden |
|---|-----------------|----------|-------|----------|---------|---------|--------|---------|--------|----------|----------|----------|--------|
| Total | 2009 | 86 | 96 | 97 | 95 | 94 | 97 | 93 | 103 | 94 | 93 | 95 | 94 |
| | 2010 | 104 | 102 | 101 | 103 | 104 | 102 | 101 | 104 | 99 | 101 | 105 | 106 |
| | 2011 | 105 | 102 | 102 | 102 | 104 | 102 | 102 | 105 | 100 | 100 | 102 | 103 |
| | 2012 | 100 | 100 | 100 | 99 | 101 | 101 | 99 | 102 | 100 | 98 | 103 | 100 |
| | 2013 | 101 | 100 | 101 | 99 | 100 | 100 | 102 | 102 | 104 | 99 | 101 | 101 |
| | 2014 | 93 | 101 | 102 | 103 | 102 | 100 | 104 | 103 | : | 103 | 102 | 102 |
| | 2014 to 2008, % | 88 | 100 | 103 | 100 | 104 | 102 | 100 | 119 | : | 94 | 108 | 106 |
| Agriculture, Forestry and Fish Industry | 2009 | 98 | 100 | 91 | 121 | 97 | 106 | 89 | 113 | 91 | 91 | 98 | 97 |
| | 2010 | 100 | 97 | 94 | 84 | 76 | 97 | 78 | 93 | 110 | 102 | 85 | 94 |
| | 2011 | 120 | 102 | 99 | 102 | 86 | 104 | 114 | 101 | 114 | 108 | 119 | 100 |
| | 2012 | 96 | 96 | 93 | 103 | 114 | 92 | 77 | 95 | 74 | 92 | 103 | 101 |
| | 2013 | 113 | 103 | 103 | 91 | 98 | 99 | 115 | 105 | 129 | 96 | 120 | 103 |
| | 2014 | 103 | 103 | 105 | 106 | 106 | 103 | 113 | 103 | : | 107 | 99 | 101 |
| | 2014 to 2008, % | 131 | 100 | 84 | 102 | 75 | 99 | 78 | 109 | : | 94 | 120 | 95 |
| Manufacturing Industry | 2009 | 82 | 89 | 92 | 88 | 85 | 94 | 86 | 100 | 99 | 86 | 84 | 83 |
| | 2010 | 105 | 108 | 98 | 106 | 116 | 102 | 109 | 109 | 105 | 107 | 120 | 119 |
| | 2011 | 105 | 103 | 109 | 107 | 106 | 103 | 100 | 109 | 100 | 102 | 104 | 104 |
| | 2012 | 98 | 99 | 103 | 99 | 101 | 101 | 99 | 102 | 93 | 98 | 99 | 96 |
| | 2013 | 93 | 100 | 100 | 97 | 100 | 100 | 97 | 105 | 104 | 100 | 97 | 99 |
| | 2014 | 88 | 101 | 102 | 105 | 101 | 100 | 105 | 104 | : | 104 | 104 | 99 |
| | 2014 to 2008, % | 73 | 98 | 103 | 100 | 107 | 98 | 94 | 130 | : | 95 | 104 | 9 |
| Processing Industry | 2009 | 78 | 87 | : | 88 | 81 | 94 | 83 | 101 | 97 | 84 | 85 | 80 |
| | 2010 | 104 | 109 | : | 111 | 119 | 103 | 111 | 109 | 104 | 107 | 127 | 123 |
| | 2011 | 103 | 105 | : | 110 | 109 | 104 | 101 | 109 | 98 | 103 | 104 | 105 |
| | 2012 | 98 | 99 | : | 99 | 100 | 101 | 100 | 102 | 95 | 97 | 100 | 93 |
| | 2013 | 90 | 100 | : | 98 | 100 | 99 | 96 | 106 | : | 100 | 99 | 99 |
| | 2014 | 88 | 102 | : | 106 | 102 | 100 | 107 | 106 | : | 105 | 104 | 99 |
| | 2014 to 2008, % | 66 | 99 | : | 110 | 106 | 100 | 94 | 137 | : | 94 | 117 | 94 |
| Construction Industry | 2009 | 61 | 92 | 100 | 97 | 97 | 94 | 96 | 112 | 86 | 87 | 92 | 90 |
| | 2010 | 102 | 98 | 82 | 104 | 108 | 98 | 90 | 106 | 97 | 82 | 95 | 104 |
| | 2011 | 101 | 98 | 98 | 93 | 104 | 98 | 103 | 111 | 81 | 90 | 103 | 98 |
| | 2012 | 91 | 95 | 98 | 96 | 100 | 99 | 94 | 97 | 99 | 93 | 106 | 94 |
| | 2013 | 89 | 98 | 99 | 99 | 100 | 98 | 107 | 101 | 105 | 91 | 96 | 99 |
| | 2014 | 80 | 101 | 101 | 103 | 104 | 96 | 114 | 105 | : | 111 | 98 | 110 |
| | 2014 to 2008, % | 41 | 83 | 79 | 92 | 113 | 83 | 102 | 134 | : | 60 | 89 | 94 |

