ВІСНИК
КИЇВСЬКОГО НАЦІОНАЛЬНОГО УНІВЕРСИТЕТУ ІМЕНІ ТАРАСА ШЕВЧЕНКА

ISSN 1728-2667

ЕКОНОМІКА **11(152)/2013**

Засновано 1958 року

Розглянуто проблеми фінансів, інновацій, підприємницької діяльності, менеджменту, екології та окремих ринків.

Для наукових працівників, викладачів, аспірантів і студентів.

Рассматрено проблемы финансов, инноваций, предпринимательской деятельности, менеджменту, екологи и отдельных рынков.

Для научных сотрудников, преподавателей, аспирантов и студентов.

This edition contains articles describing problems of finance, innovations, entrepreneurial activity, management, ecology and separate markets.

For scientists, lectors, PhD and students.

Адреса редколегії	**03022, Київ-22, вул. Васильківська, 90-а, економічний факультет ☎ (38044) 259 71 82; http://bulletin-econom.univ.kiev.ua**
Затверджено	**Вченою радою економічного факультету 29.10.2013 (протокол № 3)**
Атестовано	**Вищою атестаційною комісією України. Постанова Президії ВАК України №1-05/7 від 10.11.10**
Зареєстровано	**Державною реєстраційною службою України. Свідоцтво про державну реєстрацію КВ № 19866-9666ПР від 29.04.13**
Засновник та видавець	**Київський національний університет імені Тараса Шевченка, Видавничо-поліграфічний центр "Київський університет". Свідоцтво внесено до Державного реєстру ДК № 1103 від 31.10.02**
Адреса видавця	**01601, Київ-601, б-р Т.Шевченка, 14, кімн. 43 ☎ (38044) 239 31 72, 239 32 22; факс 239 31 28**

BULLETIN
OF TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV

ISSN 1728-2667

ECONOMICS 11(152)/2013

Established in 1958

This edition contains articles describing problems of finance, innovations, entrepreneurial activity, management, ecology and separate markets.

For scientists, lectors, PhD and students.

Розглянуто проблеми фінансів, інновацій, підприємницької діяльності, менеджменту, екології та окремих ринків.

Для наукових працівників, викладачів, аспірантів і студентів.

Рассмотрено проблемы финансов, инноваций, предпринимательской деятельности, менеджменту, екологи и отдельных рынков.

Для научных сотрудников, преподавателей, аспирантов и студентов.

Editorial address	90-A, Vasyl'kivska str., room. 701, 808; Faculty of Economics, Taras Shevchenko National University of Kyiv, 03022, Kyiv, phone: +38 044 259-71-82; E-mail: Visnuk.econom@gmail.com Web: http://bulletin-econom.univ.kiev.ua/index.php/en/
Approved by	the Academic Council of the Faculty of Economics, Taras Shevchenko National University of Kyiv (Protocol №3 of 29th October 2013)
Accreditation	The journal is in the List of specialized scientific publications, which are to publish the main results of dissertations in Economic Sciences (Resolution of the Presidium of HAC of Ukraine №1-05/7 of 10.11.2010)
Registration	SRSU. Registration certificate KV No. 19866-9666PR dated 29.04.13
Publisher	Taras Shevchenko National University of Kyiv Publishing center "Kyiv University". DK №1103 of 31.10.02
Address of publisher	01601, Kyiv-601, Boulevard Shevchenko, 14, room. 43 ☎: +38 044 239-31-72, +38 044 239-32-22; fax: +38 044 239-31-28

ЗМІСТ

СОДЕРЖАНИЕ

CONTENTS

UDK 551.588.7:351
JEL Q54

V. Bazylevych, Doctor of Sciences (Economics), Professor,
G. Kupalova, Doctor of Sciences (Economics), Professor
Taras Shevchenko National University of Kyiv, Kyiv

CLIMATE CHANGE IN KYIV: WAYS TO CONTERACT AND MINIMIZE NEGATIVE EFFECTS

Vital issues of climate change in Kyiv are studied with elucidation of the need for developing a comprehensive research technique to analyse and assess a cumulative impact of the process. The study exposes anthropogenic and natural factors responsible for climate formation in Kyiv and the climatic changes. With an account for recent international experience the proposals are formulated how to make use of contemporary administrative, economic, legal and regulatory levers to forestall climatic changes in the capital and cope with the negative environmental aftermath.

Keywords: environment; emissions; climate change; climate protection; climate management.

Presenting the problem in its general outline and relation to important scientific and practical challenges. Formation and implementation of effective environmental policy under climate change gain especial importance with the transition to sustainable development, which Ukraine declared by signing *Agenda 21*, the Rio Declaration on Environment and Development at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janerio, Brazil, 3 to 14 June 1992, and the adoption in 2010 of the Law of Ukraine: 'On the Fundamentals (strategy) of the National Environmental Policy of Ukraine by 2020'.

Despite the debate about the issue of climate change and its effects that is taking place over the past three decades, it is evident that any citizen of Ukraine on the base of his/her own observation realizes that climate changes do occur, notwithstanding opinion of the doubters who speculate whether to accept or reject the idea. The scope of climate change increases from year to year with the increase of its impact on the economy, welfare and people health. Of great concern is the research outcome showing that 90 per cent of the climate change are of anthropogenic origin and just the remaining ten per cent are due to natural causes [1, p.4.]

Climate change is considered to be the greatest threat to nature and humanity in the 21st century. By the end of this century the average temperature of the Earth can increase by 1.4–6.4 °C, which threatens the entire existence of over quarter of all animals and plants. In addition, the annual loss from warming can reach almost five per cent of GDP [2].

