

# **Transformation of international economic relations: modern challenges, risks, opportunities and prospects**

**Collective monograph edited by  
M. Bezpartochnyi**

---

ISMA University  
Riga (Latvia) 2017

**Starptautisko ekonomisko  
attiecību transformācija:  
mūsdienu problēmas, riski,  
iespējas un perspektīvas**

**Kolektīva monogrāfija  
M. Bezpartochnyi zinātniskajā redakcijā**

---

Informācijas sistēmu menedžmenta augstskola  
Rīga (Latvija) 2017

**UDK 339.9**

**Transformation of international economic relations: modern challenges, risks, opportunities and prospects: collective monograph / edited by M. Bezpartochnyi, in 3 Vol. / ISMA University. – Riga: «Landmark» SIA, 2017. – Vol. 3. – 197 p.**

The authors of the book have come to the conclusion that it is necessary to effectively use the methodological tools for assessing the competitiveness of financial and insurance markets, methodological approaches to assessing the effectiveness of regional policy, internal audit of resources. Basic research is aimed at researching the main trends in the international economy, socialization of global economic development, investment aspects of development countries, functioning of consumer market in the international economic system, trends of international population migration, processes of European integration in the field of energy efficiency. The research results have been implemented in the different models of the behavior of the economic system in the conditions of crisis, provision competitiveness of national economy in the face of increasing burden of public debt. The results of the study can be used in decision-making at the level of international business, ministries and departments that regulate international relations, ensuring security and overcoming risks. The results can also be used by students and young scientists in modern concepts of the formation of international economic relations in the context of strengthening European integration processes and globalization of the economy.

Reviewer:

**Olga Lukashina** – *Dr. oec., Professor, Expert of Latvian Academy of Sciences, Riga, Latvia*

International scientific editorial board:

**Mariana Petrova** – *PhD, Assoc. Prof., Director of Education Technologies Center, St. Cyril and St. Methodius University of Veliko Turnovo, Bulgaria*

The collective monograph is approved for publication at the meeting of the Scientific Council of the Information Systems Management University of 24<sup>th</sup> May 2017, *Minutes No. 3.*

Reproduction or citation reference is mandatory.

© ISMA University, 2017

**ISSN 1877-0444 (print)**

<b>INTRODUCTION .....</b>	<b>7</b>
<b>Chapter 1</b>	
<b>INTERNATIONAL ECONOMIC RELATIONS IN THE SYSTEM OF GLOBALIZATION OF WORLD ECONOMIC TIES .....</b>	<b>8</b>
<b>Bila S.</b>	
Basic trends in international economy modification affected by ‘openness’, ‘neoprotectionism’ and globalization .....	8
<b>Ivashchuk I., Herman L.</b>	
Socialization priorities of global economic development .....	17
<b>Petrashko L.</b>	
Global responsible leadership business schools next generation .....	25
<b>Zapuhlyak V., Ivashchuk O.</b>	
The contradictions of countries’ investment development under the conditions of global transformations .....	44
<b>Chapter 2</b>	
<b>TRENDS AND PRIORITIES OF THE DEVELOPMENT OF INTERNATIONAL TRADE IN GOODS AND SERVICES .....</b>	<b>53</b>
<b>Drozdova O.</b>	
Formation of electronic commerce in Ukraine: perspectives and challenges .....	53
<b>Popadynets N.</b>	
Role of consumer market in international economic system .....	61

**Chapter 3**  
**THE CONJUNCTURE OF THE MODERN WORLD FINANCE**  
**MARKET AND ITS DEVELOPMENT ..... 71**

**Kondius I., Kupyra M.**  
Methods of competitiveness assessment of Ukrainian financial  
market ..... 71

**Kurylo V., Andrushchenko L.**  
Economic and legal description of the insurance market in Ukraine  
..... 84

**Strelchenko I.**  
Modeling of similar patterns in the behavior of economic system  
under the crisis phenomena ..... 100

**Chapter 4**  
**CURRENT TRENDS OF INTERNATIONAL LABOR**  
**MIGRATION AND REFUGEE PROBLEMS ..... 109**

**Mulska O.**  
Mobility and disponibility of Ukrainian migrant workers: current  
trends ..... 109

**Ryndzak O.**  
International migration of Ukrainian population: development trends  
and perspectives under the conditions of European integration  
processes ..... 118

**Chapter 5**  
**INTERNATIONAL COMPETITIVENESS AND INNOVATION**  
**..... 127**

**Krupelnytska I.**  
Tasks of the internal audit of investment resources in scientific-  
research sphere ..... 127

**Mohylevskaya O., Reznik N., Romanova L., Slobodyanik A.,**  
**Mohylevskiy Y.**  
Methodological approaches to estimation of efficiency of regional  
policy ..... 136

<b>Skoryk G., Lynnyk O.</b>	
Competitiveness enhancement of the national economy under conditions of the increased burden of public debt .....	149
<b>Chapter 6</b>	
<b>EUROPEAN INTEGRATION: PROBLEMS OF ADAPTATION, COMPETITIVE ADVANTAGES AND PROSPECTS FOR UKRAINE .....</b>	<b>159</b>
<b>Britchenko I., Stoika V.</b>	
The issues of implementing Basel III requirements in the activities of domestic banks .....	159
<b>Garasym P., Padyuka M.</b>	
The role of accounting policies in today’s business environment in Ukraine under European integration process .....	168
<b>Okorskiy V., Sribna E.</b>	
Problems of sustainable development of territorial communities in the conditions of democratic changes and European integration of Ukraine .....	178
<b>Serdyuk T., Franishina S.</b>	
European integration processes in Ukraine in the sphere of energy efficiency .....	187
<b>CONCLUSION .....</b>	<b>195</b>

## INTRODUCTION

Active transformation processes of globalizing world finance, new goals and objectives of modernization of the national financial system determines the need to create a financial system that can withstand external challenges and to ensure the stable development of the country, its domestic market in the context of globalization.

The modern financial system is a complex set of interrelated and interacting institutions, financial instruments, mechanisms and procedures aimed at ensuring the financial activities of economic entities and other entities that create conditions for reproduction processes.

The financial system, as an integral part of the global economic system is in a constant process of change, evolution and other transformations. The criteria for evolution of the financial system, taking into considering the impact of globalization of the world economy it is necessary to take into changes in the following institutional constraints: the volume of transaction costs, the global financial system; completeness of information on the functioning of financial markets and national financial systems; implementation of the principles and methods of functioning of the global financial system in a single reproductive process.

In the context of globalization of the world financial system, the national financial system requires a search for forms of cooperation, areas that meet international requirements, and the preservation of the most important original and effective to meet the national interests of financial institutions and instruments.

Improving the efficiency of the financial system in the context of globalization is inextricably linked to systemic control of key areas of modern finance policy, and the effectiveness of its functioning depends on the goals and objectives that are derived from long-term financial strategy.

Need for an active search for ways to increase the level of financial development in the conditions of the growing dominance of financial globalization. There has been a massive change in the financial capital of the qualities manifested by the appearance of new forms of economic and financial relations necessitated a financial study of space and relationships that occur between the practice of functioning of global finance and policies to promote comprehensive development of the country corresponding to the dominant trends in the world.

## Chapter 1

# INTERNATIONAL ECONOMIC RELATIONS IN THE SYSTEM OF GLOBALIZATION OF WORLD ECONOMIC TIES

### **Bila Svitlana**

*Professor, Candidate of Economics,  
Doctor of Public Administration,  
International economic affairs and  
business Department  
Educational and Scientific Institute of  
International Affairs,  
National Aviation University  
(Kyiv, Ukraine)*

### **BASIC TRENDS IN INTERNATIONAL ECONOMY MODIFICATION AFFECTED BY 'OPENNESS', 'NEOPROTECTIONISM' AND GLOBALIZATION**

The newest trends of globalization processes development affect the every country's national economy, regional integration communities' economic development, world economy in general.

During the period 2015-2017 there have been radical changes in world economy and policy. Scientists and politicians more and more often speak about the new stage of development which results in changes in economic fundamentals of world order as well as political, social, institutional ones. These changes will touch on both developed countries (the USA, EU countries) and countries with transition economy which strive for implementing radical reforms, increasing national economy competitiveness in compliance with up-to-date challenges. One of such challenges is dilemma: 'neoprotectionism' or 'open' economy. It is accompanied with discussion between supporters of 'enclosure' and construction of nationally oriented economy and supporters of globalization by itself, deepening of international division of labor processes and international production development. To our mind, the theoretical basis for such discussions was laid with the conception «nation – building». In its core there is an idea of demand for formation of national conscience, patriotism, nation cohesion regarding common national idea which is a response to external risks and threats



effect, to multidirectional influence of environment which globalization gives rise to [1; 2]. Conception «nation – building» is logically supplemented with the conception «state – building» which provides for the formation of a new state, political, economical, institutional system or reformation the existing one in such a way that from the very beginning the whole state government as well as ruling elites will be guided by external risks minimization the globalization bears, national security and national interests protection within the terms of globalization.

At the turn of the XXI century among the objective laws of globalization development the trends, which remain principal ones regardless of changes from ‘openness’ to ‘neoprotectionism’, should be noted. As globalization dictates its terms at globalized markets, the terms are following: based on world economy coverage with production and marketing network of transnational corporations and transnational banks, global world production is formed. It includes interstate long-term production ties development, strategic alliances, agreements on cooperation, cluster aggregation formation.

Under globalization influence the contents of world economic ties and processes is radically changing: international trade growth rate outgoes production growth rate, amount of services in GDP outgoes volume of real production, cost estimate of financial streams outgoes transactions concerning goods and services export.

In XXI century direction and structure of international trade is changing, trade barter of science intensive and high-tech products, author’s rights, ‘know-how’ licenses etc, among world countries is growing; specific gravity of services (including financial, insurance, intellectual, informational, creative etc.) in international trade structure is growing steadily. Rapid radical and qualitative transformations are going on in financial sphere. The separate direction, financial globalization, shows up. It is based on progressive growth of monetary, funds, credit markets and their transactions penetration into all spheres of state as well as world economy vital activity.

Globalization worsens the problem of world liabilities, world countries debt instruments whose non-fulfillment may lead to default as well as to other most unwelcome socio-economic consequences both for the country-debtor and the whole financial system. As of October, 2016, according to IMF the level of joint debt of governments, households and non-financial corporation in the world economy reached 152 trillion USD, which means 225 % of world GDP [3]. To pay off the debts all

world countries would have to work for two years without days-off. State debt by itself does not bear any destructive consequences if it is used as economic growth stimulation instrument. At the same time, if the debt money is traditionally spent on food, e.g. is used for social demands, for the state budget deficit solutions within short-term period (without formation of sustainable 'economic growth points' in national economy), the problem essentially sharpens. For instance, chronic dependence on international financial aid (IMF tranches) grows for a range of countries, including Ukraine. Such tranches are given against guarantees of national economy reformation directed at strictly shaped national development vector: 'openness' of economy, monetary reforms liberalization, mass privatization of state enterprises, 'tightening belts' in social sphere, refusal to support national commodity producers (small and medium-sized businesses, self-employed), as well as households.

World financial crisis and the problem of external debts affect the modification of traditional cyclical economic crises. In XXI century new varieties of multidirectional crises are spread (financial, structural, energetic, migrational, political etc.) that gains the world scale and the outcome needs simultaneous application of unified anti-crisis measures both at the national and international levels. The practice testifies that such way-out takes decades concerning globalized scope. For instance, 'World Financial Crisis' occurred in 2008, but system anti-crisis measures to overcome it (in some spheres of national and world economy) are being taken till nowadays.

Globalization gives rise to the problem of inequality among world countries, the problem of income stratification within one state. The inequality in the remuneration of labor is growing; disproportions at labor market are increasing, including complications of job placement by gender, age, national discrimination. The problem of poverty and population social stratification has been sharpening, which requires active state involvement, solving of the system problems of social development at both national and international levels. Beginning from 2016-2017, many world countries have been carrying out the reformation of pension system presumably by retirement age increasing, insurance pensionable service raising, or by abolition of traditional requirement system and legitimizing public aid payments of minimal amount to the retired. Such situation has been explained within terms of demographic crisis, job places shortening, lessening of official fiscal charges to pension funds of all levels.

XXI century has sharpened the issue of international migration under

the effect of many factors: labor migration due to low level of remuneration of labor, poverty problem worsening in developing and transition economy countries; migrants-refugees due to armed conflicts, humanitarian disasters, climate change etc. Migrational processes are accompanied with aggravating of many economical, social, political, security, ethnical problems in the countries-'donors' as well as in countries-'recipients'. For instance, 'migration crisis' is of high urgency for EU countries, caused by the flow of illegal Syrian migrants whose country has been suffering from armed conflicts since 2015. Moreover, the growth of youth migration coming to study in developed EU countries from countries with transition economy as well as from Ukraine has made a challenge. As a rule, after graduation from educational establishments and receiving qualifications young professionals get permanent residence permit in the country where they studied. In a long-term period such situation will lead to brain drain, sharpen the problem of 'working population aging' for the country-'donor' of young specialists, close the door on joint and several pension system existence in these countries.

In XXI century radical changes in the sphere of world production are observed. The system of international economic affairs under the terms of rapid science and innovative technology development is modifying fairly quickly. Among the latest novices in this sphere NBIC-technologies should be mentioned. In particular, under the influence of nanotechnology spreading as a constituent part of NBIC-technology we observe transformation in nearly all spheres of human society vital activity (health care, education, IT communication etc.)

It is safe to say that NBIC-technology development affects the formation of the new world economy relations paradigm which in its turn is the basis for socio economic growth and priority economic development, reason for traditional production relations system modification and measurement of state's competitiveness within globalization terms.

Among the basic priorities of NBIC-technology development the special place is taken by interaction between Information technologies and cognitive science. The creation of artificial intelligence is regarded as the materialization of this direction. It is estimated as one of the most important technological advancements of XXI century. Experts claim that by 2020 humanity will have made software capable to imitate the process of human thinking in full (though without its emotional constituency).

NBIC-technology development in this country opens up possibilities for national businesses which contributes to competitiveness growth of enterprises introducing it, increases investment prospects and national economy competitiveness in general. Among the most prospective trends of nanotechnology development as a constituent part of NBIC technology there are nano materials development (with set-up features); modification of recycling, power engineering, medicine and biotechnology, electrical engineering and IT technologies. The direct link between money investment into Research and Advanced Development requirements (by TNC, MNC, state governments) and priority spheres of world economy can be traced. Among such spheres the following should be noted: IT technology and electronics; 'health care economy'; autoindustry, machine building; chemical industry (including pharmaceuticals) and power engineering. All these spheres will employ NBIC-technology [4].

In Europe Strategy "Europe-2020" has been adopted and is being successfully realized. It provides EU countries development basing on three complementary priorities: economy development relied upon knowledge and innovations; sustainable development (promoting efficient and rational resources use, environmentally friendly production, economy competitiveness growth); inclusive growth (high level of employment, leveling of social and territorial disparities of regional development) [5]. The goals of basic priorities are closely connected with innovative development: creation of Innovation Union, achievement of Resource-efficient Europe criteria; education and training development; Digital Society formation, advancement of IT and communicative technologies etc. All above mentioned strategic priorities of EU countries economic development (including those ones engaging NBIC-technology development) are extremely important and topical for Ukraine which has chosen eurointegration direction. NBIC-technology application will allow this country to fulfill innovative breakthrough. Moreover, the country possesses economic as well as intellectual potential. It is of great necessity to engage the state (through the tools of state private partnership, regional clusters creation with NBIC-technology as their core), guarantee the state support (including tax and customs) of national commodity producers introducing NBIC-technology in goods and services production

In technological sphere globalization reveals 'second nature' of civilization – industrial, transport, infrastructure, communication etc. Technological ties between agents of management, between countries

and continents eliminate state borders, cover the whole world through the Internet, digital networks, digital economy and digital ‘e-governing’. Instead, traditional, industrial and post-industrial economy is followed by “Industry 4.0” that was stated at World Economic Forum in Davos in 2016.

Among tendencies of industrial production development inherent in “Industry 4.0” the scholars name the following: wide spread of technologies of customers’ experience management; transition from mass goods services production to ‘mass customization’; transformation from globalization principle to ‘glocalization’, the essence of which is the principle “Think globally – act locally”. Fast-paced development of the Internet of Things (IoT) is expected. Each country will have the opportunity to manage all processes distantly, including the industrial processes. 3D print will develop rather quickly, so the demand for 3D printers will steadily grow. “Smart-objects”, “Smart-devices”, “Smart-sensors”, “Smart-cities” will gain popularity and spread worldwide. Production will return to ‘basic country’, thus the development of automatization and robotization in industry will prevail over advantages of low cost labor resources abroad. By 2020 the introduction of new unified standards in technology, quality, safety, environmentally-friendliness is stipulated, their observation will be of necessity and requirement even at local and regional markets. Such drastic changes will lead to radical alteration at the world labor market, in the sphere of income distribution, in health care system, demography sphere, in general, in all spheres of national economy as well as world economy [6].

Due to “Industry 4.0.” implementation (first and foremost, in developed world countries) the problem of unemployment, demographic problem, the problem of population aging may sharpen drastically, as traditional job places will vanish. It is expected that by 2020 at least 1 mln. traditional professions will destroy themselves. Release of employees will require social state support, support in self-employment and reformation of social aid system. In 2016 there were a lot of discussions in the world concerning the necessity and reasonability of guaranteed minimum income (GMI) introduction. The actual importance of such decision is explained by the fact that high level of labor productivity allows to implement it in developed countries. In its way it will help decrease social tension and positively affect sorting-out a wide range of social aid and social payments. For instance, since January, 2017, Finnish government has started performing an experiment on

introduction and paying-off guaranteed minimum income (560 euro per month), which is paid to 2,000 randomly selected unemployed citizens aged from 25 to 58. In summer 2017 Switzerland will hold a referendum on reasonability of 2,500 Swiss francs payments (equal to 2,447 USD) to each citizen (including children payments at 625 Swiss francs). Interestingly enough, only 2% respondents are going to resign after receiving GMI, the others are going to work on [7; 8].

‘Creative economy’ which is closely connected with the use of intellectual property and labor capital is of the prospective employment sphere for released labor force due “Industry 4.0.” implementation. It means advertising, architecture, design, music, TV and radio, modeling, show business, interactive entertainment programs, crafts development, programming and IT-service etc. Creative economy is quickly developing in the sphere of services, health care, culture and education (including LLL). So developed and developing world countries (the latter strategically strive for joining the group of former) predominantly direct towards active labor capital involvement, ‘economy of knowledge’ support, education development to find new and innovative recipes of solution to social development system problems, concerning qualitative and safe human activity (from human life span prolonging to the solution of supply shortage problem, water shortage problem, transition to sustainable economic growth).

The environmental pollution in world scales which gradually leads to Earth’s ecological balance destruction is one of the most topical globalization challenges in XXI century. As a consequence, it means sharpening of climate refugee problem and global cataclysms (fires, floods, droughts etc.). Such situation is caused by the fact that developed world countries as well as majority of developing ones keep (or even have as dominant) the development of industry based on power-intensive and resource-intensive production. Some developing countries and countries with transition economy are still switching over post-industrial stage of production development, they experience dominant drive for securing high rate of economic growth at cost of expansion of non-renewable natural resources use, employed into industrial processes such as oil and gas. Such situation leads to extremely negative consequences such as environmental disasters, global warming, water shortage, soil and air pollution, increase in CO<sub>2</sub> emissions, mass deforestation etc. Preserving and spreading in world scales economical practice based on conservation of extensive type economic growth, on irrational use non-renewable natural resources challenges the humanity

and requires immediate transition to sustainable economic development for Earth's preservation and guaranteeing safe and full life of present and future generation [9].

To sum up all above mentioned, the following generalizations and conclusions are to be made:

The situation of uncertainty and turbulence is of being characteristic for globalized world economy; one is reflected by external obligations, structural crisis, and countries' stratification by income (including the sharpened problem of polarization between the rich and the poor within the borders of each single country). Globalized world production is shaped in the 21<sup>st</sup> century, alongside the core of world economic ties is being changed including the following: rate of international trade runs ahead of production growth rate, monetary service capacity in GDP runs ahead of real production capacity, monetary amount of financial flows runs ahead of transaction concerning goods and services export. Accelerated drastic and qualitative changes in finances happen based on 'financial globalization' which is grounded on progressive growth of currency, stock and loan markets and penetration of their transactions into all national economy spheres as well as into the world economy spheres. Transition from national economy 'openness' to 'neoprotectionism' aggravates system problems of world economy development, and combining with challenges regarding the transition to 'Industry 4.0' and reformation of social relations system in postindustrial period it launches new system of production, economic and social relation defining the human civilization development level in the 21<sup>st</sup> century.

At the turn of the 21<sup>st</sup> century globalization development has led to domination of national economy 'openness' concept and practice. Meanwhile post-crisis period and world economy recession have caused 'neoprotectionism' idea wide spreading. Such situation bears a range of challenges for countries' national economies which are the 'neoprotectionism' supporters. First and foremost, it is the threat of traditional sales markets loss for countries relying on export (due to 'neoprotectionism' measures) which can lead to aggravation of 'trade wars', as well as striving to 'maintain the new world order' and 'world market repartitioning' which shapes the threat for new hybrid and 'heated' local wars breaking out at its worst. The comeback to 'neoprotectionism' shapes the risks of world countries' external debts growth, global 'debt crisis' in global scales occurrence. Even though the transition from 'neoprotectionism' allows to provide the economic

growth based on the old technological ground for some time, ‘neoprotectionism’ only delays the transition imminence to the new stage of postindustrial development grounded on ‘Industry 4.0’, on NBIC-technology system domination, robotics growth for developed world countries. Correspondingly, ‘neoprotectionism’ postpones a solution to the range of other topical socio-economic problems: solution to the problem of unemployment growth and search for radically new forms of employment; policy reformation of income and remuneration; resolution of demographic and environmental problems.

Nowadays extension of these urgent problems solving is imperative for the next generation who will face them in future.

## References

1. Alesina A., Reich B. (2015) *Nation-building*. Available at: [http://scholar.harvard.edu/files/alesina/files/nation\\_building\\_feb\\_2015\\_0.pdf](http://scholar.harvard.edu/files/alesina/files/nation_building_feb_2015_0.pdf) [Accessed 22 Apr. 2017].
2. Stephenson Carolyn (2005) *Nation Building*. Available at: <http://www.beyondintractability.org/essay/nation-building>. [Accessed 22 Apr. 2017].
3. *Imf.org*. (2017). *IMF – International Monetary Fund Home Page*. Available at: <http://www.imf.org/external/index.htm> [Accessed 22 Apr. 2017].
4. *Nibc.com*. (2017) *Nanotechnologies, Biotechnologies, Information technologies and Cognitive sciences (NBIC convergence)*. Available at: <http://nibc.com/> [Accessed 27 Apr. 2017].
5. *Eur-lex.europa.eu*. (2017) *EUR-Lex - 52010DC2020 - EN - EUR-Lex*. Available at: <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52010DC2020> [Accessed 27 Apr. 2017].
6. *Industry 4.0. Summit*. (2017). Available at: <http://www.industry40summit.com/> [Accessed 22 Apr. 2017].
7. Dubner S. (2016) *Is the World Ready for a Guaranteed Basic Income? - Freakonomics*. Available at: <http://freakonomics.com/podcast/mincome/> [Accessed 22 Apr. 2017].
8. Nickelsen N. (2017) *Leading economists promote guaranteed minimum income*. *Phys.org*. Available at: <https://phys.org/news/2017-03-economists-minimum-income.html> [Accessed 22 Apr. 2017].
9. *World Bank* (2015) *Annex two: guidance note on adaptation to climate change for flooding*. [online] *Documents.worldbank.org*. Available at: <http://documents.worldbank.org/curated/en/180131468188370138/Annex-two-guidance-note-on-adaptation-to-climate-change-for-flooding> [Accessed 22 Apr. 2017].



**Ivashchuk Iryna**

*PhD in Economics, Professor*

**Herman Lyudmyla**

*Junior Scientific Assistant*

*Ternopil National Economic University*

*(Ternopil, Ukraine)*

**SOCIALIZATION  
PRIORITIES OF  
GLOBAL ECONOMIC  
DEVELOPMENT**

Beginning of the XXI century became the new stage of international economic relations' development. Global economy turned into hierarchic system of relations, interests' achievement, access to world resources and unequal possibilities. Global economic development is formed under the influence of evolution processes, however their paces differ over the countries and evolution can have a spontaneous nature. Solution of this problem requires new practical model of global development, oriented at resources consumption in order to accomplish both current and strategic tasks, which take into account the countries' capacity to accomplish their interests as far as economic and social development components of in the well-developed countries are relatively balanced.

The process of global integration has been accompanied by drastic and not always predictable changes in the last decade. This objectively updated the problem of collective responsibility for the consequences of global transformations as far as there are a lot of problems in the world, but «...the most important task consists in adaptation to growth in developing countries and concluding of the process of development levels' convergence» [1, p. 17]. Under such conditions the evolution development model does not provide the achievement of expected results. Therefore, the issue of elaboration of the new global development paradigm is of utmost importance. It should be based on development socialization, which takes place in post-industrial countries. Forming of post-industrial knowledge-based society brings an individual as well as educational and spiritual development to the center stage. In such a way an emphasis of interstate negotiations shifts from purely economic issues to socio-economic ones as far as trade liberalization and investment activity should be directed at creation of conditions to fulfill human capacity. Meanwhile, the practice shows opposite tendencies: globalization that should have become the driving force of global development has turned into the destructive one.

Ambiguous influence of globalization is confirmed by the paradoxes caused by the latter. D. Rodrik's certification and globalization paradoxes are among the most vivid ones. The first one shows the growth of asymmetry between the countries by the parameters of economic, social, technological, etc development components under the influence of global transformations. In 2011 economist D. Rodrik published his book «The Globalization Paradox: Democracy and the Future of the World Economy», where he presented the new views over the problems of globalization and outlined the ways of their solution [2]. He believed that the conflict between state management democratic system, integration of certain countries' economies into the global one and sovereignty had become deeper.

Taking into account the heterogeneity of economic and social globalization consequences for countries it can be assumed that development of human society on the basis of general consolidation and cooperation is the major goal of global economic development. Therefore, we suggest examining of global economic development as the long-term process in spatial and time dimensions with multilevel implementation stage that brings the systemic gradual quantitative changes and qualitative transformations into global economies directed at achievement of synergetic effect of economic growth, maintenance of human development and preserving of ecological sustainability. Moreover, there are no ideal development strategies, because world is alternative and GDP is not the only indicator that accurately evaluates the level of social and economic development [3].

Globalization foundations are very shaky due to preserved discrepancies between domestic nature of authority and global nature of markets. It is impossible to eliminate globalization; however it is worth creating new institutes and compensation mechanisms, which can make globalization consequences more justifiable for countries and positive effects – more stable. In order to solve such problem it is necessary to apply combination of institutional mechanisms at markets selected by each country depending on its values and needs. Therefore, two spheres – investment and trade – have the greatest influence on global economic development and its socialization.

According to theoretical models of economic growth, attraction of foreign investment into national economies serves as powerful engine of countries' development and maintenance of economic growth through multiplier-accelerator effect and overcoming of social disparities in global space. However, practice shows the following: investment both

promotes development of entrepreneurship sector of the receiving country as well as improvement of country's competitive positions at global markets and brings social effect in case of efficient investment and income redistribution through country's financial mechanisms. At the same time, global investment flows are unstable. For example, the volumes of foreign direct investment (FDI) fell in 2014 compared to 2013 by 16% due to global imbalances and emergence of new geopolitical risks (while basic macroeconomic indicators increased: GDP, trade volumes, gross fixed capital formation, employment). Already in 2015 the FDI increased unprecedentedly by 38% after global economic crisis. However, this does not guarantee that in the following years the conduct and activity of investors maintains the same level. We believe that non-compliance of foreign investment global mechanisms with the vectors of national foreign economic strategies became one of the reasons that hampered the full-scale social effect from investment in developing countries. In spite of international organizations' requirements to liberalize national investment regimens and make them maximum transparent for foreign investors, the countries (especially after 2007-2008 crisis) have introduced the range of restricting activities and considerably deteriorated investment regimens. This forced investors to close up their activity and to redirect investment flows. As the result the number of arbitrary cases on settling the disputes between investors and governments increased. Such interests' non-conformity deprives the countries of the right to receive additional resources to maintain economic and human development.

In global space we can observe the gaps in innovative development of countries. In case of technological gaps certain countries do not have accelerators of economic growth and ways to direct economy into social mainstream. Herewith, technological retardation of developing countries does not contribute to improvement of labour productivity and employees' qualification. Therefore, payments for labour in such countries remain low undermining long-term economic growth and hampering social globalization.

The issue of international trade advantages for global economic development since establishment of GATT / WTO system has become the subject of constant working meetings of member states and negotiation rounds on interests' alignment for countries with different economic development level. At the same time, we consider countries' inconsistency in terms of protectionism policy application despite recognition of domestic markets openness priorities and trade conditions

liberalization to be the constraining factor. However, in this context it is the never ending circle – it is impossible to create product of high quality and able to compete at foreign markets without innovations and investment, thus it is yet another challenge for countries' social development.

Under the influence of the examined processes the first half of XXI century is characterized by deep transformations in geo-civilization space: cluster of global crises in the process of industrial global civilization collapse in the first quarter of the century and forming of integral civilization in the leading countries in the second quarter of the century. Nowadays escalated military conflicts and economic wars come forward in addition to destructive factors. Countries' resistance against economic and spiritual outrage, destructive reforms and unification of values gains momentum. As the result industrial civilization only strengthened socio-cultural disparities between countries failing to settle the issue of inter-civilization conflicts, which negatively affected global economic development and contributed to social divergence.

Strengthening of social divergence of world economy progress not only creates new by their nature contradictions of countries' national interests, but also threatens global social and economic stability. However, at national level social divergence can be significantly softened through the mechanisms of national economies' socialization and implementation of state social policies, diversification of households' income sources, granting the spectrum of social services, implementation of global social standards and leveling of ultimate decile population groups' income. It is extremely difficult to overcome social divergence on a global scale. Moreover, under the current conditions it gains qualitatively new forms of display. This testifies to current inability of global management institutes to maintain the balance of interests on the global scale.

The researchers point out that global development has reached the limit, when spontaneous evolutionary development is not longer possible. This thesis was first voiced at the beginning of 90<sup>th</sup> of the XX century in the World Bank Report, when the group declared that the market as the development mechanism had exhausted its possibilities. In further research the scientists only reaffirm their position emphasizing ecological sustainability and proving the necessity to consider social and ecological components for the issues of development [4].

Socialization is the distinguishing feature of modern stage of global economic development theoretic substantiation. The following are its

peculiarities: general growth of population income, national well-being improvement and reduction of income inequality. Specific law of socialization expresses necessary, stable and significant internal links between, on one hand, the achieved development level of production technological method and increasing socialization of production and labour and on the other hand – the gradual overcoming of employees' exclusion from the process of labour, economic ownership and authority at macrolevel and certain socialization of state social and economic functions at macrolevel in the majority of developed countries of the world.

Variability of countries' social development also defines the tendencies of global economic development; the other way around having enough conditions for economic growth the countries are able to maintain well-being of their citizens and this corresponds to basic principles of sustainable development. Sustainable development requires economy analysis closely connected to the condition of ecosystem and therefore – economy reorientation on ecological and social issues [5]; satisfaction of modern generation's needs without endangering the opportunities of future generations [6; 7]; growth of ecologically oriented investment [8]; evaluation of climate changes' influence on the condition of agriculture and water supply [9], increasing of business social responsibility [10].

The Rio-20 Conference summarized the results of sustainable development concept implementation as following: planet's ecological capacity reduces, water resources are not efficiently used, first of all for agricultural needs, deforestation continues, 40% of earth degrades because of soil erosion, the third part of global population lives on lands exposed to erosion, more than 884 mln. people suffer the lack of pure drinking water [11]. Almost 1,2 billion people in the world lives in the conditions of extreme poverty (almost 21% of developing countries' population). Social inequality remains to be one of the negative regularities of global economic development [12].

The problem is how to turn different countries' interests under the conditions of globalization into joint values important for social progress and sustainable global development. Moreover, in practice processes of both social convergence and divergence take place at the same time. Therefore, we believe that social norms and standards should become the core of global economic development and its socialization in order to overcome existing processes of social divergence. Social norms are certain templates of conduct and rules that maintain economic

development and countries' cooperation on equal terms; they do not emerge spontaneously but are subject to regulation on both national and regional and global levels. Social standards can be, for example, the life level standards: life expectancy – from 25 (minimum) to 85 (maximum) years; literacy rate – 100%; average length of education – 15 years; GDP per capita (in purchasing power to dollar); share of population living below the poverty line; ageing coefficient; unemployment level, etc. Some of them are used for calculation of human development level.

Failed attempts to secure global development through unification of requirements to attraction of countries with different development level have led to destructive tendencies in global economy: the so-called civilization mutagenesis has led to even greater degradation in social and economic dimensions of poor countries and growth of their dependence on resources. At current stage, despite declarations, implementation of sustainable development concept and overcoming of social problems require enough amounts of financial resources. Investment in social sphere is huge responsibility of both business-structures and states, given that it can be efficient only in case of endeavors combination of these investment processes' participants. Governments have to provide maximum promotion of such investment and to limit the cases of child labour use in production (especially regarding the labour in agriculture of the least developed countries) as well as to maintain gender equality at labour market. Investment in agriculture should be considered as alternative scenario of poverty overcoming, which will not directly but indirectly promote solution of famine problem till 2030 through GDP growth and therefore – income per capita growth that will improve purchasing power of population [11]. In order to solve the famine problem in future it is necessary to attract additional funds, because social assistance is not enough in this case as far as conditions that can cause population returning beyond the poverty line are not leveled. For these actions the average annual investment amounting to 250 billion US dollars is needed and 140 billion US dollars should be attracted to rural areas. Investment unlike social assistance creates new opportunities for development. It is envisaged that 67 billion dollars should be directed at implementation of social protection programs [13]. Combining of two investment directions – in social protection and in development of agriculture and rural territories – will contribute to: reduction of the number of people suffering form poverty and famine, promotion of the growth of production capacity and labour income of poor population due to

investments and reduction of income dependency of poor population on payments under the programs of social assistance [13].

Attraction of migrants' remittances to economic projects, including investment ones, in receiving countries is deemed by us as one of the vectors to overcome the social divergence of global economic development. These inflows are important determinants of poverty volumes reduction. In addition to this, the funds attracted to the country often enough are directed at consumption goals not contributing to recovery of national economies and economic growth. This tendency can be extended with another important threat considering the consequences of world economic crisis, in particular unemployment problems, because the migrants can come back to their countries and, therefore, the amounts of incomings will reduce. For developing countries labour migrants' remittances can become important drivers of economic growth and development; in Tajikistan their amounts are equivalent to 41,7% of GDP (2014), in Kirgizstan – 30,3%, Nepal – 29,2%, Tonga – 27,9%, Moldova – 26,2%, while in well-developed countries the role of migrants' remittances is insignificant – up to 1% with the exception of Belgium [14]. However, labour migrants' remittances stipulate vulnerability of receiving countries' economies (international systems of remittances accounting calculate money transactions, while remittances in material form remain to be overlooked as well as money transferring by unofficial companies, repayment of loans, payments for services (e.g. education services) in these receiving countries).

Therefore, when choosing the economic development model with labour emigration as a determinant the countries have to elaborate the programs of received transactions' transforming into investment.

The concept of corporative social responsibility (formed in 50-60<sup>th</sup> of the XX century) has been gaining more and more application in the global practice of economic development. It stipulates the growth of companies' role in solution of sustainable development problems and activation of investment in human capital and environmental protection. Companies' reorientation from purely financial goals to social responsibility before society has two forms of appearance: internal (creation of satisfactory labour conditions, employees' pension and medical maintenance, education programs and improvement of personnel qualification, relevant labour payments and motivational programs, introduction of international standards in the sphere of sustainable development into operating activity, etc) and external

(support of social projects and activities of local authorities, implementation of environmental protection activities, charity, sponsorship and volunteering, social marketing, social investment, social entrepreneurship, programs of fair corporate practice support, etc). So it is obvious that the models of social business are one of the mechanisms of problems solution.

Therefore, economy socialization becomes the integral part of human and society development as well as global economy. For this very reason it should stipulate reduction of social gaps, growth of incomes, efficient employment policy, overcoming the unemployment, social maintenance, etc for all the countries in the world rather than on a selective basis. Global economy transformation should become the objective result of new approaches elaboration to global economic development on terms of structural and spatial social convergence towards national economies modernization and socialization as synthesis process rather than imposture of ideologies to maintain new qualitative parameters of development and social progress.

## References

1. Spence M., Kalinin A., Filatocheva O. (2013) *The Next Convergence: the Future of Economic Growth in a Multispeed World*. Moscow. Gaidar Institute Press.
2. Rodrik D. (2011) *The Globalization Paradox. Democracy and the Future of the World Economy*. W.W. Norton & Company.
3. Stiglitz J., Sen A., Fitoussi J.-P. (2015) *Mismeasuring Our Lives: Why GDP Doesn't Add Up? Report by the Commission on the Measurement of Economic Performance and Social Progress*. Moscow: Gaidar Institute Press.
4. Goodland R., DalySource H. (1996) *Environmental Sustainability: Universal and Non-Negotiable*. *Ecological Applications*. Vol. 4(6), pp. 1002-1017.
5. Daly H. E. (1996) *Beyond Growth: The Economics of Sustainable Development*. Beacon Press.
6. Hulse J. H. (2007) *Sustainable Development at Risk: Ignoring the Past*. New Delhi: Cambridge University Press India Pvt. Ltd.; Ottawa International Development Research Centre.
7. Kates R. W., Parris T. M., Leiserowitz A. A. (2005) *What is Sustainable Development? Goals, Indicators, Values, and Practice*. *Environment: Science and Policy for Sustainable Development*, pp. 8-21.
8. Henningsen C. (2011) *Managing Ecological Investment Risk*. *Green Money Journal*. Vol. 82, pp. 1-4.



9. Thomas J. W., Robert W. K. (2010) *Beyond Adapting to Climate Change: Embedding Adaptation in Responses to Multiple Threats and Stresses*. *Annals of the Association of American Geographers*. Vol. 100(4), pp. 719-728.
10. Webley P., Lewis A., Mackenzie C. (2001) *Commitment among ethical investors: An experimental approach*. *Journal of Economics Psychology*. Vol. 22, pp. 27-42.
11. World Bank (2013) *Annual Report 2013. End extreme poverty. Promote shared prosperity* [viewed 22 April 2017]. Available from: <http://www.worldbank.org/content/dam/Worldbank/document/WB-goals2013.pdf>.
12. United Nations (2013) *Report on World Social Situation 2013: Inequality Matters* [viewed 21 April 2017]. Available from: <http://www.un.org/esa/socdev/documents/reports/InequalityMatters.pdf>
13. FAO, IFAD and WFP (2015) *Achieving Zero Hunger: The Critical Role of Investments in Social Protection and Agriculture* [viewed 22 April 2017]. Available from: <http://www.fao.org/3/a-i4951e.pdf>.
14. World Bank (2016) *Migration and Remittances Factbook 2016*. [viewed 21 April 2017]. Available from: <http://siteresources.worldbank.org>.

**Petrashko Ludmila**

*Doctor of Economics, Professor of the International Management Department Vadum Getman Kyiv National Economic University (Kyiv, Ukraine)*

**PUBLIC EXPENDITURE  
ON ENERGY AND  
PUBLIC FUNDING  
TOOLS FOR R&D IN  
SELECTED EUROPEAN  
COUNTRIES**

**1. INTRODUCTION**

Sustainable development, sustainable future for today is not an option or a choice, it is a necessity. A growing threat to global problems of civilization requires finding effective approaches aimed at prevention and elimination of consequences of catastrophic natural changes, lack of natural resources, pollution, economic inequality, financial crises and energy disruptions.

Sustainability perhaps is the only way to lay the beginning of a new cycle of prosperity of mankind. A number of economists put forward a

new concept of development of our civilization “no – growth, yes – flowering”. K. Martenson, American economist, for his research on the example of the California Farmland, which is bought and restoring developed land, is proving his theory. [1]

Requirements demonstrate accountability, transparency and stability, reduce tolerance to corporate losses and the irresponsibility and the need to protect corporate reputation and development of brand loyalty, the search for new competitive advantages in a global business environment – this is not a complete list of the reasons underlying the priority and relevance of corporate social responsibility for sustainable development.

Future generations of managers will need to rethink business practices to ensure a sustainable impact on the environment, economic development and on society as a whole.

In 2010, the organization was created “Globally Responsible Leadership Initiative” (GRLI). Its founders were the largest network in Europe in the field of association management European Foundation for Management Development (EFMD) and the UN Global Compact. GRLI brings together companies and business schools who want to encourage a new generation of responsible leaders and managers of the global business environment. In addition, GRLI also was studying the cultural change in the corporate business sector. Namely, the development of corporate culture, the implementation of CSR practices in the strategy of the companies in their management policies and procedures have been studying.

Leading universities and business schools in the world have recognized the importance of sustainable development and care for the environment to ensure a dignified existence for our future generations. And it introduced in the educational process courses and programs for sustainable development for the education of socially responsible professionals will take global solutions for the future implementation of real change in the world. The key objective of these programs is to achieve harmonization of innovative business knowledge and deep understanding of sustainable development. Masters and MBA sustainable development aimed at systematization and dissemination of innovative management technologies for sustainable and responsible business.

The main goal for students is to understand the problems that arise when companies try to stimulate economic growth and simultaneously achieve a positive social impact. Some of these programs and courses of study include business and information systems, financial management,

marketing and ethical sustainability, environmental management. Masters allow critically assess CSR issues, initiatives, drivers and patterns of response through research and practice.

## ***2. WHO ARE CONCERNED BY THE EDUNIVERSAL BEST MASTERS RANKING ?***

The Eduniversal Best Masters Ranking is a true assessment of global masters and MBA programs designed to help prospective students determine the best choice for their graduate studies. This is the only ranking that evaluates individual masters programs worldwide in 30 fields of study. Each year this ranking evaluates more than 12,000 postgraduate programs. The final ranking is determined through a global survey of 5,000 international recruiters, 800,000 students and over 10,000 representatives from 1,000 academic institutions in 154 countries.

TOP-20 the Best Masters Ranking Sustainable Development and Environmental Management – Worldwide Country Rank School, 2015/2016 is presented in tabl. 1.1. The Eduniversal Evaluation System has defined the following Methodology to rank the Best Masters and MBA programs worldwide. Institutions, recruiters, students are concerned by the Eduniversal Best Masters Ranking.