Continuation of Table 3

| | | | | | | | | | | | | | |
|--|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trade, Transport, Accommodation and Public Catering Industries | 2009 | 86 | 94 | 93 | 91 | 94 | 95 | 86 | 103 | 89 | 91 | 93 | 95 |
| | 2010 | 106 | 101 | 112 | 104 | 99 | 103 | 100 | 103 | 101 | 101 | 103 | 105 |
| | 2011 | 108 | 102 | 101 | 101 | 104 | 103 | 102 | 101 | 101 | 102 | 99 | 104 |
| | 2012 | 98 | 100 | 102 | 98 | 98 | 100 | 99 | 105 | 133 | 96 | 102 | 102 |
| | 2013 | 100 | 100 | 103 | 99 | 100 | 100 | 105 | 100 | 94 | 100 | 102 | 103 |
| | 2014 | 89 | 102 | 101 | 102 | 101 | 101 | 104 | 103 | : | 103 | 102 | 103 |
| | 2014 to 2008, % | 86 | 99 | 113 | 95 | 96 | 101 | 94 | 116 | : | 93 | 100 | 112 |
| Information and Telecommunications Industry | 2009 | 90 | 99 | 98 | 99 | 99 | 96 | 106 | 104 | 90 | 96 | 109 | 99 |
| | 2010 | 98 | 103 | 103 | 100 | 100 | 104 | 100 | 101 | 109 | 103 | 101 | 108 |
| | 2011 | 104 | 104 | 103 | 102 | 111 | 106 | 103 | 107 | 80 | 100 | 103 | 106 |
| | 2012 | 106 | 103 | 97 | 98 | 105 | 103 | 104 | 110 | 92 | 100 | 113 | 104 |
| | 2013 | 102 | 100 | 102 | 99 | 101 | 100 | 101 | 103 | 108 | 101 | 101 | 100 |
| | 2014 | 96 | 101 | 102 | 104 | 102 | 101 | 103 | 100 | : | 101 | 103 | 104 |
| | 2014 to 2008, % | 95 | 110 | 105 | 102 | 120 | 110 | 118 | 126 | : | 101 | 133 | 123 |
| Financial and Insurance Activity | 2009 | 57 | 99 | 113 | 109 | 94 | 107 | 102 | 91 | 93 | 101 | 108 | 104 |
| | 2010 | 121 | 99 | 104 | 100 | 103 | 100 | 96 | 98 | 103 | 100 | 94 | 101 |
| | 2011 | 93 | 101 | 102 | 100 | 101 | 107 | 96 | 109 | 120 | 96 | 104 | 109 |
| | 2012 | 102 | 100 | 94 | 107 | 102 | 102 | 97 | 90 | 106 | 95 | 100 | 100 |
| | 2013 | 108 | 99 | 99 | 114 | 99 | 102 | 94 | 101 | 105 | 100 | 107 | 106 |
| | 2014 | 95 | 100 | 101 | 97 | 99 | 101 | 99 | 114 | : | 102 | 107 | 104 |
| | 2014 to 2008, % | 67 | 98 | 112 | 130 | 97 | 120 | 86 | 101 | : | 94 | 121 | 12 |
| Real Estate Transactions | 2009 | 94 | 101 | 98 | 97 | 102 | 101 | 103 | 101 | 102 | 100 | 94 | 97 |
| | 2010 | 107 | 101 | 105 | 101 | 99 | 102 | 99 | 106 | 74 | 102 | 99 | 96 |
| | 2011 | 103 | 102 | 100 | 102 | 103 | 99 | 103 | 104 | 100 | 100 | 110 | 103 |
| | 2012 | 106 | 100 | 100 | 101 | 98 | 101 | 98 | 102 | 103 | 100 | 106 | 104 |
| | 2013 | 107 | 101 | 101 | 103 | 101 | 101 | 101 | 99 | 106 | 100 | 100 | 103 |
| | 2014 | 97 | 102 | 101 | 100 | 101 | 101 | 100 | 101 | : | 100 | 101 | 101 |
| | 2014 to 2008, % | 114 | 107 | 105 | 104 | 104 | 104 | 103 | 113 | : | 102 | 108 | 103 |
| Professional activity Administrative Servicing | 2009 | 92 | 93 | 109 | 93 | 90 | 93 | 97 | 105 | 102 | 94 | 102 | 96 |
| | 2010 | 93 | 103 | 96 | 99 | 104 | 104 | 101 | 100 | 100 | 105 | 105 | 109 |
| | 2011 | 97 | 103 | 105 | 102 | 102 | 103 | 103 | 105 | 126 | 101 | 99 | 106 |
| | 2012 | 121 | 100 | 97 | 101 | 101 | 100 | 101 | 104 | 109 | 98 | 105 | 101 |
| | 2013 | 108 | 101 | 102 | 100 | 101 | 100 | 104 | 103 | 115 | 100 | 105 | 103 |
| | 2014 | 89 | 103 | 102 | 104 | 102 | 101 | 105 | 102 | : | 104 | 100 | 104 |
| | 2014 to 2008, % | 96 | 103 | 111 | 99 | 99 | 100 | 112 | 122 | : | 102 | 118 | 118 |
| State Administration, Education and Healthcare | 2009 | 104 | 101 | 99 | 101 | 102 | 101 | 100 | 105 | 96 | 102 | 107 | 102 |
| | 2010 | 100 | 101 | 100 | 101 | 102 | 101 | 101 | 101 | 96 | 102 | 103 | 101 |
| | 2011 | 100 | 101 | 99 | 99 | 101 | 101 | 102 | 101 | 101 | 100 | 96 | 100 |
| | 2012 | 104 | 100 | 100 | 98 | 101 | 102 | 102 | 100 | 97 | 101 | 101 | 101 |
| | 2013 | 100 | 100 | 102 | 99 | 100 | 101 | 105 | 101 | 100 | 100 | 104 | 100 |
| | 2014 | 101 | 101 | 101 | 102 | 101 | 101 | 100 | 100 | : | 101 | 104 | 102 |
| | 2014 to 2008, % | 109 | 104 | 100 | 100 | 107 | 108 | 110 | 108 | : | 105 | 115 | 106 |

Ending of Table 3

| | | | | | | | | | | | | | |
|---|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Art, sport, entertainment and other types of activity | 2009 | 82 | 99 | 105 | 95 | 97 | 100 | 95 | 101 | 86 | 97 | 132 | 97 |
| | 2010 | 96 | 100 | 101 | 99 | 99 | 103 | 101 | 106 | 81 | 98 | 102 | 102 |
| | 2011 | 109 | 101 | 96 | 104 | 101 | 98 | 103 | 104 | 111 | 100 | 108 | 102 |
| | 2012 | 113 | 100 | 95 | 98 | 100 | 102 | 96 | 104 | 105 | 97 | 108 | 100 |
| | 2013 | 107 | 99 | 101 | 103 | 98 | 100 | 103 | 96 | 102 | 103 | 101 | 103 |
| | 2014 | 93 | 101 | 100 | 100 | 101 | 100 | 103 | 102 | : | 100 | 98 | 102 |
| | 2014 to 2008, % | 97 | 100 | 98 | 98 | 96 | 103 | 101 | 112 | : | 95 | 156 | 106 |

Note: for Ukraine data of 2014 are given without considering temporarily occupied territory of AR Crimea and Sevastopol

Certain economic recovery in 2010-2011 failed to block this decrease, and since 2012 it continued again. It resulted in reduction of the Gross Added Value by 34%. For most of the EU-28 countries, despite similar reduction of production in 2009, the consequences of the crisis were more moderate, as in Poland, due to continuous growth in the period production of this sector was increased by 37%, and in Slovakia by 17%.