Eduniversal recognizes and promotes academic strengths within global institutions. The Eduniversal Best Masters Ranking is an important source of information and is often used by students and companies to determine the quality of an institution, its programs and its graduates. By filling out the Eduniversal survey for each of programs, the respondents ensure that the information on their program will be evaluated accurately. Eduniversal give students the opportunity to give feedback on their experience. Their participation is an important part of the ranking and will help to enrich the quality of evaluation. Eduniversal asks students for their opinion on the program in which they are enrolled. It greatly value student opinion which allows the ranking to take into account information exclusive to those who have attended a particular program. By answering our survey, students have the opportunity to share opinions on their academic experience. This information is important to prospective students. All information provided in this survey is strictly confidential. (Tabl. 1.2 details)

Table 1.1

**TOP-20 the Best Masters Ranking Sustainable Development and Environmental Management – Worldwide Country Rank School, 2015/2016**

<i>Rank</i>	<i>School</i>	<i>Country</i>	<i>Program</i>
1	2	3	4
1	Università Bocconi	Italy	MaGER Master in Green Management, Energy and Corporate Social Responsibility
2	Stanford University	USA	MS Environment & Resources/MBA
3	HEC Paris	France	MSc Sustainable Development
4	Cornell University	USA	MBA – sustainable global enterprise
5	University of Pennsylvania – Wharton School	USA	MBA Environmental and Risk Management
6	Nova School of Business and Economics – Universidade Nova de Lisboa	Portugal	Social Enterprise
7	Aalto University – School of Business	Finland	Master’s degree Creative Sustainability
8	Universidad de los Andes School of Management Master	Colombia	Master in Environmental Management
9	LSE – London School of Economics and Political Science	UK	MSc Environment and Development
10	Cranfield University	UK	MSc Environmental Management for Business
11	University of British Columbia	Canada	Master of Science in Resource Management and Environmental Studies
12	CENTRUM Catolica and Pontificia Universidad Catolica del Peru	Peru	Energy MBA
13	Yale School of Forestry & Environmental Studies	USA	Master of Environmental Management (MEM)
14	Monash University	Australia	MSc in Environmental and Sustainability Management
15	University of Economics Prague VSE	Czech Republic	Master in Environmental Economics and Management

Table 1.1 (continued)

1	2	3	4
16	HEC Montréal	Canada	MSc Management and Sustainable Development
17	University of Cape Town – Faculty of Engineering & the Built Environment	South Africa	Master of Philosophy in Environmental Management
18	Business School, School of Geosciences and School of Economics	UK	MSc in Carbon Finance
19	Imperial College London	UK	MSc in Concrete Structures and Sustainable Development
20	Korea Advanced Institute of Science and Technology (KAIST)	South Korea	Green Policy Program

Table 1.2

### The Eduniversal Evaluation System

<i>Criteria for evaluation</i>	<i>Points</i>	<i>The content of assessment</i>
The reputation of the program	5	50% of this score is based on the opinions of recruiters 50% of this score is based on the level of Palme of Excellence of the school
The salary of the 1st employment	5	Information provided by each program and verified by Eduniversal Salaries are weighted by country and by the average annual salary of its executives Three scales are used according to the type of program (MBA full time, EMBA and all other programs)
Students satisfaction	5	A survey comprised of 11 questions sent by e-mail to graduating students to assess satisfaction with the completed program. A minimum of 10% of the students in each program must reply to be scored: • 1 <sup>st</sup> and 2 <sup>nd</sup> question: 25 % each of the score. • The 9 questions left: 50% of the score.

Eduniversal classifies and highlights global Masters and MBA programs which develop and graduate the best new professionals in the global labor market. Types of programs that qualify to be ranked:

Masters, Masters of Science, Masters of Arts, MBA and specialized MBA, Executive MBA & MBA part time and online. It values the expertise and knowledge of HR Representatives and their opinions are valued in its Ranking. Their opinion also provides a crucial reference to establish salary prospects after graduation. The language of instruction is not limited, and can be a native language of the participating institution [2].

Concerned with rigidity and legitimacy, the Eduniversal Evaluation System has defined the following Methodology to rank the Best Masters and MBA programs worldwide.

The bonus points of the Eduniversal Evaluation System:

- Programs with more than 7 different nationalities registered in its programs;
- Programs having more than 7 different nationalities from at least 3 different zones;
- Programs which enable at least 20% of their graduates to do an internship or to work abroad;
- Programs admicng at least 5 students with work experience;
- Programs which offer Distance Learning.

The Best Masters Ranking Sustainable Development and Environmental Management – Worldwide Country Rank School Ranking by adding the points from each of the 3 criteria in our methodology, each program is given a final score. Eduniversal ranks these programs according to their final score which is also associated with a star ranking as follows:

Masters with a final score of 1 to 5.99.

Masters with a final score of 6 to 8.99.

Masters with a final score of 9 to 11.99.

Masters with a final score of 12 to 15.

### ***3. LEADERSHIP OF THE KYIV NATIONAL ECONOMIC UNIVERSITY (KNEU)***

Nowadays the EU encounters numerous complex problems, which require united efforts of all members in the field of strengthening and protection of civil values to be solved. Regardless of the EU position on the Crimea annexation and Donbas conflict, no success was achieved on ratification of association agreements between the EU and Ukraine or the visa liberalization process. Under conditions of migration crisis, Brexit, elections in France and Germany, where newly elected governments are

supposed to support the strategy of solving internal problems by reducing external obligations, the Ukrainian matter has no chance of taking priority in the EU's to do list. The European Union's interests are reflected in the decision made and those decisions are far from showing the EU is a slave to the consolidation strategy. In this situation, Ukraine has to find a way to develop bilateral relationships with the EU members separately.

Ukraine of today pursues the adaptation of national development criteria towards the EU standards with effective changes. Community development perspectives, success of any socio-economic or political transformation in the country are subject to high-quality socialization conditions and younger generation development. Youth is the social group, which has to take responsibility for national development, actively and efficiently integrates itself into social processes.

In the Vadum Getman Kyiv National Economic University from 2015 to the educational process introduced mandatory courses for all undergraduate programs subject "Social responsibility" [4]. In addition from 2015 to the educational process introduced mandatory courses for all undergraduate programs subject "Social responsibility". The course "International Management" for the master's program "International Business Management", "International Trade", "European integration", "International Finance", "International Accounting" introduced the topic "Corporate Social Responsibility". In addition, from 2015 to the master program "International Business Management" conducted interdisciplinary training "European business practice CSR" [4, 5].

Under the framework of the project "*European Business-Practices of CSR*" the team of teachers-researchers disseminates the best European experience of implementation of responsibility initiatives among the teachers and students of KNEU BA and MA programs, MBA program students of KNEU Institute of Business Education and other educational institutions affiliated to KNEU as well as other higher educational institutions of Ukraine and Ukrainian civil society. We are the teachers who directly interact with the young generation on daily basis and profoundly understand the young generation culture unlike most of others. Our aim and actions are directed to form positive discussions and debate important questions: differences in economic development levels between European countries and Ukraine; deactivation of youth migration from Ukraine to European countries; mutual respect and deep understanding of European politics. That is how efficient education provides grounds for formation of open tolerant societies.

The training “European business-practices of CSR” was held during the period 06.10.2014-11.04.2017 and counted 336 academic hours on the basis of “Vadym Hetman Kyiv National Economic University”, Kyiv. The training involved 221 persons, mainly university teachers from different regions of Ukraine. Due to the incorporation of the module into the IBA master’s program there was a need to reschedule the assessment period. The number of participants involved 48 persons from the number of MA students that were completing their university studies in “International Business Management”. In the final conference the teachers and MA students presented their scientific and methodological developments for teaching certain topics in various disciplines and practices, while including the issues of corporate social responsibility. All training participants received the certificates of participation.

For better project information dissemination there was created an official project website “European business-practices of CSR” [4]. In June 2015-March 2017 project team held a stage of a case-contest “Implementation of European Corporate social responsibility practices in Ukraine”. The list of them was published on the official project website [6]. The best of them were published on the official project website [4]. 221 archived training materials were e-mailed to the training participants [8]. 34 study courses were improved in 9 Ukrainian universities: KNEU (Informational Systems of Corporate Governance, Information systems in the economy, Labor Economics and SLR, Social Responsibility, Personnel Management, Personnel motivation, Knowledge Management, Research Methodology, Fundamentals of Management Consulting, Macro-Financial Analysis, Methodology of Research in Finance, Financial Infrastructure/teacher), Finance National University of Food Technologies GRI Methodology, CSR Taxation, Public administration, Conflict Management, Corporate Management), “KROK” University (Economic Analysis, Theory of Economic Analysis, Analysis of Investment and Innovation Activity), Poltava University of Economics and Trade (International Management), National University of the State Tax Service of Ukraine (Corporate Finance, Behavioral Markets), National Aviation University (European business), Vinnytsya Institute of Clothes Designing and Entrepreneurship (Finance, The Tax System of Ukraine, Social Economy, Banking system, Logistics), Borys Grinchenko Kyiv University (Corporate Responsibility of Business), Zhytomyr National Agroecological University (Creative management, Risk Management in



Innovation Activity, Investment Management).

Current business environment with its tough competition actualizes the necessity for joint efforts of all its participants not only in the improving of business efficiency, but also in the struggle for survival and sustainable development. European companies demonstrate positive growth of corporate leadership practices in sustainable development. The leaders of applying the practices of corporate social responsibility (CSR) at global level are the companies of the continental Europe and the UK. The CSR practice is a relatively new activity in the Ukrainian business environment.

The research “Comparative Evaluation of Corporate Social Responsibility (CSR) Business-Practices: EU and Ukraine” (2015-2016) was conducted in May 2015-June 2016. The assessment of current CSR business practices of the European and Ukrainian companies for their terminological identification and the comparison of their levels of understanding of CSR, their motives, basic spheres of application, the existence of the formalized CSR policies in companies, the list of forms and instruments of CSR practices, the key barriers, the nature and methods of companies’ external interactions, the perspectives and priorities of CSR practices development in the Ukrainian corporate sector are presented in the results of the research “Comparative Evaluation of Corporate Social Responsibility (CSR) Business-Practices: EU and Ukraine” (2015-2016) according to the joint project of Jean Monnet Foundation and Vadym Hetman Kyiv National Economic University (#553110-EPP-1-2014-1-UA-EPPJMO-MODULE). It covers 214 companies from Ukraine and Europe that are present in the Ukrainian business environment. The digital version of research results was published on the official project website [7].

The total amount of 214 European and national companies of the Ukrainian business environment, activity of which extends on 22 Ukrainian regions, made up the research. Shaping the total amount of the selected companies for the research was carried out with accordance to the work-practice plan for the students of the master’s degree program “International Business Management” at “Vadym Hetman Kyiv National Economic University” (2015-2016). Such approach for the selection of the companies has defined the basic limitations of this research: the design of respondents` selection – 214 companies; the absence of 100% regional and branch representation (tabl. 1.3.), that is explained by excluding the Crimea and the occupied regions of Donbas from the research selection.

Table 1.3

**Regional structure of the research “Comparative Evaluation of Corporate Social Responsibility Business-Practices: EU and Ukraine”, 2015-2016**

Regions	% of respondent-companies
Vinnitsya	6
Volyn	4
Dnipropetrovsk	4
Donetsk (non-occupied region)	4
Zhytomyr	4
Zakarpattia	4
Zaporizhzhya	4
Ivano-Frankivsk	4
Kirovohrad	4
Kyiv	10
Luhansk (non-occupied region)	4
Lviv	4
Mykolaiv	4
Odesa	4
Poltava	6
Rivne	4
Sumy	4
Ternopil	4
Kharkiv	4
Kherson	4
Khmelnysk	6
Chernihiv	4
<b>Total</b>	<b>100</b>

The researched companies were divided into the European (25% of respondent-companies)<sup>1</sup> and national (75% of companies-respondents).

The use of the said tools allows you to implement the principles of sustainable development to achieve goals that would be impossible if every interested party working on their own form a distinct competitive business goal. Namely, the formation of a new network of

---

<sup>1</sup> The following companies were referred to the group of European respondent-companies: the branches of the European companies; the companies with foreign European capital and management; the companies that operate in the European markets.

communication channels to extend the leveling of social conflicts and risks, improving relations with the community, region, introduction of new tools of management, harmonization of partners' interests in social responsibility, increasing the social capital of participants partnerships, raising awareness groups stakeholders, mitigate the negative impact on the environment, preservation of unique ecosystems, etc.

The team of research experts believes that the results will ensure the dissemination of frontier European experience of CSR practices in the business environment of Ukraine, will contribute to the development of a platform for the dialogue on socially responsible business between businessmen, politicians, government officials, civil society institutions, scientific and educational institutions.

The generation of CSR practices of the researched European and national companies of Ukrainian business environment is characterized by the variety of forms and stable tendency for expansion. The amount of social responsible investment funds, the amount of companies, that publish social reports, the amount of on-line guides and courses, aimed at studying of CSR and its practices, the amount of companies, that have the special subdivisions in their organizational structure and are responsible for the development and realization of the strategy of sustainable development of the company, increases constantly.

The conducted research of comparative assessment of CSR practices of the European and national companies, that function in the Ukrainian business-environment (2015-2016), allowed to find out the range of variant divergences and the features of their realization in the following systems of criteria: terminological identification of the concept "CSR and its practices"; reasons and basic spheres of application; presence of the formalized responsible policy, forms, instruments and functional providing of its realization; basic barriers, character, methods and forms of external cooperation of the companies; monitoring of the responsible activity of the companies; basic instruments of popularization of the responsible practices and source of ideas, prospects and priorities of their development.

All the companies-respondents know about the CSR of business. Identification of the social activity of the questioned companies is presented on the fig. 1.1.

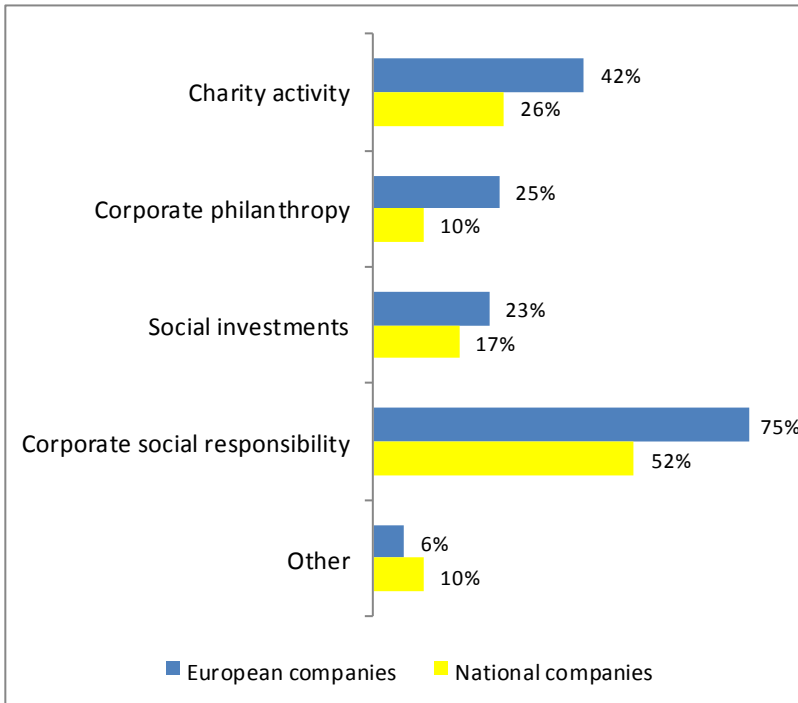


Figure 1.1. How would you define the social activity of your company? (% of positive answers of the interviewed respondents)

Source: [7]

According to research results, 75% of the European companies-respondents of the questionnaire use the term “CSR”, only 52% of the national companies confirm this statement. The estimation of the questionnaire of national respondents allows to draw a conclusion, that 26% see it as charity activity, 17% – as social investments of the company, 10% – as corporate philanthropy, cannot define it – 10%. It should be noted that the corresponding indexes of estimation by the European respondents of the questionnaire are considerably higher. Namely: 42% of the respondents determine the social activity of company as charity activity, 25% – as corporate philanthropy, 23% – as social investments and only 6% of respondents cannot identify it.

The level of understanding of CSR, while including the complete list of activity spheres, distinguishes the group of the European companies

from the national group.

The most widespread practices of CSR in the corporate sector of Ukrainian economy are the charity practices that differ in scales of realization and system. In modern Ukrainian business environment there is an active institutionalization of corporate charity with separation of corporate and private funds, with involvement of noncommercial organizations into realization of practices of corporate responsibility. In our opinion, social marketing should be mentioned, as a practice of improving the competitiveness of the company due to the unification of responsibility for quality, ecology, energy efficiency of products or services of company and its profitability.

The role of the state in the development of CSR practices is lying in the active informing of society and business structures about their possibilities, in popularization of successful practices and results, education and support of interest in the outlined sphere.

Generalization of experience of CSR practices implementation leads to the real decline of the social load of the state due to the partial transferring of the part of its powers in the solution of social problems to business structures. The most perspective practices of CSR in the Ukrainian business environment, in our point of view, are the practices of social partnership, as a specific activity of corporate responsibility, that is oriented on expectations and interests of the state, owners and employees of company and appears under conditions of corporate initiation, as an answer to the queries of public society and the absence of legislative regulation of realization of similar CSR practices.

The successful realization of CSR practices works not only for the image of the company among its own stakeholders but also allows increasing considerably the incomes of the shareholders of the company. Under conditions of the state support, inheritance and adaptation of the experience of successful practices of responsibility of the European and national companies the mentioned practices will grow into the powerful resource of development of CSR model in Ukraine. The success of realization of CSR practices is based on systemic approach and on perception of this category as a strategy for sustainable development of the company while taking into account the interests of key groups its stakeholders: employees, top-management, shareholders, investors of company, clients, consumers, partners, competitors of public, state institutes, regional communities.

The realization of professional interests of all the participants of the business environment, the realization of mechanisms of property “diffusion” (expansion of participation of employees in property and

management), observance of ethical principles in relation to society, state, business-structures, personalities will allow the ethic business practices to grow into motive force of overcoming the biggest part of moral problems of the global business of environment.

The implementation of CSR practices allows to reveal the innovative potential and to realize the strategy of sustainable development of the company in the global environment.

#### ***4. THE PRACTICES OF THE RESPONSIBLE PARTNERSHIPS***

Responsible partnership is a new model of partnership that builds and maintains a relationship of trust between all the interested parties to achieve a complex effectiveness in addressing the systemic problems of civilization development. The key actors in this partnership are civil society, government and business structures. It is their responsible partnership that should provide innovative approaches to solve problems, to expand access to resources, to provide dynamism of new communications and thorough understanding of the importance and value of each sector.

The basic principles of responsible partnership are the common goals for sustainable development, trust, equality of partners, information transparency and mutual benefit. In case of the absence of trust, cooperation is doomed to failure, despite the noble motives of worthy partnership participants. Effectiveness indicator of partnership corporate models is a qualitative and quantitative information about results or consequences of the company's activity, which is comparative and is able to reflect its change over time. Effectiveness indicators of partnership corporate models reflect comparable information about economic, ecological and social outcomes of companies' partnership activity.

The vision of the Global Reporting Initiative is that reporting on economic, environmental and social results of companies' activities should be daily and open, like financial statements. Using internationally agreed effectiveness indicators for the practices of responsible partnership will allow making information open and comparable, taken from companies' reports in the field of sustainable development, and to provide the interested parties with more qualitative information for decision making.

The key indicators of corporate partnership models were developed in the framework of the consultation process while involving different

stakeholders and being focused on identifying commonly used indicators that make up interest for most companies. Economic effectiveness indicators category combines economic efficiency of partnership activity of the company with the characteristics of its market presence and indirect economic impact on the activity region. Environmental category of indicators is associated with the influence of partnership projects of companies on the living and non-living natural systems, including ecosystems, land, air and water. Social effectiveness indicators category of corporate partnership models refer to their impact on the social systems within which they operate. Indicators of social effectiveness of responsible partnership include aspects related to approaches to organization of labor, human rights, society and responsibility for products.

To analyze the Ukrainian business environment in the context of the effectiveness of practices of responsible partnership we have analyzed the 14 largest companies in priority sectors of Ukraine (metallurgy, food, oil and gas, agricultural, energy, pharmaceutical and retail sectors), which demonstrate a high level of openness, consistency and transparency in corporate responsibility sphere according to “GVARDIYA” project expert estimates and the "CSR" Development" Center Transparency Index, and securities of which make up a significant share in the structure of portfolios of Ukrainian investment funds (tabl. 1.4).

Summary results of the mentioned companies-respondents’ assessment according to the diagnostic parameters of the defined criteria system indicate that the condition for optimal final score for the practices of responsible partnership effectiveness assessment not less than 40 points is met by 5 out of 14 assessed companies. All the other companies belong to class “C” – companies with low effectiveness of responsible partnership practices [tabl. 1.5].

We will give the practices of responsible partnership of the ArcelorMittal company as an example. Thus, the Codex for responsible sourcing<sup>2</sup> of the company defines the principles of its cooperation with the suppliers: cooperation for improving social, environmental and ethical standards; support, prioritizing, respect; promoting responsible business practices; communication and education; improvement.

---

<sup>2</sup> *Sourcing – searching for the supply sources*

Table 1.4

**Assessment of openness and consistency level of companies` CSR in Ukrainian business environment, 2013**

<i>№</i>	<i>Name of the company</i>	<i>Sector</i>	<i>Ratings of openness and consistency level in the CSR sphere (project "GVARDIYA"), score/place</i>	<i>"CSR" Development Center Transparency Index, (scores)</i>
1	Ltd. "Metinvest Holding"	M <sup>1</sup>	69,81/8 place	131
2	DTEK	E <sup>2</sup>	89,25/1 place	163
3	PJSC "ArcelorMittal Kryvyi Rih"	M <sup>1</sup>	87,56/2 place	156
4	PJSC "System Capital Management"	H <sup>3</sup>	85,39/4 place	146
5	Ltd. "Kernel Trade"	A <sup>4</sup>	-	51
6	Concern "Galnaftogaz"	OG <sup>5</sup>	-	87
7	Ltd. "THK-BP Commerce"	OG <sup>5</sup>	-	24
8	Ltd. "Group of companies "Foxtrot"	R <sup>6</sup>	52,12/26 place	35
9	PJSC "Dneprospetsstal"	M <sup>1</sup>	-	88
10	PJSC "Carlsberg Ukraine"	F <sup>7</sup>	63,86/14 place	108
11	PJSC "Obolon"	F <sup>7</sup>	75,50/5 place	140
12	Company "Nemiroff"	F <sup>7</sup>	61,60/16 place	-
13	Ltd. "Astarta-Kyiv"	A <sup>4</sup>	52,09/27 place	-
14	Corporation "Arterium"	Ph <sup>8</sup>	68,10/11 place	-



Table 1.5

**Effectiveness assessment of the corporate partnership models in the Ukrainian business environment, 2014 (scores)**

№	Name of the company	Effectiveness indexes				
		Sector	Economic	Environmental	Social	Final score
1	PJSC “ArcelorMittal Kryvyi Rih”	M <sup>1</sup>	19	10	20	49
2	Ltd. “Metinvest Holding”	M <sup>1</sup>	15	10	22	47
3	DTEK	E <sup>3</sup>	14	8	24	46
4	PJSC “System Capital Management”	H <sup>2</sup>	13	8	21	42
5	PJSC “Dneprospsststal”	M <sup>1</sup>	13	8	20	41
6	Concern “Galnaftogaz”	OG <sup>5</sup>	13	4	15	32
7	PJSC “Obolon”	F <sup>4</sup>	14	6	10	30
8	Corporation “Arterium”	Ph <sup>6</sup>	10	9	10	29
9	Company “Nemiroff”	F <sup>4</sup>	9	3	10	22
10	Ltd. “Astarta-Kyiv”	A <sup>7</sup>	8	2	10	20
11	Ltd. “Group of companies “Foxtrot”	R <sup>8</sup>	6	1	9	16
12	Ltd. “THK-BP Commerce”	OG <sup>5</sup>	6	2	6	14
13	Ltd. “Kernel Trade”	A <sup>7</sup>	6	2	5	13
14	PJSC “Carlsberg Ukraine”	F <sup>4</sup>	5	2	2	9

*Note:*  
<sup>1</sup>M – metallurgy; <sup>2</sup>E – energy; <sup>3</sup>H – holding company; <sup>4</sup>A – agriculture;  
<sup>5</sup>OG – oil and gas sector; <sup>6</sup>R – retail; <sup>7</sup>F – food; <sup>8</sup>Ph – pharmaceuticals

Source: own representation

## CONCLUSIONS

During last decade in Ukraine the responsibility of society is forming with extraordinary rapidity and the functions of the government and business in providing the socio-economic development are changing.

Much attention is paid to the partnership interaction of these three sectors. But to talk about partnership interaction is easier than actually to implement it in life. In practice partnership requires a lot of patience, determination and courage.

Responsible partnership while not being the fastest way to solve problems can often cause frustration and annoyance when the initial hopes and expectations of partners are not met. However, many partnership projects that exist in different countries are an important proof that cross-sectorial cooperation can be highly effective and sustainable if the partners use a systematic approach to formation, development and management of corporate models of responsible partnership.

Current business environment with its tough competition actualizes the necessity for joint efforts of all its participants not only in the improving of business efficiency, but also in the struggle for survival and sustainable development. European companies demonstrate positive growth of corporate leadership practices in sustainable development. The leaders of applying the practices of corporate social responsibility (CSR) at global level are the companies of the continental Europe and the UK. The CSR practice is a relatively new activity in the Ukrainian business environment. While being oriented on successful CSR practices of the European companies, while using the creative ideas of specific practices and the schemes of their implementation into business processes, the Ukrainian companies will be able to increase own social effect, that will contribute to sustainable development of the region, to strengthening of socially responsible image of the company, to its economic effectiveness and international competitiveness.

The “European business-practices of corporate social responsibility (CSR)” project’s synergetic effect lies in new civilizational development values system formation, creation of responsible position approach in Ukrainian society and adequate interpretation of the EU politics.

Leadership at all times helps to identify their undisclosed opportunities. Global Responsible Leadership business schools will achieve results today and create a legacy for tomorrow. It takes time. First successes can be significant. But we all have to be persistent in their efforts to shape new generation of educational institutions.

## References

1. *Roach Erin Farmland Investing: A Smart Strategy Made Smarter by Farmland LP's REIT.* – Access: <http://www.farmlandlp.com/2015/02/farmland-lps-reit-smart-investment-made-smarter>.
2. *Eduniversal Best Masters Ranking Sustainable Development and Environmental Management – Worldwide Country Rank School (2015-2016).* – Access: <http://www.best-masters.com/ranking-master-sustainable-development-and-environmental-management.html>.
3. *Methodology for the Eduniversal Best Masters Ranking.* – Access: <http://www.best-masters.com/methodology.html>.
4. *Petrashko L.P. (2015) Training “European business-practices of corporate social responsibility” (first and second stage).* – 3 p. – Access: [http://meim.kneu.edu.ua/en/depts6/k\\_mizhnarodnogo\\_menedzhmentu/news\\_kmm\\_kneu/2015\\_1124](http://meim.kneu.edu.ua/en/depts6/k_mizhnarodnogo_menedzhmentu/news_kmm_kneu/2015_1124).
5. *Activities of the project №553110- EPP-1-2014-1-UA-EPPJMO-MODULE “European business-practices of corporate social responsibility (CSR)” (2015-2016).* – Access: <https://www.facebook.com/Ответственный-менеджмент-369881856552980>.
6. *The official website of the project “European business-practices of corporate social responsibility (CSR)”.* – Access: <http://csr-eu-jm.com.ua>.
7. *The research “Comparative Evaluation of Corporate Social Responsibility (CSR) Business-Practices: EU and Ukraine” (2015-2016).* – Access: <http://csr-eu-jm.com.ua/files/CSR-research.pdf>.
8. *Petrashko L., Panchenko Y., Petrashko P., Martyniuk O., Kiriakova M., Kyian Y. (2016) European Business-Practices of Corporate Social Responsibility: Interdisciplinary Training – Textbook / Edited by Petrashko L. Kyiv. KNEU. – 310 p. (in Ukrainian language) ISBN 978-966-026-091-8.*
9. *Petrashko L.P., Romanyok T.V. (2015) The Evaluation of responsible investing objects in the Ukrainian business environment, Innovation economy, Vol. 2 (57), pp. 169-173.*

**Zapuhlyak Vitaliy**

*Candidate of Economic Sciences,  
Head of the Supervisory Committee  
Additional Liability Company “Ivano-  
Frankivsk Regional Bus Stations  
Company”*

**Ivashchuk Olha**

*Candidate of Economic Sciences,  
Associate Professor of the Department  
of Banking  
Ternopil National Economic University  
(Ivano-Frankivsk, Ternopil, Ukraine)*

**THE  
CONTRADICTIONS OF  
COUNTRIES’  
INVESTMENT  
DEVELOPMENT  
UNDER THE  
CONDITIONS OF  
GLOBAL  
TRANSFORMATIONS**

Globalization became the consistent pattern of global economy development in the XXI century, bringing a lot of advantages to countries, because transformations touched all spheres of social life; they had structural nature and were declared for almost all countries in spite of their development level. However, eventually, practice showed that already existing contradictions of countries’ economic development reached their climax and the new ones emerged under the influence of strengthening of countries’ dependency on one another and of new global threats and dangers. Aggravation of the problems of social, economic and political nature showed the lack of order, predictability and balance in global economic space and the structure of global economy turned out to be deformed to such extent that its asymmetry and misbalance eventually only deepened.

Global economic space becomes more uneven as far as it combines countries different by both economic development level and social and cultural features. Countries possess different natural resources and human and economic capacities when they integrate into global economy, therefore, the starting conditions of national interests’ maintenance are different for them. Moreover, regulating role of international organizations also reaches its limits.

Therefore, we believe global economy to be a complex system, which develops under the conditions of increasing internal contradictions and crisis phenomena. Theoretical and conceptual provisions of international economy models formed in XX – at the beginning of XXI centuries turned out to be non-complying with real

development tendencies. At the same time, developments on the basis of Keynesian theory are often applied, because they prove inability of economic systems to maintain self-regulation, especially during the after-crisis periods. Thus, state regulation policy and intervention in economic processes remain to be priorities of countries' development. In the context of this issue we share the view that «despite the strengthening of internationalization there still is no single development model for all the countries» [1, p. 9], so none of the existing ones can be seen as the only accurate.

The first half of the XXI century is characterized by deep transformations in geo-civilization space, the cluster of global crises at the sunset of global industrial civilization in the first quarter of the century and forming of integral civilization basics in the leading countries in the second quarter of the century. This contributes to chaotic and uncertain nature of global dynamics and strengthens inter-civilization, inter-state and social contradictions causing the need for long-term well-substantiated strategy application with significant role assigned to investment.

Growth of investment role in the countries' economic development in terms of their differentiation by both social and economic parameters is stipulated by objective reasons. Investment capacity of developing countries (even more so the least developed ones) is not applied to the fullest extent in the processes of social reproduction. We consider the country to have investment development in case that: investment promotes GDP per capita growth; maintains economic growth in the country; improves competitive ability of national economies; is accompanied by innovations development; improves life level of population. Therefore, investment development is the process of extended in time quantitative and qualitative changes in investment sphere that aim to maintain economic growth through attraction of foreign investment. Investment development reflects the ability of economic systems to maintain stable growth and investment activity at micro, meso, macro, supranational and global levels. Thus, investment development is a multilevel concept and includes the following: enterprises' investment development; territories' investment development; countries' and groups of countries' investment development; economic alliances' investment development; global investment development. Therefore, country's investment development unlike the investment itself aims to maintain countries' social and economic development and activate their positioning in global space rather than to receive income or social effect.

Long-term investment development requires stable legal maintenance and efficient institutional, information and personnel maintenance. Investment development is characterized by transition of the system from one condition to another, which is qualitatively better than the previous one. In this context we suggest differentiation of stability concept for the countries with different economic development level as far as it is difficult to quantitatively define and calculate the limits of investment development, for example because the achievements of developing countries and those the least developed are insignificant compared to the well-developed countries. At the same time they show quantitative changes on the ground of basic development conditions, so the main principles of countries' economic development strategies should be the following: attraction and use of resources according to development tasks; conformity of current needs with the goals; making decisions according to strategy. Such strategy is developed in the forms of both strategic plans and programs.

Countries' investment development is formed under the influence of the range of factors and external challenges, which complicate its predictability, because the process is characterized by periodicity (and cyclicity) and inequality both in space and time. Global transformations only strengthen the anisotropy (inequality of directions) of countries' investment development. In addition to this, to the authors' point of view, significant reason of crisis phenomena in investment sphere consists in the lack of investment culture as the component of investment development philosophy, after all there are, for example, differences between the Eastern and the Western cultures or between the values of local civilizations. We suggest understanding the philosophy of investment development as the system of fundamental views, generalized notions and conceptual approaches to investment that outlines the principles, regularities and factors of investment development and is directed at forming of qualitatively new investment awareness, culture and behaviour stipulated by socio-economic and axiological preconditions of modern global transformations period. The complex of knowledge in the investment sphere formed by ideas, directions, concepts, models, technologies, etc is the object of investment development philosophy. Regular patterns, principles and interconnections in the investment sphere are the subject of investment development philosophy. Therefore, the basis of investment development consists of both civilization and socio-economic preconditions.

Basing on the abovementioned we believe the major tasks of investment development philosophy to be the following: systematization of investment development theoretical concepts and defining of investment component's place in the new integral and investment paradigm of human development; monitoring of countries' investment development; finding the consistent patterns and principles of investment development; elaboration of strategic directions of countries' investment development.

In such a way investment development philosophy unlike the development paradigm has its task to not only research the genesis and systematize knowledge, but to find the relation of global investment tendencies with peculiarities by countries, stipulated by axiological factors and to define the role of consciousness and culture in investment processes under the condition of forming of knowledge-based society. Postmodernism ideas efficiently integrate into this philosophy, however we have to agree that investment development can't be built in future on one universal strategy acceptable for all countries, but has to combine different worldview approaches. Investment awareness is the basics of this philosophy. Investment awareness and culture contribute to development due to activation of brainwork and investors' activity. Otherwise the system would develop evolutionally (fig 1.2).

Two elements define the basis of investors' investment awareness: axiological and socio-economic preconditions. It can be transformed under the influence of experience and external environment, i.e. through long-term perception as multifaceted process. Investment activity forms investment culture, which is the system of values and motives of investment activity and norms and customs that form and regulate investors' behaviour. Success and efficiency of investment activity depends on the level of investment culture, and investors' behaviour guarantees its stability. Investment culture and investor's awareness have the greatest influence on investment technologies, which will be introduced at national, regional and global levels.

Multi-paradigm approaches to understanding of investment development define basic functions of investment development philosophy. The following ones can be singled out: worldview, gnoseologic, value-based, informational, ideological, heuristic, methodic, socio-economic, and prognostic. We suggest the most general approaches according to which the investment development should be considered: anthropologic (human-centered), worldview (defines values, which constitute the basis of investment development), formation

(allows defining of investment development peculiarities in different class and economic formations), and civilization (accounts development peculiarities of countries, regions, local civilizations and global civilization) (fig. 1.2).

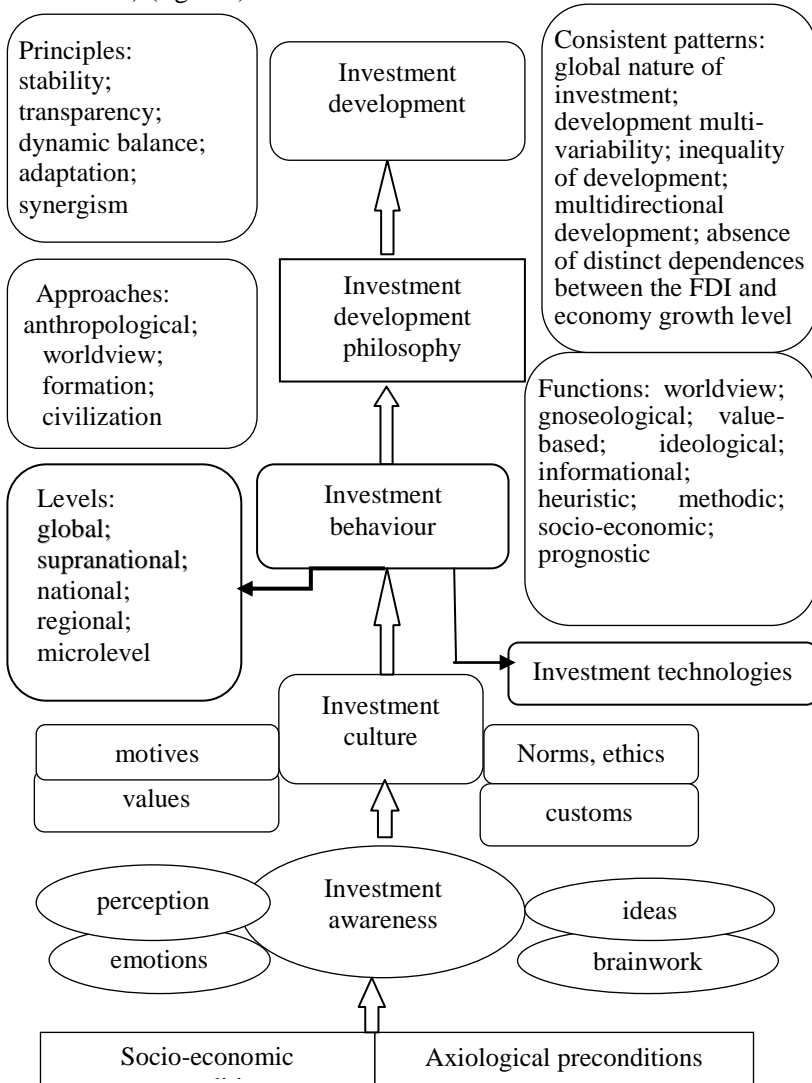


Figure 1.2. Structural-logical scheme of investment development philosophy. (Developed by authors)



Taking into account the fact that each country has its own economic preconditions, investment culture, awareness, values and interests, the investment development appears to be a contradictory process by its nature, which strengthens under the influence of global transformations. Global economic development demonstrates a non-linear nature that causes multi-variant changes, and the geo-economic image of the world demonstrates instability, versatility and dynamics. In addition to this, not only socio-economic parameters change, but value criteria as well. Change of global economic order is accompanied by a multi-poles nature of the world, strengthening of the role of economic factors, aggravation of global conflicts and emergence of new countries and groupings active in global space.

Globalization processes after the global economic crisis caused important changes in investment processes. Reduction of foreign direct investment volumes was registered in 2009 by all its components, because activation of countries' investment activity is defined by investment climate and business environment created in a country. In the after-crisis period all the endeavors to stabilize investment situation failed. Monitoring of global investment tendencies shows that in 2012 the prognosis on parameters growth also failed and the FDI volumes reduced by 18% and amounted to 1,35 trillion US dollars. Main experts' prognosis on investment activity renovation were grounded on the following factors: stabilization of the policy of central-office companies' lending the subsidiary companies, growth of reinvested income volumes, reduction of countries' current account deficit and accordingly – reduction of the need for foreign investment [2]. In 2015 the highest level of investment activity since the crisis was achieved – up to 1762 billion US dollars. Increasing number of international consolidations and mergers up to 721 billion US dollars became the major factor [3]. Investment into well-developed countries' economy grew by 84%, and their share in the global volume of FDI grew from 41% in 2014 to 55% in 2015. However, such renaissance can have the medium-term nature if the countries do not take additional stabilization activities on investment activity regulation.

At international investment market we can see a distinct tendency towards increase of multi-national corporations' investment activity, which account for the lion's share of international investment. Such position is stipulated by multi-national corporations' advantages for national markets as far as foreign capital takes full-scale part in reproduction processes. But they base their activity not on the principle

of economic development promotion in receiving country, but on maximization of income from invested capital imposing their policy on countries.

Considerable polarization in the parameters of countries' investment development can be observed from a spatial perspective. In addition to this, the role of integration associations and initiatives in attraction of foreign investment grows, the amount of investment in offshore territories remains to be significant and the structure of investment has changed. Asymmetry of investment flows is present in their distribution by branches as well. Indeed, companies-investors choose the branches, where they have the best competitive advantages. In 2015 64% of all FDI accounted for the sphere of services. Such asymmetry contributes to unpredictability of investment flows, and therefore to impossibility of adequate assessment of their influence on economic development of the countries. The change of national investment regimens also confirms this tendency that is the most visible in the period after the global financial crisis. Thus, national investment regimens continue to liberalize in the majority of countries due to maintenance of access to certain economic sectors and creation of financial incentives in certain branches and regions. In 2009 the countries concluded 211 new international investment agreements (82 of them bilateral agreements, 109 agreements on avoidance of double taxation and 20 on other issues), making it the total of 5339 agreements. Along with this the countries undertook 36 activities in 2010 that were of clear protectionist nature in order to protect strategically important economy sectors and to maintain national security. In 2011 their number reduced twice. In 2012 53 countries undertook 86 activities on foreign investment, 75% of them were related to liberalization of investment conditions. In 2015 46 countries undertook more than 90 activities on regulation of foreign investment, 71 of them were related to liberalization of investment conditions, 13 – introduction of new restrictions and 12 of them were of neutral nature [3]. In addition to this, the countries have strengthened monitoring of cross-border consolidations and mergers and introduced restrictive measures for foreign investment in strategically important branches and agriculture.

In spite of positive tendencies, protectionist measures of purely national nature directed at allocation of investment funds in certain branches take an important place. There is also a clear tendency towards the growth of the number of concluded both investment agreements and arbitrary decisions. In order to maintain the access of foreign capital to

the markets of the countries the moratorium on protectionist measures has been introduced contributing to revival of economy and improvement of countries' financial and trade opportunities as well as restoration of sustainable balance in global economy.

While at the beginning of 80<sup>th</sup> of XX century the development of oil industry was the major reason of investment activity boost, nowadays it is due to the growth of information technologies' role. Transformations in global economy are accompanied by the so-called information revolution, when all the links of social life are infused with information technologies contributing to forming of information society. Information technologies were in fact the boost for the development of global financial market, activation of international trade and growth of investment flows. Such tendencies significantly reduced transport and transaction costs increasing at the same time the level of countries' uncontrollability. Moreover, introduction of information technologies into the financial sphere liberalized the conditions of financial flows movement contributing to the development of such a phenomenon as financial globalization. Major achievements in informatization are peculiar to the developing countries, where the progress is obvious, contributing to fulfillment of the goals of sustainable development. Development of startups in the sphere of informatization remains to be top priority [4].

In the last decades the venture investment gains increasing attention as one of the most risky investment directions. At the same time they bring extremely high profits due to innovative orientation. Due to such combination of interests and opportunities the venture investment influence structural changes in country's economy and create favourable conditions for the development of small and medium business. The practice of venture business establishment confirms that a lot of corporations achieved success due to innovative transformations. Investment in risky projects encourages the search for non-traditional management methods. However, such investment has cyclic nature (10-15 years) and it is important to note that after the crisis the new cycle starts with the higher technological level. In addition to this, global transformations and recession touched this market as well, because the activity of venture capital in 2016 reduced by 24% comparing to 2015, which was the most successful year after the global economic crisis. General amount of agreements' funding also reduced to 127 billion US dollars (in 2015 – 141 billion) [5]. In regional terms Asian region remains to be stable.

The following are the priority activities for stabilization of countries' investment development and overcoming their contradictions under the influence of global transformations that we deem to be important: review of G20 activity principles in terms of global regulators of financial and investment stability; consolidation of international organizations' endeavors in terms of counteraction of protectionist measures and liberalization of investment regimens; elaboration of countries' investment development indicators standards; promotion of cross-border movement of investment directed at maintenance of economic growth and employment; investment direction at improvement of human development according to the principles of sustainable development and features of post-industrial society; activation of venture investment; maintenance of start-ups development as an important direction of economy rehabilitation in terms of their dynamism, mobility and adaptation features regarding global challenges.

## References

1. Kozak Yu. H., Kovalevskiy V. V., Lohvinova N. S. (2009) *International Strategies of Economic Development*. Kiev. Center of Scientific Literature.
2. United Nations (2010) *World Investment Report 2010: Investing in a Low-Carbon Economy* [viewed 18 April 2017]. Available from: [http://www.unctad.org/en/docs/wir2010\\_en.pdf](http://www.unctad.org/en/docs/wir2010_en.pdf).
3. United Nations (2016) *World Investment Report 2016 Investor Nationality: Policy Challenges* [viewed 20 April 2017]. Available from: [http://www.unctad.org/en/PublicationsLibrary/wir2016\\_en.pdf](http://www.unctad.org/en/PublicationsLibrary/wir2016_en.pdf).
4. International Telecommunication Union (2016) *Measuring ICT development: New trends, new challenges – ITU* [viewed 19 April 2017]. Available from: [http://www.itu.int/en/itu/news/Documents/2016\\_ITUNews01-en.pdf](http://www.itu.int/en/itu/news/Documents/2016_ITUNews01-en.pdf).
5. KPMG International Cooperative (2015) *Venture Pulse: Q4'16 Global analysis of venture funding* [viewed 20 April 2017]. Available from: <https://home.kpmg.com/xx/en/home/insights/2015/10/venture-pulse.html>.

# TRENDS AND PRIORITIES OF THE DEVELOPMENT OF INTERNATIONAL TRADE IN GOODS AND SERVICES

**Drozdova Olena**

*Candidate of Economic Sciences,  
Associate Professor, Head of  
Accounting and Taxation  
Odessa Trade and Economic Institute  
of Kyiv National University of Trade  
and Economics PhD in Economics  
(Odessa, Ukraine)*

**FORMATION OF  
ELECTRONIC  
COMMERCE IN  
UKRAINE:  
PERSPECTIVES AND  
CHALLENGES**

### **Problem and its connection with important scientific and practical tasks**

The existence of e-commerce is determined by the process of globalization, technological progress, and new priorities of inputs. The development of e-commerce in Ukraine does not exist by itself, its operation should be considered with international trends.