The added value of a construction industry in Ukraine underwent a catastrophic decline in 2008 (-13%), 2009 (-39%) and in the period since 2012, cumulatively decreased by 59% compared to 17% in the EU-28 countries.

It did not experience recession, but on the contrary it had grown rapidly during the whole period, increasing in general in Poland by 34% and in Germany by 13%.

Trade, transportation and accommodation sector of Ukraine also suffered a sharp decline in 2009 (-14%), as in most EU countries (-6%), with the exception of Poland. Naturally, Euro 2012 was accompanied by a decline beginning in these areas. For the entire period Ukrainian GAV of this activity decreased by 14%, and in the EU-28 countries it remained at pre-crisis level, and leaders in the growth of this industry were Poland (+ 16%), Bulgaria (+ 13%) and Sweden (+ 12%).

The development of information and telecommunications industry in Ukraine in this period was moderate and decreased in 2014, especially in comparison with such European countries as Poland (+26%), Germany (+20%), Sweden (+23%), Hungary (+18%).

During this period financial activity of Ukraine experienced maximum fluctuations. GAV reduction of this industry began in 2008 (-3%), while in 2009 it decreased by 43%, restoring volumes in 2010, declining again in 2011, growing at 2012-2013 and declining in 2014.

In general for the period added value of financial activities decreased by one third, which was the largest decline compared with European countries, while as a whole the EU volumes remained almost unchanged compared to 2008.

Activity in the field of real estate transactions in this period grew moderately and despite a slight reduction in 2009 (-6%), it increased added value by 14% which is twice more than in the EU-28 countries and Poland (+ 13%).

Sharp fluctuations observed professional activity, which had peak highs in 2012-2013, experiencing a reduction in the period of 2009-2011. And 2014, and as a result decreased by 5%. In the EU-28 countries it remained stable, with increase in Poland (+22%), Sweden (18%) and Hungary (+12%). Added value of Ukrainian public administration, education and healthcare industries remained fairly stable, increasing GAV during this period by 9%, twice more than the EU-28 countries (+4%). Consideration of GDP structure by categories of final application and dynamics of these indicators allows conclusions about the observance of fundamental macroeconomic proportions (Table 4) [7].

During the period under review Ukraine tended to increase spending on final household consumption in GDP, increasing this figure to 73% in 2013; and only the beginning of hostilities in 2014 led to a slight reduction in these costs to 71%, and in general during the period they increased by 10% (6 corresponding points (c.p.) in GDP).

Table 4

**Structure of GDP by categories of final application
(% of GDP acc. to the SNA-2008 methodology)**

| Category of GDP final application | Years | Ukraine* | EU-28 | България | Czechia | Germany | France | Hungary | Poland | Rumania | Slovenia | Slovakia | Sweden | USA |
|-----------------------------------|-----------------|----------|-------|----------|---------|---------|--------|---------|--------|---------|----------|----------|--------|-----|
| State Administration Sector | 2009 | 19 | 22 | 16 | 21 | 20 | 24 | 22 | 19 | 18 | 20 | 20 | 26 | 17 |
| | 2010 | 20 | 22 | 16 | 21 | 19 | 24 | 22 | 19 | 16 | 20 | 19 | 25 | 17 |
| | 2011 | 18 | 21 | 15 | 20 | 19 | 24 | 21 | 18 | 15 | 21 | 18 | 25 | 16 |
| | 2012 | 19 | 21 | 15 | 19 | 19 | 24 | 20 | 18 | 15 | 21 | 18 | 26 | 16 |
| | 2013 | 19 | 21 | 17 | 20 | 19 | 24 | 20 | 18 | 14 | 20 | 18 | 26 | 15 |
| | 2014 | 19 | 21 | 17 | 20 | 19 | 24 | 20 | 18 | 14 | 19 | 19 | 26 | 15 |
| | 2014 to 2009, % | 96 | 96 | 107 | 95 | 98 | 102 | 91 | 95 | 79 | 96 | 94 | 100 | 88 |