However, studying the formation and development prospects of e-commerce in Ukraine in a global environment, O. V. Kot and D. S. Antonenko noted that in comparison with the leading countries formation of the foundations of electronic commerce in Ukraine there was some delay, due to several factors: discrepancy logistics, lack of awareness, inadequate treatment and state regulation of the industry, as well as a high degree of divergence state law with world standards [6, p. 31].

However, the adoption in 2015 of the Law of Ukraine on “Electronic commerce” [1] defines the rules for participants and promotes the development of e-commerce market.

**Analysis of recent research and publications.** Features of e-commerce are shown in the works of economists and lawyers, and legal support of e-commerce studied by O. P. Vorobyova [3], V. Reznikov [12]; an international legal practice of taxation of e-commerce is shown in the works of I. B. Belik [2]; trends of e-commerce in Ukraine and in

the world are examined in the works of O. V. Kot, D. S. Antonenko [6], S. V. Malovichko [9], O. S. Melnychuk [10], S. O. Pyrig [11]. The issue of accounting and e-commerce trade is studied by A. S. Krutova [7], S. F. Lehenchuk and N. M. Koroliuk [8].

**Unsolved aspects of the problem.** Despite the considerable number of publications of scientific and practical importance, a number of issues relating to government regulation and accounting and analytical support of e-commerce requires clarification and new approaches. In particular, the further research and improvement of mechanisms of regulation of electronic commerce in the consumer sector are needed as IT development services are hampered by a number of legal obstacles to the efficient functioning of the internal market, arising from differences in legislation and from the legal uncertainty as to the choice of national law to be applied to such services and which make the exercise of the freedom of organization and freedom to provide services less attractive.

**The purpose of the study** is to substantiate the theoretical and methodological foundations of management and accounting and analytical support for the development of electronic commerce in the consumer sector.

### **1. Analysis of the trends and dynamics of the e-commerce market in the consumer sector**

Current conditions of domestic enterprises are characterized by the rapid development of information technology that affects the organization of electronic trade and commerce. However, the term "commerce" (e-mail, Internet) and "trade" (e-mail, Internet) can't be identified as though from the Latin commercium – «trade», but there are slight differences in the essence of these concepts. Trade is more actual transfer of the goods to the consumer, and the organization in general trading process gets its consolidation in commerce.

Evolution of electronic market is linked with the expansion of the Internet. S. O. Pyrig studied the e-commerce market in Ukraine and said that it was a new kind of economic activity – e-business was made possible by the development of Internet technologies to streamline business processes, increase their productivity and efficiency [11, C. 166]. Internet users in the world by the regions are shown in fig. 2.1.

Detailed analysis of Internet users and population statistics are given in tabl. 2.1.

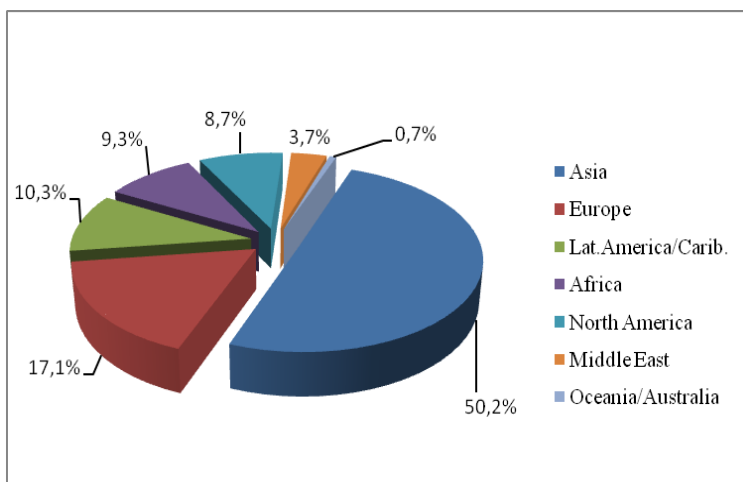


Figure 2.1. Internet users in the world by the regions  
(March 25, 2017)

Source: 15, *Internet Users in the World by Regions, March 25, 2017*

Table 2.1

**World Internet usage and population statistics (March 2017)**

World Regions	Population (2017 Est.)	Internet Users 31 Mar 2017	Penetration Rate (% Pop.)	Growth 2000-2017 (%)
Asia	1,246,504,865	345,676,501	27.7	7,557.2
Europe	4,148,177,672	1,873,856,654	45.2	1,539.4
Latin America / Caribbean	822,710,362	636,971,824	77.4	506.1
Africa	647,604,645	385,919,382	59.6	2,035.8
North America	250,327,574	141,931,765	56.7	4,220.9
Middle East	363,224,006	320,068,243	88.1	196.1
Oceania/Australia	40,479,846	27,549,054	68.1	261.5
<b>World total</b>	<b>7,519,028,970</b>	<b>3,731,973,423</b>	<b>49.6</b>	<b>933.8</b>

Source: 15, *World Internet usage and population statistics, March 2017*

Thus, during this period the largest proportion of Internet users is observed in Asia (50,2%), and the level of Internet extension is the highest in North America (88,1%).

In recent years we can observe the development of e-commerce in Ukraine. E-commerce is one of the most dynamic markets and it is part of the small number of segments of the economy which continue to grow and develop, despite the crisis, currency jumps and other challenges facing the country in recent years. It is an important tendency that the growth rates of developed European markets fall while significant rates of European and South East European markets rise. Ukraine ranks first in growth in 2015 compared to 2014 among all European countries with an index of 34.9%. Furthermore, the average growth rate from 2011 to 2015 was 37.2% that was the highest in Eastern Europe [4].

## **2. Accounting and analytical support for the development of electronic commerce in the consumer sector**

The development of e-commerce and trade in Ukraine shows several advantages in such business. For example, I. V. Hovrak [13] includes to these advantages are the following:

- global scope and coverage;
- acceleration of business processes, convenience and speed of transaction,
- lower prices because firms which deals with e-commerce by reducing non-production costs are able to offer the consumer a lower price;
- day and night availability on the market and active position of the consumer;
- equal access to the market for large corporations and small firms;
- a wide range of products;
- availability of search the products and services;
- no need for the delivery of goods to the consumer, as most electronic stores have adjusted delivery system;
- the opportunity to buy original products in foreign stores and auctions, to reserve seats in hotels in different countries, to receive other services of foreign companies;
- a unique opportunity to provide non-stop sales; interactive communication with the buyer.

However, there are a number of disadvantages. I. V. Hovrak [13] considers the following ones:



- poor development of the national economy and the low level of welfare;
- low level of security and protection from fraud;
- limiting the rights of the consumer, because the consumer is unable to fully verify the quality of the goods or services until they are delivered;
- distrust of electronic commerce by consumers;
- a large number of amateurs among firms engaged in e-commerce;
- logistics of the order has a speed that does not match the speed of the Internet;
- lack of motivation of shopping, not directly related to the implementation of purchases;
- the range of online stores often contain products that are not available;
- the complexity of the organization and development of the online showcase (high cost, the need to negotiate and automate the processing of payment by bank cards and electronic money, organize the work of staff, bookkeeping) [13].

The problem of accounting and analytical support of e-commerce is becoming more urgent because in the present conditions the characteristic of e-commerce entities are shown in the accounting policy of the enterprise and influence the organization of accounting, in particular, it is necessary to cover the following issues:

1. A method of delivery to the consumer that will form under various costs and requires modeling the optimal supply chain to minimize traffic costs.
2. Identification of the website as an asset (intangible assets) of the corresponding amortization. Creating a site involves costs not only for development but also support services, the existence of a domain name, etc.
3. Payments of buyers – cash and non-cash, subscriptions and purchase on credit.
4. Return of goods because of: defect, disparity of expectations, untimely delivery, changing of consumer opinion [5, p 38].

In the European Union a specific model of international legal regulation of electronic commerce has formed in which international law and supranational law and national law operate. And the rules of supranational law relating to e-commerce should not be in contradiction with international law [3, p 274].

E-commerce is a new phenomenon in the internal market, its active

expansion shows the interest of participants, but the lack of single approach confuses and prevents further development. The adoption of the Law of Ukraine on “Electronic commerce” apparently solves a number of existing problems in practice and is fundamental to the functioning of all the participants in the main following areas:

*1. The essence of the basic concepts of “e-commerce”, “electronic trade”, etc. would avoid terminological confusion, would determine the participants` rights and obligations.*

Scientists and practitioners emphasize the necessity to define basic concepts of e-commerce. Have studied these issues and the prospects of legal supply of electronic commerce in Ukraine, V. Reznikova also indicates that scientists` approaches according to the definition of “electronic commerce” are different, and also considers the ratio of the terms “electronic commerce” and “electronic trade” [12, p. 59-60].

The essence of these concepts is revealed in the Law on “Electronic commerce” where “electronic commerce” is defined as “relationships...” in their result the members have rights and obligations of property character, while e-trade – is the economic activity in the area of e-purchase or sale of goods by distance way to the customer by making electronic transactions using information and telecommunication systems [1, p. 3, 1.1, p. 1.2]. Thus, the essence is determined and major differences between basic concepts are found.

*2. Accounting process of e-commerce.*

S. F. Lehenchuk and N. M. Koroliuk indicate unresolved issues, among them are the following: documenting of transactions in e-commerce [8], A. S. Krutova thinks about the importance of workflow in e-commerce and the phenomenon of electronic document should be seen as a holder of information, as an e-mail and evidence [7, p 21].

In addition to the above Law the general procedure for electronic transactions for accounting purposes was an important issue of making an electronic contract, signature in e-commerce, payments in e-commerce, storing of electronic documents [1, p. 11-13, 15].

*3. The taxation of electronic commerce.*

Have studied international legal experience in e-commerce taxation, I. B. Belik notes that a number of issues according to the problems within the taxation of electronic commerce are internationally discussed, including administrative regulations which are applicable to e-commerce (including issues of currency and customs legislation) [2, p 49-50]. It is stressed that solving these problems is possible only by a harmonization of tax administration, thanks to the cooperation of tax

authorities to undertakings; it will promote the development of e-commerce, will prevent misuse of electronic networks and provide additional revenue.

However, the institutional difficulties in the taxation of e-commerce should be distinguished, which require adaptive regulatory measures by the state: the complexity of address (physical) identification of online shops or their offices because of the possibility not to be registered in Ukraine; anonymity of the recipients of electronic commerce and etc.

**Conclusions and recommendations for further research.** Active growth of electronic transactions in the consumer sector requires transformation of appropriate level of state regulation of e-commerce, which is primarily connected with the improvement of the regulatory practice of contractual relations between businesses and consumers, due to the adoption of the Law of Ukraine on “Electronic commerce” as the foundation of the legal provision. A number of issues had to be solved in the theory and practice, had been highlighted in the text of the law – as to the terminological definition and uniqueness, regulation of rights and obligations of the electronic transaction, electronic order of making the agreement and issues regarding to the protection of personal data. These implementations affect the accounting process of e-commerce, including coverage of the procedure of making electronic agreement, signature in the area of e-commerce, payments in e-commerce, storing of electronic documents.

The directions which promote further development of e-commerce in Ukraine have been systematized, including: approval of the Information Code of Ukraine, the creation of a national information infrastructure, financing of relevant projects etc. In the direction of taxation of electronic commerce the necessity for cooperation of tax authorities with entities to develop e-commerce and to provide additional revenue has been defined.

In our opinion, the state should be the guarantor and the participant of electronic trading relations and current government policy should be aimed at the developing of national infrastructure for electronic commerce, which should be based on institutional arrangements in the direction of legalization of electronic transactions.

The current legislation on the regulation of e-commerce has to be improved, due to the fact that the development of electronic commerce increases revenue to the budget due to revenue growth of the companies and, consequently, the tax base. However, the inability to monitor the implementation of all commercial transactions in the electronic

commerce and their account of the entities of state financial monitoring increases the risk of evasion of taxes or legalization (laundering).

In general, the regulatory regulation of e-commerce promotes cooperation with other countries, allows distribution of domestic products, as every participant acts in accordance with established rights and obligations, being able to defend own interests, but this is only the beginning for the formation of the necessary conditions for the development of electronic commerce in Ukraine. For this purpose we consider the introduction of tax holidays for new e-commerce entities are necessary, it would be a favorable factor of the development in the stage of foundation.

## References

1. *Law of Ukraine "On electronic commerce" from 09.03.2015, № 675-VIII [Electronic resource]. – Access mode: <http://zakon5.rada.gov.ua/laws/show/675-19>.*
2. *Belik I. B (2013) "International legal practice of taxation of e-commerce", Law Forum, No. 2, pp. 49-54.*
3. *Vorobyov O. P. (2012) "Regulatory support of e-commerce: the international experience", The efficiency of public administration, Vol. 30, pp. 269-275. – Access mode: [http://nbuv.gov.ua/UJRN/efdu\\_2012\\_30\\_35](http://nbuv.gov.ua/UJRN/efdu_2012_30_35).*
4. *B2C in e-commerce: the European vector of Ukraine. Access mode: [http://www.lev.org.ua/ua/articles/b2c\\_in\\_ecommerce.html](http://www.lev.org.ua/ua/articles/b2c_in_ecommerce.html).*
5. *Kwach Y. P., Drozdova O.H. (2015) "The essence and the development of electronic commerce in Ukraine: an accounting aspect", Journal of Zhitomir State Technological University. Series: Economics, No.2, pp. 33-40, Access mode: [http://nbuv.gov.ua/UJRN/Vzhdu\\_econ\\_2015\\_2\\_7](http://nbuv.gov.ua/UJRN/Vzhdu_econ_2015_2_7).*
6. *Kot O. V., Antonenko D.S. (2015) "Essence, formation and development prospects of e-commerce in a global environment of Ukraine", Tehnology audit and reserves of production, No. 2 (6), pp. 28-32. – Access mode: [http://nbuv.gov.ua/UJRN/Tatr\\_v\\_2015\\_2\(6\)\\_5](http://nbuv.gov.ua/UJRN/Tatr_v_2015_2(6)_5).*
7. *Krutova A.S. (2011) Methodology and organization of accounting in the field of e-commerce: Abstract of dissertation of Doctor in Economics: 08.00.09. Kyiv, 29 p.*
8. *Lehenchuk S. F. "The method of accounting process of e-commerce", Access mode: [http://chtei-knteu.cv.ua/herald/content/download/archive/2010/v4/NV-2010-V4\\_55.pdf](http://chtei-knteu.cv.ua/herald/content/download/archive/2010/v4/NV-2010-V4_55.pdf)*
9. *Malovichko S. V. (2015) "Analysis of current trends and dynamics of the development of electronic commerce in Ukraine", Problems of Economics, No. 2, pp. 71-77. – Access mode:*

- [http://nbuv.gov.ua/UJRN/Pekon\\_2015\\_2\\_11](http://nbuv.gov.ua/UJRN/Pekon_2015_2_11).
10. Melnychuk O. S. (2014) "Global trends of e-commerce", *Proceedings NDFI*, Vol. 1, pp. 58-69. – Access mode: [http://nbuv.gov.ua/UJRN/Npndfi\\_2014\\_1\\_8](http://nbuv.gov.ua/UJRN/Npndfi_2014_1_8).
  11. Purig S. O. (2014) "Research of e-commerce market in Ukraine", *Economics. Series: Accounting and Finance*, Vol. 11(1), pp. 164-170. – Access mode: [http://nbuv.gov.ua/UJRN/ecnof\\_2014\\_11\(1\)\\_23](http://nbuv.gov.ua/UJRN/ecnof_2014_11(1)_23).
  12. Reznikova V. (2015) "Concepts, values and perspectives of legal maintenance of electronic commerce in Ukraine", *Theory and Practice of Intellectual Property*, No. 2, pp. 58-72. – Access mode: [http://nbuv.gov.ua/UJRN/Tpiv\\_2015\\_2\\_10](http://nbuv.gov.ua/UJRN/Tpiv_2015_2_10).
  13. Hovrak I. V. (2013) "E-commerce in Ukraine: advantages and disadvantages", *Economics. Finances. Law*, No. 4, pp. 16-20. – Access mode: [http://nbuv.gov.ua/j-pdf/ecfipr\\_2013\\_4\\_7.pdf](http://nbuv.gov.ua/j-pdf/ecfipr_2013_4_7.pdf).
  14. *European B2C E-commerce Report 2016 [Electronic resource]*. – Access mode: [https://www.ecommercewiki.org/wikis/www.ecommercewiki.org/images/2/25/European\\_B2C\\_Ecommerce\\_Report\\_2016.pdf](https://www.ecommercewiki.org/wikis/www.ecommercewiki.org/images/2/25/European_B2C_Ecommerce_Report_2016.pdf).
  15. *Internet World Stats [Electronic resource]*. – Access mode: [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm).

### **Popadynets Nazariy**

*Candidate of Economics,  
Researcher of Department of  
regional economic policy  
M. I. Dolishniy Institute of Regional  
Research of NAS of Ukraine  
(Lviv, Ukraine)*

**ROLE OF CONSUMER  
MARKET IN  
INTERNATIONAL  
ECONOMIC SYSTEM**

Human civilization as the community of individuals, groups and nations (ethnic groups) in the process of its development has been using and still uses different economic systems meant to regulate in a special way the connections that emerge between people in the course of creation and consumption (use) of tangible and intangible values and services. What seems to be the chaotic human activity at first glance otherwise appears to be organized in one or another way in such a manner that it cannot be organized better. The thing is that various forms of social

reproduction are used in practice contributing to keeping its multimillion participants within the rules of the game. In such a way the internal content of economic system can be secured as a complex of established connections directed at maintenance of production relations emerging in terms of production, distribution, exchange and consumption of tangible and intangible values and services.

Economic systems differ from one another not only by organization forms, but also by approaches and methods of solution of emerging economic problems. As far as all economic relations can be narrowed down to the relations between a producer and a consumer, the same way the economic system is equipped to a different extent with economic model of exchange and transfer of relevant information related to what, how and for whom to produce. The nature of economic system internal structure depends to the full extent on how quickly and efficiently the relevant information is obtained and absorbed, i.e. if it is spontaneous and chaotic order without centralized regulated management actions or coordinated and clearly controlled order with concrete prescriptions on what, where and how to do coming out of one or several centers.

The methods peculiar to the levels of productive forces development of one or another economic system are in the basis of transfer and consumption of such information: if the society is underdeveloped and founded on application of traditions, customs or inheritance links – the methods are relevant to that; if the society is civilized and well-developed, the methods applied correspond to the spirit of the time [1, p. 184].

Naturally, this brings up the issue of economic system classification in modern world. From the viewpoint of spontaneity or natural order of coordination this is «the form of economy that quickly reacts to the change of demand, which is to a great extent unpredictable and prone to action of both economic and social, psychological and other factors» [2, p. 89]. And from the viewpoint of concrete regulation and thorough prescriptions this is the command economy as “the form of economic organization, when the government allocates resources and obliges certain individuals and enterprises to act according to governmental decisions” [3, p. 163].

Both abovementioned forms of economic systems’ organization constitute the diapason of economic relations, in the center of which there are different forms of combination of the first two. This allows having the most diverse options of their development in practice, starting with “war communism” and ending with open economy.

Market organization as economic system most commonly uses mixed

economic model, which features combination of entrepreneurship activity forms and government intervention. The most vivid examples of mixed economy are the following:

a) Swedish model, characterized by active state intervention in income redistribution, where the share of tax payments accounts for over 50% of Gross National Product. At the same time an emphasis is put on maintenance of social protection of population leading to small differences in incomes in society and almost non-existent unemployment contributing to combination of relatively high paces of economic growth and high level of well-being of population [4, p. 64];

б) American model, where the role of state institutions comes down to the development of “economic game rules” and examination of the way they are used. At the same time entrepreneurship activity has the full scope for activities. Main emphasis in the model is put on personal freedom and choice that defines the movement of basic resources – material, labour and financial – from branch to branch, from territory to territory [5, p. 312];

в) Japanese model, where activities on planning and coordination of government (state) and entrepreneurship sector actions have significant influence. Planning function is performed through development of indicative parameters, which have recommendation nature and are directed at mobilization of separate links of national economy in order to address the most important issues. Meanwhile, economy widely uses national traditions combined with attraction of advanced developments from other countries of the world. All the abovementioned contributes to achievement of desired results due to high efficiency level of tangible and intangible values and services production efficiency [6, p. 7].

Due to this the issue of selection of “rules of the game” or “rules of conduct” in daily economic activity is of significant importance. The fact is that currently there are known only two basic types of ownership: private and public as well as their different modifications. State ownership is the most known collective subtype. Mixed economies prevail in world economic system; therefore the order of economic activity is defined considering both private and especially state interests. The better compromise between these two sectors of national economy, the more efficient the whole economy works.

World economic system constitutes some set of markets, which differ by several features. Economic literature provides the range of markets classifications. One of them is based on the following features: a) freedom of its participants – producers (distributors) and consumers (customers);

b) unlimited number of participants; c) full informing of its participants on the condition on the market; d) mobility of resources (material, labour, financial) [2, p. 160-161]. The basis for another classification is: economic, territorial, organizational, functional, quantitative and qualitative and specialization features [7, p. 35]. Such diversity of markets' classification features can be explained only depending on the subject of research: the more concrete it is, the more detailed becomes the list of relevant features.

Main types of markets go in line with their classification. Nowadays types of markets can be narrowed down to markets of goods and services (consumer market), material resources market, stock and securities market, land and real estate markets.

In this scheme consumer market takes one of the decisive places as far as it completely maintains the process of workforce reproduction as one of production factors. Consumer market is the link between production and personal consumption and constitutes the sphere, where the turnover of goods and capitals ends and the value gains its final volume. The following are the functions the consumer goods trade accomplishes in social production: performs implementation of monetary income of population in a certain mass of goods; directs goods from production and turnover sphere to the sphere of personal consumption; improvement or deterioration of life level of population depends on its dynamics [8, p. 45].

The level hierarchy is one of the peculiarities of goods exchange sphere development. At first any market of goods and services is of purely local nature and within its limits takes place the process of goods turnover, the production and consumption of which is narrowed down to small territory. Certain types of food and industrial goods markets can serve as the examples of such market. As a rule, all sellers at this market are producers and consumers at the same time, and customers are both customers and producers.

Subsequently local market shifts to regional one, where the goods produced on industrial basis are exchanged. At this exchange level goods flows start to gain stable directions with clear specialization, examination of market condition and recording of customers' demands and producers' possibilities. At these markets those trade agents emerge, which are involved only in selling-purchasing of particular goods. These trade agents' specialization depends on possibilities of a particular market to maintain the necessary amount of income (profit). At this level the mechanism of demand and supply law begins to take action and therefore trade agents have to change their specialization.



National market of goods and services constitutes the higher level compared to regional one. Here major channels of consumer and industrial goods gain final form: wholesale and retail trade; major elements of consumer market infrastructure: stock markets, companies, funds, committees and commissions, centers, state inspections, other organizations; market and non-market sources of demand and supply forming, etc.

Global market is the highest level of consumer markets. It has its special terms of price setting and competition mechanisms' action, because the level of mobility of main production factors – labour, material resources and capital – is much lower here than at the level of national goods and services market. In addition to that, “the lack of single monetary system and different currency over the countries is an important feature of economic relations within global economy” [9, p. 29]. As the result the foreign trade becomes a powerful factor of economic development. However, the countries' dependence on goods turnover on international level grows significantly as well.

Separating of goods turnover into independent branch contributed to creation of considerable economic advantages for the whole community. This maintains better satisfaction of perspective consumers' demands due to conducting of marketing surveys, promotes more efficient use of sales employees' personnel and the whole trade infrastructure, provides reduction of trade expenditures and strengthens the process of development.

Consumer market development depends to a great extent on three main factors [10, p. 19]:

- number of population, whose need for goods and services must be satisfied;
- industrial capital, the possibilities of which define production of these goods and services;
- services sector capital (trade capital) that maintains connection between production and consumption.

While examining the influence of abovementioned factors on the dynamics of consumer market development, it is necessary to emphasize that the «number of population» factor depends on birth and mortality rates. The birth rate is greatly influenced by the level of education and methods of family planning. The level of mortality rate is influenced by healthcare services. The population under the influence of education and healthcare spheres is in much more comfortable conditions in relation to consumer market, because they can choose the goods and services of the

better quality than the population with low level of education or the one that does not use the healthcare services.

“Industrial capital” service depends on the volumes of investment into production of goods and services, productivity of industrial capital unit and average period of its functioning. Combination of abovementioned conditions results in volumes of goods and services production, where production per capita is the average rate.

“Trade capital” factor depends on one hand on goods output and granted services, and on the other hand on the number of population that uses and consumes them. Thus, its efficiency can be evaluated by consumption of goods and services per capita parameter.

Therefore, the development of consumer market can be represented as some system with direct and reverse connections. Volumes and paces of investment into industrial sector and birth rate over certain period are the connections that provide direct influence on the perspectives of the market development. Reverse connections are average period of industrial capital operation and related volumes of depreciation and necessary resources’ reserves and the level of mortality rate at the same period. Consumer market development processes can also have relevant quantitative parameters (rates) on the basis of which different options can be calculated depending on what connections (direct or reverse) have a decisive influence [1, p. 195].

Consumer market as the component of the whole system of markets performs a range of functions. The most important function of consumer market – is the influence on economic interests of its participants. Existing disagreements between sellers and customers can be eliminated through economic methods (setting the balanced prices in order to meet demand and supply), and thereby mutual interest gains the single measure of satisfaction: for seller – in terms of obtaining of expenses reimbursement and certain income, for customer – in terms of purchasing the necessary product the lack of which fails to maintain necessary living conditions (to the customers’ opinion).

Second function of consumer market constitutes establishment of certain proportions in production relation, which are developed between the spheres of production, distribution, exchange and consumption. Such proportionality can be achieved through rational performance of major production factors: material, labour and natural resources and their relevant cost estimate. Fluctuation of prices around the value leads to the situation that the better organizationally prepared enterprises stay aloft for a considerably long time and the less prepared ones leave the

entrepreneurship market making the place and niche for others.

The third consumer market function – constant search for advanced and progressive technologies of operation: the one, who has in his market arsenal the modern methods of conducting market competition, wins. As far as “under the market competition the producer, which makes quality goods and sells them at low prices, wins” [2, p. 90-91], this direction is the foundation of market success.

The fourth consumer market function is creation of conditions for fair competition, when the rules of conduct do not depend on the weight of the purse and all sellers and customers are equal entities of relations. This means that social division of labour contributes to organization of exchange process in such a way that none of its participants feels unclaimed to any extent: i.e. in terms of spending main production factors or providing oneself with necessary reproduction conditions.

The fifth consumer market function is a compromise between economic interests of exchange processes’ participants and stimulation of their further activity due to matching of price equivalents and public costs estimates and activity results.

Each of the abovementioned functions contributes to consumer market development by changes in quality and quantity under the influence of external and internal economic environments. External economic environment of consumer market means relations in terms of maintenance of necessary production volumes for tangible and intangible values. Internal economic environment of consumer market means relations in terms of providing all the participants of exchange operations with necessary amounts of currency [1, p. 197]. Both external and internal environments are complementary elements and consumer market could not function without them and would turn into the lower level market of goods and services.

Nowadays consumer market becomes the most efficient sphere of goods exchange with all the innovations necessary for production to gain a new development impetus and for consumers – to get new living conditions.

The following are the aspects that disclose the nature of consumption as economic category, which characterizes a certain sphere of social reproduction: firstly, as specific sphere of social reproduction within which any product or service finishes its movement; secondly, as demand emergence stage, which leads to production of a particular good or service; thirdly, as specific process related to application of social production results for meeting own needs. Herewith, «the needs that gain

the form of demand at the market lie in the center of market relations» [8, p. 38] and this makes them the reason and guiding source of economic entity's conduct at the same time.

Meeting of needs is directly related to availability of certain amount of income, therefore the connection between the sources of income is equally important: whether they should be earned or their emergence could have another nature. In such a way the needs enter the competition at consumer market, which takes the form of incomes competition. The one with larger income wins. Moreover, the source of this income becomes insignificant as long as the money has legal nature. Here it is important to note that not all needs are realized in the form of demand, but only those provided with money and those meeting the primary needs, i.e. more important and significant for consumer. All this testifies to the fact that differences between demand and supply constantly exist and the nature of their display is considerably stable.

Income competition makes all consumer market participants to aspire to define certain level of life, on the basis of which its functioning results can be evaluated. Personal needs are one of such socio-economic categories, i.e. the level of material, spiritual and social values consumption and level of rational needs satisfaction. "... concrete interrelation between nominal income in monetary form and value (price) of good or service ... as purchase power of monetary income" is the direct display of human needs [2, p. 74].

In the examined economic environment, when we can speak about market economy, demand category represents not the needs for particular product at adequate price, but opportunity to choose it. If there is no such opportunity, consumers are interested not in the good at adequate price, but the good in general. Therefore, this situation can be characterized as factor of absolute demand emergence rather than solvent one, because main feature is not the opportunity to buy a good, but the level of its purchase desire realization. The amount of goods purchased at supply price rather than the price acceptable for a customer is the dominant of individual demand. This contributes to meeting not only the needs expressed through demand but rather the needs that cannot be realized through demand as far as they are economically forced.

Under this situation the relations between seller and customer receive the form of undefined demand phenomenon. It stipulates that the demand for some good does not reduce even if the prices grow: the constant need to increase the number of economic entities, which maintain saturation of consumer market with this type of products.

It is known that supply as economic category is the set of goods with known prices that can be provided for selling in order to obtain income. The fact that transportation companies and sellers rather than producers are the sources of goods is the methodological feature of supply's influence on the situation under the conditions of economic relations development. Expenses that emerge in the process of goods transition into certain economic system impact the price of goods realization. However, the supply entity often has to suffer some financial losses in terms of receiving desired income in order to secure reduction of products' reserves as soon as possible.

There are two ways to achieve this: either the price of suggested product falls (as much as the flexibility of expenses and income allows), or the product is supplied with the quality characteristics reduced in advance. On this basis it is obvious that the volume of each entity's demand changes depending not on the price but on the amount of money for use. Thus, if the monetary supply allows particular entity to supply lesser amount of goods to market but with better quality and, naturally, at higher prices or larger amount of goods but with worse quality characteristics and at lower prices, the latter chooses the second option, because the demand for its products is the function of the amount of money that can be provided by a customer in order to purchase the necessary goods. In this case a certain correlation between the price and the amount of suggested goods is formed.

Consumers' income is the most important factor in this situation, when the deficit of monetary funds leads to unstable demand. As far as combination of consumer's goal and factors of restriction and selection are the economic basis of consumer demand, possibilities to consume certain product are limited by consumer's solvency. Due to this in such economic system the volume of demand is expressed not by the number of goods in demand at certain price, but by the number of goods proposed by supply entity according to its financial capacities. In such case the consumer's goal lies in minimally possible satisfaction of needs; and lack of money for customer and inflated product price are the restriction factors.

In other words, a consumer is constantly in the standby regime: on one hand the possibility to increase income (reduce the period of debt repayment expectation), and on the other hand – reduction of goods supply (due to unclaimed goods and limited sellers' monetary resources).

Stability of production process and its prevailing role in maintenance of the whole social reproduction is the defining principle of the basis of all

economic connections. At the same time it is necessary to take into account existence of problems, in particular those related to the conditions of production sphere functioning under the conditions of the deficit of its factors: material and financial resources, workforce, etc.

Therefore, it is necessary to combine individual elements of the following systems in order to develop the stable economic system:

– production system that functions on the basis of planning and deficit rule;

– material values consumption system, which develops on the basis of undefined demand and deficit supply and demand phenomena;

– «transition period or cycle» system able to reproduce itself;

– bureaucratic interference system.

Economic activities directed at development of economic relations in market environment are necessary in order to combine all the abovementioned systems into single economic system, no matter if it is production, exchange, distribution or consumption.

## References

1. Azaryan, Ye. M. (2002) *Consumer market: formation and development*. Donetsk: Institute of the economy of industry of the NAS of Ukraine.
2. Zubko N. M. (1999) *Economic theory*. Minsk. NTC "API".
3. Radionova L. (2014) *Directions of economic theory development in the beginning of XXI century*. Bulletin TNEU. No. 2, pp. 159-170.
4. Hudokormov A. (2012) *Development of economic thoughts through its recurrent crises (regarding general principle of global economic theory evolution in XX century)*. Moscow. Institute of Economics.
5. Stiglitz J. (2001) *Steep dive. America and new order after global crisis*. Moscow. EKSMO.
6. Kolodko Hzh. (2010) *From liberalism ideology to new pragmatism*. Economy of Ukraine. No. 9, pp. 4-11.
7. Chuhno A.A., Yuhymenko P. I., Leonenko P. M. (2007) *Modern economic theories*. Kiev. Znannya.
8. Hubernaya H. K. (1995) *Market: new management consitions*. Institute of the economy of industry of the NAS of Ukraine
9. Andriychuk V. H. (1995) *Consumer goods market, the main directions and priorities of forming (internal and external aspects)*. Kyiv. Academy of Foreign Trade.
10. Popadynets N. M. (2017) *Regional consumer goods market: nature and fundamental basics of functioning*. Regional Economy. No. 1 (83), pp. 17-22.

## Chapter 3

# THE CONJUNCTURE OF THE MODERN WORLD FINANCE MARKET AND ITS DEVELOPMENT

### Kondius Inna

*PhD in Economics, Associate Professor*

### Kupyra Myroslava

*Postgraduate, Assistant,*

*Chair of Finance*

*Lutsk National Technical University*

*(Lutsk, Ukraine)*

### METHODS OF COMPETITIVENESS ASSESSMENT OF UKRAINIAN FINANCIAL MARKET

Experts of the World Economic Forum proved low level of not only the reliability of the banking sector of Ukraine, but also its long-term integral part, as it is noted in the Global Competitiveness Report of Ukraine. The above-mentioned report is a portrait of the state of the economic and business environment of the country and demonstrates its ability to achieve a sustainable level of prosperity and growth. In 2017 under the Global Competitiveness Index Ukraine got 85<sup>th</sup> place among 138 countries, which participated in the evaluation, received 4.0 points out of 7 possible [1], which is in 1 point of relatively similar values lower than in 2014 and in 6 points lower than in the previous year, when the value of the analyzed index was 79<sup>th</sup> among 139 countries [2].

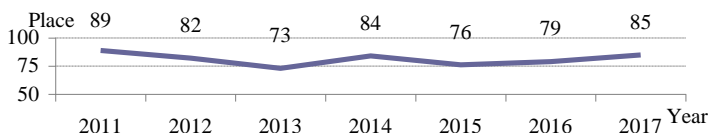


Figure 3.1. Dynamics of Ukraine's position alteration under the Global Competitiveness Index ranking

The state economy shows a significant gap in accordance with the world average index and much more gap in terms of the innovative economies indexes. Thus, one of the most crucial conditions for improving the competitiveness of the national economy is a reforming

of the financial and banking sector, whereas an indicator of the financial market development is one of the lowest indexes. The last one is rather low and our country has only 130<sup>th</sup> place in 2017, which is in 17 points lower than in the previous year.

The index of reliability and confidence of banks is of a particular interest. According with it, Ukraine has 137<sup>th</sup> place in the ranking (2.1 points), which is in 17 points lower than in 2016. There were quite low indexes in the ease of access to credit, availability of financial services, access to financial services, venture capital availability (fig. 3.2), this specifies the low prospects of Ukrainian banking system, and competitiveness.

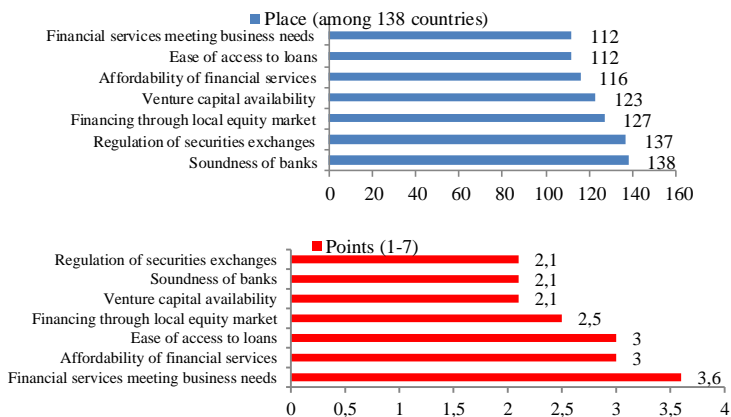


Figure 3.2. Ukraine Rating in 2017 under the index of “Financial Market Development” GCI

The financial and economic crisis has shown the importance of well-developed and well-functioning financial sector in the economy. Developed financial sector, foremost, directs resources for the implementation of the most profitable business or investment projects. So, effective financial sector gives a possibility to allocate resources, which are saved by citizens or invested by other countries, in the areas where these resources are the most productive. Thus, the economy needs a financial sector that provides capital asset for the investment financing of the private sector through the loans from reliable banks, developed stock market, venture capital and other financial instruments.

Moreover, among the 16 items of competitive advantages of Ukrainian economy there is no one that would concern banking sector.



And the first among the most problematic factors for doing business is banks' capacity and the stock markets' regulation. Factor of "regulation of stock market" is also referred to the list of topical issues.

The above-mentioned factors indicate the need for solution of significant problems in the sphere of financial market development and, in particular, improvement of the efficiency of the banking sector.

Thus, an efficient banking system is possible only with a high level of reliability and prospects. Furthermore, the first step towards the improving of the competitiveness of Ukrainian financial market is the development of an adequate methodology for assessing and predicting the relative level of effectiveness of the state banking system and identification of threats.

For a quantitative evaluation of the competitiveness level of financial market, it is necessary to develop indicators – effectiveness indexes in terms of subject of research. In such a case, the assessment of the effectiveness level of the system is reduced to the problem of the numeral values of the reliability and viability of the system and comparison of the found values which are called boundary at which the effects from possible losses of working capacity of systemic elements are minimal.

The determination of the actual indexes allow to study and analyze the principles of change of financial market's efficiency in the course of time, to find ways to use these principles to ensure minimum loss of time and money to maintain efficiency of the banking system in terms of what is actually formed, and to apply these methods in strategic plans' development.

Reliability analysis of the banking system, as a measure of competitiveness, aims to identify ways to provide effective long-term functioning of the banking system and its components at the lowest possible cost of time, labor and funds for their renewal; providing customers and contractors with adequate prediction in terms of probability of the effective long-term operation of the system; providing banking institution regulation and supervision of the theoretical and practical basis for creating secure conditions for the effective functioning of the banking sector.

Accordingly, the main issue of the theory of the financial market's efficiency, its theoretical developments and practical recommendations, is predicting behavior system and its elements for some particular time, finding ways to ensure their effective functioning and support the required level of reliability and perspective.

In general case, the financial market efficiency is the optimal allocation of scarce resources by economic subjects in achieving a given level of production of goods and/or services. Taking into consideration the financial institutions, you will notice that the efficiency can be viewed in different aspects: as efficiency concerning cost, efficiency concerning incomes and efficiency concerning profits.

Research of the banking efficiency attracts many national and foreign researchers and practitioners. There are lots of works of Ukrainian and Russian scientists which are devoted to the question of determination of the effectiveness of general economic concepts and financial market efficiency: O. Vovchak [3], D. A. Kruglov [4], M. M. Kuzmin [4], Yu. Matsiv [3], S.R. Moyiseyev [4], A. Pilyavskyy [3], V.R. Sargsyan [5], K.V. Tolchyn [6], T. Homa [3]. Works of foreign scientists can be divided into two groups, namely, the theory and methods for evaluating the effectiveness and practical use of methods to assess the effectiveness of the financial institutions. The first group should include the following works C.Weiner [7], S. Grosskopf [8], Z. Zhang [9], WilliamW. Cooper [10, 12], E. Rhodes [10**Ошибка! Источник ссылки не найден.**], B. Park [7], L. Simar [10], M. Farrell [11], A. Charnes [10, 12]. Among the authors of the second group is worth noting: A. N. Berger [13], A. Bhattacharya [14], R. DeYoung [13], R. F. Eisenbeis [15], E. Elyasiani [16], G. D. Ferrier [15], F. Forsund [17**Ошибка! Источник ссылки не найден.**], D.V.Humphrey [13], W. Hunter [18, 19], S. H. Kwan [15], L. J. Mester [20], S. G. Timme [18, 19].

Scientific results in the general theory of the effectiveness, recommendations in terms of assessment methods are quite large, but the problem of determination of the effectiveness of specific banking operations remain under-developed in theoretical, methodological and practical aspects. One of the major unsolved problems is the choice of method for the assessment of the effectiveness of the financial institution that gives a possibility to receive adequate results.

The choice of methods for banking effectiveness assessment, primarily, depends on its purpose. Each method has its advantages and disadvantages, which determine the acceptability or unacceptability of its use in specific conditions to achieve certain goals:

- financial coefficient approach that includes traditional calculation indexes – indexes of effectiveness and performance calculation indexes;
- expert methods based on the judgmental estimation of the

specialists of particular direction;

– parametric techniques based on econometric analysis also require the determination of functional form of the bank production function or expenditure, profits, income functions;

– nonparametric methods use mathematical programming and do not require the determination of functional form of production exposures.

The main stages of assessment of the financial market effectiveness:

1) Definition of set of characteristics  $x_h = (x_{h,1}, \dots, x_{h,m_h})$  that are the most informative in assessing the effectiveness of  $q$  subject of research  $G(q)$  on the grounds of feature  $h, h = 1, \dots, H$ .

2) On the basis of all the available information, ordinate vector of original values  $x_h^{(q)} = (x_{h,1}^{(q)}, \dots, x_{h,m_h}^{(q)})$  of each subject of research  $q$  from all the object multitude  $Q$ , that is regarded, taking into account all features  $h, h = 1, \dots, H$ . Whereas the indexes  $x_i$  can have different units of measure and different degrees of informativity.

3) For each input feature there are set acceptable thresholds, i.e. intervals  $x_{h,i}^H, x_{h,i}^E, h = 1, \dots, H, i = 1, \dots, m_h$ , within which their values must be mentioned and additional conditions in terms of set characteristics value must be specified. Experts considered the implementation of additional conditions as a positive sign of the functioning and development of the subject of the research.

In the case of fulfillment of all conditions of the initial characteristics value, it is considered as a positive sign of functioning and development of the subject of the research.

Taking into account the uncertainty, incompleteness and inaccuracy of the information, in order to reduce errors that can occur when putting scores, assessment of baseline characteristics  $z_{h,i} = \psi(x_{h,i})$ ,  $h, h = 1, \dots, H, i = 1, \dots, m_h$ ,  $h, h = 1, \dots, H$ , it is offered to assess on a binary scale. In other words  $z_{h,i}^{(q)} = 1$ , if the value of  $i$  characteristic of  $q$  object on the basis of  $h$   $x_{h,i}^{(q)}$  falls within the boundaries of permissible values

and performed all set additional conditions  $z_i^{(q)} = 0$  if not. Thus, the characteristics which were rated as “1”, indicating on the positive aspects of the banking system effectiveness and those that received “0” - negative aspects.

4) Making a priori classification from the whole selection of the subjects of research  $Q$  into two groups - those objects that function

“effectively”  $G_h^{Eff,eksp}$  are based on  $h, h = 1, \dots, H$ , and those that are “ineffective” function as  $G_h^{NEff,eksp}$  and are based on  $h, h = 1, \dots, H$ . Of course, the assessment of efficiency  $G_h^{eksp}$  can be carried out only by experts and should not be completely accurate but it should be adjusted to reality.

The general pattern of expert judgment includes the following fundamental steps:

- selection of experts and the formation of expert groups;
- formation of issues and questionnaire constructions;
- formation of rules of the evaluation based on the individual experts conclusions;
- analysis and processing of expert judgments.

There are special features of the expert judgments’ methods and models of their implementation as scientific tools for solving complex problems. These are: scientifically based organization of all stages of expert operation, ensuring the effectiveness of each of them, and the use of quantitative methods in the expert operation organization and in the assessment of experts’ findings under the formalized process of the results of their judgments.