Ending of Table 4

| | | | | | | | | | | | | | | |
|------------------------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Household and NPO | 2009 | 65 | 57 | 63 | 49 | 57 | 56 | 53 | 62 | 61 | 55 | 61 | 47 | 68 |
| | 2010 | 65 | 57 | 64 | 49 | 56 | 56 | 52 | 62 | 63 | 56 | 58 | 46 | 68 |
| | 2011 | 68 | 57 | 62 | 49 | 56 | 56 | 53 | 61 | 63 | 56 | 57 | 46 | 69 |
| | 2012 | 69 | 57 | 66 | 49 | 56 | 56 | 54 | 62 | 63 | 56 | 58 | 47 | 69 |
| | 2013 | 73 | 57 | 63 | 50 | 56 | 55 | 53 | 61 | 62 | 54 | 57 | 47 | 69 |
| | 2014 | 71 | 57 | 62 | 49 | 55 | 55 | 51 | 60 | 63 | 53 | 57 | 47 | 69 |
| | 2014 to 2009, % | 110 | 99 | 98 | 99 | 97 | 98 | 95 | 98 | 102 | 97 | 94 | 99 | 100 |
| Gross Accomodation of Fixed Assets | 2009 | 18 | 21 | 29 | 27 | 19 | 22 | 23 | 21 | 26 | 24 | 22 | 22 | 19 |
| | 2010 | 18 | 20 | 23 | 27 | 19 | 22 | 20 | 20 | 26 | 21 | 22 | 22 | 18 |
| | 2011 | 18 | 20 | 21 | 27 | 20 | 22 | 20 | 20 | 27 | 20 | 24 | 23 | 18 |
| | 2012 | 19 | 20 | 22 | 26 | 20 | 23 | 19 | 19 | 28 | 19 | 21 | 23 | 19 |
| | 2013 | 17 | 19 | 21 | 25 | 20 | 22 | 20 | 19 | 24 | 20 | 20 | 22 | 19 |
| | 2014 | 14 | 19 | 21 | 25 | 20 | 22 | 21 | 20 | 22 | 20 | 21 | 23 | 19 |
| | 2014 to 2009, % | 76 | 94 | 73 | 93 | 105 | 98 | 93 | 93 | 84 | 83 | 97 | 104 | 104 |
| Export of Goods and Services | 2009 | 43 | 35 | 44 | 59 | 38 | 24 | 75 | 38 | 27 | 57 | 68 | 45 | 11 |
| | 2010 | 46 | 39 | 55 | 66 | 42 | 26 | 83 | 41 | 32 | 64 | 77 | 46 | 12 |
| | 2011 | 49 | 41 | 64 | 72 | 45 | 28 | 88 | 43 | 37 | 70 | 85 | 47 | 14 |
| | 2012 | 47 | 43 | 65 | 77 | 46 | 28 | 87 | 45 | 37 | 73 | 92 | 46 | 14 |
| | 2013 | 43 | 43 | 68 | 77 | 46 | 28 | 89 | 46 | 40 | 75 | 93 | 44 | 14 |
| | 2014 | 49 | 43 | 68 | 84 | 46 | 28 | 91 | 47 | 41 | 77 | 92 | 45 | 13 |
| | 2014 to 2009, % | 115 | 123 | 155 | 142 | 121 | 118 | 121 | 124 | 150 | 134 | 136 | 100 | 122 |
| Import of Goods and Services (-) | 2009 | 45 | 34 | 52 | 55 | 33 | 26 | 71 | 38 | 34 | 55 | 69 | 39 | 14 |
| | 2010 | 49 | 38 | 58 | 63 | 37 | 28 | 77 | 42 | 38 | 63 | 78 | 41 | 16 |
| | 2011 | 55 | 40 | 63 | 68 | 40 | 30 | 81 | 45 | 42 | 68 | 86 | 42 | 17 |
| | 2012 | 55 | 41 | 68 | 72 | 40 | 30 | 81 | 45 | 42 | 69 | 88 | 41 | 17 |
| | 2013 | 51 | 40 | 69 | 71 | 40 | 30 | 81 | 44 | 40 | 69 | 88 | 39 | 17 |
| | 2014 | 53 | 40 | 69 | 77 | 39 | 30 | 84 | 45 | 41 | 69 | 88 | 41 | 17 |
| | 2014 to 2009, % | 120 | 118 | 131 | 140 | 119 | 117 | 118 | 118 | 121 | 124 | 127 | 105 | 120 |

Note: for Ukraine data of 2014 are given without considering temporarily occupied territory of AR Crimea and Sevastopol.

In the EU-28 countries they remained at a stable level of 57%, which could be considered a proportion close to optimal for developed countries and fluctuated from 46% in Sweden to 63% in Romania and 69% in the developed US.

Quite high level of spending of Ukrainian population suggests dangerous tendency to shift the main economic proportions in favour of consumption. Considering structural relationship of the EU countries, household consumption is overstated fourfold.

Expenditures of State Administration of Ukraine (19%) were 2% below the level of the EU-28 countries (13.5%) and since 2011 had a similar downward trend. However, it should be noted that the share of these expenses was higher from such new EU members as Romania (5 c.p.), Bulgaria (2 c.p.), higher by 4 c.p. than the US and closer to the level of such old EU members as Germany, for example, though lower than the socially oriented economies of France (24%) and Sweden (26%).

The share of gross fixed capital accumulation of Ukraine decreased by almost a quarter, primarily as a result of military operations, reaching only 14% of GDP, which is 5 c.p. less than the indicators of the EU-28 countries (19%). And in all countries except Germany, Sweden and the United States it tends to decrease. It should also be noted that higher rates of accumulation decline were achieved by new EU members with its higher level at the beginning. Consequently, according to the portion of this index convergence of proportions occurs among the EU countries.

According to export indices as a part of GDP (49%) Ukraine holds a position higher than the EU-28 countries as a whole (43%). It is clear that the share of exports and imports significantly depend on the size of the economy, that's why small countries have a higher share of exports in GDP, as for example, Hungary (91%) and Slovakia (92%). And large countries have a lower share: Germany (46%), France (28%), the USA (13%). It is worth noting that growth of this indicator in most countries is a consequence of economic globalization and deepening of the global division of labour. Similarly import share in GDP grew briskly, reaching 53% in Ukraine. Ukraine's development was hampered by a negative balance of a foreign trade, which in 2008 reached 8% of GDP; due to the global crisis caused by hryvnia devaluation it fell to 2% in 2009, but then, as a result of keeping a fixed exchange rate of hryvnia it rose again to the critical figure of 8% in 2013-2014. It should be noted that the EU-28 countries had a rising trade surplus from 1% in the early period up to 3% in 2013-2014. Among them those new EU member countries with significant negative balance as Bulgaria (-9%) and Romania (-6%) brought it down to acceptable values (-1% and + 0.1% respectively) in 2014. This indicates the economic recovery of these countries through their membership in the EU-28.

Consideration of GDP growth rates by categories of final use helps to supplement the previous analysis starting from the crisis 2009 (Table 5).

As revealed in the analysis of component structures of the GDP, the main disparity of Ukrainian economy, being an excessive growth of expenditure

on final consumption of households, is clearly reflected in comparison with GDP growth rates with an increase of final consumption expenditure. During the period every year, except in 2009 and in 2014, the growth of population spending exceeded GDP, particularly in 2011 by 10%, so that they increased compared with pre-crisis 2008 figures to 9%, while reducing GDP by 13%. Such a gap between the dynamics of these indicators was not observed in any of the EU countries considered. Unlike the old EU member states (Germany, France, Sweden and the USA), among most of new EU member states GDP growth rates outpaced an increase in final consumption expenditure. Thus, the EU countries provided a constant balance between production and consumption. The volume of consumption expenditure of general government of Ukraine in the period underwent sharp fluctuations periodically either falling below the GDP rate (2011 and 2013) or outgrowing it (2009, 2012, 2014).

In total during the period it rose by 4%, exceeding the rate of GDP by 17 c.p. In the EU-28 countries during this period it also grew by 4%, but in contrast to Ukraine it outwent the GDP growth of these countries only by 4 c.p.