With this objective in view, judgments matrix of each  $S$  expert is formed,  $s=1, \dots, S$ , by pairwise equation of the effectiveness of  $q$  subject of research on grounds of its defined characteristics  $h, h=1, \dots, H$ . Thus, in the initial stage matrix is formed. It has a dimension  $Q*Q$  of pairwise equation of each expert  $X_s^h = \{x_{ij}^h\}_s$  objects  $A_q, q=1, \dots, Q$  by the following rule  $x_{ij}^{h,s} = 1$ : if in the opinion of  $S$  expert subject  $A_i$  is better than  $A_j$  on the grounds of  $h, x_{ij}^{h,s} = 0,5$ , if they are equivalent and 0 otherwise, i.e.

$$x_{ij}^{h,s} = \begin{cases} 0, & A_i^h \prec A_j^h \\ 0,5, & A_i^h \cong A_j^h \\ 1, & A_i^h \succ A_j^h \end{cases} \quad (3.1)$$

Taking into consideration that all the features are equivalent, matrix of  $X_s$  of pairwise equation of subjects  $A_q$  on the grounds of each  $S$  experts

$$X_s = \{x_{ij}^s\}, x_{ij}^s = \sum_{h=1}^H x_{ij}^{h,s}, s = 1, \dots, S \quad (3.1)$$

by the results of which vector of rank advantages of subject of

research of each S expert (3.3) is formed.

$$Xb_s = \{x_i^s\}, x_i^s = \sum_{j=1}^Q x_{ij}^s, i = 1, \dots, Q, s = 1, \dots, S \quad (3.2)$$

As far as the views of various experts regarding levels of efficiency of research objects are different, so before finding a common assessment of the efficiency it is necessary to check the consistency of expert judgments, which can be conducted with the help of concordance factor  $W$  [21, 22, 23, 24]

$$W = \frac{12\sigma}{S^2(Q^3 - Q)} \quad (3.4)$$

where  $\sigma = \sum_{q=1}^Q \left( \sum_{s=1}^S x_i^s - \frac{1}{2}S(Q+1) \right)^2$  - the sum of squares of deviations of

all ranks estimation of each subject of the mean from the average value;

$S$  - the number of experts conducting the assessment;

$Q$  - the number of subjects of research.

As far as some experts can not set the rank difference between the subjects of research and provide the same rank, the concordance coefficient calculation in this case is the following

$$W = \frac{\sigma}{\frac{1}{12}S^2(Q^3 - Q) - S \sum_{s=1}^S T_s} \quad (3.5)$$

$$T_j = \frac{1}{12} \sum_{t_j} (t_j^3 - t_j) \quad (3.6)$$

where

and  $t_j$  - the number of the same rank in  $j$  row.

Concordance coefficient, calculated by the formula 3.4 or 3.5, is the estimation of true value, is a random variable, so it is needed to be verified. Since the number of subjects of research is  $Q > 7$  usually, the importance of coefficient evaluation concordance that takes values in the range  $0 \leq W \leq 1$  (0 - complete lack of coordination, 1 - the same assessment of all experts) is checked using a criterion  $\chi^2$  [21, 22, 23, 24]. Whereas, the value

$$\chi^2 = WS(Q - 1) \quad (3.7)$$

has  $\chi^2$ -distribution with  $\nu = Q - 1$  degrees of freedom

However, this method, in case of some inconsistencies in the expert judgments, gives possibility to get a numeric value of complex latent index that may be used in the construction of extrapolation functions on

the basis of statistical information of the object.

5) Weighing coefficients of model  $d_{h,i}, b_{h,i}$ ,  $h=1, \dots, H$ ,  $i=1, \dots, m_h$ , are estimated. They depend on thresholds of output characteristics, defined by experts. Weighing coefficient of certain characteristic  $x_{h,i}$ ,  $h=1, \dots, H$ ,  $i=1, \dots, m_h$  is clearly expressed in the probability of hitting for the effective and ineffective system in terms of limit values. With the aim of further determination of these probabilities the following indicators are calculated:

$$D_{h,i} = \sum_{q=1}^Q \left\{ \mathbf{1} : G_h^{(q)} = G_h^{Eff, eksp} \right\} - \text{the number of subjects of research,}$$

described by experts as effectively acting on the basis of  $h$ ;

$$B_{h,i} = \sum_{q=1}^Q \left\{ \mathbf{1} : G_h^{(q)} = G_h^{NEff, eksp} \right\} - \text{the number of subjects of research,}$$

characterized by experts as inefficiently operating on the basis  $h$ .

The next step is the selection of such subjects for which the characteristics are  $x_{h,i}$ , falls within the boundaries of acceptable range. Then the following marks are mentioned:

$$D_{h,i}^1 = \sum_{q=1}^Q \left\{ \mathbf{1} : G_h^{(q)} = G_h^{Eff, eksp} \cap z_{h,i} = 1 \right\} - \text{the number of subjects of}$$

research that on the grounds of  $i$  characteristic signs  $h$  are evaluated as  $z_{h,i}=1$ , the overall assessment on the basis of  $h$  is characterized by experts as operating effectively  $G_h^{Eff, eksp}$ ;

$$B_{h,i}^1 = \sum_{q=1}^Q \left\{ \mathbf{1} : G_h^{(q)} = G_h^{NEff, eksp} \cap z_{h,i} = 1 \right\} - \text{the number of subject of}$$

research that for the  $i$  characteristic signs  $h$  with the assessment  $z_{h,i}=1$ , is characterized by experts as operating inefficiently  $G_h^{NEff, eksp}$ .

In such a case the calculation of the probability of an event  $z_{h,i}=1$  for the “effective” and “ineffective” functioning of banking system is represented either as

$$d_{h,i} = \frac{D_{h,i}^1}{D_{h,i}}, b_{h,i} = \frac{B_{h,i}^1}{B_{h,i}} \quad (3.3)$$

The calculation of probabilities of effective functioning of subject of research on different grounds. The probability that the subject of research is effective on the basis of  $h$ , subject to availability of information about it  $z_h$ , can be determined by Bayes formula:

$$P_h(z_h) = \frac{1}{1 + \frac{P_{h,B}}{P_{h,D}} \cdot \frac{P\{z_h | G_h^{NEff}\}}{P\{z_h | G_h^{Eff}\}}} \quad (3.4)$$

where  $P_{h,D}$  – the probability that an subject of research that is investigated, in case of lack of some information about it, on the basis of  $h$  feature is effective;

$P_{h,B}$  – the probability that the subject of research that is investigated, in case of lack of all information about it, on the basis of  $h$  feature is ineffective;

$P\{z_h | G_h^{Eff}\}$  – the probability that for a priori effective banking system on the basis of, the information  $z_h$  will be received;

$P\{z_h | G_h^{NEff}\}$  – the probability that for a priori inefficient banking system on the basis of  $h$ , the information  $z_h$  will be received.

$$\frac{P_B}{P_G} = \frac{n_2}{n_1} \quad (3.5)$$

In case of making assumptions about the independence of binary features, the product formula of probabilities can be used, followed by

$$\begin{aligned} \frac{P_{h,B}}{P_{h,D}} \cdot \frac{P\{z_h | G_h^{NEff}\}}{P\{z_h | G_h^{Eff}\}} &= \frac{P_{h,B}}{P_{h,D}} \cdot \frac{\prod_{i=1}^{m_h} P\{z_{h,i} | G_h^{NEff}\}}{\prod_{i=1}^{m_h} P\{z_{h,i} | G_h^{Eff}\}} = \frac{P_{h,B}}{P_{h,D}} \prod_{i=1}^{m_h} \frac{P\{z_{h,i} | G_h^{NEff}\}}{P\{z_{h,i} | G_h^{Eff}\}} = \quad (3.6) \\ &= \frac{P_{h,B}}{P_{h,D}} \prod_{i=1}^{m_h} \left( \frac{b_{h,i}}{d_{h,i}} \right)^{z_{h,i}} \left( \frac{1-b_{h,i}}{1-d_{h,i}} \right)^{1-z_{h,i}} \end{aligned}$$

where  $b_i$  – the probability of an event  $z_i = 1$  for “inefficient” functioning banking system and  $d_i$  – for “efficient”.

With the help of mathematical transformations of ratio 11, it can be reduced to the equivalent form:

$$\begin{aligned} \frac{P_{h,B}}{P_{h,D}} \cdot \frac{P\{z_h | G_h^{NEff}\}}{P\{z_h | G_h^{Eff}\}} &= \frac{P_{h,B}}{P_{h,D}} \prod_{i=1}^{m_h} \left( \frac{b_{h,i}}{d_{h,i}} \right)^{z_{h,i}} \left( \frac{1-b_{h,i}}{1-d_{h,i}} \right)^{1-z_{h,i}} = \quad (3.7) \\ &= \frac{P_{h,B}}{P_{h,D}} \prod_{i=1}^{m_h} \left( \frac{1-b_{h,i}}{1-d_{h,i}} \right) \left( \frac{b_{h,i}(1-d_{h,i})}{d_{h,i}(1-b_{h,i})} \right)^{z_{h,i}} = \\ &= \exp \left\{ \ln \left( \frac{P_{h,B}}{P_{h,D}} \right) + \sum_{i=1}^{m_h} \ln \left( \frac{1-b_{h,i}}{1-d_{h,i}} \right) + \sum_{i=1}^{m_h} z_{h,i} \cdot \ln \left( \frac{b_{h,i}(1-d_{h,i})}{d_{h,i}(1-b_{h,i})} \right) \right\} \end{aligned}$$

$$\text{so, } \frac{P_{h,B}}{P_{h,D}} \cdot \frac{P\{z_h | G_h^{NEff}\}}{P\{z_h | G_h^{Eff}\}} = \exp\{\lambda_{h,0} + L_h\} \quad h=1, \dots, H \quad (3.8)$$

where  $L_n$  is an integral factor (weighted sum) of binary characteristics  $z_h$

$$L_h = \sum_{i=1}^{m_h} \lambda_{h,i} z_{h,i} \quad (3.9)$$

$$\lambda_{h,i} = \ln \left( \frac{b_{h,i}(1-d_{h,i})}{d_{h,i}(1-b_{h,i})} \right), \quad (3.10)$$

$$\lambda_{h,0} = \ln \left( \frac{P_{h,B}}{P_{h,G}} \right) + \sum_{i=1}^{m_h} \ln \left( \frac{1-b_{h,i}}{1-d_{h,i}} \right) \quad h=1, \dots, H, \quad i=1, \dots, m_h \quad (3.11)$$

Then the formula 3.9 can be written as

$$p_h(z_h) = \frac{1}{1 + e^{\lambda_{h,0} + L_h}} \quad (3.17)$$

Thus, the determination of the efficiency of financial market, as it is shown in the great number of methodology, is associated with the expectation of certain integral index. However, the formula 3.14 allows conducting a transition to a qualitatively informative value, which makes it possible to compare the efficiency of the banking system in different periods or banking systems of different countries which do not allow conventional integrated indicators.

6) The calculation of probabilities of effective functioning of the subject of research in all its declared characteristics  $h, h=1, \dots, H$ .

In the final assessment of weighting coefficient,  $\omega_h, h=1, \dots, H$ , reflecting the importance of the each value impact  $p_h(z_h)$  on the resulting assessment  $p(z)$

$$p(z) = \prod_{h=1}^H (p_h(z_h))^{\omega_h} = \prod_{h=1}^H \left( \frac{1}{1 + e^{\lambda_{h,0} + L_h}} \right)^{\omega_h} = \frac{1}{\prod_{h=1}^H (1 + e^{\lambda_{h,0} + L_h})^{\omega_h}}, \quad \sum_{h=1}^H \omega_h = 1 \quad (3.12)$$

Suggested algorithm of analysis and effectiveness evaluation of the financial market as an indicator of competitiveness provide identifying ways to ensure effective long-term functioning of the banking system and its constituents at the lowest possible cost of time, labor and money.

Judging by the 25-year experience in the formation of the financial market of Ukraine, unfortunately, liquid, competitive, efficient and



transparent market could not be established. One of the main reasons is macroeconomic imbalances and lack of long-term strategy development of the financial market, as a constituent of the socio-economic strategy development of the state, and the inability to stabilize the social, political and economic situation in Ukraine. All that led to the formation of a narrow, functionally limited and illiquid market, which is dominated by bank operations and government securities transactions. Furthermore, preferably during the financial and economic crisis increasing bonds and uncontrolled bank refinancing fuel uncontrolled inflation, with most financial market participants experiencing significant losses, restrict their activities - all this leads to the inability to preserve and increase their savings, so current, insurance market and pension funds are significantly underdeveloped.

Other instruments (equity and debt corporate securities) are in the doldrums, which is connected with the lack of confidence in the quality of these instruments and issuers that expose investors to risk while buying. Furthermore, for the foreign investors there are no clear and transparent rules, legal protection, guarantees from the state and issuers; there are no organized system of relations with foreign investors; there are no regular investment presentations that contribute to the effective privatization, long-term cooperation, attracting the best international practices and improvement of national legislation in this area, getting cheaper and long-term foreign capital, attracting international companies to the national financial market. Therefore, it is necessary to form and gradually implement an institutional strategy to ensure macroeconomic stability. In the future it will contribute to the development of the financial market of Ukraine on the assumption of deregulation and introduction of the investors' protection system.

## References

1. *Rlaus Schwab, World Economic Forum. The Global Competitiveness Report 2016-2017.* – [http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitiveness Report 2016-2017\\_FINAL.pdf](http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf).
2. *Competitiveness of Ukraine: Evaluation of the World Economic Forum (on the Global Competitiveness Report 2010-2017): [electronic resource] / Department of Economic Analysis and Forecasting National Bank - Access mode: [www.bank.gov.ua](http://www.bank.gov.ua).*
3. *Pilyavskyy A., Vovchak O., Maciw Yu., Homa T., Pilyavskyy A. (2010) The efficiency of the banking system (2005-2009.). Frontal Analysis Methodology [Text]. Bulletin of the NBU. Vol 4, pp. 16-22.*

4. Moiseev S.R., Kruglov D.A., Kuzmin M.M (2007) *Efficiency of Russian banks [Text]: Analytical record. Center of economic research IFAS. Moscow, 19 p.*
5. Sarkisian V.R. (2009) *Essence and meaning of the term "efficiency of the commercial bank" [Text]. Coll. Science. Proceedings of the National University of the State Tax Service of Ukraine. Vol. 1, pp. 251-258.*
6. Tolchyn K.V. (2007) *On the estimation of the bank efficiency [text]. Money and credit. Vol. 9, pp. 58-62.*
7. Park B., Simar L., Weiner C. (1999) *The FDH estimator for productivity efficiency scores: Asymptotic Properties [Text]. Econometric Theory. Vol. 16, pp. 855-877.*
8. Grosskopf Shawna (1996) "Statistical inference and nonparametric efficiency: A selective survey", *The Journal of Productivity Analysis. Vol. 7, pp 161-176.*
9. Zhang Xiang-Sun, Jin-Chuan Cui (1999) "A project evaluation system in the state economic information system of China: An operations research practice in public sectors", *International Transactions in Operational Research. Vol. 6(5), pp 441-452.*
10. Charnes A., Cooper W., Rhodes E. (1978) *Measuring the efficiency of decision making units [Text]. European Journal of Operational Research. Vol. 2, pp. 429-444.*
11. Farrell M.J.(1957) *The measurement of productive efficiency [Text]. Journal of the Royal Statistical Society. Vol. 120, pp. 253-289.*
12. Charnes A., Cooper W., Lewin A., Seiford L. (1994) *Data envelopment analysis: Theory, methodology, and applications. [Text]. Boston. Kluwer Academic publisher, MA.*
13. Fare R., Grobkopf S., Lovell C. (1985) *The measurement of efficiency of production [Text]. Kluwer Academic Publishers. Boston.*
14. Bhattacharyya, Arunava, Knox Lovell, Pankaj Sahay (1997) *The impact of liberalization on the productive efficiency of Indian commercial banks [Text]. European Journal of Operational Research. Vol. 98 (2), pp 332-345.*
15. Eisenbei, R., Ferrier G., Kwan S. (1999) *The informativeness of stochastic frontier and programming frontier efficiency scores: Cost efficiency and other measures of bank holding company performance. Federal Reserve Bank of Atlanta Working Paper.*
16. Elyasiani E., Mehdian S., Rezvani R. (1994) *An empirical test of association between production and financial performance: The case of the commercial banking industry. Applied Financial Economics. Vol. 4, pp. 55-59.*
17. Forsund Finn R. (1999) "Effective dissemination of research",

*Presented at: 5<sup>th</sup> international conference of the Decision Sciences Institute [in Dissemination of Research in DEA and Ways of Improving Assessments of Efficiency], Athens, Greece, 7/4 to 7/7*

18. Hunter W. C., Timme S. G. (1986) "Technical change, organizational form, and the structure of bank productivity", *Journal of Money, Credit and Banking*. Vol. 18, pp. 152-166.
19. Hunter W.C., Timme S.G., Yang W.K. (1990) "An Examination of Cost Subadditivity and Multiproduct Production in Large U.S. Banks," *Journal of Money, Credit and Banking*. Vol. 22, pp. 504-525.
20. Mester L.J. (1993) *Efficiency in the savings and loan industry*, *Journal of Banking and Finance*. Vol. 17, pp. 267–286.
21. Kumar Sunil, Rachita Gulati (2010) *Measuring efficiency, effectiveness and performance of Indian public sector banks [Text]*. *International Journal of Productivity and Performance Management*. Vol. 59, No. 1, pp. 51-74.
22. Lim G. H., Randhawa D. S. (2005) *Competition, liberalization and efficiency: evidence from a two-stage banking model on banks in Hong Kong and Singapore [Text]*. *Managerial Finance*. Vol. 31, No. 1, pp. 52-77.
23. Lothgran M. *How to bootstrap DEA Estimators: a Monte Carlo comparison [Text]*. *Stockholm school of economics. Working paper series in economics and finance*. No. 223.
24. Mello E. G. P., Macedo P. B. R. *Total Factor Productivity Growth, Technical Progress, and Technical Efficiency Change in the Brazilian Industry in 1996-2000: A Firm-level DEA Approach*. – [www.anpec.org.br/encontro2003/artigos/D35.pdf](http://www.anpec.org.br/encontro2003/artigos/D35.pdf).

**Kurylo Volodymyr**

*Doctor of Juridical Science, Professor  
National University of Life and Environmental  
Sciences of Ukraine*

**Andrushchenko Liliia**

*PhD in Law, Associate Professor  
Kyiv Cooperative Institute of Business and Law  
(Kyiv, Ukraine)*

**ECONOMIC  
AND LEGAL  
DESCRIPTION  
OF THE  
INSURANCE  
MARKET IN  
UKRAINE**

The strategic end of the sustainable development of Ukraine is to improve the quality of life and living standards on the basis of the dynamic development of the economy and social sphere, preserving the reproducing potential of the country's natural complex. Creating a model of the social market economy in Ukraine allows for corresponding reforms in the economy, modernization of national financial institutes, and other changes caused by the strategic interest of the country and modern tendencies of its development under conditions of globalization.

The realization of Ukraine's economic potential is especially important for pursuing the long-term national strategy under new economic and financial conditions. These conditions are characterized by a manifold of risks, in particular, risks of natural and human-made catastrophes as well as risks typical for the economic and social life of the society and risks of political instability and terror threats, and other risks.

Insurance is an inherent function of a state, being a necessary condition for its development and stability, allows not only minimizing economic expenditures but in some case to save its statehood, economic sovereignty of the state. Any line of the state's activity (performing its inherent functions) is, first of all, arranged in a legal (legislative) form. Government control is legal control, carried out on the ground of legal norms, therefore, by regulating relations in the sphere of insurance with legal norms, a state ensures the strategic role of insurance in social states with developed economies, and this role consists of the following:

- to protect personal and property interests of citizens which is the most important element of the state social policy for addressing social problems in the society;
- to protect interests of legal entities and the state on the whole, guaranteeing restitution of their violated interests as a result of

unforeseen unfavourable events which can damage property interests;

- to relieve the budget from expenditures for compensating losses incurred in the result of an accident or human-made or natural catastrophes, which positively influences the state's financial activity;

- is an important element of the state's financial system, pulls away excessive money supply from turnover, creates the anti-inflationary effect, optimises formation of the state's balance of payments;

- to allow to accumulate moneyed resources in insurance funds – of the biggest stable sources of long-term investments into the state's economy.

Thus, insurance is evidently required for the functioning of economic entities as well as all the population and the state on the whole and determines its universal, public character under all economic formations of society. For this very reason, the state should not stay aside from insurance activity, connecting at the same time interests of insurance organizations, interests of the population, and that of the state's economy on the whole by passing laws and other regulatory legal acts in the sphere of financial activity.

In the conditions of the state's monopoly of insurance business in the Soviet period, the place of insurance in the centralised finance was undeniable. State insurance in the USSR was based on the principles of state monopoly, unified organizational and financial principles, and was regulated exceptionally by the norms of financial law. The state considered insurance as a financial instrument for mobilization of resources of enterprises, collective farms, and the population which allowed redistributing them in order to amplify the economy and the state's finances, in other words, it was considered to be a constituent part of the budget. It was convenient for the state's government institutions since with the help of the financial norms which regulated the activity in the sphere of insurance allowed to have at disposal a leverages of the distribution mechanism. As an integral part of Soviet finance, insurance was completely submitted to general tasks of distribution and use of the national income in favour of the development of production and satisfying demands of the socialist society [1, p. 72-73].

Ukraine's transition to market economy required reformation of the basic economic relations in the Ukrainian society: private property appeared, private independent economic entities, private entrepreneurship. Nowadays, in the conditions of market economy, the sphere of financial relations has expanded. Today, the science of finance ranks among finance, in a general sense, not only relations regarding accumulation and use of

monetary funds of the budget system, state non-budgetary funds, state insurance and funds of non-state insurance, credit organization, organization of production and non-production industry, funds of second financial markets, funds of international investment, and financial institutions. Therefore under conditions of market economy, quality changes happen to the role of the state in the regulation of mobilization, distribution, and use of centralized and decentralized funds of financial resources. The state as an administrative subject is to set up, formalized in legislation, general rules for the regulation of financial relations in progressive spheres of activity, including insurance, employ new approaches in public-law regulation of financial relations for the realization of their financial policy.

The insurance market has been established in Ukraine, based on the principles of entrepreneurship initiative and state control on the activity of insurance companies, with protection of the state's interests and insurers, which are formalized in norms of financial law, being at the very core of it. Regulation of the insurance market with norms of financial law is objectively caused not only by a public character of insurance protection but their influence on money flows, which are redistributed through the insurance system and in this regard determine the role and place of insurance companies in the state's economy. At the same time, movement of financial resources of insurance companies should be considered as inner financial flows of the state, which carry out and stabilize the function of further development of the state's economy. An effectively functioning insurance market is one of the leverages for stabilizing of money flow in the state, which is an additional argument for the necessity of financial and legal influence on its functioning.

The building of a national insurance system, development of an insurance market, and development of legal bases happen when the system for state insurance completely modernizes, including public-legal regulation of the participation of foreign insurance companies in providing insurance services to national consumers. Moreover, all changes in public relations in the sphere of insurance happen under conditions of globalization which affect all countries without exception, our country being no exception. Therefore it is impossible to form and realise an efficient development strategy for insurance development not taking into account priorities and norms of conduct of major participants of world economic activity. Thereby, the magnitude of theoretical comprehension of financial and legal regulation of social relations in the sphere of insurance taking into account integration processes in the world economic system becomes actual [2, p. 97-98].

The reforms of social insurance in the end of the 1990s stimulated the appearance of new financial relations in the state and in the sphere of compulsory state and social insurance. In order to implement social insurance: financial resources were mobilized in the established social state non-budgetary funds: the Pension Fund of Ukraine, the Short-Term Disability Insurance Fund of Ukraine, the Unemployment Trust Fund of Ukraine, the Fund for Social Insurance from Industrial Accidents and Diseases, the Deposit Insurance Fund.

The main indication of the development of world economy during last years is globalization. Globalization of insurance relations is the process of disappearance of legal and economic barriers between national insurance markets which happens under the influence of changes in the world economy and its aim is to create a global insurance environment.

Under the conditions of globalization of the world economy and aggravation of competition, the role of insurance is steadily growing. Thus, the part of the insurance sector in GDP of developed countries is more than 10%.

Globalization of the insurance market happens under the conditions of the following development trends:

- aggravation of competition between the biggest transnational insurers;
- capitalization and concentration of insurance capital, the formation of strategic alliances of insurance and reinsurance companies, consolidation of small and medium insurers in order to create international insurance companies;
- The appearance of a new type of insurance and reinsurance;
- use of modern innovative technologies in the activity of insurers and insurance brokers;
- merging of insurance, banking, and financial capitals;
- creation of a unified and standardized international insurance legislation on the basis chief principles of the International Association of Insurance Supervisors, the recommendatory requirements of Solvency II, and the provisions of International Financial Reporting Standards;
- use of the capital market instruments as a new hedging device of insurance risks;
- adaptation of national insurance markets to the specificity of international trade of insurance services.

The today's development state of the insurance marker in industrially

developed countries of the EU is characterized by the amplification of the trends of monopolization and concentration of capital in insurance. This trend manifests itself in four ways:

- horizontal integration – concentration of a greater amount of insurance premium and insurance services in a small number of large insurance companies;
- vertical integration – entering of insurance companies in other spheres having to do with insurance (banking, exchange activities);
- establishing transnational insurance companies has received widespread yet, but this phenomenon exists and have a tendency to development;
- diversification – expansion on the sphere of investment activity to branches which are not connected with insurance. Thus, small insurance companies try to survive under the conditions of aggravated competition and acquire an additional and more steady source of income required to cover expenditures for insurance that are increasing.

The new role of insurance companies consists in their carrying out of specialized functional of credit institutions – crediting certain spheres and branches of economic activity. Insurance companies hold leading positions, after commercial banks, in terms of the size of assets and possibilities of their use as credit capital. The nature of resources, accumulated by insurers, allows using them as long-term productive investments, for instance, through the securities market. For this reason, insurance companies dominate at the free capital market.

The financial crisis that engulfed a vast majority of countries was the reason for a long stage of overcoming of financial and economic problems which happened in national economies. Prospects of the further development of the international insurance market are caused not only by overcoming of the volatile situation in the economy but by addressing problems which have accumulated during the whole period of its formation.

Crisis and post-crisis stages of the development of the international insurance market is characterized by a decrease in development rates of national insurance markets, decrease of world insurance premiums for life insurance and for risk insurance, reduction of profitability of insurance companies, decrease of financial solvency and stability of insurers, insurers lost a possibility to pursue a reliable investment policy. During the financial crisis, competition aggravated even more the possibility of quality choosing of attractive risks to the insurance portfolio. All this caused the formation of the imbalanced portfolio of



the insurer, gave rise to a number of possible dangers: decrease in financial solvency, impairing of the financial stability, the stability of the insurer to bankruptcy.

Thus, the development of the insurance market as of today may be defined as one of the first and foremost tasks of the economy of any country, since insurance is a powerful engine room of the country's investment potential, as a mechanism for dressing major social and economic problems [3].

From the perspective of the national economy, the importance of insurance is based on the facts that done damage is of concern to the person who suffered a loss, but to many other physical and legal entities. The insurance system lower amount of expenses by creating conditions for a quick renewal of the volume of social production. Insurance insures the stability of markets a social stability in the state, therefore the analysis of the principal directions of insurance is relevant.

Besides, by creating corresponding reserves and investing them into stable spheres, they amplify the country's financial system on the whole. Taking into account the increasing role of insurance in the world economy, it is important to analyse the development stages of the insurance market in order to forecast trends and ways of further development of the national insurance market.

In the XXI century, insurance played one of the key roles in the national economy of all the countries with developed economies. One cannot overestimate the role of insurance in the support of the social and economic welfare and stability. One also should bear in mind another equally important function of insurance in the country's economy. Insurance business can be a powerful mechanism that ensures a high level of capital accumulation and is a substantial source of investments to the country's economy.

In the 1980s and 1990s in the developed countries, the role of shareholders in the management of companies increased. The need for additional capitals and the increasing role of financial markets resulted in the economic activity being largely depended on shareholders' interests – those who provide the business with financial resources. Companies need to be aimed at their owners' interest, and they are, first of all, interested in stability and profitability.

The company's activity is prone to the influence of a vast number of external factors which substantially affect its results. The company's top management should be aware of the risk they face and possible case scenarios. Taking into account that the stability and financial firmness in the

company's activity is one of its top-priority directions, risk management is gaining importance in the company's management. On the one hand, the insurance company is an economic entity that management risk in the national economy. On the other hand, the insurer needs to manage its own risks that are inherent to him as an economic entity. Such management is required to ensure the financial stability of the insurer.

The world insurance market is considered from the perspective of national economies. Thus, on the basis of analysis of the main trends that determines the development of the insurance market in the world – that is the increase catastrophic losses considering the increase in urbanization and active changes in the environment.

Urbanization and the increased prices for industrial equipment are making a possibility of losses greater and the cost of catastrophic outcomes of natural disasters.

The development of modern technologies in the sphere of telecommunication, primarily the Internet, influences substantially the development of the world insurance market by providing, on the one hand, immediate access to the customer, on the other hand, by creating demand for special insurance services capable of compensating potential losses which can happen because of new risks: unauthorized access to information about credit cards of the insurer, piracy, and computer hacking, infecting computer with viruses.

An important trend of the insurance market development is an increase of a part of insurance in personal savings. Life insurance products are becoming more of a saving constituent. Insurance companies transfer a substantial amount of their investment income to assured. And thank to life insurance policies, they have started to compete with bank deposits and securities for personal savings. In many countries, pension reforms are being implemented aimed at an increase of the part of private pensions. At the same time, insurance companies also have access to the growing pension services market.

One should note another important trend of the national insurance market and the world insurance market on the whole – active penetrate onto markets of developing countries.

Since the 1990s, insurers have intensively increased their presence at these markets. The high potential for growth is one of the factors making foreign insurers to enter developing markets: in the 1990s, the rate of growth in these countries twice has exceeded that of developed countries.

By removing barriers regulating entering into markets is inherent to the process of globalization, consolidation of insurance markets as a result of

increased demands to capital and know-how, partial privatization of the social insurance system, and general economic growth will grant insurance new possibilities of vigorous activity. The experience of markets, which have started to become liberalized, shows that local players have a chance in a globalized world if they have sufficient capital and clear strategic foundation.

A rather important growth factor of insurance is a general economic situation of a country. The essence of insurance is to protect property interests. Two things are important: property interests should be determined, i.e. there should be: a) definitive institute for property rights and b) demand for insurance protection. If alternative ways of use of own resource are more profitable than insurance becomes less relevant.

At the same time, ranking agencies play a major role in the insurance sector of the developed countries. They provide customers with information about the financial stability of insurance companies, thus helping them to make a better choice, ranking agencies' influence being substantial. On the one hand, they compel insurance companies to adhere to certain standards in their activity, and, on the other hand, consumers of insurance products are ready to pay more for insurance policies of the highest rank.

Besides, the company's capital is the most important factor ensuring the firmness of the insurance company. Capital deficit and dispersion among a major number of companies now do not allow national insurers to insure national enterprises against major risks that in future can lead to Ukrainian companies being unable to compete with international players under the liberalized market. In this regard, insurers need to consolidate and attract foreign investors. However, insurance companies need stability and financial transparency to attract them. In order to achieve this it is necessary to switch over the international accounting principles and give more attention of financial analysis of their activity.

The Government should play a chief role in addressing of this issue. The growth of the insurance market's capitalization can cause an increase in the amount of minimal capital. One should substantially increase the amount of minimal ownership capital, and this, in its turn, accelerates the concentration of financial resources. However, under this demands, the substantial amount of existing national insurers will cease their activity or will be compelled to consolidate. Such understanding for an authorized body at the insurance market allows to understand that the protection of small insurers is not required. Practically all around the world at a country's market large insurance companies function, their number rarely exceeding a hundred. But there are exceptions, for

instance, the Great Britain and USA. But the markets in these countries are that developed that there is simply a need to serve small social groups. At the same time, the same countries are amongst leaders at the insurance market in the USA, Europe, and Asia that confirms the trends to globalization of the world insurance market. The reinsurance system plays a major role that ensures the movement of capital between companies and regions. Thus, our country should establish several powerful companies with enough capital to create a functional internal market, able to compete with foreign insurers.

In its turn, the state can increase investment attractiveness for insurers. To this end, one needs to adjust accounting rules for insurance companies and harmonize it with the world practice.

Along with that, the growth of capital will facilitate addressing of insurers' problems – absence of modern technologies. To create statistical databases, introduce automation of business processes, resources are required, which insurance companies now lack.

The vast majority of analysts and experts of this sphere reckon that the business in question should remain under control of national companies. The state also needs to organize control of this insurance sector that differs from life insurance. Insurers need to accumulate their own capital, introduce new technologies in the management of the company, improve data harvesting and statistical data analysis, develop new products, develop concurrent directions, i.e. legal help, after sale services, without this it will be difficult to compete with foreign insurers.

The amount of gathered insurance premium is the most important criterion for the insurance market's development. Obviously, the insurance market's development in some regions is inextricably connected with the region's welfare. When it comes to life insurance, gathering of almost all premium is evenly distributed between three the most economically developed regions – South America, Western Europe, and Asia. The market segment for the rest of countries is less than 5%. In insurance that is different from life insurance, a half of world gatherings from premiums falls on South America, a third on Western Europe, and the rest on Asia.

The insurance sector of the economy services the functioning of other sectors as well as ensures the social stability. Insurance, as a typical segment of service industry, start to develop only after the development of the real sectors of economy – the better they are developed, the more resources move into service industry and into insurance in particular. Thus, in economically developed countries 9%

of GDP falls on the part of insurance, in developing ones – 4%. At the same time, the greater the income per capita is, the more insurance premiums per capita there is. Thus, in economically developed countries compared to developing ones 50 times more insurance premiums fall on a person [4, p. 6-7].

Accumulated through the insurance market funds is one of the primary sources of attracting large investments to national economies. It should be noted that at the international insurance market developed countries of South America, Western Europe, and Japan, but usually countries of Asia, Latin American, and some countries with transitional economies of Central and East Europe demonstrate the highest growth rate of insurance. Unevenness of the development of the insurance sector in different regions of the world may be explained with several factors: economic and culture-historical conditions, peculiarities of demographic and social indices, and national legislative, tax systems, etc. An important factor influencing the development of the insurance market in some countries is the role of a state. Statistical analysis of the international insurance market shows that life and personal health insurance has a dominant part in its general structure. In the vast majority of countries, there is usually compulsory insurance for owners of sources of enhanced danger and professional responsibility of some categories of specialists, the practice of their carrying out should be taken into account when introducing corresponding types of insurance in Ukraine. Analytical research of the system for legal support and practice of state regulation of insurance activity in the EU countries allows one to say that said countries have unified methods and forms of state regulation of insurance activity established by the EU directives concerning insurance. Integration of Ukraine into the modern European economic and legal environment provides for the adaptation and harmonization of the national legislation with norms and standards of the EU legal system, development of insurance services, facilitation of economic activity for all market actors, expanding the legal framework, applying methods for influence of the state on the insurance market that comply with the European standards [5].

Coming of foreign countries is eligible for the development of the national insurance sector. Gained experience and major capital of foreign insurers provide dynamism in the development of the insurance market and, therefore, economy on the whole. But one of the deciding factors of success of the national economy is the professional approach to regulation of insurance. There should be a legislatively regularized

part of risks, collected in the insurance portfolio, which may be transferred for reinsurance abroad. At the same time, in terms of legislation, it is advisable to introduce a system for control of financial firmness of insurers.

Under the nowadays conditions, national insurance markets are on the stage of the so-called hard market which a decrease of incomes and an increase in competition are inherent. That is caused by large insurance compensation in the recent years and the decrease of profitability of securities, insurance reserves that are the chief direction of investment. This brings one to a conclusion that the more assiduous control of financial firmness and solvency of insurers are required. There are two categories of financial firmness factors: internal factors and external ones. Internal factors are controlled management of a company and external ones are consists of uncontrolled and partially controlled.

One of the first companies to suffer from the decrease in the world's economy is insurers, their product usually being not an essential commodity. Besides typical risks for insurers, they have a number of specific risks, management of which is also required.

Risk management is an essential part of the control process aim to the determination, generalization, and management of risks. Transnational insurers require this activity to determine the amount of capital for different units of the association.

Taking into account our states strive for Euro integration as well as its entering of international financial market –some should be said about currency risks.

To some extent insurance of currency risks shares common features with insurance of market risks. But it is caused by specific conditions of foreign economic contracts. Ukrainian insurers should be first of all concerned with the protection of national exporters, importers, and other participants of it.

Insurance of currency risks is required first of all to competence for possible losses:

firstly, having to do with the production of export products if foreign importer refuses to pay for it for some reason;

secondly, a loss for nonpayment for delivered goods, done work and provided services if the financial situation aggravates or bankruptcy of a foreign partner. Insurance and losses caused by political instability in the country of the importer;

thirdly, losses can be caused by the exchange rate fluctuation should

be insured for the period of contract validity until it expires which negatively influences the purchasing power of the invoicing currency.

It should be noted that in the first example the mentioned losses are the losses of national exporters. In the last example, the losses can concern exporters as well as foreign buyers.

The former suffer losses when the invoicing currency rate goes down, the latter when it grows.

Insurance of investors' interests (investments insurance) in the case of prohibition of expatriation of profits received from the investment, and other violations of rights of a foreign investor as a result of decisions of legislative and executive government bodies, the political situation is becoming more and more important. In the modern conditions, such insurance is more relevant for attracting funds of foreign investors to Ukraine but it cannot be ignored and national entrepreneurs investing money abroad [6].

For companies, successful control of risks means an increase in their worth. Management is carried out by means of distribution of resource of capital taking into account risks as well as by means of activity aimed at the achievement of dynamic growth. Shareholders of the company, represented by the executive board, determine objectives of management activity taking into account indices of shares profitability and risk criteria. Such objectives are achieved by the main office of major insurance association as well as by operational units at the local level. The strategy control means to manage the risk at the level of local units working within legislation applicable on their territories. This decentralized approach is carried out on the basis of centralized responsibility. This is necessary since one deals with lots of global risks which can substantially increase potential risks. Thus, we need centralized control.

The chief issues of this worldwide insurance market are:

- internationalization of insurance business;
- the appearance of considerable insurance consortia;
- the growth of investment in securities;
- the increasing level of demand from customers;
- incessant financial fraud in insurance;
- drastic changes of the political and economic situation in many countries;
- unbalanced age structure of insurers' staff;
- mass appearance of new information technologies;
- need to ensure personal security of the insurance company's

staff;

Change in the social sphere influence substantially the development of insurance causing an increase in customer's demands. High standards of living in developed countries from increased demands to insurance services. Clients of insurance companies of these countries are prone to unconditionally accept what insurance companies offer them which have to study the market to make their services meet customer demands.

The sci-tech revolution has fundamentally changed the work of the insurer. Computer automation of gathering and processing of insurance information has substantially increased work productivity, reliability, promptness in decision making, and work efficiency of insurance companies on the whole, and decreased the level of inner-company expenditures of insurers.

New information technologies facilitated the introduction of credit cards into insurance services. The competition between insurance companies and commercial markets for the free capital market, that the population has, is aggravating. Commercial banks are actively becoming embedded into insurance business by establishing alliances (in particular, life insurance bringing large amounts of profit to banks and having to do with little and substantially forecast risk).

The following types of diversification are inherent for the industrially developed EU countries:

- insurance companies become a part of some concern;
- insurance companies begin to own enterprises that are engaged in other branches of material production or invest capital in these branches by buying shares of these enterprises;
- insurance companies establish affiliated companies in the finance and credit sphere.

The new role of insurance companies consists in their carrying out of specialized functional of credit institutions – crediting certain spheres and branches of economic activity. Insurance companies hold leading positions, after commercial banks, in terms of the size of assets and possibilities of their use as credit capital.

The nature of resources, accumulated by insurers, allows using them as long-term productive investments, for instance, through the securities market. Commercial banks, operating funds that are employed for a short period, do not have such possibilities. For this reason, insurance companies dominate at the free capital market.

The influx of monetary funds in the form of insurance premiums and incomes from active operations usually substantially exceeds the



number of annual payments of policy owners. This allows insurance companies to from year to year increase investments in high-return long-term securities with the fixed redemption period, mainly obligations of industrial corporations, state obligations, and chattel mortgages [7].

Analysis of financial firmness of the insurance company in the world practice is done on the basis of external financial reporting, so it is available for analysis, standardised, completely and authentically reflects the insurance company's activity.

Providing complete, easy-to-understand, and useful information regarding insurers and any other companies as well as operation they carry out are rather important indices of the orderliness and efficiency of the market that is at the same time is the most important precondition for the stability of market relations.

Public access to information is under control of government bodies and is based on reporting and accounting data, requirements to submitting additional material and methods providing access. Usually, this includes publication of corresponding quality and quantitative information in financial reports that is often supplemented with financial records. Providing information costs money and therefore when determining requirements to access, their usefulness should be estimated in comparison with the company's expenditures on its completion. A period for which it is provided is rather important.

Analysis of the world practice of control over financial firmness of insurers shows that transparency at the insurance market built on uncertainty and risks is more important than any other. Public disclosure of reliable and timely information by regulatory bodies and other participants of the market help to form a notion about the financial state of the insurers, obligations, and risks undertaken by him.

To study analysis methods and control over financial firmness of the insurer in the international practice one ought to study principal factors determining indices of financial analysis. The most important object for studying of the financial state of the insurer is his insurance reserves. Regulatory bodies scrupulously analyse their insurance reserves and their sufficiency and adequacy which are important characteristics when determining the rank of the insurance company. In the EU countries, ranking agencies analyse insurance reserves from the perspective of their being conformed to undertaken insurance risks. The structure and dynamic of formed insurance reserves are compared to similar indices of other companies as well as with different periods of the said insurer's activity.

In the EU countries, the system for control over insurance activity was developed over a long period of time and there being enough of time to search suitable methods, the system took on a complete efficient form. Insurance is useful for the economy and is worthwhile only if it is financial firm and reliable when it comes to covering risks. If a large insurer turns out to be financially insolvent, this will cause a long chain of bankruptcy in many spheres of economic activity. Therefore insurance activity is one of the most strictly regulated by the state spheres [8, c. 127-128].

The above mentioned allows to conclude that when employing comprehensive analysis of Ukrainian insurers, conclusions regarding their financial state and future perspectives under the conditions of aggravating competition one is unlikely to receive optimistic results. Thus, Ukraine should ensure proper control over the financial stability of insurers. A rather important and efficient tool in this context may be used by European agencies in ranking evaluation of insurers. Financial coefficients worked out by Western companies should be adapted to the conditions of the national economy. Taking into accounts the trends of globalization, penetration of companies – leaders of the world insurance – onto markets of countries with developing economies, gradual opening of the Ukrainian insurance market and increase in control over the world practice – work on improving methods for control over national insurers should be sped up. The world insurance business is constantly improving the system for control and analysis of financial firmness of insurers, understanding that stability and reliability are the principal requirements to insurance.

Under conditions of a building market economy and implementing fundamental reforms in Ukraine, including the insurance market, one should give prominence to the regulating function of the state which manifests itself in different forms, namely:

- passing legal acts regulating the sphere of insurance;
- introducing compulsory insurance (medical insurance, for instance) in the interest of society and individual citizens;
- pursuing a special fiscal policy;
- introducing different exemptions for insurance companies in order to stimulate insurance activity;
- creating a special legal mechanism for ensuring monitoring of the functioning of insurance companies.

Within complex changes to the national economy, one should emphasize the necessity to intensify the direct participation of the state

in the formation of the insurance system for protection of property interest. There are the following reasons for this:

firstly, providing guarantees of social protection to certain social groups and conducting compulsory state insurance using budget funds;

secondly, determining legal principles and a mechanism of the state's participation in insurance of non-commercial risks to protect investments, including foreign ones;

thirdly, providing additional guarantees to insurance companies that place their funds in the form of special non-market government securities with guaranteed profit;

fourthly, creating special-purpose funds that compensate for the inability of some insurance companies to fulfil their long-term contractual obligations.

Besides, taking into consideration increasing demands of the insurance market as well as taking into account numerous legislative initiatives concerning working out of new, often not reconciled legal acts on creating and regulating activity of participants of the insurance market of Ukraine, it is advisable to develop a transparent and comprehensive approach which will allow to eliminate legal confusion and provide a real basis for implementing the substantial reform of this sphere and more active development of activity of its participants.