Table 5

**Volume of Gross Domestic Product by categories of final use
(% of GDP by the 2008 SNA methodology)**

| Category of GDP Final Application | Years | Ukraine* | EU-28 | Bulgaria | Czechia | Germany | France | Hungary | Poland | Roumania | Slovenia | Slovakia | Sweden | USA |
|-----------------------------------|-----------------|----------|-------|----------|---------|---------|--------|---------|--------|----------|----------|----------|--------|-----|
| Gross Domestic Product | 2009 | 85 | 96 | 95 | 95 | 94 | 97 | 93 | 103 | 93 | 92 | 95 | 95 | 97 |
| | 2010 | 104 | 102 | 101 | 102 | 104 | 102 | 101 | 104 | 99 | 101 | 105 | 106 | 103 |
| | 2011 | 105 | 102 | 102 | 102 | 104 | 102 | 102 | 105 | 101 | 101 | 103 | 103 | 102 |
| | 2012 | 100 | 100 | 101 | 99 | 100 | 100 | 99 | 102 | 101 | 97 | 102 | 100 | 102 |
| | 2013 | 100 | 100 | 101 | 99 | 100 | 100 | 102 | 102 | 103 | 99 | 101 | 101 | 102 |
| | 2014 | 93 | 101 | 102 | 102 | 102 | 100 | 104 | 103 | 103 | 103 | 102 | 102 | 102 |
| | 2014 to 2008, % | 87 | 100 | 101 | 100 | 104 | 102 | 99 | 119 | 100 | 93 | 108 | 106 | 108 |
| State Administration Sector | 2009 | 98 | 102 | 92 | 103 | 103 | 102 | 101 | 104 | 104 | 102 | 107 | 102 | 104 |
| | 2010 | 104 | 101 | 102 | 100 | 101 | 101 | 99 | 103 | 95 | 100 | 102 | 101 | 100 |
| | 2011 | 97 | 100 | 102 | 97 | 101 | 101 | 100 | 98 | 101 | 99 | 98 | 101 | 97 |
| | 2012 | 104 | 100 | 99 | 99 | 101 | 102 | 99 | 100 | 100 | 99 | 98 | 101 | 99 |
| | 2013 | 99 | 100 | 103 | 102 | 101 | 102 | 103 | 102 | 95 | 99 | 102 | 101 | 99 |
| | 2014 | 101 | 101 | 104 | 102 | 101 | 102 | 102 | 103 | 104 | 100 | 104 | 102 | 100 |
| | 2014 to 2008, % | 104 | 104 | 101 | 104 | 108 | 111 | 105 | 110 | 98 | 98 | 112 | 108 | 99 |

Ending of Table 5

| | | | | | | | | | | | | | | |
|------------------------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Household and NPOs | 2009 | 84 | 99 | 94 | 99 | 100 | 100 | 93 | 103 | 90 | 101 | 100 | 100 | 98 |
| | 2010 | 107 | 101 | 101 | 101 | 101 | 102 | 97 | 103 | 101 | 101 | 100 | 104 | 102 |
| | 2011 | 116 | 100 | 102 | 100 | 102 | 101 | 101 | 103 | 101 | 100 | 99 | 102 | 102 |
| | 2012 | 108 | 99 | 104 | 98 | 101 | 100 | 98 | 101 | 101 | 97 | 100 | 101 | 102 |
| | 2013 | 107 | 100 | 98 | 100 | 101 | 100 | 100 | 101 | 101 | 96 | 99 | 102 | 102 |
| | 2014 | 90 | 101 | 102 | 102 | 101 | 101 | 102 | 103 | 105 | 100 | 102 | 102 | 103 |
| | 2014 до 2008, % | 109 | 100 | 99 | 101 | 106 | 103 | 91 | 115 | 98 | 95 | 100 | 112 | 110 |
| Gross Accumulation of Fixed Assets | 2009 | 50 | 88 | 83 | 90 | 90 | 91 | 92 | 98 | 63 | 78 | 81 | 87 | 87 |
| | 2010 | 103 | 100 | 82 | 101 | 105 | 102 | 91 | 100 | 98 | 86 | 107 | 106 | 101 |
| | 2011 | 107 | 102 | 93 | 101 | 107 | 102 | 98 | 109 | 103 | 95 | 113 | 106 | 104 |
| | 2012 | 103 | 97 | 104 | 97 | 99 | 100 | 96 | 99 | 100 | 91 | 91 | 100 | 105 |
| | 2013 | 92 | 99 | 100 | 96 | 99 | 99 | 105 | 101 | 92 | 102 | 97 | 100 | 103 |
| | 2014 | 77 | 102 | 103 | 105 | 103 | 99 | 112 | 110 | 96 | 105 | 106 | 107 | 104 |
| | 2014 to 2008, % | 41 | 88 | 67 | 89 | 104 | 93 | 91 | 116 | 57 | 62 | 92 | 103 | 103 |
| Export of Goods and Services | 2009 | 78 | 88 | 88 | 90 | 86 | 89 | 89 | 94 | 95 | 83 | 83 | 86 | 91 |
| | 2010 | 102 | 111 | 117 | 115 | 115 | 109 | 111 | 113 | 115 | 110 | 116 | 112 | 112 |
| | 2011 | 103 | 107 | 112 | 109 | 108 | 107 | 107 | 108 | 112 | 107 | 112 | 106 | 107 |
| | 2012 | 95 | 102 | 100 | 104 | 103 | 101 | 99 | 104 | 101 | 100 | 109 | 101 | 103 |
| | 2013 | 93 | 102 | 109 | 100 | 102 | 102 | 106 | 105 | 116 | 103 | 105 | 100 | 103 |
| | 2014 | 86 | 104 | 102 | 109 | 104 | 103 | 109 | 106 | 108 | 106 | 105 | 103 | 103 |
| | 2014 to 2008, % | 62 | 112 | 130 | 128 | 115 | 110 | 119 | 132 | 155 | 107 | 129 | 106 | 120 |
| Import of goods and Services (-) | 2009 | 61 | 88 | 79 | 89 | 90 | 91 | 85 | 88 | 79 | 81 | 81 | 86 | 86 |
| | 2010 | 110 | 110 | 104 | 115 | 113 | 109 | 110 | 114 | 113 | 107 | 115 | 113 | 113 |
| | 2011 | 117 | 104 | 109 | 107 | 107 | 106 | 105 | 106 | 110 | 105 | 110 | 107 | 106 |
| | 2012 | 104 | 100 | 105 | 102 | 100 | 99 | 97 | 99 | 98 | 96 | 103 | 101 | 102 |
| | 2013 | 97 | 101 | 105 | 100 | 103 | 102 | 106 | 102 | 104 | 101 | 104 | 99 | 101 |
| | 2014 | 78 | 104 | 104 | 110 | 103 | 104 | 110 | 109 | 108 | 104 | 105 | 107 | 104 |
| | 2014 to 2008, % | 61 | 106 | 101 | 123 | 117 | 109 | 111 | 116 | 108 | 92 | 114 | 111 | 110 |