Therefore, taking into account the state and prospects of development of the national insurance market as well as taking into consideration criteria for creating a system for effective regulation and monitoring of activity of insurance companies in Ukraine, it is necessary to adopt a strategy for development of the financial sector of Ukraine and within its framework a long-term programme for establishing favourable condition for further development of the insurance market.

In conclusion, foreign experience should be applied in the national practice, since insurance activity in countries with consolidated economic system has an over one hundred year history, proved itself as objectively necessary and efficient. Therefore the foreign practice should be taken into consideration for establishing an effective insurance system in Ukraine as well. Control over financial firmness of insurance companies can provide stable development of insurance and economy in Ukraine on the whole as well as facilitate the quick integration of our country into the world's insurance market.

## References

1. Yryna Antonova (1999) *Development trends of insurance in the countries of Western Europe: Dissertation ... Candidate of Economic Sciences: 08.00.14, Moscow, 201 p.*
2. Andrei Mamedov (2005) *Financial and legal issues of insurance in Russia: Dissertation ... Doctor of Juridical Sciences: 12.00.14, Moscow, 514 p.*
3. *Development trends of the international insurance markets. Available at: <http://allrefs.net/c12/4benn/p100/?full>.*
4. Filoniuk O. (2015) *Modern development trends of insurance. Insurance business. Vol. 3, pp. 6-9.*
5. *Modern development trends of the world insurance services market. Available at: <http://diplomukr.com.ua/raboti/20281?mod=diploms>.*
6. *Insurance of financial risks. Available at: <http://economy.at.ua/publ/7-1-0-22>.*
7. *Development trends of insurance markets. Available at: <http://www.studfiles.ru/preview/5128408/page:10>.*
8. Kyryll Skybyn (2004) *Modern direction of development of the world insurance market: Dissertation ... Candidate of Economic Sciences: 08.00.14, Moscow, 167 p.*

### **Strelchenko Inna**

*PhD in Economics, Associate Professor,  
DSc Candidate, Department of Economic  
and Mathematical Modeling  
SHEE «Kyiv National Economic  
University named after Vadym Hetman»  
(Kyiv, Ukraine)*

### **MODELING OF SIMILAR PATTERNS IN THE BEHAVIOR OF ECONOMIC SYSTEM UNDER THE CRISIS PHENOMENA**

The ability to timely determine the growth of imbalances in the structure and level of financial markets development is one of the tasks of modern economic policy. In terms of exponentially growing pace of integration of economies, this task becomes much more complicated. The reason for this is the layering of international commodity-money relations, growing pyramid of secondary financial instruments, reducing the time of cash flows circulation.

From this point of view, the problem of research of crisis occurrence

features in the financial markets involves a problem of differentiation countries by level of response to external financial shocks. In particular, the relevance of the topics highlighted in the Report on Global Financial Stability IMF.

Today the most famous theoretical and methodological approaches to the analysis and prediction of the economic crisis and, in particular, financial crises are the following:

1. Classical theory of cyclical changes in the economy was developed in the works of: J. Keynes (1937); J. Hicks (1939); N. Kondratiev (1929); J. Schumpeter; S. Kuznets and etc.

2. A Model of Balance-of-Payments Crises by P. Krugman (1979).

3. Exchange market pressure index – EMPI (L. Girton, D. Roper, 1977).

4. The theory of so-called «Self-fulfilling» crises – is the most recent concept in the list of assumptions about the causes of financial shocks (M. Obstfeld, 1986). It considers behavioral approach in explaining the causal relations of rapid growth of negative trends in the economy (R. Merton, 1948).

To test the hypothesis of mismatch the existing IMF classification of countries by level of economic development, for exploring groups of countries by the similarity of responses to external financial shocks, we use the rank coefficient of concordance.

The coefficient of concordance was proposed by M. G. Kendall and B. B. Smith (1955) as a measure of the agreement among several quantitative or semiquantitative variables that are assessing a set of interest objects:

$$W = \frac{12S}{m^2(n^3 - n)}, \quad (3.19)$$

where  $n$  is the number of objects and  $m$  is the number of variables;

$S$  – is a sum-of-squares statistic over the row sums of ranks  $R_i$ :

$$S = \sum_{i=1}^n (R_i - \bar{R})^2, \quad (3.20)$$

$\bar{R}$  – is the mean of the  $R_i$  values.

The value of the coefficient of concordance ranges from 0 to 1. If  $W = 0$ , the rank order in rows is absolutely not agreed (dissimilar). In the case of  $W=1$ , the result is interpreted as full concurrence in the estimates of the studied parameters. Than higher the value of coefficient approaches unity, than higher coherence observed in the input data

series.

In contrast to the procedures of factor or cluster analysis, using the coefficient of concordance in the initial phase of the study has a number of advantages:

1. Here are no restrictions on the type of distribution of input data;
2. No need to pre-process the raw data to bring to a common scale;
3. No restrictions are placed on the distribution of grades in the rows of the rank matrix, for example, having a normal distribution or linear relationships;
4. Has a simple and intuitive interpretation.

In this research the values of the coefficient of concordance will evaluate the level of similarity in the dynamics of selected indicators in crisis and post-crisis period for the economies of different countries.

The hypothesis about the discrepancy between the existing classifications of the IMF for the study of groups of countries according to the similarity of the dynamics of response to external financial shocks will check for a sample of thirty countries in which represented countries in each group.

The training sample of sixty-six countries represented countries in each group of IMF classification. Namely:

1. Advanced Economies: Euro Area (1), Estonia (2), Lithuania (3), Australia (4), Canada (5), Special administrative region of China Hong Kong (6), China, P.R.: Macao (7), Czech Republic (8), Denmark (9), Iceland (10), Israel (11), Japan (12), South Korea (13), New Zealand (14), Norway (15), Singapore (16), Sweden (17), Switzerland (18), United Kingdom (19), United States (20).

2. Emerging and Developing Economies: Bangladesh (21), Bhutan (22), Brunei Darussalam (23), Cambodia (24), China P.R.: Mainland (25), Fiji (26), India (27), Indonesia (28), Kiribati (29), Lao People's Democratic Republic (30), Malaysia (31), Mongolia (32), Myanmar (33), Nepal (34), Papua New Guinea (35), Philippines (36), Samoa (37), Solomon Islands (38), Sri Lanka (39), Thailand (40), Tonga (41), Vanuatu (42), Vietnam (43), Albania (44), Bosnia and Herzegovina (45), Bulgaria (46), Croatia (47), Hungary (48), Latvia (49), Macedonia (50), Montenegro (51), Poland (52), Romania (53), Serbia Republic (54), Turkey (55), Armenia (56), Azerbaijan (57), Belarus (58), Georgia (59), Kazakhstan (60), Kyrgyz Republic (61), Moldova (62), Russian Federation (63), Tajikistan (64), Ukraine (65).

The statistical information used to calculate contained in the public domain at the International Monetary Fund (IMF, 2017).

According to the formula (3.13-3.21) calculates the coefficient of concordance  $W$  and determines its significance by the Friedman's chi-square statistic with  $n-1$  degrees of freedom (Legendre, 2005):

$$\chi^2 = m(n-1)W . \quad (3.21)$$

The final results of the assessment of similarity in the dynamics of the selected indicators for the two groups of countries economies during the global financial crisis of 2007-2009 are shown in tabl. 3.1.

*Table 3.1*

**The rank coefficient of concordance for the two groups of countries for the period 2007-2009**

Indicator	Coefficient of concordance, $W$	Probability, %
Advanced Economies		
Growth ratio of GDP, %	0,3072	95
Growth ratio of exchange rate, %	0,2384	95
Growth ratio of IIP, %	0,6032	95
Growth ratio of reserves, %	0,3801	95
Growth ratio of government bond, %	0,3536	95
Emerging and Developing Economies		
Growth ratio of GDP, %	0,5818	95
Growth ratio of exchange rate, %	0,4991	95
Growth ratio of IIP, %	0,5637	95
Growth ratio of reserves, %	0,2628	95
Growth ratio of government bond, %	0,2039	95

*Source: Authors' development*

On the basis of the obtained results with a high probability (>95%) it can be argued that during the global financial crisis (2007-2009) the dynamics of the investigated indicators is characterized by a low level of similarity ( $W < 0.5$  in 80% of cases) for both groups.

As for groups of countries with emerging markets, it is impossible to make unequivocal conclusions about the more significant differences in the dynamics of indicators in the post-crisis period. In some cases (for example, when calculating the coefficient of concordance for government bonds) the lowest value and a low probability due to the lack of statistics for 35% of the sample countries.

For modeling the uneven consequences of cross-border transfer of financial shocks, it is necessary to use such tools that will allow to

consider during the introduction of explanatory variables differentiated set of initial conditions, that significantly affect the occurrence of crises within national economies.

Among the variety of types of neural networks for classification tasks best suited architecture, known as «self-organizing Kohonen map» (T. Kohonen, 2001), which is a single layer of neurons arranged in a two-dimensional matrix. This organization of the neurons gives the ability to obtain visual display of the multidimensional input data. It enables clustering the objects of study with the neurons of the map and carry out further analysis of the weights of the neurons and the distribution of examples in the clusters.

The most famous algorithm for constructing a neural network of this type is the algorithm WTA or «winner takes all» (Kohonen, 2001).

Neural networks, learning without a teacher on the WTA algorithm and implement clustering training samples according to certain criteria, better known as maps, which organize themselves – SOFM (Self-Organizing Feature Map) or Kohonen maps (Kohonen, 2001).

According to problems solved with Kohonen maps, it is necessary to note the following:

- elements within a specific cluster should be similar on certain grounds;
- similar clusters should be located close to each other.

Procedure of training the SOFM by WTA-rule consists of the following steps (Kroese, 1996):

1. Prior to the training it is necessary to set the map topology: rectangular or hexagonal (fig. 3.3).
2. Sets the radius update. It defines the range of neighboring neurons to be training (fig. 3.4).
3. Set the initial matrix of synaptic connections
4. For each cluster element calculates the distance to the training vector by the equation:

$$d_q = \sum_p (w_{pq} - x_p)^2, \quad (3.22)$$

and choose the winner neuron to a minimum value  $d_q$ .

5. For the winning neuron and nodes within a specified radius, update the weights according to the WTA-rule (Kohonen, 2001):

$$w_p(t_i) = w_p(t_{i-1}) + \eta \cdot \Lambda \cdot [x_p - w_p(t_{i-1})]. \quad (3.23)$$





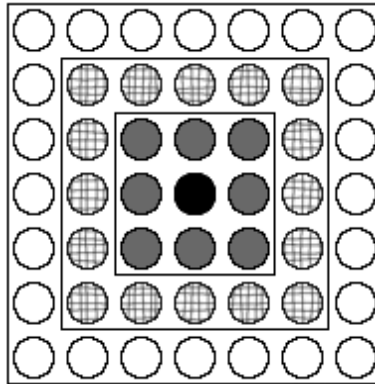


Figure 3.4. Choice neighboring neurons to study, according to the size range:

- – element to be training for  $r = 0$ ;
- – element to be training for  $r = 1$ ;
- ⊗ – element to be training for  $r = 2$ ;
- – element to be training for  $r = 3$ .

- part of the country international investment position, that characterizes the external liabilities of residents to non-residents;
- foreign exchange reserves; the value of government bonds.

Using the function `nnctool` built Kohonen self-organizing map, which splits the original sample into six clusters based on the pattern data selected quarterly macroeconomic indicators for the period 2007-2009. The classification results are shown in fig. 3.5.

The simulation gave a distribution of economies in the following way (presented according to the structure SOM):

1. Euro Area (1), Estonia (2), Lithuania (3), Czech Republic (8), Denmark (9), Israel (11), Singapore (16), Switzerland (18), United States (20), Brunei Darussalam (23), Malaysia (31), Myanmar (33), Philippines (36), Thailand (40), Albania (44), Bosnia and Herzegovina (45), Bulgaria (46), Croatia (47), Latvia (49), Macedonia (50), Montenegro (51).

2. Australia (4), Canada (5), New Zealand (14), Norway (15), Sweden (17), Indonesia (28), Kiribati (29), Samoa (37), Tonga (41), Vanuatu (42), Hungary (48), Poland (52), Serbia Republic (54).

3. Bangladesh (21), Armenia (56), Georgia (59), Moldova (62).

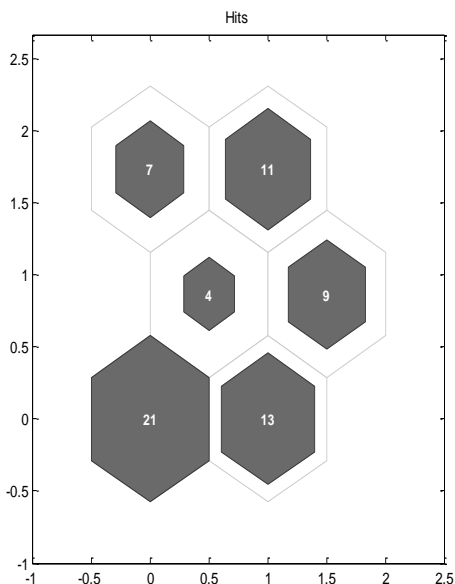


Figure 3.5. Kohonen self-organizing map that reflects the clustering of countries economies on the dynamics of the chosen indicators for 2007-2009

4. Iceland (10), South Korea (13), United Kingdom (19), Bhutan (22), India (27), Nepal (34), Solomon Islands (38), Romania (53), Turkey (55).

5. Special administrative region of China Hong Kong (6), China, P.R.: Macao (7), Japan (12), China P.R.: Mainland (25), Lao People's Democratic Republic (30), Papua New Guinea (35), Azerbaijan (57).

6. Cambodia (24), Fiji (26), Mongolia (32), Sri Lanka (39), Vietnam (43), Kazakhstan (60), Belarus (58), Kyrgyz Republic (61), Russian Federation (63), Tajikistan (64), Ukraine (65).

Analysis of the obtained results indicates the high quality of the constructed model. The average characteristics of classification within each group are very similar.

Six clusters describe six possible scenarios of the economy dynamics under the impact of transfer crises. Cluster number one and two to unite the country, characterized by short period of economic recovery and the

return of the main macroeconomic indicators pre-crisis levels. A longer recovery period and high volatility in exchange rates, gross domestic product, the decline in export-import operations characterize the third and fourth clusters of SOM. As for the countries that were in the last two clusters (including Ukraine), then the result of the crisis phenomena transfer the average amplitude of the fall in macroeconomic indicators exceeded 15% for the sixth cluster, and 9% for cluster number 5.

It is also important to note that the neural network is included in one cluster of countries that are close geographically and historically folded close economic ties.

## References

1. Keynes J. M. (1937) *The General Theory of Employment. The Quarterly Journal of Economics*, Vol. 2, pp. 209-223.
2. Hicks J. R. (1959) *Value and Capital: Growth Model. Oxford University Press*, Vol. 26, Issue 3, pp. 159-173.
3. Kondrat'ev N. D. (1989) *Problemy ekonomicheskoi dinamiki. Ekonomik*, 526 p.
4. Krugman P. A. (1979) *Model of Balance-of-Payments Crises. Journal of Money, Credit and Banking*, Vol. 1, Issue 3, pp. 311-325.
5. Garber M., Svensson E.O. (1995) *The Operation and Collapse of Fixed Exchange Rate Regimes. Handbook of International Economics*, Vol. 3, pp. 1865-1911.
6. Girton L. A., Roper D. (1977) *Monetary Model of Exchange Market Pressure Applied to Postwar Canadian Experience. American Economic Review*, Vol. 67, pp. 537-548.
7. Obstfeld M. (1986) *Rational and Self-Fulfilling Balance-of-Payments Crises. American Economic Review*, Vol. 76, pp. 72-81.
8. Merton R. (1948) *The Self-Fulfilling Prophecy. Antioch Review*, Vol. 8, pp. 193-210.
9. Kendall M. G. (1939) *Rank correlation methods. Hafner Publishing Co*, 160 p.
10. Kendall M. G., Babington B. S. (1955) *The problem of m rankings Annals of Mathematical Statistics*, pp. 275-287.
11. Legendre P. (2005) *Species associations: The Kendall coefficient of concordance revisited. Journal of Agricultural, Biological, & Environmental Statistics*, Vol. 10, pp. 226-245.
12. *Statistical information according to International Monetary Fund. Site of International Monetary Fund. Retrieved from: <http://data.imf.org>.*
13. T. Kohonen (2001) *Self-Organizing Maps (Third Extended Edition)*, New York, 501 p.

## Chapter 4

# CURRENT TRENDS OF INTERNATIONAL LABOR MIGRATION AND REFUGEE PROBLEMS

### Mulska Olga

*PhD in Economics, Junior Researcher,  
Department of Social and Humanitarian  
Development of the Region  
State institution "Institute of regional  
research named after M. I. Dolishniy of  
the NAS of Ukraine"  
(Lviv, Ukraine)*

### MOBILITY AND DISPONBILITY OF UKRAINIAN MIGRANT WORKERS: CURRENT TRENDS

Everyone, as a member of society, has the right to social protection. Effective social protection systems are powerful tools to provide income, prevent and reduce poverty and social inequalities, promoting social inclusion and dignity. Social protection is an investment in the future, which increases productivity among the population, including migrant workers, their employment, supports sustainable economic development of the country. Social protection of labour migrants contributes to fair globalization and the decent standard of living.

Ukrainian scientific research of the flow, extent, causation of migration processes devoted to the papers of E. Libanova, O. Malynovska, U. Sadova, A. Pozniak, A. Tkachenko and others. According to the importance of social protection of migrant workers and approaches to the study of the mobility of their social security, this issue is a subject of many works of foreign scientists such as S. Guhan, Des Gasper, Robert Holzmann, Randall S. Jorgensen, Rachel Sabates-Wheeler, Johannes Koettl, and Gloria Pasadilla.

Current international migration flows are becoming more complex and diverse, with changes in shape, position, direction and duration of migration. Therefore, unlike previous years, the modern migration to the temporary nature is becoming more common. While migrant workers represent different groups of workers, including seasonal working under an employment contract, are students or skilled workers.

Contemporary forms of migration involve the emergence of new problems associated with inadequate working conditions, limited legal rights, discrimination, social exclusion, lack of social protection and the like. Due to the territorial nature of social protection and limited rights to social benefits for migrant workers have difficulty obtaining social security. We emphasize that migrants play an important role in the process of strengthening economic integration, and at the same time, most of them in danger of losing their rights to receive social protection. Therefore, a better coordination of social protection between countries through bilateral and multilateral agreements and the ratification of relevant international Conventions should be a priority direction of social policy in relation to the welfare of numerous groups of migrant workers and members of their families. Furthermore, the mobility of social protection not only emphasizes the importance for migrants and members of their families, but, of course, facilitates the portability of migrant workers, and is essential for the normal functioning of integrated labour markets.

Throughout the migration cycle, migrant workers can carry specific risks, such as unemployment (including poverty), occupational injury, sickness and the like. Risks for migrants may vary throughout the migration process. Given the socio-economic or institutional factors, risks can be classified in accordance with the type of migration flows (North-North, South-North or South-South). Recall that international migration in General can be divided into three types: migration from developing countries (“South”) to more developed countries (“North”), which is slightly more than a third of total migration, in the same proportion as South-South migration, and North-North migration is slightly less than a third. So, migrant workers can be in need of social protection in terms of health at the initial stages of the migration process, and the risks of unemployment and injury occur during most work activities. Accordingly, the mobility of social protection can mitigate migration risks by compensating for the lack of changes in income for individual migrants or their families, especially if migrant workers are far away from their families [9, p. 67].

Mobility of employment is caused by economic and social reasons and provides for the process of labour movement with the specific purpose of employment for a definite period. Therefore, in modern conditions, the nature and the behaviour of many processes in the sphere of employment is due to the level of mobility of workers. Labour mobility is the ability of workers to adapt to changing conditions of

production, changing job functions, work, willingness to improve skills, learn new professions, and the totality of the real processes of movement of labour in economic and geographic space.

On our belief the mobility of the workforce stimulated by growing differentiation in terms of modes and pay, new jobs in connection with the change of ownership, growth of informal employment, structural transformation in the economy, the development of integration and migration processes, and the like.

Mobility is the willingness and ability of the population to change the social status, professional affiliation and place of residence. It provides a good basic theoretical training, additional job skills or professions, high motivation, focused on the development of their workforce. Note that the labour market can act as a kind of stimulant mobility, which encourages employees to seek new jobs.

Note that Ukrainian scientists (Dolishniy M.I., Zlupko S.M., Zlupko T.S, Tokarskiy T.B.) together with the concept of “portability of employment” use the definition “disponibility”, which implies not only the adaptation of the workforce to new working conditions, but also attempts to change the past, to provide the technical equipment of workplaces on the basis of advanced technologies, technical means and organization of production. Disponibility is impossible without the inclusion of this process of entrepreneurship, which can develop only in constant improvement of the production process.

Social protection is broadly defined as public policy measures aimed at protecting members of society from socio-economic shocks, such as illness, unemployment, disability, poverty and the like. This also applies to individual well-being and rights of people to have satisfied the requirements, regardless of their citizenship or residency status. British scientists Rachel Sabates-Wheeler and Steven R. Feldman identified four components of social protection for international migrants. The first element is the access to social security in host countries and countries of origin, which affects the vulnerability of labour migrants in any risks. The second one is the mobility of social protection of migrant workers, which remains an important element of minimizing the risk of loss of tax benefits or accrued financial assistance [7, p.78]. The third element of social protection of labour migrants is the conditions on the labour market for migrants in host countries and the recruitment process for migrants in countries of origin. Decent conditions in the labour market contribute to the restoration of balance between social needs and protection of the rights of migrant workers. The fourth one is access to

informal networks, whose main aim is the individual or other form of socio-psychological and socio-economic support for migrants and members of their families [7, p.79].

It is worth emphasizing that social protection is a human right and a social and economic necessity. It is therefore necessary to consider two conceptual approaches to social protection, each of which respectively a reasoned international organizations. First, the generic approach considers social protection as a human right enshrined in the universal Declaration of human rights and the International Covenant on economic, social and cultural rights. In particular, experts of the Institute for social development are convinced that social security is “access to adequate and reliable sources or means of livelihood, the income opportunity”, or “protection of employees against emergency situations, low level of life” [5].

International social security Association (ISSA) also considers social protection in the context of the universal approach as a “fundamental and universal right”. Thus, social protection is a tool to avoid income insecurity, prevent and reduce poverty, inequality, social exclusion and social insecurity, and investment in human capital, which allows adapting to changes in the economy and in the labour market [3]. The purpose of social protection, in their opinion, should be the promotion of equal opportunities and equality among migrant workers. Instrumental to ensure the social protection of migrants plays the ILO.

The second approach proposed by the world Bank and the International monetary Fund on the principle of budgeting, views social protection as the focus of social risk management. The basic essence of social protection is to manage the risks that are associated with income, increasing consumption and improving the welfare of migrants [4]. The IMF recognizes that social protection is public expenditure on the social sector with a focus on the social problem of poverty. This is consistent with the broader mandate of the IMF, which is the expansion and balanced growth of international trade.

These approaches can build a skeleton system of social protection of labour migrants. For the sake of guaranteeing the rights of migrant workers in healthcare, education, insurance (in case of disability or unemployment) or pension, you must consider the portability of social protection between countries of origin and host countries. So, at the initial stage of migration of labour migrants require social protection in the context of the avoidance of unemployment or other work-related injuries. At the same time, it is necessary to get simultaneously the right



to a pension. It is worth noting that some migrants move between countries with high income tends to have greater access to social protection. The reason for this is that received social protection based on citizenship, residence permit or their financial capabilities. Typically, these migrant workers are highly skilled workers and occupy high positions.

In Ukraine, the creation of a system of social protection of population in Ukraine began immediately after the Declaration of independence. So, in the Constitution of Ukraine enshrined the right to social protection in the form of social insurance and social assistance. In particular, the social protection in Ukraine is provided by the financial support of the economically active population (social security) and other types of social assistance, the provision of benefits and financial compensation to the most vulnerable categories of the population and families with children, including the indexation of public assistance or social services.

Ukraine as a donor country is facing difficulties in the extension of national laws beyond its territory. When the host country is unable to provide social protection or do not wish to enter into a bilateral agreement on social protection, the government of Ukraine should take responsibility for providing at least a basic level of protection for its citizens-migrants. Social protection can be extended beyond national legislation to those of labour migrants abroad, which are related and the relationship with Ukraine.

Despite the economic benefits of labour migration, it causes serious problems, one of the most acute of which is the lack of proper social protection for migrant workers. Limitation of migrants' social protection has a number of negative consequences for Ukraine. Non-payment of contributions by migrants affects the social insurance funds. However, if a significant part of migrants remain outside the system of social protection, this will increase the risk of poverty of their families, will require additional funds to provide them with different types of state social assistance. It should be noted that in this situation the most problematic part of the system of social protection is the imbalance of the budget social funds. And protection of the rights and interests of citizens abroad, coordination of social security systems of Ukraine and countries-recipients of Ukrainian labour migrants are the priorities of migration policy of Ukraine.

In general, migrant workers have a low social and legal status in host countries. They may enter the country illegally; they may enter the

country on tourist visas, and then stay on as irregular migrant workers; they may also enter the country with a temporary work contract – with more or less clear criteria for returning to their countries of origin. Such contracts have the advantage of being better accepted by the host country population, and may lead to circular migration [2]. As a result, while international migrants may have better terms of employment and access to social security than in their home countries, they often face conditions far inferior to nationals in the host countries.

Most migrant workers are employed in sectors such as construction, manufacturing, hotels and restaurants, health care, education, domestic work and agriculture in the host countries. In these sectors, where working conditions are particularly exile, many migrant workers – in particular the low-skilled – can be the victims of abuse and exploitation. Women – who leave their home countries alone in increasing numbers – today account for almost half of all international migrants, and face specific problems with regard to their protection [5].

At the other end of the scale, there are millions of professional workers, both women and men, who travel to other countries in search of higher wages and greater opportunities. These migrant workers are usually better accepted by the host country population, because they assimilate more easily with the local culture, and are seen to be contributing more to economic development in the host countries. Their access to social security and social protection is normally adequate.

However, most migrant workers are confronted with particular difficulties in the field of social security, as social security rights are usually related to periods of employment or contributions or residency. In addition, the immigration and integration policies of nation states typically result in highly differentiated rights (including rights to social security) that distinguish between citizens and various types of non-citizens. Most countries make significant distinctions, for example, between the rights of migrants with permanent residence status, who usually enjoy most of the rights of citizens except for the right to vote; temporary migrants, whose economic and social rights are often restricted; and illegally resident migrants, who typically enjoy few rights. Further distinctions and restrictions of rights based on the migrant's specific citizenship (e.g. Member States of the European Union grant other EU nationals more rights than non-EU nationals) and purpose of residence (e.g. work, study, family reunion, asylum) are common and often contribute to highly complex immigration systems [9, p. 84].

There are broadly two options for improving access to social security for migrant workers in countries of employment. The first option is to improve the collection of contributions. Many migrant workers work in the informal economy, often through collusion between employers and migrant workers. Improving the effectiveness of collection systems for migrant workers therefore requires an integrated approach and collaboration between the social security administration, labour inspectorate, as well as the tax and migration authorities [8, p. 70]. A carrot and stick approach should be applied, making it attractive for employers and migrant workers to affiliate to social insurance programmes, and implementing an effective and integrated contribution collection system that can spot and punish non-compliance. The second option is to provide specific benefits for (certain groups of) migrant workers. Canada, for example, has set up programmes that provide access to social security, in particular for seasonal workers from abroad. Under the Canadian scheme migrant workers typically have the same right to health insurance as Canadians, and when workers return to the same employer more than once, they become eligible for old-age and disability pensions, both of which are portable. They are also eligible for family allowances [7, p. 79].

Social security coverage can be improved by providing better access in host countries, and by international agreements that ensure portability of benefits. With regard to social protection, the key issue is the extent to which host countries have the means and the will to provide basic social protection for vulnerable and undocumented migrants. With regard to labour protection, it is vital that some sort of cooperation exists between sending and host countries as to how migrants can be protected at all stages of the migration journey, i.e. pre-departure, transit, staying abroad and returning. Based on these findings, five major policy challenges can be identified with regard to extending and improving the social and labour protection for international migrant workers and their families.

The first challenge is to think through the implications of the social protection floor for international migration. In some regional economic frameworks, such as within the European Union, some form of transnational regulation of social protection policies has emerged. In addition, the adoption of the ILO Recommendation on National Social protection Floors could provide an opportunity for countries to clearly define the legal protection status of regular and irregular migrant workers and their families. Moreover, as noted in Section 1 above, the

lack of ratification of the UN Migrant Workers Convention remains a major hurdle to providing basic social protection for migrant workers and their families. The issue is that basic social protection – even of irregular migrants – has priority, but when that protection has been provided, there should be clear rules on how migrants and their families can return to their countries of origin. These return procedures can be defined in bilateral and multilateral migration agreements.

The second challenge is to provide access to social security coverage for migrants in their countries of employment [1, p. 39]. Migrants often work in the informal economy, and it is therefore difficult for them to access social security. However, the access of migrants to social security is essentially a matter of national legislation and practice. It is thus necessary to review national legislation to assess the extent to which migrants are disadvantaged with regard to their eligibility. It is also important to find ways in which migrants and their employers can be motivated to affiliate to social security schemes, for example, through public information campaigns on the benefits of social security and through special compliance mechanisms, such as for seasonal migrant workers.

The third challenge is to provide social protection for family members who stay behind in their countries of origin and to protect the rights that migrant workers might have already accumulated there. A number of – mainly Asian – countries have set up welfare schemes for that purpose. Such schemes are usually part of wider support arrangements for migrant workers that may include the regulation of overseas employment recruitment and the development of recording mechanisms to understand migrants' needs. Some countries of origin have also set up voluntary pension schemes for migrants.

The fourth challenge is to improve the portability of workers' occupational social security benefits, such as workers' compensation benefits, severance payments and payments from pension and provident funds [7, p. 78]. Although most of these benefits are legally portable, and are often paid out as lump sums, the provisions on cross-border payments are generally poorly implemented, so that benefits commonly never reach migrants or their survivors in the migrants' home countries. The proper implementation of such provisions, for example, through better administrative arrangements for the submission of claims, declarations and appeals, would be an important step towards improving the social security coverage of migrant workers.

The fifth challenge is to provide basic social and labour protection to

(regular and irregular) migrant workers and their families, if they are not covered by formal social security schemes. This is relevant for all countries, in particular for low-income countries where social security coverage is low. The most effective way to enhance social protection is by ensuring certain basic human and social rights. Migrants have often no, or insufficient, recourse to legal remedies to fight exploitation. Moreover, and particularly in low-income countries, it is important to ensure access to basic health care and to basic education for the children of migrant families. As noted earlier, the ratification of the UN Migration Workers Convention by the BRICS countries and countries from the North would significantly improve the legal status of migrants and their families. In addition, it is vital to provide migrants with more labour protection during all stages of the migration journey, i.e. pre-departure, transit, staying abroad and returning. These measures can be defined within the context of regional, as well as bilateral and multilateral, migration agreements.

## References

1. Guhan S. (1994) *Social Security Options for Developing Countries*, *International Labour Review*. Vol. 133(1), p. 35-53.
2. Holzmann R., Jorgensen S. (2000) *Social Risk Management: A New Conceptual Framework for Social Protection, and Beyond*, *Social Protection Discussion Paper*. No. 6. Washington D.C.: World Bank.
3. ILO (2006) *Multilateral Framework on Labour Migration: Non-binding principles and guidelines for a rights-based approach to labour migration*, Geneva.
4. ILO (2011) *Social protection floor for a fair and inclusive globalization*, *Report of the Advisory Group chaired by Michelle Bachelet*, Geneva.
5. ILO (2012) *Text on the Recommendation concerning national floors of social protection*, Geneva, *Provisional Record 14A of the 101st session of the International Labour Conference*.
6. Pasadilla G., Abella M. (2012) *Social Protection for Migrant Workers in ASEAN*, *CESifo Working Paper*, Vol. 3914, pp. 123-234.
7. Sabates-Wheeler R. (2009) *Social security for migrants: Trends, best practice and ways forward*, *ISSA Project on examining the existing knowledge of social security coverage*, *Working Paper*, Vol. 12, pp. 78-79.
8. Sabates-Wheeler R. and Koettl J. (2010) *Social protection for migrants: The challenges of delivery in the context of changing migration flows*, *International Social Security Review*, Vol. 63, Issue 3, pp. 115-144.
9. Schoukens P. and Pieters D. (2012) *Irregular labour migrants and*

*access to social protection, Cross-Border Welfare State. Immigration, Social Security and Integration, Social Europe Series, Vol. 29, pp. 63–90.*

10. *Truong T., D. Gasper J. Handmaker (2013) Migration, Gender, Social Justice and Human Insecurity, Vol. 3, pp. 3-26*

**Ryndzak Olha**

*PhD in Economics, Senior  
Researcher,  
State Institution «Institute of  
Regional Research named  
after M.I. Dolishniy of the  
NAS of Ukraine»  
(Lviv, Ukraine)*

**INTERNATIONAL MIGRATION  
OF UKRAINIAN POPULATION:  
DEVELOPMENT TRENDS AND  
PERSPECTIVES UNDER THE  
CONDITIONS OF EUROPEAN  
INTEGRATION PROCESSES**

Ukraine, having declared its European integration vector of further development, is bound to reform its migration policy. In particular, implementation of actions plan on Ukraine's integration into the EU stipulates not only bringing the migration policy regulatory basis into conformity with the European standards, but also solution of the key problems, which nowadays exist in migration sphere. Accordingly, this requires analytical evaluation of real situation in migration sphere and identification of the biggest migration risks in order to develop recommendations on their elimination.

Following the independence in 1991 and introduction of democratic freedoms (freedom of movement among them), Ukrainian population became more engaged in the processes of international migration. Joining of the Schengen Area by neighboring European countries and introduction of visa regimen (2007) somewhat slowed down the processes of international mobility of Ukrainian residents. However, they became more active again in 2011. In particular, the number of border crossings by Ukrainian residents exiting Ukraine in 2011 already exceeded the relevant number in 2007 and previous years by 20,33 mln. times [1, p. 37]. It is worth mentioning that growth of Ukrainian residents' cross-border mobility took place partially due to crossings of the Western border, in particular with Poland. Indeed, prevailing of Ukrainian residents' trips to

Poland over visits to Russia was first observed in 2013. After the Crimea was annexed by Russia and after the latter began its armed aggression in the East of Ukraine, the frequency of our residents' visits to this country reduced significantly and amounted to 4,16 mln. times in 2015, while the number of visits to Poland was 9,52 mln. times (almost 40% of all foreign visits undertaken that year) [2, p. 10].

Overall, during 2011 – 2015 the geography of Ukrainian residents' foreign trips somewhat reduced. In particular, while in 2011 Ukrainian residents visited 112 countries of the world, in 2015 it was only 93 [1, p. 37]. The following are the popular countries of their temporary visits in 2011-2015: Poland, Russia, Hungary, Moldova, Belarus, Slovak Republic, Romania, Turkey, Egypt and Germany. Over the analyzed period the number of trips reduced only to Russia. In the meantime, the number of trips to Romania has grown considerably as well as twice to Poland and to some extent to Hungary [1, p. 37-40].

Agreements on small border movement partially contributed to activation of western direction of Ukrainian residents' international mobility. Ukraine has concluded the latter with Hungary (2007), Poland (2008), Slovak Republic (2008) and Romania (2014). According to these agreements, the population of Ukraine's borderland has the right to enter neighboring country without visa and to penetrate its territory up to 30 km from the border (Poland) and 50 km (other countries). The research testifies to the fact that more than the half of Ukrainian residents, who cross the border with Poland, is the residents of borderland [3, p. 61]. Moreover, in 2008 Poland introduced the range of preferences and visa privileges granting the Polish Card to individuals belonging to Polish nation. Indeed, as of 2014 these cards were obtained by almost 60 thous. citizens of Ukraine [3, p. 61].

After the agreement between Ukrainian and Romanian government on local border movement was signed in 2014, the number of crossings of Hungarian state border by Ukrainian residents increased greatly. In particular, in 2015 it amounted to 4,16 mln. times, exciding the relevant number of the previous year eight times [1, p. 39]. Moreover, the simplified procedure of receiving Hungary's citizenship has been acting since 2010 in this country. As the result of such policy the country received 670000 new citizens as of the beginning of 2015 and 94000 of them were the residents of Zakarpatska oblast [4]. Therefore, nowadays Ukraine faces the urgent problem to develop the mechanism of record and control of Ukrainian residents' citizenship condition due to the fact that such citizens do not give up Ukrainian passports voluntarily and double

citizenship carries a range of threats to national interests of our country.

During the last twenty years Ukraine has been traditionally ranked fourth-fifth in the world by the number of emigrants. However, according to UNO estimations, in 2015 our country took eighth place by the number of population emigrating abroad and thirteenth by the number of immigrants [5]. It happened not due to reduction of emigration from Ukraine or strengthening of remigration processes, but due to intensification of emigration flows from Pakistan, Mexico and China. Moreover, during the 2000 – 2015 period residents' emigration from Syria, Philippines and Egypt has grown significantly. Overall, starting with 2005 India, Russian Federation and Mexico have consistently remained the biggest donors of emigrants in the world. The USA, Russian Federation and Germany have been the major immigration countries in the last decade.

According to other countries' population census 8,2 mln. persons with Ukrainian origin reside in their territory [2, p.17]. The largest number of Ukrainians lives in Russian Federation (1,93 mln. persons identifying themselves as ethnic Ukrainians), Canada (1,2 mln. persons) and the USA (0,9 mln. persons) [6]. Ukrainian Diaspora in Brazil, Moldova, Kazakhstan and Italy is also considerably large.

In the last decade the number of residents – immigrants from Ukraine residing in the EU countries has grown significantly. While in 2008 it amounted to 666 thous. persons, in 2015 it was already 905,2 thous. persons [2, p. 12]. The number of stay permits for our residents to stay at the EU territory obtained for the first time has also increased rapidly. While in 2008 Ukrainians obtained 116 thous. of such permits, in 2015 it was almost half a million. According to Eurostat, in 2014-2015 Ukrainian citizens obtained the largest number of EU reside permits amounting to the fifth of the overall number of such permits provided for the first time [7]. American citizens took the second place (262000 permits), then – China (167000), India (135500) and Syria (104000). Meanwhile, if labour activity was the major ground for granting such permits to Ukrainians (75% of permits obtained by Ukrainian citizens for the first time in 2015), for Chinese it was education (61%), and for Moroccans (70%) – family circumstances [7].

Aggravation of armed conflicts in the world contributed to considerable growth of the number of applications for asylum in the EU countries during the last years. In particular, in 2015 1,3 mln. applications were submitted. The largest number of refugees was recorded from Syria, Afghanistan and Iraq, while immigrants from Ukraine submitted 21 000



applications [8]. It is worth mentioning that armed conflict in the East of Ukraine contributes to transformation of temporary labour migration of its residents to the permanent one (immigration).

In the meantime, analysis of Ukrainian citizens' international stationary migration dynamics during the last eight years shows that the number of individuals, who have received the permission to leave Ukraine, decreased more than twice from 2008 to 2014. Starting with 2014 the number of such citizens began to grow again and in 2016 it amounted to 13,6 thous. persons (fig. 4.1). Fig. 4.1 also shows that the number of citizens coming back to Ukraine reduced during the last 8 years as well. As of 2016 they amounted only to 2 thous. persons, which is 2,7 times less than in 2008.

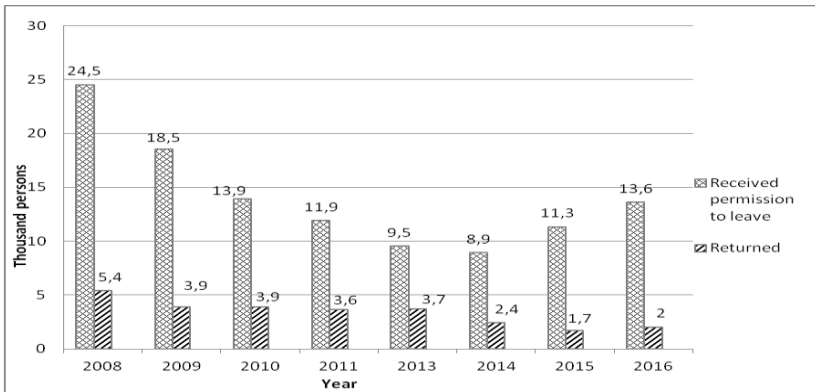


Figure 4.1. Permanent-type international migration of Ukrainian residents

*Prepared by the author on the basis of sources: [9, c.25], [10].*

It is worth mentioning that there is a large quantity of Ukrainian residents, who permanently reside outside its borders and have gained citizenship of other country without official applications to authorities and undergoing of relevant procedures. Therefore, they are still considered to be its citizens. Accordingly, information provided by fig. 4.1 does not accurately reflect real situation in the migration sphere. However, it provides possibility to trace current overall tendencies of Ukrainian citizens' international stationary migration processes. Sociological surveys of population migratory moods can contribute to predicting of possible migration processes development in the nearest future. Indeed,

the results of representative research of sociological group «Rating» (September 2016) show that every tenth resident of Ukraine has a strong desire to go abroad for permanent residence. Another 20% of respondents demonstrated positive attitude towards leaving and they chose the «would rather like than not» option [11]. Therefore, existence of emigration orientation among almost 30% of Ukrainian citizens can be concluded.

Nowadays temporary labour migration of Ukrainian population is the most frequent. Overall, the number of our country's residents, who occasionally go to work outside, is esteemed by experts within 1,5 – 3 mln. persons. Lesser opportunities to maintain decent standard of living to yourself and your family and to fulfill one's potential within native country pushes increasing number of residents abroad. Thus, the share of persons planning to find employment abroad (or already employed there) growth constantly: while in 2011 it amounted to 6%, in 2015 to 8% [2, p. 14], and this is almost 3,5 mln. of working age population. Moreover, labour migration orientations of population are considerably high. Indeed, the results of sociological survey of the «Rating» (Reitynh) group showed that as many as 40% of Ukrainians would like to find employment abroad [11]. However, it is worth mentioning, that there is a significant difference between the expressed desire, positive attitude to labour migration and real readiness and concrete plans in terms of employment abroad. This is a very important matter and requires separate complex research.

There are no concrete data on the number of international labour migration participants currently. Thus, the results of research conducted in 2014 – 2015 by IOM Mission in Ukraine specified that 700 thous. Ukrainian citizens participated in international labour migration last year [12, p. 30]. The number of labour migrants is approximately ten times less according to the data of State Employment Service, because it records only persons employed abroad by economy entities, which have a license for mediation in employment abroad. In particular, in 2014 the number of such persons amounted to 69286, in 2015 – to 76884, and in 2016 it increased by 10 thous. persons (compared to 2014) and achieved almost 80 thous. [13]. In general, analysis of the number of Ukrainian citizens officially employed abroad for the last sixteen years shows its somewhat unstable tendency to increase. During the period under research this number increased 2,4 times: from 33,7 thous. persons (2000) to 79,2 thous. persons (2016). The volumes of labour migration reduced in 2009 and after that they constantly grew up till 2012. This situation can be partially explained by global financial crisis of 2008, which to some extent influenced the demand of well-developed countries for foreign

workforce.

It is important to mention that currently a very small share of labour migrants seek special agencies-mediators' assistance in employment. This is related to both the fact that migration services market in Ukraine is at the stage of its establishment and to the range of other reasons of private nature. By the way, according to IOM data only a half of short-term labour migrants from Ukraine have a settled status in the country of employment [12, p. 43]. Results of our research testify to the fact that such share is even smaller and amounts to only third of those employed abroad for the last five years [14].

According to the data of selective research of households conducted by the IOM Mission in Ukraine the majority of labour migrants come from the Western oblasts of Ukraine. The level of urban settlements residents' participation in the processes of labour migration is somewhat higher than rural territories. Male persons aged 30-44 prevail among labour migrants. More than the third part of Ukrainian guest workers has a higher education [2, p. 13]. Instead, the share of educated persons among the employed through official mediators was much higher amounting to 52% in 2016 and the share of those with specialized education was 35% [13]. Mostly labour migrants are involved in jobs that do not correspond to the level of their education and qualification leading to their partial loss. However, research show that over the years in the course of integration into recipient society the migrants move from less to more qualified work at least partially corresponding to their level before labour migration (or receive new education and qualification). But this process requires a lot of endeavors as well as time and determination, so only the quarter of Ukrainians living abroad for more than a decade work according to their professions with high qualification level [12, p. 41]

Main employment countries for Ukrainian citizens for the last 5 years were Poland, Russian Federation, Czech Republic and Italy. These countries account for majority (80%) of international labour migration flows of Ukrainians [2, p. 13]. In this context there is a certain regional distribution of those employed abroad. In particular, residents of the Western and Central oblasts of Ukraine were mostly employed in Poland, and those of Southern and Eastern – in Russia. Moreover, Russian Federation is the main destination country for short-term migrants, and Poland, Czech Republic and Italy – for the long-term ones. Instead, the following were the main employment countries for citizens applying for assistance of licensed economic entities in 2016: Cyprus (22% of all employed in the analyzed year), Poland (12%), Germany (11,1%), Great

Britain (11%), Greece (7,3%), the USA (4,5%) [13]. Overall, according to the data of the Ministry of Foreign Affairs of Ukraine a significant number of temporary labour migrants (immigrants from Ukraine) accounts for Spain (86000), Portugal (42000) and Greece (32000) [6]. The most desirable countries for labour activity of Ukrainians in the nearest future appear to be: Germany, Poland, Italy and the USA [14].

Regarding the duration of Ukrainian citizens' work abroad, the official data of State Employment Office of Ukraine shows that in 2015-2016 the majority of labour migrants (70%) worked outside Ukraine up to half a year, less than a third part – from 6 months to 1 year, and the rest of them – quite a small number of people – more than a year [13]. Therefore, most of persons employed abroad through official services are the short-term labour migrants. Instead, representative survey of households and labour migrants conducted by IOM Mission in Ukraine in 2014-2015 showed that long-term migrants account for the majority (62%) of external labour migrants [2, p. 13].

Ukrainian citizens abroad are mostly engaged in construction and industry (mostly for male), personal services (mostly for female), agriculture and restaurant and hotel business. Construction and agriculture are the most widespread employment among natives of rural territories and persons with low education level. In general, employment sectors are similar for long- and short-term labour migrants. Moreover, labour migrants' employment spheres have their specifics depending on destination country. In particular, employment in restaurant and hotel business, personal care and agriculture is the most widespread among Ukrainian guest workers.

It is important to examine and take into account the opinions and moods of Ukrainian citizens in the system of European integration processes. Thus, research conducted in 2015 by the Ilko Kucheriv Democratic Initiatives Foundation along with Sociological Service of Razumkov Center disclosed that half of the country's population has optimistic expectations on Ukraine joining the EU. The following are the main advantages of European Union membership according to Ukrainians: opportunity to make trips to other countries freely (39%), improvement of the residents' living standards (37%) and access to education in higher educational establishments of EU countries (34%). Another 24% of respondents expressed their expectations that entering the EU will promote the conducting of reforms in our country [15].

It is important to note that majority of country's population (73%) has never been to neither EU member states nor the USA or Canada. At the

same time, only 40% of them expressed their readiness to use the visa-free regimen (if it had been introduced in 2016) and to visit some country of Schengen Area. Herewith, tourism would be the major goal of such trip for the majority of respondents. Such a not very high level of readiness to use visa-free regimen can in the first place be explained by the mass impoverishment of population and its low financial solvency, which has decreased considerably in the recent period.

In 2014 the Center for Eastern Studies (Poland) along with the Institute for Economic Research and Policy Consulting conducted a thorough research «Forecasting Migration between the EU, the Visegrad Four and the Eastern Europe: Impact of Visa Abolition». Its results gave the ground to conclude that visa regimen liberalization can become only one of the factors to strengthen existing tendencies in Ukraine. Forecasting showed that the number of migrants would grow to a certain extent due to legalization of persons already residing at the EU territory and the youth, which would go there for education. However, migration flow from Ukraine is bound to reduce till 2026 [16, p. 2].

Therefore, nowadays Ukraine is one of the biggest donors of human and labour resources for post-soviet and European countries. Moreover, statistical and sociological analysis shows that visa regimen has never been and will never become the decisive factor of migration conduct of population. Instead, high unemployment level, poor income of population and military conflict in the East of Ukraine has become the factors to push people outside their Motherland. Therefore, in order to avoid further washing out of the most valuable human capacity from Ukraine the external state migration policy should primarily be directed at reduction of the number of working age population leaving the country. This should be conducted not through creation of additional restrictions and bans, but through elimination of main migration factors. Moreover, it is important to promote reversion of Ukrainian citizens' migration flows. This can be achieved only as the result of complex interaction of migration policy with other spheres of state management and close cooperation with international partners.

## References

1. *State Migration Service of Ukraine (2016) Ukraine migration profile 2011-2015, Kyiv, 73 p.*
2. *International Organization for Migration. Mission in Ukraine (2016), Migration in Ukraine: facts and numbers, Kyiv, 32 p.*
3. *Malynovska O. (2016) External migration of citizens of Ukraine in the*

- conyext of abolition of the visa regime between Ukraine and EU, Demography and Social Economy, No. 3 (28), pp. 58-67.*
4. *Officially: about 94000 Transcarpathians received Hungarian citizenship, available at: <http://www.mukachevo.net/ua/news/view/105782>.*
  5. *International migrant stock 2015. United Nations, Department of Economic and Social Affairs, available at: <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.*
  6. *Ministry of foreign affairs of Ukraine, Ukrainians abroad, Ukrainian community worldwide, available at: <http://mfa.gov.ua/ua/about-ukraine/ukrainians-abroad>.*
  7. *Eurostat newsrelease 211/2016 - 27 Oktober 2016, available at: <http://ec.europa.eu/eurostat/documents/2995521/7715617/3-27102016-BP-EN.pdf/ca706fa0-14fc-4b71-a2e2-46b2b933f8f8>.*
  8. *Eurostat recorded in 2015 a record number of applications for asylum in the EU, available at: <http://ukr.obozrevatel.com/news/53810-evrostat-zafiksuvav-u-2015-rotsi-rekordnu-kilkist-zayavok-na-pritulok-u-es.htm>.*
  9. *State Migration Service news bulletin 2014, Kyiv, 66 p.*
  10. *Statistics on core activities of the State Migration Service of Ukraine, available at: <http://dmsu.gov.ua/statistichni-dani/2945-statystyka>.*
  11. *Migration attitudes of the population of Ukraine, Sociological Group "Rating", available at : [http://ratinggroup.ua/research/ukraine/migracionnye\\_nastroeniya\\_naseleniya\\_ukrainy.htm](http://ratinggroup.ua/research/ukraine/migracionnye_nastroeniya_naseleniya_ukrainy.htm).*
  12. *International Organization for Migration. Mission in Ukraine (2016), Migration as an enabler of development in Ukraine. A study on the nexus between development and migration-related financial flows to Ukraine, Kyiv, 116 p.*
  13. *Moods among the Ukrainian migrants, Sociological Group "Rating", available at: [http://ratinggroup.ua/research/ukraine/nastroeniya\\_sredi\\_ukraincev-zarobitchan.html](http://ratinggroup.ua/research/ukraine/nastroeniya_sredi_ukraincev-zarobitchan.html).*
  14. *State Employment Service of Ukraine, Statistical information, available at: [http://www.dcz.gov.ua/control/uk/statdatacatalog/list/category?cat\\_id=30543](http://www.dcz.gov.ua/control/uk/statdatacatalog/list/category?cat_id=30543).*
  15. *Understanding of Ukrainians of European integration: expectations and attitudes of society, Ilko Kucheriv DIF, available at: <http://dif.org.ua/article/yak-ukraintsi-rozumiyut-evrointegratsiyu-ochikuvannya-ta-nastroi-suspilstva>.*
  16. *Institute for Economic Research and Policy Consulting (2014), Forecast of migration between the EU, countries of the Visegrad Four and Eastern Europe: consequences of abolishing of the visa regime, Kyiv, 184 p.*

### **Krupelnytska Iryna**

*Candidate of Science (Economics),  
Associate Professor  
Vinnitsia Institute of Economics and  
Trade of Kyiv National University  
of Trade and Economics  
(Vinnitsia, Ukraine)*

### **TASKS OF THE INTERNAL AUDIT OF INVESTMENT RESOURCES IN SCIENTIFIC- RESEARCH SPHERE**

Investment resources as financial resources are formed and used by the enterprise for the solution of problems, connected with the processes of design, construction, development of economic entities, i.e., they finance innovation activity of the enterprise.

Investment is extremely important resource that enables the entities to provide their development, competitiveness, market stability as well as it protects against loss-making results of the activity and impact of negative economic processes, occurring in the country. According to the data of State Statistic Committee the volume of the investment, involved since the start of direct foreign investments (stock capital) in the economy of Ukraine in 1-3 quarters of 2016 was 45152,2 million U.S. dollars.

Ten principle states-investors (as of 1.10.2016), which account for 83.0% of the total volume of direct investment, include: Cyprus – 11035,1 million U.S. dollars, Netherlands – 5910,7 million U.S. dollars, Germany – 5446,0 million U.S. dollars, the Russian Federation – 4618,7 million U.S. dollars, Austria – 2601,1 million U.S. dollars, Great Britain – 888,0 million U.S. dollars, Virgin Islands (Great Britain) – 1793,1 million U.S. dollars, France – 1533,2 million U.S. dollars, Switzerland – 1475,4 million U.S. dollars and Italy – 1158,2 million U.S. dollars.

Ten regions: Dnipro, Kharkiv, Kyiv, Lviv, Odesa, Donetsk, Lugansk, Zaporizhia, Poltava, Ivano-Frankivsk and city Kyiv received greater part of investment – 93,9% of the total amount of direct foreign investments.

Such distribution of direct foreign investment and capital investment in regional section does not promote even social-economic development of the regions and increases the gap in their development. Leading spheres of economic activity, regarding the volume of external investment are: industry, construction, information and telecommunications, agriculture, forest sector, fishery, wholesale and retail trade; repair of motor vehicles and motorcycles, transport, storage facilities, mail and messenger service, real estate business.

In spite of considerable financial-investment flows in Ukraine, equity capital remains the main source of capital investment financing, on account of this capital 70% of investment is disbursed in January – September 2016.

Share of bank credits and other loans in total volume of capital investment was about 10%. At the expense of state and local budgets approximately 5% of capital investment is disbursed [6].

Unfortunately, on the background of such optimistic picture of financial investment in national economy, the investment in innovation activity looks gloomy. Modern conditions of innovation activity financing in Ukraine are characterized, on one hand, by considerable intensification of traditional processes of the development of new equipment and technologies, growth of competition with foreign analogues of the suggested products, and on the other hand – by far less possibilities for financing research activity by the state bodies and commercial clients.

Internal audit plays an important role in this economic process, it is actual not only in such conventional sphere as bank system but for the enterprises, operating in the sphere of R & D.

This role is stipulated by radical reorganization of the methods of enterprises and organizations management and the necessity of rapid and optimal decision-making on the base of objective and reliable estimates of business activity results.

#### Analysis of the recent research and publications.

Problems of audit and investment activity were studied in numerous publications of foreign and domestic scientists A.A. Anisimov, A.I. Zimin, V.P. Savchuk, B.I. Valuev, M.I. Bondar, G.G. Kireitsev, S.M. Bychkova, V.P. Suits, V. Berense, D. Norton, W.Sharp, D.K.Lelannd, O.Yu. Redko, O.A. Petryk, T.A. Kamenska, V.V. Shkirenko and others.

#### High- lighting of unsettled part of the general problem.

We could certainly state that the problem of efficient internal audit is



really urgent in such information intensive and complex system as the sphere of R& D. At the same time, internal audit must be adapted to specific characteristics of the developments and monitor often informal processes of creative production activity of scientific- engineering enterprise.

Objective of the paper – is the analysis of investment situation and study of means and techniques of audit, ways of applying control – analytical measures in R & D sphere for obtaining the best indices of end product system efficacy, functions, structure and process of investment –innovation activity.

#### Main Material

In the given sense, the internal audit is the component that covers the whole process of feedback control and provides reliable on – line information. The given function describes the *control environment* – one of five basic components of internal audit. These components also include: *assessment of inherent risks*; *control* over the provision of the proper level of certitude; *accounting system* as the source of information and means of managerial communication; *monitoring*, as a tool for assessment of procedures and methods of internal control. Hence, in the process of performing internal audit part of managerial functions of organization management is realized, namely: control, coordination, analysis, information support, warning and avoiding the risks of the investment activity, etc. [1, p. 30]. Main objective of the internal investment audit is identification of the drawbacks and further improvement of organization and management of investment activity, searching and procurement of the reserves of investment flow growth, provision of high level of business security on the whole. At the same time, internal investment audit has to evaluate the validity and efficiency of potentially possible facts of investment activity, financial flows in previous, current and forecast time ranges in order to form adequate accounting-analytical information base [5, p. 41]. Organization of modern accounting at the enterprises requires the creating of the systems of financial and managerial accountings, based on reliable data, confirmed by external and internal audit. In scientific engineering and research organizations the internal control and audit are defined by the specific character of the operation of these organizations and enterprises.

Internal auditors must perform the analysis of financial and economic activity and plans of scientific research on the subject of the correspondence of actual results to the targets and tasks put forward, for determination of the efficiency of R & D program realization. Internal

control and audit cannot always be realized by separate department – both as a result of limited number of employees and due to specific features of production processes while realization of R& D program. That is why, the most efficient is the internal control performed systematically both by the senior management of the enterprise and by the corresponding executives of separate programs, specialists of planning- economic services and material and technical supply. Such control must be directed, first of all , at observing of the established procedures and powers, regarding managerial decision-making, connected with the interests of the enterprise, its owners and clients; satisfying legal, normative requirements; taking timely and efficient measures, aimed at elimination of the detected drawbacks in enterprise operation.

Internal audit must properly evaluate both the system of financial and managerial account and system of internal control. For this purpose, the internal audit should use the following proof taking procedures verification and supervision, inquiry and confirmation, calculation and analytical forecast.

Main tasks of the internal audit of R&D, stipulated by the specific character of the research in our opinion are:

1) verification and assessment of economic efficiency of the enterprise both according to financial and other indices – for information and giving the staff confidence regarding the potential of the enterprise in the domain of current research and for long term period;

2) survey of accounting systems and internal control systems (if such service is available at the enterprise), verification of these system, monitoring of their operation, recommendations concerning the improvement- for optimal control of operation activity;

3) detection and minimization of production risks, inherent to the stages of R & D realization – for the economy of resources and redistribution of finances;

4) verification of financial and, on the work of economic information, applying corresponding control procedures – for assessment of the productivity of the expenditures incurred according to the result obtained;

5) supervision over the compliance of legal frame work, regulatory system, policy and directives of managerial staff – to provide the compliance of control procedures to active legislation and the strategy of the enterprise on the whole.

For qualitative and efficient organization of scientific research we

propose certain sequence, that provides the grouping of different scientific products that could be end products as well as intermediate products, within the frame of a single scientific development. The given approach enables to specify methods and techniques of internal audit for assessment of the results of the research and efficient control over the expenses and determination of a fair cost of scientific production.

The activity of the enterprise, operating in the sphere of R & D could be divided into 9 stages, at each of them the output of science – intensive production could be expected. On conditions of market requirements or the result of studies each of the stages could be final or intermediate and the base for further research. Correspondingly, methods and tools of internal control must be sufficient for on-line reaction on the request of the client or market request.

Depending on the stage of research type of the expected product at a certain period of time we suggest the following qualification of the above-mentioned tasks of internal audit.

1<sup>st</sup> stage – Marketing research. At this stage the developer proposes the client analytical conclusion, report about the analysis of information, etc. Main tasks of audit are assessment and minimization of own risks, analysis of the potential and resources of scientific enterprise.

2<sup>st</sup> stage – Determination of the clients, this stage provides the results of the testing of scientific solutions, technical-economic analysis of the analogues, analysis of the volume of the market, i.e., assessment of scientific-engineering potential of the client. Besides the assessment of the inherent risks and resources, the tasks of the internal audit include monitoring of normative-legislative base, regarding future intentions of the customer.

3<sup>st</sup> stage – Development of the specifications enables the customer to obtain technical proposals, results of the simulations and modeling, specifications, etc. The task of the audit also includes the verification of financial and economic information, applying corresponding verification procedures – for assessment of the productivity of the expenditures incurred in accordance with the result obtained.

4<sup>st</sup> stage – Scientific research as fundamental stage provides such kind of scientific products: outline sketch (documentation) experimental sample, program and technique of experimental tests, results of testing of experimental sample (test records, test certificates). Important tasks of the internal audit are the overview of accounting systems and internal control (if such service is available at the enterprise), verification of these systems, monitoring of their activity, providing recommendations,

aimed at improvement, detecting and minimization of production risks, inherent to the stages of R& D execution, control of financial and, on the whole, economic information.

5<sup>st</sup> stage – Technical design as the final stage of research provides the following kinds of scientific products – technical documentation, experimental sample, production project, test records, test certificates. All the tasks, mentioned at the previous stages, remain actual, besides, it is necessary to evaluate risks of losses due to actuality of the mentioned products.

6<sup>st</sup> stage – Production project – it is the stage that provides the possibility of separation of developer from the manufacturer on the base of such type of products as documentation of production project, technological documentation, design documentation, operation instructions, programs and testing techniques. The tasks of the audit must be specified accurately and directed on the assessment of products cost and correspondence to the cost of scientific products realization.

7<sup>st</sup> stage – Fabrication of operating samples, records, delivery and acceptance tests certificates (on client's base), client's transfer acts, manufactured products implementation certificates, client's staff training certificates, experimental service certificates.

Tasks of the audit are aimed at assessment of inherent risks, organization of the proper documents circulation, financial accounting and expenses control, assessment of the efficiency and profitability of products, determining potential resources and optimization of scientific engineering process.

8<sup>st</sup> stage – Warranty maintenance and service provides – repair, products maintenance, service. The task of the internal audit for the given stage is assessment of resources economy and possibility of redistribution of finance and assessment of the productivity of the expenditures incurred according to the obtained result.

9<sup>st</sup> stage Marketing and selling of product factually for scientific enterprise – these are scientific papers, promotional events, participation in scientific conferences, exhibitions, etc. The task of the internal audit is determination and classification of the inherent risks, analysis of potential resources of the enterprise, study of the legislation framework and protection of enterprise's interests. Methods, means and techniques of internal audit as well as for independent audit remain unchanged, they are described in International Norms of audit and are adapted to our environment in auditors' practice. The above-mentioned verification techniques do not depend on the type of enterprise activity, but there

exist certain specific features, considered in our publication.

Scientific research activity greatly depends on financial resources and is considered to be the most attractive object of investment because on conditions of minimal return guarantee, by the fact, the expected profit could be higher. Problems of investment financing, in particular, in innovation activity, remain actual for our country, although not hopeless.

In the rating of innovation attractiveness of the countries of the world, International Business Compass-2015, published by the company BDU, Ukraine rose at two points during the year. Ukraine in the rating is on 89 positions and is among the countries that showed the best growth rate during the year, along with Republic of Belarus and Latvia. In 2014 own country occupied 109 position.

These indices are formed by BDU company together with Hamburg Institute of World Economy and characterize economic and financial attractiveness of different countries of the world on the basis of three main indices: economic, political and socio-cultural conditions.

In the rating “Doing business”, composed by the World Bank, Ukraine occupied 83 positions and improved its situation by 4 points as compared with the previous year.

The report “Doing business 2016” underlines that the key reform that improved rating of Ukraine is simplified business registration system. In the sphere of enterprise registration Ukraine occupied 30 places and improved its position by 40 points as compared with the previous year.

In Ukraine, the time of enterprise registration by tax payer is reduced and business state registration fee is eliminated [7]. But unfortunately, situation in scientific-research sphere remains difficult.

On the background of complicated economic situation, non-stable social, political sphere and high level of corruption in the society, competitiveness of scientific-research enterprises is impossible without the support of investment capital, legislative protection and state support. Lack of proper conditions leads to negative consequences: gifted young people try to get education abroad, realize their scientific potential in the country without proper financial support is practically impossible, search of resources stands on the way of efficient research process and the sources of financing are redistributed in such a way that in better case, only the third part of the invested resources is used for research. Monitoring of scientifically potential labour resources revealed negative situation, concerning continuity of generations. Nowadays Ukrainian science experiences the following problems: creative teams

are formed on the base of certain scientific idea and the staff of this team works almost without changes till retirement, i.e. the mechanism of scientific school, in classic sense, turned out to be inefficient and introduction of nonstandard efficient techniques, aimed at involving gifted young people, in existing conditions of scientific sphere functioning was impossible.

Under such circumstances, scientific-research sphere loses its attractiveness for investments and innovations. Recently, the situation in the East of the country, proved the necessity of financial support of scientific engineering branch, especially in the spheres, connected with the defensive capacity of the country. The results of investment in this sphere gave expected results. New high – tech competitive domestic developments designed for military applications emerged, this, in particular, proves high efficiency of the branch in conditions of self – consciousness, non-indifferent attitude, transparency of the investment and efficiency of resources usage.

For further improvement of the investment climate in Ukraine, problem of perfection of legal and organization base for enhancing the efficiency of the mechanisms of providing favorable investment climate, self-consciousness of the society and formation of fundamentals of supporting and increasing the competitiveness of national economy is actual.

Hence, Ukraine remains attractive for investment, at the same time it is within the streams of world processes, is sufficiently integrated in world economy and disturbances of macro stability on the external markets have response in Ukraine.

#### Conclusions and recommendations.

Investment situation in Ukraine is in very difficult but not in hopeless state. Results of international and statistic studies show gradual changes for the better. Investment in any branch of national economy will be efficient in case of complete transparency of its usage that must be provided by qualitative control, analysis and audit. Investments in innovation, in scientific – research branch have their specific features and require more organized internal audit, as the tool of current control. Internal audit in the process of realization of R&D becomes very important, supplementing the system of managerial account and internal control. First, internal audit has no limitations, inherent to external audit (time, volume, specific features). Secondly – it empowers the managers with substantiated confidence regarding economic efficiency and productivity of the enterprise operation.

Thirdly – assessing system efficiency of R& D by stages, we have the possibility to make decision regarding the direction and priority tasks of the development.

Thus, the tool of R & D internal audit is the set of methods that provide the efficient operation of R& D, give system assessment of economic efficiency and profitability of business operations productivity and viability in goals attaining.

Characteristic feature of the internal audit in the process of R& D is that it requires the application of procedures that must reflect the particular nature of each stage of work execution and this enables to apply the stage approach, suggested by the authors.

For further improvement of the investment climate of Ukraine problem of perfection of legal and organization base for enhancing the mechanisms, providing favorable investment climate and formation of the base for supporting and increasing the competitiveness of national economy is actual.

## References

1. *Nemchenko V.V., Reko O.Yu. (2012) Audit (Fundamentals of State, Independent Professional and Internal Audit): manual. Kyiv. Centre of educational literature, 540 p.*
2. *International Standards of Audit, Allotment of Confidence and Ethics. Edition of 2014. Kyiv. Company IA MC APU "Status", 1028 p.*
3. *Bychkova S.M., Skobara V.V., Yuldashev Z.Z. (2014) Investment Control and Audit in Economic Entities (Monograph). Moscow. Publishing House "Scientific Library", 172 p.*
4. *Redko A.Yu., Krupelnyska I.G. (2002) Internal Audit in the System of Scientific-Research and Research-Design Enterprises Management. Economics, Management, Business. Proceedings of South-Ukrainian National University. Lugansk, No. 9, pp. 17-21.*
5. *Redko A.Yu. (2002) Internal Audit – Basic Notions and Definitions. Problems of Economic Security of the Enterprises in Conditions of Market Relations and Role of Internal Audit in its Provision (Materials of the Round Table. Odesa State Agrarian University. Odesa, pp. 9-15.*
6. *Official site of State Statistic Administration of Ukraine. – [Electronic resource]. – Access mode: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua).*
7. *Subnational Report of the World Bank IBRD "Doing business". – [Electronic resource]. – Access mode: [www.doingbusiness.org](http://www.doingbusiness.org).*

**Mohylevskaya Olga**

*PhD in Economics, Associate Professor  
Kyiv International University*

**Reznik Nadezhda**

*Doctor in Economics, Professor  
National University of Life and  
Environmental Sciences of Ukraine*

**Romanova Lidiya**

*Doctor in Economics, Professor  
Inter-Regional Academy of Personnel  
Management*

**Slobodyanik Anna**

*PhD in Economics, Senior Teacher  
National University of Life and  
Environmental Sciences of Ukraine*

**Mohylevskiy Yuriy**

*Ggraduate Studen  
European University  
(Kyiv, Ukraine)*

**METHODOLOGICAL  
APPROACHES TO  
ESTIMATION OF  
EFFICIENCY OF  
REGIONAL POLICY**

Relevance of the article is proved by the need of development of modern methodological approaches to determine the effectiveness of the implementation of regional strategies and programs, development of quantitative and qualitative indicators of efficiency of achieving the set of strategic goals, objectives and priorities by the central and local executive authorities.

It should be noted that the issue of improvement of regional development management is in the focus of the country, in particular, it is stated as being the task of the National Action Plan in the implementation of the program of economic reforms for 2010-2014 [1; 2].

The main objective of the modernized regional policy in Ukraine is to create favorable conditions and real opportunities for post – crisis recovery of regional economic complexes on the basis of intensive development, activate the utilization of domestic and local potential of regional development. However, this process was slowed down due to various factors: changes in economic conditions, lack of financial resources and investments, limited government support of



regional development, intensification of the struggle for resources as a result of the global financial and economic crisis and of the opened national economy.

Current situation and the economic recession of 2008-2009 above all and the threat of a new wave of social and economic crisis have increased the need for updating the strategic objectives of regional development. In particular, the crisis has demonstrated poor effectiveness of the tools of state support in the regions used until 2008, namely, the direct subsidies from the regional budget and benefit policies. These measures failed to resolve both the internal regional problems – slow development of a number of regions, mono-functionality of the territory, as well as the regional development problems – excessive imbalances of socio-economic development, structural imbalance in the industrial sphere. Moreover, these existing tools and mechanisms of regional development merely maintain the current problems in the areas, sometimes reinforcing and partially resolving some of them without creating the incentives for self-development, revitalization of local entrepreneurship.

Apart from these there are other systemic factors – the institutional and socio-economic ones that require drastic modernization of regional development programs.

One of the tools of achieving this goal is appropriate methodological framework for the system of monitoring the efficiency of implementation of the State Strategy on the basis of domestic and international experience in integrated scientific approach to the state regional policy.

The state administrative apparatus and the scientific community continue the debates about the future development of Ukraine in the context of globalization, permanent crisis of the global economy and the integration process.

Developed «Strategy for Economic and Social Development of Ukraine by means of the European Integration 2004-2015» included the guidelines and priorities of the implementation of active state regional policy [3]. It was aimed at improving of the regional development and competitiveness, eliminating the socio-economic imbalances in the regional development, promoting the intergovernmental relations, establishing the cross-border and inter-regional economic cooperation. Besides, it reflected the fundamental principles of administrative and territorial reforms that were not implemented in Ukraine. But ten-year period for which the abovementioned strategy

was formed was too short to expect any rapid changes in the domestic and international environment, let alone overcoming the negative effects of unexpected global economic recession of 2008-2009. All this resulted in the need to review both the macro level of national strategy of the socio-economic development of Ukraine and the National Strategy for Regional development and the regional strategies for economic and social development for each of its 27 meso-regions. The primary step was to determine the priorities of the strategic planning process of social and economic development of the regions and to support the mechanism of development and implementation of regional strategies for economic and social development of each meso-region. The scientists, primarily the National Academy of Sciences of Ukraine, higher educational establishments of Ukraine, ministries and departments research the conditions and determine the priorities and goals of the strategic planning of social and economic development of Ukraine as a whole and its separate regions. But the high level of uncertainty of strategic priorities and objectives of social and economic development in the crisis and post-crisis periods requires more scientific research to solve this problem which proves the importance of this area of research.

Sustainable social and economic development of Ukraine is an important prerequisite for economic growth, hence the need to ensure the conditions, set the priorities and develop strategic planning for the regions taking into account their natural resources, economic, scientific, technical, employment potential and specifics of specialization in the production of goods and services.

By virtue of objective and subjective factors the regions of Ukraine develop unevenly. In turn, the uneven regional development and living standards create the conditions for regional imbalances and social tensions in the society, undermine the territorial integrity of the country, slow down the dynamics of social and economical development, enhance the territorial differentiation, create unfavorable conditions for market operations and reduce their effectiveness.

The regions need clearly defined, evidence-based social and economic priorities based on long-term trends to overcome significant imbalances of local development in Ukraine. The issues of coordination of the regional development processes in Ukraine continue to be addressed and resolved at national level today, all the necessary regulatory laws are taken into consideration.

To speed up the process of realization of strategic priorities,

development and implementation of the strategy of socio-economic development the regions need an evidence-proved institutional mechanism that would contain the procedure of development of a strategy, introduce the organizational and institutional components of strategic planning and strategy implementation.

It is necessary to begin formulating the strategy of socio-economic development of each region with the analysis of its condition and evaluation of its socio-economic development. This is a sure way to determine the conditions and trends of the economic situation in the country and in each of meso-regions and estimate its natural resources, economic and employment potential as well as effectiveness of their implementation to meet the regional development strategy. The results of these studies should contribute to informational support for strategic planning of meso-regions which would determine the priorities and further socio-economic development.

Given the fact that the strategic plan for socio-economic development of the region is a document that considers formulation of regional development objectives, determining possible ways to achieve those goals, analyzing the potential opportunities likely to become a success, developing the methods of proceeding the work in the selected fields, searching the rational ways of utilizing the resources, and allowing the regional administration and regional community to act conjointly, it should result in establishing the strategy of the socio-economic development of the region as a set of tools and methods used for accomplishing the tasks.

The goals and objectives of socio-economic development are determined based on the priorities of the strategic planning. The main strategic objectives should be the following: improving the competitiveness of the region and strengthening its natural resources, maintaining the human resources, encouraging the regional cooperation, creating the institutional conditions for regional development.

After determining the strategic goals, objectives and priorities of socio-economic development of the region and their coordination with the state governments, the working groups to develop a strategy of socioeconomic development of each region are established. Those groups define the specific activities, their terms of implementation, responsible persons or organizations, financial expenses associated with their implementation, and predict the expected results. The introduction of the regional development strategy takes place in the

process of developing and implementing of the set of its program planning regulations: the Action Plan to implement the strategy; the Annual program of the socio-economic development of the region, the Target regional program, the Development strategy of internal areas of the region.

Accomplishing the tasks and maintaining the priorities will be funded by the state and local budgets as well as other sources. The corresponding state, regional programs and activities are designed; agreements on regional development providing the budget funding are concluded. It is the basis for the consideration for the state and local budget for the year.

As soon as all the issues of organizational, institutional and financial support are resolved the phase of realization of the developed strategy plan begins. To timely reveal all kinds of deviations from the selected course, goals and objectives, incongruity of the priorities and results, the execution of the strategic program is closely observed and amendments are made in case of any errors.

The Constitution of Ukraine, Laws of Ukraine «On local governments in Ukraine», «On local state administrations», «On the general plan of territory planning of Ukraine», «On promotion of regional development» and others, the Budget and Tax Code of Ukraine, the regulations of the Cabinet of Ministers of Ukraine are the basis of the regulatory framework of the strategic planning of socio-economic development of the region. The principles of regional policy, the goals and strategic objectives of regional policy, the mechanism and stages of implementation of the strategy, the expected results, the monitoring and evaluation of the strategy are reflected in the «National strategy for the long term regional development».

As organizational support and coordination of development and implementation of the strategies for socio-economic development of the region exercises the plan of activities approved by the Cabinet of Ministers of Ukraine, the tools of implementation of the strategy, chiefly, the agreements on regional development, programs for overcoming the crisis in certain areas and significant regional differentiation in Ukraine, state target programs, regional development strategies and programs for socio-economic and cultural development.

The quality of strategic planning of socio-economic development largely depends on the scientific and methodological support. To ensure the evidence-based strategic planning and achieve a cumulative

positive effect as a result of the implementation of the developed strategy it is necessary to encourage the efforts of administrative, managerial, financial, industrial, scientific and technical spheres, maximum utilization and optimization of natural resources, human, scientific, technological and innovation capacity of the region, development of scientific information resources, research of the international and domestic experience in strategic planning of the regions. The research institutions face an important task of designing and improving the methodological tools, modeling and forecasting the socio-economic development of the regions.

The task and the main priorities of regional development at the present stage is overcoming the crisis in the socio-economic sector and eliminating the significant differentiation of areal development in Ukraine, accelerating the pace of economic recovery based on innovation investment which will consequently increase the national and international regional competitiveness improving the standard of living in those regions and maintaining the human resource development in each region.

To attain these objectives it is necessary to implement the appropriate strategies for socio-economic development of the region, the mechanism of development and implementation of which provides strategic planning and such components as informational, regulatory, scientific, methodological, organizational and institutional support that contribute to the efficiency of the process.

Successful implementation of strategies / programs for regional development requires monitoring the process of implementation and evaluation of the intermediate results in terms of achieving the goals. Monitoring of the implementation of the strategy in the essence is the process of observing the fulfillment of all issues of the strategy to achieve the intended results.

Accordingly, the monitoring includes observing the key indicators. Because of the significant differentiation of local development in Ukraine mentioned above the monitoring system should establish broad observations – from a particular region to the nationwide area.

The system of monitoring of strategy implementation is a part of the overall strategic planning system the elements of which are connected by feedback and ability to change the previously set parameters.

That is, if there is any violation of the implementation strategy the appropriate amendments aimed at reducing the deviations from the plan are done. The monitoring system has «input», «output» and the process

of implementing a strategy applicable to any part of the strategy. The output values are monitored compared with some predefined standards (indicators). If they differ the feedback circuit works out the amendments that come back to the input of the system to eliminate the deviations or adjust the input parameters.

When designing the monitoring system of implementation of the strategy the specifics of this document should be taken into account. Typically, the strategy proposes the implementation activities with the use of both the budgetary as well as the non-budgetary funds.

This specificity makes several different approaches to monitoring the objectives of the strategy depending on the type of resources: public, private or mixed.

Full monitoring of the implementation of activities financed exclusively by private funds can be exercised only by resource owners while the regional management authorities can monitor only aggregated indicators (e.g. growth rates of industrial production and small business, etc.).

The activities fully or partially funded from the budget are monitored in a slightly different way. In this case, it is most advisable to apply the project approach of monitoring. Therefore monitoring plays a great role in the control system of realization of activities.

The system of monitoring of realization of the strategy activities should provide corrective measures when they are needed. For example, if there is a delay in implementation of individual measures of the strategy it is necessary to use the specific plans to fix the situation. Plans should be comprehensive, clearly structured and fixed in order to provide a basis for implementation and monitoring. On the other hand, if the plans are updated too frequently and without change control procedures the control over the strategy can be lost.

The analysis of the collected data should determine whether the current situation is coinciding with the planned one; and if not it is necessary to calculate the scale and gravity of the consequences of deviations. Time and cost are the key indicators for the analysis. For analysis of trends of the strategy activities in terms of cost and time special reports are required. For example, forecasting may show increase of the cost of activities. Often, variations in time and cost parameters can affect the structure of the upcoming work and the quality of the results.

The function of monitoring of the strategy also resolves the problems of estimation, forecasting and evaluation of the operational situation at a

certain time to determine the results, costs, time, resources and finances, analyze and eliminate the causes of deviations from the approved plan.

The basic methods of analysis used in the monitoring of the implementation of strategies include collection of evidence of progress and evaluation of actual costs, amount of work remaining to be performed, actual implementation of all the stages of the strategy at the definite time.

Monitoring of implementation of the strategy involves managing the changes that may occur during the year of the implementation of the regional strategy. Change management is the process of forecasting and planning of the future changes, registry of all potential changes for detailed study, impact assessment, approval or rejection and adjustment.

A change implies replacing one solution with another as a result of the influence of various external and internal factors in the development and implementation of the strategy activities.

In some cases the changes can be caused by impossibility to find a single working solution on the stage of development of the strategy as well as a delay in the planned timing and amounts of work due to unforeseen circumstances.

To monitor the implementation of the strategy there is a set of formal procedures that determine the changes in regulations of the previously adopted official documents of the project and the procedure for their approval. This could be, for example, the system of workflow. For the changes in some situations the procedures that may be adopted without consideration can be utilized (e.g., during routine maintenance with limited decision making time or in emergency situations). Changes should be documented and taken into account to avoid any further problems caused by lack of information about the real situation on the strategy.

The results of the overall monitoring of the implementation strategy include the fundamental plan of strategy with approved changes necessarily communicated to the executive staff.

The Ministry of Economic Development and Trade of Ukraine is responsible for the overall monitoring of the implementation of the strategy. This body estimates the results of the implementation of the strategy in the context of all the defined indicators of regional development. The Ministry of Economic Development and Trade of Ukraine carries out the processing and analysis of the information and also draws the conclusions about the progress of monitoring.

In order to ensure the overall monitoring of the implementation of the strategy it is advisable to use the system of indicators that most clearly shows the main results of the implementation of the strategy and the goals achieved.

One possible form of reporting the indicators of monitoring is the following:

1. The indicators reported by the financial management agencies:
  - growing (decreasing) rates of income of local budget funds;
  - absolute increase of incomes of local budget funds for one person;
  - ratio of revenues and expenditures of local budget funds.
2. The economic performance reporting:
  - profit growth (decrease) rates of profitable enterprises from ordinary activities;
  - losses growth (decrease) rates of loss-making enterprises from ordinary activities;
  - share of non-profit enterprises in the total number of enterprises;
  - growth (decrease) rate in foreign direct investment;
  - direct investment rate for 1 person;
  - growth (decrease) rates in investment in fixed assets;
  - export to import ratio.
3. The indicators to be reported by the statistic agencies:
  - increase (decrease) of population;
  - creating new jobs;
  - growth (decrease) rates of wages;
  - absolute increase in average nominal wages per employee;
  - employment rate of the population registered with the state employment service as unemployed;
  - absolute increase in the volume of retail trade turnover for 1 person;
  - absolute increase in the amount of services for 1 person.
4. The indicators to be reported by the tax authorities:
  - growth (decrease) in tax debt for taxpayers;
  - share of tax revenues from small businesses in total tax revenues.

To implement the changes it is necessary to confirm the order in accordance with which the changes are going to be made, determine the form and consistency of documents about the changes, the level of authority of persons responsible for the acceptance, approval or rejection of changes.

Composite form of change control includes the general information on the implementation of the changes.



There are the following reasons for changes in the content of work:

- fluctuations of the business climate in the market;
- actions and intentions of neighboring countries;
- technological changes;
- changes in the prices and availability of resources;
- economic instability;
- errors in the plans and estimations;
- errors in the choice of methods and tools.

For effective change management during the implementation of the measures it is necessary to apply the appropriate approaches:

- establish effective relationships between regional and national authorities;
- divide the roles and responsibilities associated with each change;
- track down the impact of changes on the time and cost parameters of the strategy.

Often, unforeseen changes in external factors result in the actual cost of activities and the efficiency of the strategy being different from those ones planned. The more complex the strategy is, the higher need for redevelopment arises and the greater stress is put on the system of monitoring of the implementation of the strategy.

The program measures can fail due to various factors, such as change of the timing of certain events, amendments in the terms of financing, changes in requirements and resource limitations for work, unforeseen technical difficulties or changes in the external conditions. The task of monitoring is to timely reveal these factors and propose the appropriate changes.

Determining the effectiveness of the strategy is one of the insufficiently studied issues in the strategic planning. A significant number of programs, regional ones in particular, usually exist only on paper and have no real practical application. Besides, there are no well-defined criteria that determine the effect of the implementation and effectiveness of the regional development strategies.

When determining the efficiency of strategies it is necessary to comply with the following principles:

- 1) the right choice of basis of comparison;
- 2) complex assessment of the strategy variants in terms of economic, social and environmental consequences;
- 3) factors of uncertainty (risk);
- 4) possible number of alternative measures of the strategy.

Determination of the effectiveness of measures of the regional

development strategy should be done in the following stages:

1. Expert evaluation of the social importance.
2. Estimation of the efficiency of the strategy in general: both financial as well as socio-economic. In case of unsatisfactory outcome the strategy is not recommended for implementation and can not qualify for state aid.
3. Selection of the performers and evaluation of the effectiveness of separate industries (activities) and enterprises in the participation in the strategy. This stage of the assessment is carried out after the development of the financing plan.

It is common knowledge that efficiency is the category that shows the ratio of benefits to expenditures incurred. If some measures of strategy are considered as an investment project their effectiveness can be determined using the parameters of efficiency of the project, i.e. by calculating the payback period, net present value, internal and average rate of return.

It should be born in mind that not every stage of the strategy is a project. Many of them are only particular steps each of which can have a precise mathematical expression supported by appropriate calculations. In this case it is advisable to consider the category of the strategy implementation effect. The use of this category is associated with the impossibility to provide a financial estimation of the results of certain activities, especially environmental and social issues. It is also difficult to estimate the monetary cost of the measures aimed at improvement of the conditions for economic activities (for example, adoption of certain amendments to the regulations). Thus, the implementation of measures aimed at improving the investment attractiveness of the whole country could take place this year while the effect could extend to a few years. Therefore, estimating the efficiency of the strategy it is necessary to define:

- economic impact and efficiency;
- social impact;
- environmental impact.

The evaluation of the effectiveness of implementation of the regional development strategy should be carried out at the stage of development of the strategy and completion of its implementation which, accordingly, involves the use of different methodological approaches.

The requirements to the methodological approaches at the stage of the strategy development: leveling the effect of external factors, taking

into account the costs of the strategy implementation and the priorities of the specific areas.

A possible variant of evaluation of the strategy efficiency assumes forecasting the regional economy at the end of the planning period taking into account the impact of the external factors (the factor method) excluding the impact of the strategy implementation and availability of alternative strategies (the comparative method).

The essence of evaluation:

1. At the first stage the best alternative strategies are selected by priority or combination of priorities (Gross Regional Product, investments, or Gross Regional Product and investments, etc.). This is the way of considering the priorities.

2. Assessment of the effect of the implementation of the strategy activities is carried out by comparing the finite values of parameters in the strategy and the forecast. One can assume that every increment of value of the strategy in comparison to its forecasted values is caused by the implementation of the strategy activities provided in the annual values of the strategy. The advantage of this approach is the possibility of comparing the values which are impossible to give financial estimation to.

At the stage of completion of the implementation of the strategy the evaluation of efficiency is enabled by comparing the planned and the actual values. This assessment is feasible because of the necessity of detailed analysis of the causes of negative deviations, if any. The results of this analysis will reveal the errors that were made during the development of the strategy and minimize or avoid them in further policy documents.

To sum it up, one can conclude that general scientific methods and special studies, like analysis and synthesis methods (to investigate the approaches to the estimation of investment attractiveness of territories, enterprises), statistical groupings (to determine the efficiency of resource allocation), systemic method (to research monitoring as a complex and difficult process at the same time), factor method (to systematize the factors of impacts), rating method (e.g. for evaluation of investment attractiveness) are utilized for monitoring the implementation of activities.