Note: for Ukraine data of 2014 is given without considering temporarily occupied territory of AR Crimea and Sevastopol

Gross Fixed Capital Accumulation (GFCA) underwent a sharp reduction in most of the considered countries during 2008-2009 and 2012-2013. This resulted in a sharp decrease of GFCA during the period under consideration in almost all EU-28 countries (22%), with the exception of Poland (+16%), Germany (+4%) and Sweden (+3%) and the USA (+3%). Reducing GFCA of Ukraine (-59%) was one of the deepest in comparison with Slovenia (-48%) and Romania (-43%).

Export of concerned countries declined sharply due to the financial crisis in 2009, but compared with the EU-28 countries (12%) it was much deeper

reduction for Ukraine(-22%). Second significant export reduction in Ukraine occurred in 2012-2014, although most EU countries continued increasing its volume for the whole period, increasing it by 12% while Ukraine's export reduced by 38%.

Ukraine's import also decreased sharply in 2009 (-39%), with its much smaller reduction in EU-28 states (-12%), and the second time it happened in 2013-2014 (-39%, -22% and -3% respectively). Thus, the levelling of proportion between export and import occurred during devaluation (2009 and 2014). In particular, in 2014 difference between the rates of these indicators was 8 c.p., which allowed to some extent improvement of foreign trade negative balance, while in the EU-28 states there were opposite changes and export increase (+12%) significantly outpaced import growth (+6%), as well as in the US (+20% and +10% respectively), creating a positive trade balance.

Conclusion

The shift in the structure of the economy is a complex transformation system of interrelated proportions influenced by existing technical basis, social production mechanisms, distribution and exchange according to social needs, available resources and achieved productivity level.

The evolution of the economic structure can be presented as a multilevel system of structural changes. Hence the main task of the state regulation of structural changes at any level is to ensure their balance in institutional, technological and reproduction aspects. Structural imbalances in modern Ukrainian economy significantly reduce effectiveness of the economic mechanism, deepen socio-economic contradictions and impede an access to the path of sustainable innovational development. Thereby the problem of quality strategic transformations in Ukraine today can not be solved without implementation of the structural transformation strategy at the national level taking into consideration specific character of the regions.

Thus, Ukraine's GDP characteristics prove unstable economic growth and a high level of response to negative changes in external and internal conditions of economic activity requiring a deep analysis of the national economy structure.

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