## References

1. *National plan of actions of realization the Program of economic reforms on 2010-2014 «Solvent society, competitive economy, effective state», ratified by Decree of President of Ukraine from 12.03.2012, No. 187, Available at: <http://www.rada.gov.ua>.*
2. *About internal and external position of Ukraine in 2013: Annual Message of President of Ukraine in Verkhovna Rada of Ukraine. Kyiv. NISD, 576 p.*
3. *About claim of State strategy of regional development on a period to 2015. Cabinet of Ministers of Ukraine; Resolution, Strategy from 21.07.2006, No. 1001, Available at: <http://www.rada.gov.ua>.*
4. *Knaap G. A., Van der Louter P. J. (1991) Economic changes and strategies for spatial policy. Nederlandse Geografische studies. Amsterdam, Issue 130, pp. 8–24.*
5. *Kastels M., Himanen P. (2006) Informative society and state of welfare. Kyiv. Vakler, 232 p.*
6. *Review of the existent systems of monitoring in Ukraine in the sphere of regional development / Support of steady regional development in Ukraine, Available at: [http://www.ssr.org.ua/content/ukr/prjdoc/Review\\_the\\_exisring\\_monitoring\\_system\\_ua.pdf](http://www.ssr.org.ua/content/ukr/prjdoc/Review_the_exisring_monitoring_system_ua.pdf).*
7. *Lendel M., Vinnitskiy B., Rateychak Yu. (2007) Monitoring and evaluation of strategies and programs of regional development are in Ukraine. Kyiv: Vidavnitstvo «K.I.S.», 120 p.*
8. *Ansoff Y. (1999) The new corporate strategy. SPb. PyterKom, 416 p.*
9. *Meskon M., Al'bert M, Khedoury F. (1995) The foundation management, Moscow. Delo, 817 p.*
10. *Myntsberh H., Al'strend, B, Lempel, D. (2002), Shkoly stratehyy [School strategies]. SPb. Pyter, Vol. 330 p.*
11. *Myntsberh H., Kuynn Dzh. B., Hoshad S. (2001) Strategic process: concepts, problems, solution]. SPb. Pyter, 684 p.*
12. *Tompson A. A., Stryklend A. Dzh. (2003) Strategic Management: Concepts and situation analysis. Moscow. Vyl'yams, 924 p.*
13. *Khassy D. (2001) Strategy and Planning: Overview of management, SPb. Pyter, 378 p.*
14. *Certo S., Peter P. (1994) Strategic management: concepts and applications. Irwin. USA, 198 p.*
15. *Abell D. F. (2000) Defining the Business: The Starting Point of Strategis Planning. Englewood Cliffs. N.-Y. Prentice Hall, 567 p.*
16. *Rowe A. J., Mason R. O., Dickel K. E. (1993) Strategic Management: a methodological approach, Reading Massachusetts. Addison Wesley, Issue 40<sup>th</sup> ed., 1040 p.*

**Skoryk Galyna**

*PhD in Economics,  
Associate Professor*

**Lynnyk Oleksandra**

*PhD in Economics, Assistant  
National Lviv Polytechnic  
University  
(Lviv, Ukraine)*

**COMPETITIVENESS  
ENHANCEMENT OF THE  
NATIONAL ECONOMY UNDER  
CONDITIONS OF THE  
INCREASED BURDEN OF  
PUBLIC DEBT**

Competitiveness enhancing is one of the most crucial issues the world's economy is facing today, since it ensures opportunities for economic growth and development. The world economic crisis affected Ukraine's economy, triggering a banking crisis and consequent political, social and economic tribulations. It also resulted in the decline of production and provoked a significant challenge: how to survive and develop business in conditions of political instability, lacking transparency, huge debt burden. The very macroeconomic uncertainty and debt burden encourage young people to seek for alternatives and generate innovative ideas regardless of the above-mentioned problems. Ukrainian idea hamsters oftentimes become winners at various international contests. But since the domestic demand for innovations is very low, there are few startups oriented at the domestic market. As a result, most of these companies (like Genesis, Grammarly, DepositPhotos, VertaMedia, etc) are biased to work abroad, because foreign investors also prefer to deal with Ukrainian partners only if their office is usually registered in the US or the EU.

The World Economic Forum defines competitiveness as a set of institutions, policies, and factors that determine the level of productivity of a country. It is supported by twelve pillars, i.e. institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication and innovation. It should be pointed out that the fundamental problem affecting the performance of these pillars is Ukraine's huge debt burden. As of February 2017, the total public debt and state-guaranteed debt amounted to over 70 bln USD. For that reason, nowadays Ukrainian economy is very vulnerable to various internal and external shocks which endanger the recovery of

the country and delays the development of human, technological, production potential.

Fundamentally, sovereign debt is an important factor in economic growth and balance-of-payments equilibrium. Its tools include increase in productive investment, the smoothing of private and public consumption, the consolidation of financial stabilization results (this feature relates to low-income countries with unstable economies).

Although the analysis of fiscal policy is usually conducted at the macroeconomic level, there are two microeconomic channels of influence on aggregate demand. One of them relates to capital accumulation in public sector and operates via the production function. If public capital is included in the production function, the growth of fixed capital (public investment expenditures) can effect the employment of private sector and its investment expenditures. Another implies an impact on household consumption and operates via the utility function.

The positive impact of debt-financed public investments in infrastructure, education, transport, technologies, healthcare, intellectual property rights and environmental protection is proven by numerous researches [1, 2, 4, 8]. The upgrading and modernization of roads, schools, hospitals or the rest of infrastructure as a tool for increasing production capacity, which is known as a “big push” in the economic research [9], can be financed by means of increased public debt, but positive outcome is possible only as a result of combination with other components of economic development. If the opportunities of productive use of external public debt for developing infrastructure or reforming the utility sector are limited, the relevant increase in private consumption can be essential. There is no threat if personal expenditures are directed at domestic products. Consequently, production output and tax revenues increase. Even better conditions occur when, due to economies of scale, the competitiveness of national producers in external markets increases.

A particular attention should be paid to transition economies, where budget deficit is financed by external public debt more than in developed countries. It is partly explained by low financial deepening and financial stabilization considerations. Moreover, sovereign borrowing is important exactly in transition period, taking into account increased returns on investment, comparatively expensive domestic financing and low domestic savings.

Although debt-financed public investments have a number of

advantages, there are some risks, such as weak project implementation, slow adjustment of fiscal variables to service the debt, continuous negative economic shocks. Excessive public investment can have the restriction effect because of a subsequent increase in interest rate and external debt service costs causing the crowding out of private investment. In developing countries, this problem is also augmented by low returns on public investment and weak “absorptive capacity”. Accelerated public debt accumulation threatens to accelerate inflation and to deteriorate the balance of payments, this increases risk premium and limits possibilities of borrowing possibilities. Along with the lack of foreign-exchange reserves held in the central bank as well as unfavorable external conditions, a large-scale financial crisis starts, and it adds up to worsening the opportunities to service the debt due to the disorganization of production process. Besides, wishing to provide large debt payments, the government can increase taxes and monetize budget deficit that cause private capital outflows and weaken investment incentives.

Another consequence of stimulating aggregate demand is increase in import which causes the deterioration of the current account. The combination of accelerated inflation and large current account deficit increases the risk of default and financial destabilization as well as it usually brings on a sudden stop of capital flows. This problem is also intensified by the unproductive use of borrowed funds under lack of significant private and public savings [3]. In these conditions, foreign investors and creditors consider debt overhang as a marker of weak governance and ineffective economic policy in a debtor country which looks very risky to invest. Since increased debt service costs take funds from financing investment programs, it results in the decrease of production output and private consumption.

In studying the effects of debt accumulation, it is important to consider debt service under conditions of currency devaluation in the economy with significant balance sheet effects (fig. 5.1). Assuming the neutrality of debt shock concerning demand in the commodity and service market (constancy of  $IS_0$ ), the capital outflow ( $BP_0 \rightarrow BP_1$ ) causes decrease in money supply ( $LM_0 \rightarrow LM_1$ ), interest rate rise and loss of income (Point B). Currency depreciation enables to recover the initial “natural” equilibrium income level by stimulating demand ( $IS_0 \rightarrow IS_1$ ) and improving the balance of payments ( $BP_1 \rightarrow BP_2$ ).

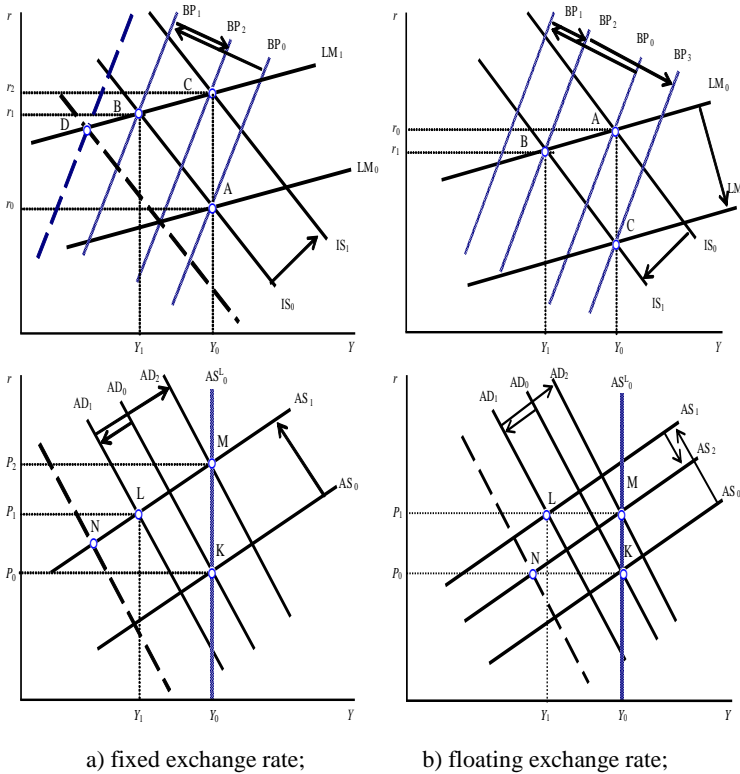


Figure 5.1. Public debt service in case of imperfect capital mobility

At the new equilibrium (Point C), income moves towards  $Y_0$  but at the expense of the higher interest rate  $r_2$ . However, this outcome is unlikely to happen in a dollarized economy because of balance sheet effects and wealth effects since the balance sheet effects increase debt service burden and the wealth effects depress demand due to money supply contraction. The restriction effects are even more significant if depreciation is accompanied by price rise. Considering the local currency appreciation, which worsens the balance of payments (shown by the dotted line), a demand drop (the dotted line, as well) contributes to an income fall below  $Y_1$ . This outcome is additionally enhanced by the effects of total supply.

Taking into account a drop of total demand ( $AD_0 \rightarrow AD_1$ ) in an economy with financial limitations, total supply will also decrease



( $AS_0 \rightarrow AS_1$ ) that will provide a stagflation effect: production decreases to  $Y_1$  and prices rise to  $P_1$  (Point L). Although stable devaluation can recover the “natural” equilibrium ( $AD_1 \rightarrow AD_2$ ), in that case the price rise to  $P_2$  is inevitable (but the adjustment of export-import balance can neutralize this effect partially). However, significant balance sheet effects cause decrease in demand (shown by the dotted line), and the corresponding total supply decrease even amplifies a restriction effect (Point N).

Actions to increase aggregate supply should be taken in order to return to the equilibrium (Point K). Firstly, these may be structural measures, accompanied by liberalization of economic environment, i.e. the development of transportation projects and energy saving technologies and support for research, for instance, in the sphere of military industry. Regarding the accumulation of human capital, the significant effect can be brought by the progress of medicine, but this should be directed at the expansion of the sector of paid services and medical insurance (this presupposes decrease in public expenditures on medicine). Secondly, the promotion of private investments can be boosted by circumspect liberalization measures, i.e. the simplification of tax legislation or the deregulation of licensing procedures. Thirdly, it is important that the state stop performing functions which should stay beyond the direct control of the state, like in the spheres of agricultural and industrial production as well as educational and other services. Commonly, it is recommended to decrease the level of income redistribution through the state budget up to 35% against today’s 45% of GDP.

In case of a floating exchange rate (fig. 5.1b), there occurs a capital outflow due to servicing external public debt ( $BP_1 \rightarrow BP_2$ ) that causes decrease in demand for goods and services ( $IS_0 \rightarrow IS_1$ ). As a result, income decreases to  $Y_1$ , which is similar to fixed exchange rate, but interest rate decreases ( $r_0 \rightarrow r_1$ ). If currency depreciation can improve the balance of payments above the initial level ( $BP_2 \rightarrow BP_3$ ), and, being combined with the wealth effect, it can provide the constancy of demand and supply in the market (i.e. the improvement of export-import balance and the wealth effect counterweigh converse balance sheet effects), increase in money supply ( $LM_0 \rightarrow LM_1$ ) as a tool of a stabilizing policy enables the return to the initial income level.

Similarly to the conditions of fixed exchange rate, the introduction of aggregate supply increases the probability of the restriction effect. Since money supply does not change, currency depreciation becomes the main

factor of decrease in production. A fall in aggregate supply ( $AS_0 \rightarrow AS_1$ ) along with the reduction of aggregate demand ( $AD_0 \rightarrow AD_1$ ) causes stagflation (Point L). Although, it may seem that there is no difference between floating and fixed exchange rates from the viewpoint of the consequences of servicing external debt, it occurs when a stabilizing policy is meant.

In the optimistic scenario, the expansion of money supply increases production output ( $AS_1 \rightarrow AS_2$ ) and aggregate demand ( $AS_1 \rightarrow AS_2$ ) that enables the return to the “natural” income level  $Y_0$  at a higher price level  $P_1$ . The pessimistic scenario, when the balance sheet effect dominates in aggregate demand, implies reduction in aggregate demand (shown by the dotted line), which does not enable to return to equilibrium even regardless of increase in aggregate supply. It should be noted that the dollarization of an economy can be useful as a tool to increase money supply in case of currency depreciation if the exchange rate pass-through effect is weak.

For a small open economy like Ukrainian, the mechanisms for decreasing aggregate supply are various. Firstly, imported energy resources are of great importance. The economy remains energy-intensive, that is why any significant currency depreciation leads to increase in production cost and consequently to decrease in production output. The dependence on imported equipment and resources has a similar impact. Secondly, the Cavallo-Patman effect seems to be present. It means that after increase in loan interest rates, the costs of financing working capital also rise, and this limits production opportunities due to decrease in real money supply (in addition to price rise). Thirdly, there are no opportunities for favourable “surprise” inflation in the labour market. Instead of decrease in real wages (at the time when nominal wages increase) and increased demand for labour, it is more likely to expect decrease in the number of people willing to work (opportunities for this are provided by labour migration).

The sovereign debt crisis is closely connected with the banking crisis. The fact that banking crises trigger debt crises (like in the cases of Ireland, Spain) and vice versa (Greece) confirms the mutual dependence of the banking and public sectors [6]. This dependence can be explained by the “moral hazard” problem, which means the state guarantees when banks and other debtors invest money in risky high-yield projects. In case of negative macroeconomic shocks, private sector debt is transformed into public debt.

The experience of the majority of European and Asian countries

confirms that only those countries succeeded in avoiding serious debt problems, which were able to control their budget deficit and progress due to the import of capital and technological innovations. The examples of success are the economies of Norway and Chili, where external public debt was used for mining, which later became a source of debt repayment. The Asian “Tigers” (like South Korea) were effective to overcome their middle-income trap by means of investing in progressive projects, improving legal system, particularly in the sphere of property rights protection and proper macroeconomic policy. As a result, production capacities were improved, and that attracted FDI inflows, increased domestic savings and reduced their need in further loans. On the contrary, in the 1970s, some Latin American countries (like Brazil, Argentina, Mexico) borrowed a lot to finance programs of import substitution industrialization (ISI), but instead of the development of the export sector, which should have ensured the inflow of foreign exchange, there was an excessive import increase without corresponding production scale-up, although in the 1970-1980s, raw materials and intermediate goods constituted more than half of all imports [10].

At the same time, governments of poorer countries are usually criticized for their inability to devalue currency on time in order to provide relevant competitiveness of the export sector and to limit import. The counterargument is that devaluation may produce a considerable inflationary effect, and this offsets the gained improvement of price competitiveness. Furthermore, devaluation is undesirable from the viewpoint of the balance sheet effect. If there are possibilities to substitute import effectively, the weakness of currency leads to higher prices of imported inputs that also endanger increase in the export of agricultural products. Additionally, the opportunities of competitive industrial development are lost.

There are several additional factors determining the outcome of debt-financed public investment. The external debt performance and economic development depend on institutional factors like the absence of corruption, an efficient administrative system, transparency, and a reliable legal system. The increased transparency in decision-making encourages investors' confidence, the better acceptance of political process, including the macroeconomic policy. Considering post-communist institutional uncertainty, the quality of public management in these countries at different levels of governance is even more important than in Latin American countries because it influences the

implementation of economic reforms.

Emerging economies prefer short-term borrowings because of high risk premium, set by international capital markets for long-term loans. Since long-term borrowings transfer risk to bondholders, the government tries to reach a compromise between safer long-term loans and cheaper short-term debt. During the crisis, the risk premium rises, and this enhances the advantages of short-term loans.

The depth of financial markets in each country plays an important role: more developed countries have more developed bond markets. For public sector, in countries, where bond markets are less developed (Bosnia and Herzegovina, Albania) loans remain the main form of external financing, unlike in the EU states, where governments raise funding primarily in the bond market [5].

The debt accumulation in 2008-2016 in Ukraine had some specific features. Firstly, external debt financing was accompanied by currency appreciation, which led to significant current account deterioration due to increased import. Secondly, private foreign exchange holdings were partially renewed by means of external debt borrowings, since individuals purchased foreign currency as insurance against inflation and rapid depreciation. Thirdly, the significant dependence of investment process on imported goods, services and technologies takes place. Fourthly, since the current account deficit can be the factor of the economy's vulnerability to capital outflow, the transition from the negative current account to the positive one is obligatory. Fifthly, investment projects were not successfully and fully implemented due to an imperfect legal system, corruptive schemes, and the unproductive allocation of resources. Sixthly, in 2006-2008, commercial banks took short-term loans abroad and gave long-term loans to domestic borrowers. Because of the 2008 world financial crisis, there were no possibilities to refinance the short-term debt as world financial markets collapsed. As a result, some banks were nationalized by the government that increased the external public debt. Seventhly, the political crisis worsened the macroeconomic situation in Ukraine, causing the uncertainty which – along with accelerating inflation and slowdown in economic growth – led to a significant FDI outflow. Eighthly, the share of short-term speculative investments was considerable. Ninthly, in the composition of exports, the share of primary commodities and low-technology products prevails. This makes Ukrainian economy vulnerable to the fluctuations of primary commodity prices in the world market. Generally, the probability of being trapped among the countries

with huge debt burden is higher for less developed countries which derive at least 50 percent of their export earnings from three or less main primary commodities [11]. In the 1970s, when primary commodity prices were high, countries with abundant natural resources used them as collateral for their debt [7].

To conclude, external debt can be an effective tool to promote economic growth and development by increasing production capacities and enhancing competitiveness. But the necessary condition of this outcome is the significant investment effect, although other mechanisms of the smoothing of private consumption or exchange rate stabilization should be taken into account. For transition economies, the possibility of effective implementation and coordination of economic reforms is very important. If external public borrowings are used to solve short-term problems, and they are not aimed at investment development but, on the contrary, they allow the delay of urgent structural reforms, the consequences are the following: vulnerability to crisis and decrease in long-term growth rates. Considering today's economic problems in Ukraine, it is recommended to decrease the dollarization level of Ukraine's economy, develop the domestic debt market, improve the taxation system, target inflation, use borrowed funds efficiently, and diversify export products. These factors will strengthen price stability, economic certainty and investors' confidence.

## References

1. Afonso A., Alegre J.G. (2011) *Economic growth and budgetary components: a panel assessment for the EU. Empirical Economics, Vol. 41(3), pp. 703-723.*
2. Benos N. (2005) *Fiscal Policy and Economic Growth: Empirical Evidence from OECD Countries. Discussion Paper 2005-01, University of Cyprus.*
3. Calvo G.A., Izquierdo A., Mejia L.F. (2004) *On the empirics of sudden stops: the relevance of balance-sheet effects (No. w10520). National Bureau of Economic Research.*
4. Easterly W., Rebelo S. (1993) *Fiscal policy and economic growth. Journal of monetary economics, Vol. 32(3), pp. 417-458.*
5. *International Monetary Fund (2014b) "Safeguarding the Recovery as the Global Liquidity Tide Recedes," Central, Eastern, and Southeastern Europe Regional Economic Issues. Washington.*
6. Kooths S., van Roye B. (2012) *Euro area: Single currency-national money creation (No. 1787). Kiel Working Paper.*
7. Manzano O., Rigobon R. (2001) *Resource curse or debt overhang?*

- (No. w8390). National bureau of economic research.
8. Poot J. (2000) *A Synthesis of Empirical Research on the Impact of Government on Long - Run Growth*. *Growth and change*, Vol. 31(4), pp. 516-546.
  9. Sachs J.D., Warner A.M. (1999) *The big push, natural resource booms and growth*. *Journal of development economics*, Vol. 59(1), pp. 43-76.
  10. Stambuli P.K. (1998) *Causes and consequences of the 1982 world debt crisis*. *Predoctoral Research Paper Department of Economics University of Surrey Guildford*, pp. 1-35.
  11. Swaray R.B. (2005) *Primary Commodity Dependence and Debt Problem in Less Developed Countries*. *Applied Econometrics and International Development*, Vol. 5(4), pp. 131-142.

## Chapter 6

### EUROPEAN INTEGRATION: PROBLEMS OF ADAPTATION, COMPETITIVE ADVANTAGES AND PROSPECTS FOR UKRAINE

#### **Britchenko Igor**

*Doctor of Sciences (Economic), Professor  
Panstwowa Wyższa Szkoła Zawodowa im.  
Prof. S. Tarnowskiego*

#### **Stoika Viktoria**

*Candidate of Sciences (Economic),  
Associate Professor  
Uzhgorod National University  
(Tarnobrzeg, Poland; Uzhgorod,  
Ukraine)*

#### **THE ISSUES OF IMPLEMENTING BASEL III REQUIREMENTS IN THE ACTIVITIES OF DOMESTIC BANKS**

Basel Committee on Banking Supervision is an international space to develop best practices in the world of banking regulation. Basel III system was created taking into account the lessons of the financial crisis of 2008, which demonstrated a lack of financial stability of the banking system, even in developed countries.

The main highlights of the Basel system are aimed at strengthening the quality requirements for bank capital, as well as increasing the liquidity of banks and their financial independence. For this purpose, in particular, the requirements for bank capital adequacy are being increased, the limits on the ratio of its borrowing and equity as well as additional indicators for monitoring liquidity are being introduced. Basel III provides for a gradual increase in the requirements for banks according to the schedule that anticipates a transitional period until 2019.

Basel III is a combination of advanced methods of risk assessment, which include credit, market and operational ones, and the creation of a corresponding capital, meaningful supervision and market discipline. Only an organic combination of these three components can be called a

risk-oriented supervision which, according to the Basel Committee on Banking Supervision, will be able to ensure financial stability. This is a new paradigm of banking supervision, which applies to the entire financial system.

The impact of risks on all the banking institutions is enhanced, since they are linked into a single unit, into a single system, on the basis of their economic nature and mission:

1) Organization of payments in the economy, due to the concentration of the predominant part of the money supply in the bank institutions. Naturally, each individual bank is not able to ensure the proper functioning of enterprises of all economic sectors in the area of payments, therefore, it must cooperate with other bank institutions that serve the relevant counterparties, which in turn requires a proper institutionalization of these relations, that is, a necessary centralized control of them within a unified system. The state determines the “rules of the game” for the banks, but it is not able to order them. Of course, if these rules are subject to frequent changes, it exposes the bank to significant risks, which in extreme cases can lead to bankruptcy. Thus, the cash flow in the economy is able to meet the needs of both individual companies and the organization of the entire reproduction process, only under the conditions of the effective and coordinated operation of the banking system rather than individual banks regarding the proper control, technical support and the organization of payment turnover of the country.

2) Maintaining a stable functioning of the banks as a guarantee of ensuring customers' funds and the normal process of crediting of the country's economy. The fact is that the activities of banking institutions have a high-risk character, as they are closely linked to all economic actors, and with each other, and therefore any negative changes in their financial situation may have much worse consequences for the economy than a similar change in the activity of enterprises that do not work in the financial sector. A concrete manifestation of the organization of control and supervision, in practice, of the normal activities of banks by the state, which involves the need to create a single legal framework, is a clearly structured banking system. Therefore, the stability of the banks is one of the priorities of the economic policy of the state, because it greatly influences the economic growth and macroeconomic stability of the country.

3) Full control of money circulation in the country due to the banks having the possibility of applying the emission mechanism in the



process of performing their main tasks (crediting and payment transactions) of providing services to the subjects of the market. In order to avoid an uncontrolled emission of credit money into payment turnover of the country, which is able to destabilize the entire economic activity in general, the functioning of the banking system and its emission activity in particular, should be effectively regulated by the state through the administrative or economic impact on the banking institutions to promptly expand or limit its capabilities regarding the emission of financial resources.

Basel III will significantly affect the change of the European banking sector parameters. Based on the balance sheets of 2010 and in order to meet the requirements of 2019, European banks will need to attract about 1.1 trillion euros of Tier I capital, to increase short-term liquidity resources by 1.3 trillion euros and long-term liquidity resources approximately by 2.3 trillion euros. These are unprecedented tasks which are not known so far to the banking practice in Europe.

For USA banks the pressure will be slightly lower but rather similar. According to estimates, the shortage of Tier I capital is 800 billion USD, short-term liquidity gap – 758 billion USD and long-term funding gap - 2.9 trillion USD.

The analytical estimates of Basel III developers determine the price of the reforms at the level of 45-70 million euros. However, the main costs will be spent on the development and the implementation of the methods for studying risks, including IT risks, and only slightly more than 20% – for the development and implementation of specific measures for the implementation of the new Basel rules regarding the improvement of the quality control of the formation and the efficient use of bank capital.

The introduction of Basel Accords is a complex process, particularly in the countries with unstable economies which are not the members of the EU, that requires time, certain financial resources and a large number of trained experts both in supervisory bodies and directly in banking institutions. Therefore, it is desirable that this process has some periodization and is based on the observance of the Principles for Effective Banking Supervision of the Basel Committee. The regulator should also provide reliable verification of internal risk management in the banks, including the maintenance of capital adequacy. For this not only the risk management processes are being analyzed, but also the bank strategy, the role of the supervisory board and management regarding the identification and control of risks; the character and extent

of the bank's business, as well as its business plan, are being considered, the system of internal control and audit is being evaluated.

Basel standards, under the conditions of the formation of a unified regulatory environment, provide the banks with the necessary tools, giving them the impetus to improve their business models, to create an appropriate institutional mechanism and to rationalize risk management procedures.

The main tasks of implementing Basel standards of banking supervision in Ukraine are:

- improving the stability of the financial system to the impact of aggregate shocks by creating buffers for absorbing this impact;
- limiting the spread of systemic risk over time with the aim of easing pro-cyclical relationships;
- controlling the spread of vulnerabilities within the financial system arising from the interconnectedness of financial intermediaries, markets and individual sectors.

Given the fact that in Ukraine the legislation is based on the provisions of Basel I Accord and the implementation of Basel II is still incomplete, the situation of the implementation of the new Basel III provisions in the practice of bank activity is quite uncertain. In our country the appropriate conditions for the implementation of the agreement are not created yet, even for its simplified version. First of all, there is no material basis, as the transition to Basel standards, even to the simplest ones, is associated with significant costs both for the country and for each individual bank. Nor there are sufficient technical resources, as the introduction of new Basel rules requires banks to improve the system of risk management and IT technologies and the systems for applying modern models of risk assessment. Some elements of market infrastructure are also underdeveloped, including efficiently operating rating agencies. The legal framework for system implementation of the concept of assessment and management of individual and systemic risk of banks, both at the macro and micro levels, is not provided in Ukraine either. Undoubtedly, a number of regulations concerning the formation of risk management of banks, the introduction of risk-based supervision and the improvement of corporate governance in the banking sector have been introduced. However, the concrete actions for the approximation of the domestic banking practice with the first component of Basel II have not been taken yet, and some of its requirements have been implemented only by several commercial banks with foreign capital.

In Ukraine there are a number of internal barriers in terms of adapting international standards to domestic conditions, the main of which are:

- the lack of adequate material base and the insufficiency of technical base;
- insufficient legal support;
- poor transparency of the activity of banks and the quality of information about their financial condition;
- the weakness of the state regulation of the banking sector;
- a poor level of corporate governance and the weakness of risk-management systems;
- the unstable nature of the economy;
- a low level of bank transparency for bank supervisory authorities.

For the Ukrainian banking system the transition to the new Basel Accords will largely depend on their interpretation, sequence and the timing of their implementation. However, the question arises regarding the feasibility of their implementation in full volume or the election of only partial elements of the requirements. Probably, the best option for our country is the partial implementation of the requirements of the Basel Committee, taking into account all the peculiarities of the domestic banking sector.

In terms of increasing systemic threats in Ukraine the role of Central Bank policy is being updated, which, in turn, creates the need to improve the institutional mechanisms for ensuring financial stability and clarifying approaches to the development of a toolset for monitoring systemic risks, aimed at better coverage of the sources of their origin and their distribution channels.

It should be noted that the National Bank of Ukraine (NBU), for the purpose of supervision, on the basis of bank risk assessment has adopted the Methodical instructions for bank inspection “Risk assessment system” № 104 from 15.03.2004, where the following risk categories are identified: credit risk, interest rate risk, currency risk, liquidity risk, market risk, operational and technological risk, legal risk, reputation risk and strategic risk. These categories are not mutually exclusive, that is, any product or service may expose the bank to several types of risks.

Credit risk is the actual or potential risk to earnings and capital, arising due to the inability of the party, which has assumed the obligations, to fulfill the terms of any financial agreement with the bank (its unit) or otherwise fulfill the undertaken obligations. Credit risk is present in all the activities where the outcome depends on the activity of

the counterparty, issuer or borrower. It occurs every time a bank lends fund, undertakes the obligation to provide them, invests funds or otherwise risks them under the terms of actual or contingent arrangements, regardless of where the operation is displayed – on the balance sheet or off the balance sheet.

Liquidity risk is defined as the actual or potential risk to earnings and capital arising due to the inability of the bank to meet its obligations in due time without suffering unacceptable losses. Liquidity risk arises from the inability to manage unplanned outflows of funds, changes in sources of funding and / or to perform off-balance sheet obligations.

Interest rate risk is the actual or potential risk to earnings or capital arising from adverse changes in interest rates. This risk affects both the profitability of the bank and the economic value of its assets, liabilities and off-balance sheet instruments.

Market risk is the actual or potential risk to earnings and capital arising from unfavorable fluctuations in the value of securities and commodities, as well as foreign exchange rates on the instruments that are in a trading portfolio. This risk derives from market-making, dealing, taking positions from debt and equity securities, currencies, commodities and derived securities (derivatives).

Currency exchange risk is the actual or potential risk to earnings and capital arising from unfavorable fluctuations in foreign currency rates and prices of precious metals. Currency exchange risk can be divided into: transaction risk, translational risk and economic currency exchange risk.

Operational and technological risk is a potential risk to the existence of the bank arising from the deficiencies of corporate governance, the system of internal control or inadequate information technology and the processes of handling information in terms of manageability, universality, reliability, controllability and continuity of work.

Reputation risk is the actual or potential risk to earnings and capital that arises from adverse perception of the image of a financial institution by clients, counterparties, shareholders (participants) or supervisors. This affects the ability of the bank to establish new relationships with contractors, to provide new services and to maintain existing relationships.

Legal risk is the actual or potential risk to earnings and capital arising due to the violation or non-compliance of the bank with the requirements of laws, regulations, agreements, accepted practices or ethical standards, as well as due to the possibility of their ambiguous

interpretation. Bank institutions are faced with legal risk because they have relationships with a large number of stakeholders, such as customers, counterparties, intermediaries, etc., supervisors, tax bodies and other authorities.

Strategic risk is the actual or potential risk to earnings and capital arising due to incorrect management decisions, improper implementation of decisions and inadequate response to changes in the business environment. This risk arises from incompatibility: the strategic objectives of the bank; business strategies designed to achieve these goals; the resources applied for the achievement of these goals; the quality of their implementation.

In domestic practice mainly there are used bank prudential tools which limit the scope of comprehensive monitoring of the sources and distribution channels of systemic risk. Macro stress tests and analysis of bank balance sheets continue being the main tools of risk monitoring in the banking sector of Ukraine, which is characterized by high systemic vulnerability. For a fuller usage of cyclical trends in the economy it is appropriate to broaden the use of macroprudential instruments with variable parameters.

The usage of the most models for identification and assessment of the impact of systemic risks in the domestic realities, recommended for application in developed countries, is problematic, particularly because of the nonlinearity of macroeconomic processes, the poor state of the economy and public finances, an imperfect information base, as well as unresolved organizational and legal issues. The above mentioned makes it impossible to create an effective system of cross-cutting monitoring of systemic risk and negatively effects the efficiency of implementing macroprudential policies and the restoring of financial stability.

In recent years, qualitative changes have occurred in the practice of macroeconomic research due to the transition from using vector autoregressive models (VAR) to the use of dynamic stochastic general equilibrium (DSGE) models, which is a modern attempt to apply the structural constraints imposed by the economic theory when assessing the relationship of the main macro indicators.

When forming a set of macroprudential instruments it is expedient to emphasize that some of them have a limited usage in Ukraine because of the following features:

- *the level of economic development of the country.* In terms of developing countries, there is a limited use of such tools as Joint Distress Indicators; Asset Price Models; Systemic Liquidity Risk

Indicator;

- *requirements regarding information and the frequency of its updating.* The models that are based on the use of asset price as the main form of data are difficult to use in an underdeveloped stock market. This class includes the following models: Regime Switching, Returns Spillovers, Market-Based Probability of Default, Systemic Contingent Claims Analysis. The models based on interbranch balance data - Balance Sheet Approach are also restricted in their use. It should be noted that in Ukraine last time it was compiled in 1987;

- *the approbation level in international practice.* The level of approbation of tools, information on which is placed in a magazine, book or online publication, in our view, is more limited compared to those which are recommended by international financial institutions. For example, the use in regulatory practice of such models as GDP at Risk, Returns Spillovers, Distress Spillovers, Market-Based Probability of Default, and Systemic Contingent Claims Analysis needs to be discussed.

Common in the banking practices of developed countries tools for monitoring systemic risk have certain limitations in the conditions of Ukraine due to, first of all, the nonlinearity of macroeconomic processes under the actual manual mode of economic management, where the system can give a completely disproportionate, unexpected reaction to the same regulatory measure depending on the moment, and this rather complicates the provision of information support of monitoring processes. The macroprudential tools used in the domestic banking practice include Financial Soundness Indicators, Macro Stress Tests, Bank Health Assessment Tool.

Signing the Association with the EU should promote the rapid transition of Ukrainian banks to European standards, initially focusing on the most modern standards of Basel III system. Theoretically, Ukraine may choose not to follow the rules of the Basel Committee on Banking Supervision since in the text of the Agreement with the EU there are no such requirements. But it is the transition to these standards that will allow to clean up the banking sector and to leave on the market only those players who are able to withstand the fierce competition for customers.

Transition to Basel III standards should become the primary mechanism for strengthening domestic banking system. Its transparency will also be improved in the implementation of the Basel requirements. This will increase the confidence in banks not only from the side of

depositors but also investors. If foreign investors see that in Ukraine there are European rules of business and increasing profitability of banks, then they will invest additional funds. As a result, big European banks will come back to Ukraine. Meanwhile, those parent structures, whose “daughters” are already working here, will try to increase their market share. The return of the European capital will become the basis of stable growth of the Ukrainian economy.

Risk management requires continuous improvement. Banks have long ago understood the importance of proper risk assessment and they work in this direction. Nevertheless, fleeting economic and political situation in Ukraine is always making adjustments in the plans of bankers. Nowadays, top managers should be able to quickly make decisions and continuously adapt existing models to the new reality.

Thus, one of the main goals of the introduction of “Basel III” in Ukraine is bringing bank supervision and regulation to international standards, ensuring the stability of the domestic banking system and its ability to withstand all sorts of crises. The process of implementation of Basel III requires considerable work by the NBU regarding the amendment of the legal framework, improving and changing the fundamentals of regulation and supervision, the development of methodological principles for evaluating the effectiveness of Basel III, the riskiness of the domestic banking system. In addition, the process of implementing Basel III should be carried out within the strategic tasks and goals of the development of domestic banking system

## References

1. *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, [online] / Basel Committee on Banking Supervision. Available at: <http://www.bis.org/publ/bcbs189.pdf>.
2. *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, [online] / Basel Committee on Banking Supervision. Available at: <http://www.bis.org/publ/bcbs238.pdf>.
3. Baha O. (2016) *Prospects of implementation of “Basel III” international standards for domestic banks based on international experience*, *Traektoria nauki*, Issue 4 (9), pp.237 – 243.
4. Dzubluk O.V., Prijdun L.M. (2013) *Problems and prospects of implementation of Basel III in Ukraine*, [online]. Available at: <http://dspace.tneu.edu.ua/bitstream/316497/5528/1>.
5. Ivaniy K.O. (2014) *The Impact of Basel III on the formation of the business strategy of European banks*, *Economic analysis*, Issue1, pp. 253 – 259.

6. *Methodical Guidelines for Bank Inspection “System of Risk Assessment”*, [online]. *The Resolution of the Board of NBU from 15.03.2004 number 104 / the National Bank of Ukraine*. Available at: <http://zakon3.rada.gov.ua/laws/show/v0104500-04>.
7. Naumenkova S. (2015) *Basel I, II, III: the development of approaches for strengthening of prudential framework*, *Bulletin of Taras Shevchenko National University of Kyiv. Economics, Issue 12 (177)*, pp. 39 – 48.
8. Naumenkova S., Mishchenko V. (2015) *Makropudential instruments in financial stability mechanism*, *Finances of Ukraine, Issue 10*, pp. 53-76.
9. Tsybko O. V. (2003) *Bank Activity and Risks that Accompany It*, *The Bulletin of the Ukrainian Academy of Banking, Issue 1*, pp. 65-68.

**Garasym Petro**

*Professor, The Jan Kochanowski University in Kielce*

**Padyuka Mariya**

*Assistant, Department of Accounting and Auditing*

*National Forestry University of Ukraine*

*(Kielce, Poland; Lviv, Ukraine)*

**THE ROLE OF ACCOUNTING POLICIES IN TODAY'S BUSINESS ENVIRONMENT IN UKRAINE UNDER EUROPEAN INTEGRATION PROCESS**

Accounting policy in Ukraine has become particularly important in early 2000, when they began to be implemented by Regulations (standards) of accounting and business have offered several options to reflect an accounting of the same transaction. By this time there was no such a need because of accounting was clearly under the one regulation. Thus, companies have not only rights but also responsibilities for establishing certain rules, fixing them in administrative documents – an order or regulation.

Formation of accounting policy is rather laborious process but very necessary in organization's business processes.

Link to mandatory approval of accounting policies mentioned in several Ukrainian laws, including Provision (standard) of accounting 1 “General requirements to financial reporting”, Tax Code, the Law “On accounting and financial reporting in Ukraine”. When enterprise is checked by tax or audit services providing such a document is



obligatory.

Extensive research on issues and various aspects of the accounting organization and accounting policies are reflected in the works of Ukrainian scientists: M.Bilukha, F.Butynets, L.Kindratska, A. Kuzminsky, N.Kuzhelny, V.Linnyk. However, the question formulation and effective implementation of accounting policies is urgent and requires further research.

The aim of the article is to study the features of accounting policies in today's Ukrainian business environment and expression proposals for their improvement.

The accounting policies are an important tool of financial reporting formation and mandatory element of financial accounting.

The term “accounting policies” legislated in the Law of Ukraine "On accounting and financial reporting in Ukraine" dated July 16, 1999 № 996-XIV as a set of principles, methods and procedures used by the enterprise for preparation and presentation of financial statements [1].

The same definition is contained in the Provision (standard) of accounting 1 “General requirements to financial reporting” dated February 7, 2013 № 73 approved by Ministry of Finance of Ukraine [4].

The companies choose one of the following forms of accounting (fig. 6.1).

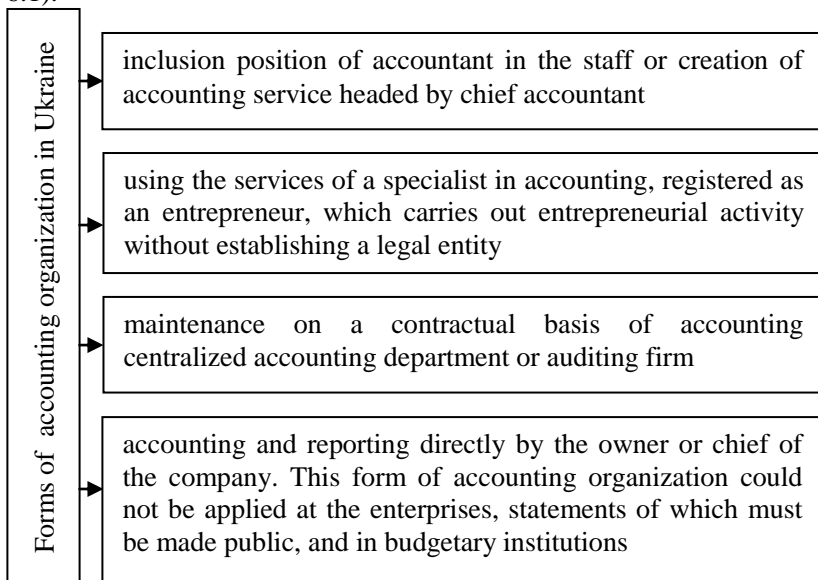


Figure 6.1. Forms of accounting organization

According to the Law of Ukraine “On accounting and financial reporting in Ukraine” (article 8) accounting policies formation is the responsibility of the owner (owners) or authorized body (official) who supervises the company in accordance with the law and constituent documents [1].

Responsibility for organization of accounting and provision fixing the facts of realization of all economic transactions in the primary documents, the preservation of processed documents, registers and reporting within the prescribed period, but not less than three years, is the owner (owners) or authorized body (official) which manages the company.

The head of the enterprise is obliged to create necessary conditions for correct conducting accounting, provide a steady performance of all departments, services and employees of lawful accountant claims with respect to the order of registration and submission to the accounting of primary documents.

Especially in a market economy accounting policies allow to realize economic freedom of enterprise. The latter according to the Law of Ukraine “On accounting and financial reporting in Ukraine” (article 8) [1] is free in its choice (fig. 6.2).

In regulatory documents on accounting policies are given the principles, methods and procedures used by the enterprise for accounting, preparation and presentation of financial statements and for which the regulations on accounting provides more than one of their options and estimates used now to allocate costs between the relevant reporting period.

One variant evaluation methods and accounting procedures for such regulatory documents are inappropriate to include.

Accounting policies can take into account the legal form of enterprise, industry features of economic activity, production and so on.

Accounting policies are the element of accounting at the company.

In according to “Methodical recommendations for accounting policy” dated June 27, 2013 No. 635 approved by Ministry of Finance of Ukraine regulatory documents on accounting policies determine, inter alia [5]:

- disposal methods for evaluating stocks;
- identification average unit cost of inventory;
- the accounting and distribution of transportation and procurement costs, maintaining a separate sub-account of transportation and procurement costs;

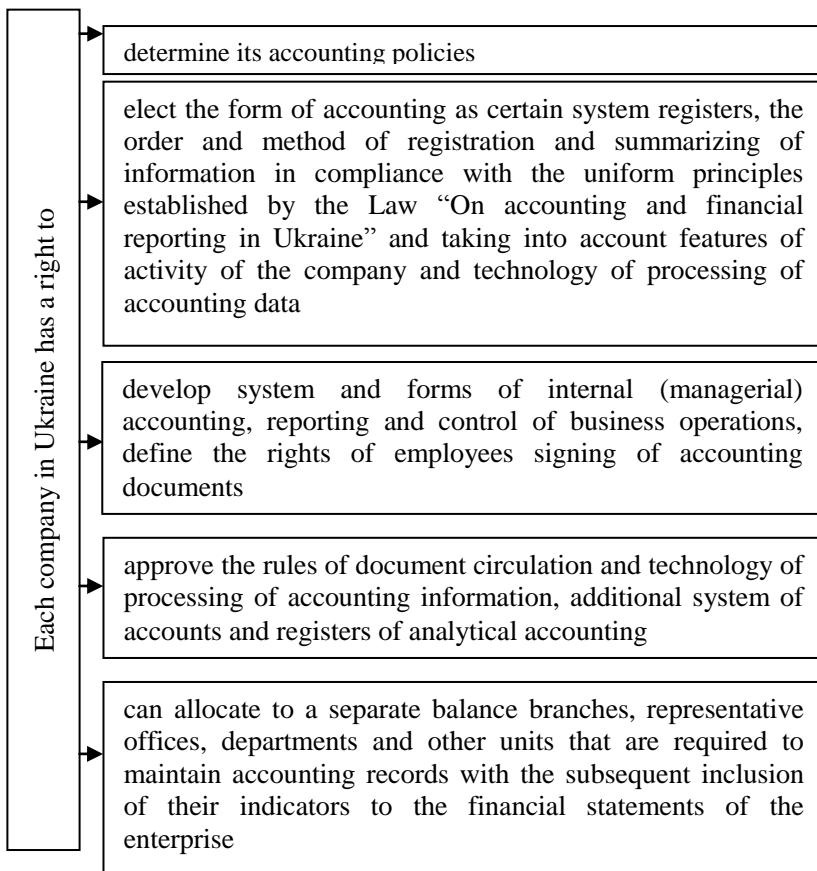


Figure 6.2. Ukrainian enterprises right to self-determination in accounting

- methods of depreciation of fixed assets and other non-current tangible assets, intangible assets and long-term biological assets and investment property, if they are stated at cost;
- cost attributes of objects belonging to the low-value non-current tangible assets;
- approaches to the revaluation of fixed assets;
- the use of class 8 and / or 9 Chart of accounts for assets, capital, liabilities and business operations of enterprises and organizations, approved by the Ministry of Finance of Ukraine dated November 30,

1999 No. 291;

- approaches to frequency transfer surplus fixed assets amounts to retained earnings;
- method of calculating the allowance for doubtful debts (if necessary – method of determining the uncertainty factor);
- created provisions for liabilities and charges;
- order payments made on account of profit (for state and municipal enterprises);
- assessment procedure to completion of operations to provide services;
- business segments, the preferred type of segment pricing principles calculations farm;
- list and composition of variable and fixed overhead cost, base of their distribution;
- list of items and composition calculation of production cost of goods (works, services);
- procedure for determining the degree of completion of the construction contract;
- date of systemic acquired in transactions of financial assets;
- cost-sharing basis for transactions with equity instruments;
- quantitative criteria and qualitative features materiality of information on business operations, events and articles of financial reporting;
- frequency reflected deferred tax assets and deferred tax liabilities;
- the distinction between facilities operating real estate and investment property;
- approaches to the classification of related parties;
- date of include ordinary shares, issue of which is registered in the calculation of the average number of ordinary shares outstanding;
- date of initial recognition, non-current assets and disposal groups as held for sale;
- compiling a separate balance branches, representative offices and other separate subdivisions of the enterprise;
- frequency and objects of inventory;
- determining unit analytical accounting supplies;
- way of the statement of cash flows;
- approaches to classification of expenses related to improvement of fixed assets in the initial cost or expense reporting period.

The recommendations of the Ministry of Finance of Ukraine No. 635 are not are obligatory to use, and are only advisory in nature. However, it is worth noting that they actually collected all the basic elements that are worth paying attention in preparing the accounting policies. However, a list is not exhaustive (tabl. 6.1) [6].

Table 6.1

**Elements of accounting policies that are not reflected in the Methodical recommendations No. 635**

№	Elements of accounting policies
1	Objects of fixed assets are provided and received on lease
2	Evaluation of the object that was obtained in finance leases at the tenant accounting
3	The period of the expected use of the object of financial lease
4	The depreciation method of financial lease object
5	The base of distribution general production expenses at normal capacity
6	The accounting method for financial expenses
7	Determination of materiality of operating cycle
8	Identifying essential time (the time for the purposes of qualifying as an asset, is essential)
9	The useful life of goodwill
10	The use or non for recalculation of income, expenses and cash flows of the average exchange rate corresponding month
11	Determining the fair value of biological assets
12	Useful life of long-term biological assets
13	The list of items calculation cost of products related to biological assets
14	The distribution base of general production expenses (forestry, crops and livestock, etc.)
15	Closing the account 79 "Financial results" and the transfer of financial results to account 44 "Retained earnings (uncovered loss)"

Agree with the idea that today for all companies is actual implementation system of environmental accounting, a product of which is result the interaction of enterprise with the environment.

Very important in this case, according to some scientists, is clarifying accounting policies, identification of major groups of environmental costs, forming the category of "environmental costs" in

production costs (for correct accounting of environmental costs and its efficient organization); the tools keeping operating and investment costs (accounting for cost centers and environmental measures), accounting information aggregate environmental costs (to summarize), data analytical account of environmental obligations (increase analyticity for information), application of analytical accounts for the accounting of environmental costs; the development of guidance on the accounting and implementation of analysis of complex environmental costs, application indicator of the effectiveness of environmental costs (to develop successful environmental projects) [7].

Accounting policies set (fix) for companies usually several selected prescribed regulations. That is this document can not conflict with current accounting regulations, and aims to resolve the issues that have the right to choose.

The accounting policy must also take account of and approaches to accounting of taxes. This in the accounting policy allows allocating not only financial, but also separate management and taxing aspects. Financial, managerial and tax accounting as a subsystem of accounting, first of all, the need of the organization concerned.

In modern Ukrainian economic realities accounting is important in tax issues (for example, tax payers of income tax determine base on current accounting financial result plus / minus difference registered in the Tax Code of Ukraine; as for VAT on the sale of fixed assets for account is important the minimum base – not lower residual account value of such object) [2].

So accounting policies is important not only for accounting purposes, but also for the tax. Selected option in the accounting policies in different situations may ultimately influence on the tax base.

The accounting policies adopt for several years and they should not be changed every year. In Ukraine the latter defined by accounting principles, namely the principle of consistency.

Accounting policy ensures the implementation of the principle of consistency, which requires constant (from year to year) application of company accounting policy elected. The change in accounting policy is possible only in cases stipulated by national regulations (standards) of accounting and must be justified and disclosed in the financial statements.

The Ukrainian legislation clearly defines the procedure for the change in accounting policy of the company. So, Provisions (standard) of accounting 6 "Correction of errors and changes in the financial

statements" dated May 25, 1999 No. 137 approved by Ministry of Finance of Ukraine provides the following reasons that cause the change in accounting policy (fig. 6.3) [3].

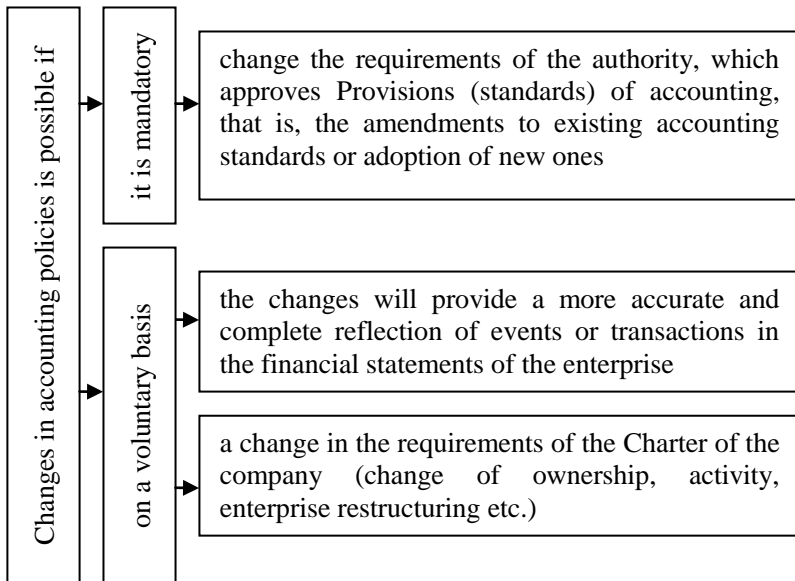


Figure 6.3. Changes in accounting policies

Not considered a change in accounting policies identification for events or transactions that differ in content from previous events or operations; events or transactions that were not happening previously.

Accounting policies does not end after the creation and approval of the order on accounting policies, but continues and can change until the termination of the enterprise.

In 2014 Ukraine signed an Association Agreement with the European Union. European integration opens up new prospects for the development of business and enterprises are challenged to adapt to EU requirements. However, the entry of domestic producers in the EU markets requires compliance with standards and requirements of enterprises and keeping clear and transparent accounting policies.

European integration processes in Ukraine are occurring in condition of socio-economic crisis. Creating favorable conditions by the state to perform system accounting business of tasks are crucial for implementing new approaches to accounting that meet the objectives of

sustainable development and current trends Ukraine international experience in this field. European integration makes consideration in the process of best accounting practices.

Since the effective formation of accounting policies includes in addition to knowledge of the current regulatory framework also creative ability of its application, the main issues arising during the formation of accounting policies in Ukraine include [6]:

- current accounting and tax laws, which are based on the principles, techniques and methods of accounting imperfect in many respects;

- forming accounting policies by managers and accountants present risk factor, as decisions are made under the influence of subjective judgment;

- the impossibility of the mechanism accounting policies address issues that are not directly within their jurisdiction and not covered by regulations.

In Ukraine under European integration process accounting policy becomes particularly important as for large-sized companies with significant revenues and intensity of accounting information received by the management required for company operation, as for small companies, that only starts to grow-up.

It is necessary and important to reconsider the role of accounting policies as an effective tool for accounting organization and financial statement.

Based on the research is proved that the accounting policies for the current fiscal year organizes accounting (especially analytical) according to figures of annual financial statements, reduces the complexity and duration of financial reporting, provides the use of optimal methods of accounting procedures in order to obtain the expected results financial and economic activity of the enterprise.

Thus, the main criterion in choosing a particular method of accounting for elements of accounting policy for each company is solely economic efficiency. Because the established methods of calculation influence not only on the objectivity and accuracy of disclosures in the financial statements, but also on the value of net profit.

Skillfully formed accounting policies largely influence economic management of the enterprise and its development strategy for the long term.



## References

1. Verkhovna Rada of Ukraine (1999) the Law “On accounting and financial reporting in Ukraine”, available at: <http://zakon.rada.gov.ua/laws/show/996-14> (accessed 25 April 2017).
2. Verkhovna Rada of Ukraine (2010) the Tax Code of Ukraine, available at: <http://zakon0.rada.gov.ua/laws/show/2755-17> (accessed 25 April 2017).
3. Ministry of Finance of Ukraine (1999) the Provision (standard) of accounting 6 “Correction of errors and changes in the financial statements”, available at: <http://zakon2.rada.gov.ua/laws/show/z0392-99> (accessed 25 April 2017).
4. Ministry of Finance of Ukraine (2013) the Provision (standard) of accounting 1 “General requirements to financial reporting”, available at: <http://zakon2.rada.gov.ua/laws/show/z0336-13> (accessed 25 April 2017).
5. Ministry of Finance of Ukraine (2013) “Methodical recommendations for accounting policy”, available at: [http://minfin.kmu.gov.ua/control/uk/publish/article/main?art\\_id=382876&search\\_param=%EE%E1%B3%E3&searchPublishing=1](http://minfin.kmu.gov.ua/control/uk/publish/article/main?art_id=382876&search_param=%EE%E1%B3%E3&searchPublishing=1) (accessed 25 April 2017).
6. Kulyk V. A. (2014) *The accounting policies of the enterprise: learned lessons and perspectives of development*, Poltava University of Economics and Trade, Poltava, pp. 43-44.
7. Savchenko O., Datsii O., Baida A., Zima G. (2015) “Environmental costs: problems of law, accounting and taxation”, *Economy and State*, No. 5, pp. 11-19.

**Okorskiy Vitaliy**  
*PhD Candidate of Technical  
Sciences, Associate Professor*  
**Sribna Evgenia**  
*PhD Student  
National University of Water  
Management and Environment  
Engineering  
(Rivne, Ukraine)*

**PROBLEMS OF  
SUSTAINABLE  
DEVELOPMENT OF  
TERRITORIAL  
COMMUNITIES IN THE  
CONDITIONS OF  
DEMOCRATIC CHANGES  
AND EUROPEAN  
INTEGRATION OF UKRAINE**

**Statement of the problem.** The sustainable development of society can be characterized as one in which the person is not causing significant harm to the environment that has the ability to recover. As the result of human activity, nature gets the negative impact, is dependent on human activities and can no longer do without it support. Thus, today not only person depend on nature, but nature depends on the person: this environmental aspect of sustainable development is extremely important, the primary but not the only one.

The main goal of sustainable development is to provide a conventionally infinite existence of human civilization and its progressive development. This goal has two levels of tasks. The first level can be described as necessary; is the physical survival of biology human. The second level is sufficient; it involves the spiritual development of social man. Both levels are extremely important and interrelated. On the level of human development social, as human beings, it is possible to create a vision and reality of sustainable development.

Sustainable development is a partnership of government, civil society and the private sector at all levels: national, regional and local. However, the lack of activity of institutes of civil society creates the most serious impediments to sustainable development that must be open. One of the main channels of interaction between civil society and public authorities at the level of a territorial community may be the rules of representation of interests in different forms: consultations, examinations etc.

Local government is the level of government that's closest to the people, formed and controlled by it, which resolved the issues of meeting the basic living needs of the population. Due to the fact that

sustainable development of the country largely depends on local governments, so local governments are responsible for the consequences of management and management decision-making in solving pressing problems of sustainable development of territorial communities. This requires the formation of effective local government able to function in accordance with the real needs of development of society [5].

Given this, the priority and necessary for Ukraine event, according to experts is the implementation of the administrative – territorial reform. The relevance of the theme of reforming local governance is that despite the need for administrative – territorial reform should be aware that its results depend on the right goals and the right choice of approaches for achieving them, and they, as evidenced by the sources of information are ambiguous, even in highly developed European countries.

**Analysis of recent research and publications.** Society cannot be balanced and sustainable if the national authorities could not ensure that the General public and businesses of the normal conditions for sustainable development. Global selfishness of the leaders is one of the greatest threats to humanity – such conclusion was made by the authors of the monograph prepared by the Institute of world economy and international relations of NAS of Ukraine devoted to problems of globalization and safety of development that exacerbates inequality of people and countries in the world [1].

In the Political Declaration adopted by the world summit on sustainable development held in Johannesburg in 2002, it was noted: “The deep fault line that divides human society between the rich and the poor, and the gap between developed countries and developing countries, which is steadily increasing, creating a serious threat to prosperity, security and stability in the world” [8]. The main factors that pose a serious threat to sustainable human development, along with economic and environmental were classified as global issues such as: chronic hunger; malnutrition; foreign occupation; armed conflicts; problems related to illicit drugs; organised crime; natural disasters; illicit arms trafficking; trafficking in persons; terrorism; endemic, communicable and chronic diseases, and many other problems.

Ukraine became part of the Commission on sustainable development at the UN and formed the principles of the national Concept of sustainable development [6]. Since 2000, the tendency of some improvement of the economic situation, however, the patterns of sustainable development of Ukraine should proceed from solving the following economic and social problematic assumptions:

1. The decrease of human development level in its basic parameters.
2. Low level of the environmental space.
3. Approaching the depletion of the biological stability of natural landscapes.
4. The growth of energy consumption in the home and workplace, in comparison with energy-saving technologies developed countries in the world.
5. The predominance in the economy not the progressive transformation, but deformation processes.
6. Formal rejection by many authorities the concept of sustainable development and insufficient knowledge about public participation.

Proceedings from the aforesaid, to the laws of Ukraine on the principles of sustainable development include:

1) the conditionality of the implementation mechanisms of the sustainable development model of post-crisis state of the Ukrainian economy and the need for large-scale structural and technological transformations of production;

2) different from the developed countries of the world the way of the restructuring of socio – natural mix. So, economic growth through strengthening environmental space for human and nature conservation requires reduction, and the significant expansion of production in Ukraine through the introduction of energy saving technologies, the development of the tertiary and quaternary sectors of the economy, knowledge-based industries;

3) the necessity of expanded reproduction of all components of the national capital: human, financial, natural, material, etc.;

4) need to stop the processes of depopulation and a significant improvement in the environmental health situation to improve the gene pool of the population and its expanded reproduction;

5) the consistent placement of objects of ecological infrastructure the territorial structure of production;

6) the transition to a politics of re-naturalization of nature instead of its protection [6].

The challenges faced by Ukraine in 2000 – 2016, to a large extent predetermined by the fact that in the state during the years of independence failed to form a strong local government, which would effectively resolve local issues, thereby improving the conditions of life of Ukrainians and freeing the Central government from not functions peculiar for them.

The foundations of local self-government in Ukraine are defined by

the Constitution of Ukraine and some other laws and documents [7, p. 9-10].

Since ancient times on the territory of Ukraine, inhabitants of the settlements came together to solve important issues, among which include: building of the village church, school or recreation centre, the laying of water pipelines, gasification of the village, construction of roads etc.

This meeting was called the “the meeting of the village”. Today, a similar scheme needs to make the activities local community. That's why the basis of the constitutional – legal definition of local government is responsible for the concept of “territorial community”.

According to article 1 of the law of Ukraine “About local government in Ukraine” is given the following definition of the territorial community: “Territorial community is residents, united by permanent residence within the village, town, and city which are independent administrative – territorial units or voluntary unification of residents of several villages with one administrative centre” [9].

Despite the fact that territorial community defined in the Constitution and other legislative acts, at the present time, there are a number of unresolved issues.

Firstly, the local community does not have a clearly defined legal status. Although the Constitution of Ukraine and the law gives it certain rights and responsibilities, but the local community is deprived of the rights of a legal entity. This is due to the fact that local self-government and self-government of territorial communities are not identical terms [9].

Secondly, the territorial communities are not structured by institutions, even after the local elections under the proportional system.

Thirdly, it requires further solving the problem of clear allocation of authority between state and local self-governing authorities on the one hand, and the geographical society, on the other hand.

Fourth, it requires the development of a mechanism to ensure the implementation of the special interest of the territorial community in the framework of local government.

Fifth, it requires the development and implementation of legal mechanism of control of the territorial community over the activities of local authorities.

The list of above mentioned issues is not exhaustive and its solution is possible only at the legislative level by amending existing legislation and adopting new laws.

Consequently, the development of territorial communities with the aim of improving the quality of life of residents through the mobilization of human, financial, natural and other resources is more real and more predictable in the implementation of strategic planning of sustainable development of territories in the region.

As a negative example is the inaction of the government in the case of the "savage" amber mining in Rivne region. When organized by the state, by the enactment of the Law, this process, local governments should receive additional revenues, and the residents of these areas jobs.

Another problem is the tax base of local budgets. Enterprises (companies) pay taxes at their place of registration, and not by its location, which is a significant problem because it is paid where there is no real load on the resources, that is, in the second place, and not where the company operates.

The next problem is the payment for the property. This tax is quite complicated to implement, but difficult because today the Ukrainian society of real estate is very deformed.

Supplements problems of local self-government, the issue of payment for land and jurisdiction regarding implementation of this charge. Preferences the right to dispose of the lands beyond the settlements was given to district administrations, and not self-governing structures that have significantly reduced the competence of local government by getting their own income [9].

One of the ways out of economic crisis is the engagement of communities in the solution of problems of local development, because the primary subject of local self-government Ukrainian legislation recognizes the "territorial community" and guarantees her right to the real ability to independently or under responsibility of bodies and officials of local government to address issues of sustainable development of territories inhabited by members of the community.

**Presentation of the basic material.** Analyzing the basic indicators of socio - economic development of Rivne region in comparison with other Western regions during 2014-2015 it should be noted that the Rivne region on a number of key economic indicators, such as gross regional product per capita is 24762 UAH. among the seven areas of the region, only 4.0 thousand UAH less than in Lviv region, and the volume of construction works, is also one of the largest in absolute terms and ahead of its neighbours.

However, of concern is a significant gap in our region for the rates which would have to deal with the local authorities. These include:

foreign direct investments per capita; growth of the consumer price index for food, utilities, gas, water and electricity by 5-10% higher than neighbouring areas; the growth of unemployment rate aged 15-70 years to 9.9% in 2015, which exceeds the average of our neighbours [4, p. 209-220].

The local authorities of Rivne region among the main tasks, it is necessary to pay attention to the improvement of the main indicators of activity of each member of the community that chose him, at least compared to neighbouring regions that are in almost the same climatic and socio-economic conditions.

The formation of water quality in rivers and streams is influenced by physical characteristics of the catchment, as well as the laws of development and functioning of aquatic ecosystems in conditions of multifactor anthropogenic impact on them.

The main factors of water pollution are point discharges, diffuse sources of pollutants in the watershed, the income of pollutants from the atmosphere. Almost all rivers are under anthropogenic influence and the possibility of extensive water abstraction for economic needs of the many reservoirs depleted.

According to the State Water Agency total long-term average volume of surface runoff in Ukraine is 209,8 km<sup>3</sup>/year, while the Rivne region has reserves of surface waters of 7.00 km<sup>3</sup>/year, which is 348,3 thousand m<sup>3</sup> per 1 km<sup>2</sup> of its territory, or of 5.97 thousand m<sup>3</sup>/year total surface runoff per capita. What about to local runoff, which is formed within a certain region, the Rivne region has a volume mean annual runoff of 2.33 km<sup>3</sup>/year per person to \$ 1.98 thousand m<sup>3</sup>/year while the average for Ukraine – 1,04 thousand m<sup>3</sup>/year [3].

In the majority of settlements of rural consumption is not considered because it occurs individually with the use of groundwater. Though groundwater reserves in Ukraine allow 100% to provide the population with drinking water, however, there is a problem, which is that in connection with climate change, groundwater level is declining. As an example, we can take 2015, when many of the districts of Rivne region lost water in wells, rivers and ponds have dried up which is another of the major environmental problems.

For the disappointing forecasts by 2025 humanity will experience an acute shortage of fresh water. The main reason is the growing population, which already exceeded 7 billion individuals. During the time when the population increased three times, using fresh water has increased by 17 times. And after 20 years, the consumption of fresh

water can increase three times. Another reason is the growth of cities (urbanization). A modern city uses of water per person 300 – 500 l/day, while the minimum water demand of one person is 25 l/day. The main problem is not that water "disappears," but that water consumption is much higher than its reserves.

For example, specific water supply for the population of Ukraine has reached 370 l/person per day. It is at least twice the level of water in the developed world. Average daily water consumption per one inhabitant of Kiev is 410 – 450 liters. While in Barcelona is 106, Amsterdam is 100, in Antwerp is 85 liters per person.

In such situation, with the irrational, with harm to the environment, water consumption in Ukraine, the role of local authorities in sustainable development of the territories inhabited by their communities is growing. Who, if not members of territorial communities must take care of the restoration and protection of the sources which lost water, protection of rivers, streams, lakes and ponds from pollution household waste, discharges to water pollutants enterprises and domestic sewage of the population, a car wash near water bodies.

Special attention should be paid to measures for the protection of water bodies due to the fact that water is disappearing at disastrous rates. We need to pay attention to the relevant authorities on the inadmissibility of the buildings in water protection areas, felling of forest belts along the rivers, the barbaric selection of sand, stone, clay and other natural materials in rivers and other water bodies.

Following global problem that can disturb the territorial community is the accumulation of waste, export them organized and stored in designated areas, because landfills in many places the overflow and operated with any violations of environmental and sanitary norms.

A huge number of settlements, especially the rural type, do not have organized collection and disposal of garbage, so there are formed dumps in large numbers. If through the settlement flows of the river or stream, it is the locals to turn into a place for dumping domestic waste. To deal with such negative phenomena required local authorities together with activists who can organize themselves into territorial communities.

Analyzing the data it should pay attention to the constant increase in waste volumes from year to year and reduce the volume of waste which is recycled.

The quantity of waste increases rapidly. If in 2012 their volume reached 27084,9 thousand tons, then the following increased by over 1 million tons and by 2015, the region has accumulated more than 36



million tons of solid waste that 1 km<sup>2</sup> of the region is 1811,1 tons, or nearly 35 kilograms for every inhabitant of our region [2].

State and local authorities do not pay adequate attention to the environmental catastrophe that is approaching in connection with the rate of accumulation of waste. On a separate landfills, for example, in Rivne landfill, waste-processing plant, but it is economically inefficient due to the fact that the city is not adjusted properly, the separate collection of waste.

In other cities, like Lviv, the local government doesn't attract foreign investment for the construction of such a plant at the notorious Gribovichi the dump where people died.

The main indicators, which are designed to provide optimal conditions for sustainable development of territories in each state there is capital investment and current expenditures on environmental protection. Analyzing the statistics, let's pay attention to the share of expenditure on environmental protection at the expense of the state budget. These costs in 2015 amounted to 3.1%, while in 2014 they reached 15,1%. In absolute terms, capital investment in 2015 has increased by almost 90 million UAH. compared with the previous financial period. However, judging by the extent of pollution of the water sources, devastating waste accumulation and air pollution, the volume of capital investments is inadequate and requires significant improvement [2].

Local authorities together with local communities must take an active part in the solution of extremely acute problems of protection and rational use of natural resources, because the Central government has neither sufficient funds nor the desire to carry out environmental activities in every locality, village and town. The preservation of the natural environment for future generations is essential for sustainable development of local communities.

**Conclusions.** Analysis of the major socio-economic indicators of development of the Rivne region and their comparison with similar indicators from six neighbouring areas showed that in many areas activities our region is one of the best, however, the region lags behind its neighbours in several social indicators. Not the best way is the region in the implementation of environmental protection measures, such as protection and respect for water resources, utilization and processing of solid waste, pollution of air, etc. One of the way of improving this situation is the involvement of territorial communities to solve problems of local development, Ukrainian legislation guarantees to leave 60% of

the tax to incomes of physical persons in the budgets of the communities and the right to decide issues of sustainable development of territories inhabited by members of these communities. Resource and production relations at the local level should be focused on the rational, careful use of natural resources and environmental planning.

## References

1. *Belous A. G., Demyanenko D. G. (2001) Globalization and security of development. Kyiv. KNEU, 733 p.*
2. *Handbook of statistics in Rivne region for 2012-2015.*
3. *Okorskiy V.P. (2015) Sustainable development of territories as global challenges (of governance) in the 21<sup>st</sup> century. International journal of new economics and social sciences. Vol. 2(2).*
4. *Okorskiy V.P. (2016) Administrative-territorial reform: its role in sustainable development in Rivne region. International journal of new economics and social sciences. Vol. 2 (4), pp. 209-220.*
5. *Sadovenko A. P., Sereda V. I., Maslovska V. C. (2007) The sustainable development of society: Tutorial. Kyiv, 240 p.*
6. *The concept of sustainable development of Ukraine (2014). Kyiv. Logos, 17 p.*
7. *The Constitution of Ukraine (2005) Art. 140. Kyiv. Veles, 48 p.*
8. *The Declaration and plan of implementation of the world summit on sustainable development (2007) August 26 – September 4 2002. Johannesburg, South Africa. Second edition. Kyiv. PROON/MPVSR, p. 13.*
9. *The law of Ukraine “About local government in Ukraine”, p. 17. on July 21, 1997 No. 280/97-BP.*
10. *The law of Ukraine “On voluntary unification of territorial communities” on February 5, 2015, No. 157-8.*

**Serdyuk Tatyana**

*PhD in Economics, Associate  
Professor, Chair of Construction,  
Urban Management and Architecture*

**Franishina Svetlana**

*Post Graduate Student, Chair of  
Engineering Systems in Construction  
Vinnitsa National Technical  
University  
(Vinnitsa, Ukraine)*

**EUROPEAN  
INTEGRATION  
PROCESSES IN UKRAINE  
IN THE SPHERE OF  
ENERGY EFFICIENCY**

The problems of rational and effective use of energy resources are discussed by a lot of scientists in our and other countries. All developed countries have been alarmed with the problem of energy saving and increase of energy efficiency for several decades already.

The main goal of energy efficiency in Europe is referred to as “20-20-20”. This means: by 2020 20% savings of primary energy (20% increase of energy efficiency) should be reached, 20% of energy produced from renewable sources and to reduce by 20% emissions of carbon dioxide.

For Ukraine, this problem is very important, that is explained by the low level of energy efficiency of industrial technologies and the high-energy end production. The higher level of energy intensity of the domestic economy results, primarily, from the great using of fuel and energy resources in all sectors.

With a population of less than 1% of the world level, Ukraine consumes more than 2% of energy resources of the world total. Also our country takes a “leading” position in terms of the final energy consumption per unit of production, the level of Gross Domestic Product (GDP) energy intensity and energy efficiency indicators of industrial technologies.

The energy efficiency level of any economy is a key factor to illustrate the close correlation of production, performance of works or services in proportion to the unit of spent energy resources. At the same time, energy efficiency is a specific indicator of competitiveness, quality and economic efficiency of the final product in the country.

The world experience shows, that rapid achievement of international competitiveness of individual countries occurred only where energy

efficiency appeared one of the main emphases of government policy. If in Western Europe the value of the energy saving potential is about 10-20% of the annual amount of energy consumption, in Ukraine this volume is more than 45%. [1].

The relationship between the total amount that used by all types of fuel and energy resources in the country and the level of value GDP in the same period, characterizes the indicator of energy intensity of GDP. This indicator represents the value at which Ukraine compared to other countries of the world (fig. 6.4).

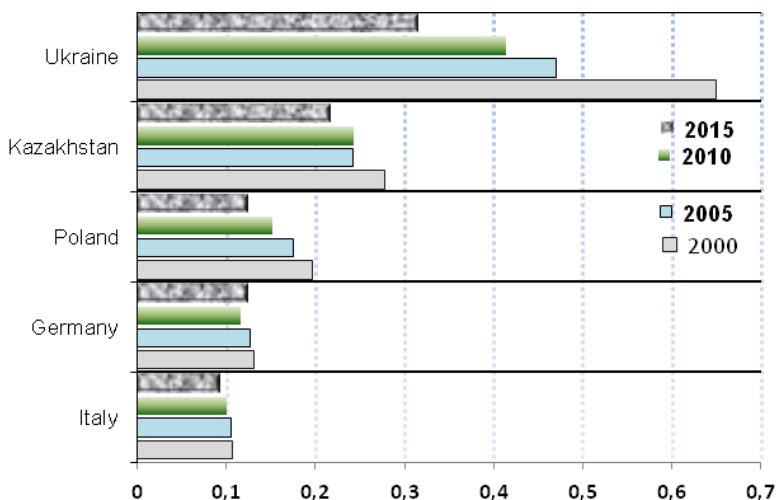


Figure 6.4. The dynamics of energy intensity of GDP for some countries, koe/\$ (compiled by the authors [2, 3])

Accordingly, the indicator of energy GDP in Ukraine is almost three times greater than the value of similar energy content in developed countries. Low energy efficiency in Ukraine has become one of the defining reasons of the crisis phenomena in national economy, and their consequences.

Radical modernization of industrial technologies on our domestic production, increase of product quality standards to European levels, growth of level competitiveness of Ukrainian products – are necessary requirements of modern management.

Proclaimed in the early 90-ies the priority of energy saving policy in Ukraine, for a long time, was not supported by an efficient and effective mechanism of interaction of government, business and scientific

potential in the implementation of energy-saving technologies.

Especially big problems arose in Ukraine for a long time when the exporter of energy resources was only one country that did not allow diversification of energy resources, and allowed the supplier to unilaterally affect pricing.

In the state economic policies and legislative framework in Ukraine, the main attention was focused on conception “energy saving”. While in European and other developed countries, in most cases, they use the definition that is different and more comprehensive measurement – “energy efficiency”, which is treated in a common coordinate system with the environmental performance and competitiveness [1, 4].

The concept of “energy saving” is only a single measure of increasing energy efficiency and considerably narrows the subject of research and distorts the representation of subjects of economic relations on the priority of energy efficiency.

Having analyzed the difference in the semantics of the concepts of “energy saving” and “energy efficiency”, which are used in Ukrainian and European practices, we identified inconsistency of their interpretation in somewhat narrower format, which to some extent affected the effective indexes and the intensification of such activities in general.

Categorial researching of energy efficiency in other countries have found that it is not just the use of resource-saving technologies, implementation of complex of technical, technological measures, equipment upgrades but the integrated approach from the design stage to commissioning and operation of the facility, technology, equipment, accounting, organizational measures and management actions with a strong motivational mechanism.

The long term process of European integration of the Ukrainian economy to EU is supported by the need for the introduction of a number of European directives which are mandatory for execution and implementation at the national level for countries aspiring to join the European community. Unprecedented is also the condition for the implementation of the national system of not less than 80% of normative documents, standards operating on the territory of the EU [5].

An additional requirement regarding the effective using of energy resources in the reproduction process has been the agreement on Association between Ukraine and the EU as regards the implementation of a significant number of environmental directives by our country.

The ratification in 2010 of the Treaty of the European Energy

community has obliged Ukraine to implement European Community Directives on energy, energy efficiency and renewable energy. Ukraine has already started the gradual implementation of European directives and standards (fig. 6.5), in particular starting from 01.01.2015 as the national international standard for energy management has implemented ISO 5001:2014 “Energy management system”. This document concerns the organization and management of the rational use of energy, measures to increase energy efficiency and energy management [6].

World experience confirms that significant potential of energy efficiency is really possible to achieve with virtually no costs, only with the effective management of the activities of the energy efficiency.

Ukraine, as a full member of the European community, on a voluntary basis, has identified the need for comprehensive reform and the introduction of EU standards, including the field of energy efficiency. Accordingly, the complex European directives and standards are aimed primarily at providing practical assistance and useful recommendations to business entities for effective management of separate spheres of production and economic activity.

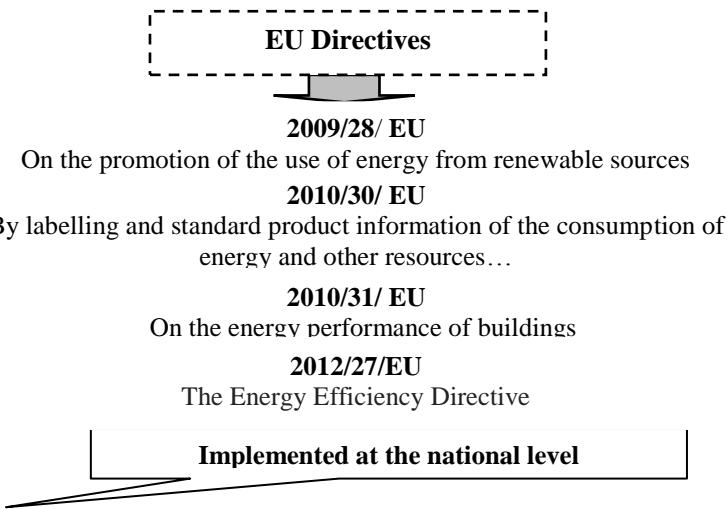
That is to say, they contain a set of tools and strategic measures of implementing sustainable resource management at the enterprise.

One way or another, all necessary conditions require substantiation, development and introduction of the relevant changes in the internal regulatory documents fundamental standards that regulate energy efficiency at the national level.

The need for full utilization of the advanced achievements, the introduction of global best practices for efficient consumption of fuel and energy resources at both the micro and macro, due to a significant backlog of Ukraine, by major indicators of energy efficiency of industrial technologies.

The economy of Ukraine integration into the EU requires major changes. Especially it means an ideology relevant to management and business. Against the background of a whole range of obvious benefits from the implementation of measures to improve energy efficiency, there is the formal attitude of the Ukrainian business to the organization and implementation of work on energy efficiency.

The result was the skeptical attitude of the owners of industrial facilities to energy efficiency and energy saving, which leads to a reluctance to deal with the reduction of energy consumption.



- Ukraine State Standard (DSTU) ISO 50001:2014** *Energy saving. Energy management systems*
- Ukraine State Standard (DSTU) ISO 14001:2015** *The environmental management system. Requirements with guidance for use*
- Ukraine State Standard (DSTU) ISO 90001:2015** *System of quality management. Main provisions*
- Ukraine State Standard (DSTU) ISO 50002:2016** *Energy audits. Requirements with guidance for conducting*
- Ukraine State Standard (DSTU) ISO 50003:2016** *Energy management systems. Requirements for bodies providing audit and certification of energy management systems*
- Ukraine State Standard (DSTU) ISO 50006:2016** *Energy management systems. Level measurement of the achieved/achievable efficiency using baseline levels of energy consumption and energy efficiency. General provisions and guidances*
- Ukraine State Standard (DSTU) ISO 50015:2016** *Energy management systems. Measurement and verification of achieved energy efficiency level of organizations. General principles and guidances*

Figure 6.5. The complex organizational regulatory documents in the field of energy efficiency (*compiled by the authors [6, 7]*)

Among the main reasons are: the lack of information resources, the quality of the completeness and content of information flows, the lack of practical experience in organizing and coordinating such projects, lack of knowledge in management at enterprise technical aspects and the reluctance to involve a third party, no real financial resources.

All of them shape the perception of the problem and the corresponding ratio as a single procedure to cover the issue at this tactical stage of economic activity.

Process management of energy efficiency at the enterprise involves the adoption of urgent, strategic, balanced, and effective solutions to ensure the competitiveness of enterprise in market conditions.

At a time when in Ukraine the process of phased implementation of best European practices has only started, qualitative modernization of the regulatory framework in the field of energy efficiency has been implemented, the developed countries of the world conduct an active policy of “passive” construction and certification of existing facilities to “green” standards.

The rising cost of energy resources has become a catalyst for science, engineering, and development in various sectors, particularly in construction. In the developed countries the first “ecological” houses have begun to appear where “pure” construction, finishing materials, and alternative energy sources are used.

Green building is a good practice in the construction and operation of building. The aims are to reduce consumption of energy and material resources throughout the life cycle of the existence of the building from site selection to design, construction, operation, repair and destruction, with the subsequent use of waste generated.

Among the most advanced national rating systems American LEED (The Leadership in Energy and Environmental Design), the British BREEAM (Building Research Establishment Environmental Assessment Method), the German DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen) are distinguished.

The BREEAM scheme is popular not only in the UK. Standard "BREEAM International" (fig. 6.6) is an example for the adaptation of “green building” outside the UK.

Today, developed versions of this standard are used in such countries as the Persian Gulf, the Netherlands, Spain, Norway, Sweden and Germany.

BRE Global is preparing an independent licensed appraiser BREEAM around the world. The use of BREEAM allows all



participants of the construction process to create a progressive reputation in the real estate market through the construction of eco-efficient buildings.

**Advantages of certification according to international standards**

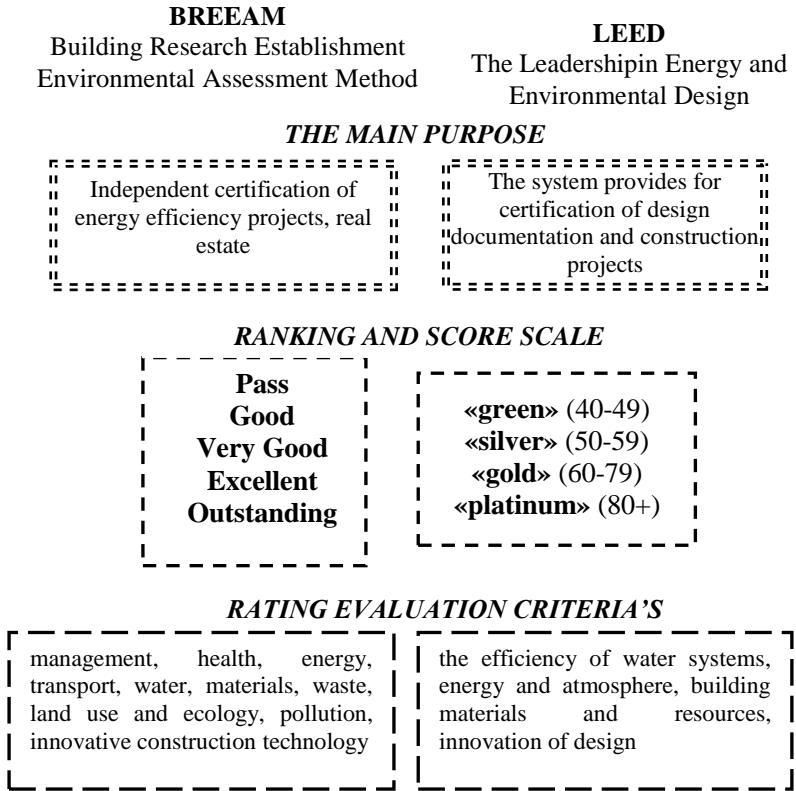


Figure 6.6. The basic principles of certification according to international standards [8, 9]

- So, BREEAM gives you such advantages:
- to ensure the application of innovative technologies during construction and operation;
  - to encourage the search for new, innovative solutions that reduce the impact on the environment;
  - forming an attractive evaluation criteria that exceed state-

regulated standards;

- reduce operating costs;
- improve working and living environment, demonstrate the progressive views on social and environmental development.

No less famous in the world is the American system LEED (Leadership in Energy and Environmental Design), which was developed somewhat later in the United States. This system provides certification of design documentation and construction projects.

The LEED standards have found use in more than 117 countries around the world [9]. The choice of evaluation criteria takes into account national characteristics, but the most famous groups of criteria aimed at minimizing pollution of the environment, rational use of natural resources, energy efficiency, use of innovative technologies.

## References

1. Denesyuk A. (2016) *Energy efficiency in Ukraine. The best project ideas. Trans. from Ukr. [The project "Professionalization and stabilization of energy management in Ukraine]. KRI, Kiev, 79 p.*
2. *Total energy consumption, Global Energy Statistical Yearbook, available at: <https://yearbook.enerdata.net/energy-consumption-data.html>.*
3. *Energy intensity of GDP at constant purchasing power parities, Global Energy Statistical Yearbook 2015 available at: <https://yearbook.enerdata.net/energy-intensity-GDP-by-region.html>*
4. *The Law of Ukraine on energy saving, available at <http://zakon0.rada.gov.ua/laws/show/74/94-ep>.*
5. Lutcyuk L. M. (2016) “Legislative and regulatory incentives improve the efficiency of energy use in leading foreign countries” [*Energy and market*], No. 1(78), pp. 13-43.
6. *Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, available at: <http://www.eu-energystar.org>.*
7. Serdyuk T. V., Franishina S. U. (2017) *Organizational and managerial support for t improvement of energy efficiency in production, Journal of Building Production. Vol. 62/1, pp.82-87.*
8. *Certification green building standard BREEAM, Company website Management, Consulting and Legal, available at: <http://www.mcl.kiev.ua/en/services/#service-1>.*
9. *LEED Interior Design and Construction credits, prerequisites and points, U.S. Green Building Council. available at: <http://www.usgbc.org/articles/leed-idc-credits-and-points>*

## CONCLUSION

Contemporary world globalization processes, which are characterized by intensive development of cooperation, increasing international competition and trade, have identified the need to organize such activities the country's financial system, which is based on generally accepted international standards. Consolidation of resources is significantly blurs the boundaries between banking and other financial activities, leading to an increase in cross-border financial flows and causes an increase in the demand for international payments by financial institutions and corporations.

There is a transition to a new qualitative state of the financial system, focused on the implementation of economic growth finance function. However, the country's financial system in its present form does not consult to the extent relevant to the organization of the redistribution of financial resources and their transformation into the real economy, the level of its development does not meet the requirements of modern economic growth. Accordingly, the financial system is in need of development to accelerate the development of financial markets, measures, financial mediation sector, ie creation of adequate financial support for economic development.

Studies have shown that the new paradigm of the budget process should be based on a system of guarantees, which is a set of measures aimed both at ensuring a stable, sustainable, guaranteed by the implementation of the budget financing of all life-supporting state system segments and activities program, a strategic plan related to real progressive economy growth.

The possibilities for the practical implementation of the formation of new financial policies, especially fiscal paradigm depends on the positioning of the country of his vision of the world financial system and its place in it.

The banking system, its financial structure and development, depending on the external environment, is responsible for the nature of many financial relations, both supranational and national levels. In the context of the transformation of the financial architecture at the level of the national financial system, the banking system is a key element in ensuring the stability of the financial system.

Taking place in recent years, the process of decentralization has led local authorities to obtain the rights to decide issues related to the adoption and implementation of their own budgets. The emergence of

local government finance was the starting point of a special unit of the financial system – the local finance.

The functioning of local budgets passed by the special economic forms – income and expenses, which express the successive stages of the redistribution of the value of GDP, is concentrated by local governments. In practice, there was a large segment of the general financial financial system, which occupies an increasingly important position in the financial system of the country. Studies show that the local finance system remains fragile, as fixed revenue sources of local budgets do not provide coverage of expenditure responsibilities of local governments.

The most important segment of the financial system is in the area of corporate finance, representing the financial resources of economic entities formed as a result of financial and economic activity. Results of the study show that the main sources of these resources are: revenue; depreciation deductions; equity; borrowed funds; financial support from the state.

**Transformation of international economic relations: modern challenges, risks, opportunities and prospects**

Collective monograph  
edited by M. Bezpartochnyi

**Starptautisko ekonomisko attiecību transformācija: mūsdienu problēmas, riski, iespējas un perspektīvas**

Kolektīva monogrāfija  
M. Bezpartochnyi zinātniskajā redakcijā