Review of recent studies and publications on the issue in question. Climate change is in the focus of many studies conducted by many well-known foreign and domestic researchers, such as S.N. Bobyleva, O.O. Veklych, S.M. Voloshyn, L.V. Zharova, I.G. Hrytsevych, A.O. Kokorin, S.N. Kuraev, V.G. Potapenko, S.I. Snizhko, Nicholas Stern, O.G. Shevchenko, M.A. Yulkin and others [1, 3-6]. Most researchers reveal the geographical, ecological, climatic aspects at the global, national, regional levels.

Unsolved parts of the general problem that the paper deals with. For the time being there has not been developed any exclusive clear technique for analysis and assessment of climate change as well as whichever quantitative measurement has been suggested to estimate an impact on this process exerted by the whole of various factors, primarily the anthropogenic ones related to vital (industrial, technological, power generating, cultural and household etc.) activities of the humans. There are no evidence-based approaches to estimative appraisal of losses and damages due to climate change. In general, the studies are limited with estimates of the changes occurring in atmospheric air, water, land or amounts of the carbon dioxide emissions and waste produced. According to another method, evaluation of the impact of climate change is made by taking into account losses due to emergency situations, which some researchers believe were caused by climatic factors [4, p. 239]. There are no studies of still imperfect mechanism to control climate change in urban areas with their growing in size and role urban settlements, population, concentration of production and territorial expansion. The approaches available are incomplete as they take into account only a limited number of factors that can be expressed quantitatively and directly measured. This is mainly because of the indirect nature of many of the factors, the lack of a coherent system of perfect monitoring, appropriate and reliable information base and imperfect scientific and methodological support. Thus, the economic aspect of climate change requires deeper and systematic studies involving a wide range of researchers and practitioners of various knowledge and expertise domains.

Statement of the paper goals. The aim of the article is in identifying main economic and legal levers to manage climate change in urban areas. To achieve the goal, the following objectives were set:

– to identify main factors that affect climate,

– to highlight the impact of factors on urban climate change,

– to work out proposals for use of the economic and regulatory management tools to prevent and eliminate the negative effects of climate change in Kyiv. The object of the study are climate changes in Kyiv.

Main material of the study with evaluation of the research results. The city of Kyiv is one of Europe's largest natural landscape, business, financial, commercial and industrial centers that has the following key characteristics of its economic and social development: the total area is 83.6 hectares that equals to 0.14 per cent of Ukraine's territory; the area covered with forests and woods is 35, 500 hectares with over five hectares as the area of public green space; water mirror covers 6.6 hectares [7, p.18.] In 2010 Kyiv's production of the gross regional product exceeded UAH 196.6 bln, or UAH 70,400 per person. The city's permanent population was 2,757,900 or just 6.2 per cent of the total population in Ukraine though it produced 18.2% of the national GDP.

Climate change in Kyiv is one of the most pressing problems in the chain of general natural and climatic transformations and requires establishment of an effective management system to anticipate, eliminate or reduce its negative effects. Climate changes in urban areas, including Kyiv, are due to a number of factors, which can be divided into two groups: the man-made and natural ones. Anthropogenic factors are related to human activity and, as already mentioned, have the greatest impact on climate change. The action of natural factors is much weaker. Climate change is manifested in deviations temperature readings caused primarily by changing the state of the air due to emissions, accumulation of unprocessed waste. This paper focuses just on these very factors and consequences of their impact on climate change in Kyiv (Fig. 1.)

State of atmospheric air has the greatest impact on the urban climate. Air quality in Kyiv depends on various types of economic activities that result in emissions of diverse substances from stationary (enterprises, shops, production units, installations, etc.) and mobile sources of emissions (automobile, air, rail, water transport and production equipment.) According to information of the State Statistics Service of Ukraine, the stationary and mobile sources of emissions released 254500 tons of pollutants into the atmosphere of Kyiv in 2011, i.e. 90.9 kg of waste per capita or 39.8 kg per square kilometer. In 2011 air emissions increased as compared to 2007 both in overall evaluation (from 265,300 to 230,500 tons or 10.4%) and the per capita assessment (from 84,500 to 107,600 tons or 7.6%.) The density of emissions per square kilometer in the city has grown each year and reached 304,400 t in 2011. It is 27 times as much as the average parameter for Ukraine. In recent years there has been a positive trend towards reduction of emissions. In 2011, the above figures dropped as compared to 2010 from 265300 to 254500 t or by 4.1%, as well as from 95,100 to 90,000 kg per capita, or by 4.4%. Fewer air emissions were observed in Obolonskiy, Desnyanskiy, Darnitskiy and Solomyanskiy districts of the city with the greatest pollution recorded in Shevchenkovskiy, Pecherskiy and Dniprovskiy districts.

Mobile sources of pollution, i.e. vehicles produce the largest part of emissions in Kyiv. In 2011, the share of emissions from vehicles was 221200 t or 86.9 % of emissions with 33,300 t or 13.1% of emissions from stationary sources. Road transport has the greatest impact on the atmosphere, releasing 212,700 tons of pollutants of which 166,600 t account for carbon monoxide. The results of the analysis of the structure of the carbon monoxide emissions from mobile sources in Kyiv in 2011 showed that the largest share of emissions came from motor vehicles (97.8 %), in particular from the vehicles of the population (80.8 %) and business entities (17 %). Such emissions from other types of transport are negligible: from air transport it accounted for 1.3% and rail transport – 0.4 %, industrial machinery and -0.4 % -0.1 % water transport. Over the past years, emissions are rising, especially from road transport. Thus, in 2011 as compared to 2007, emissions of carbon dioxide increased by 11.5 %, nitrogen dioxin – 22.4 %, sulfur dioxin – 28.6 %, and soot – 37.5% (see: Table 1.)

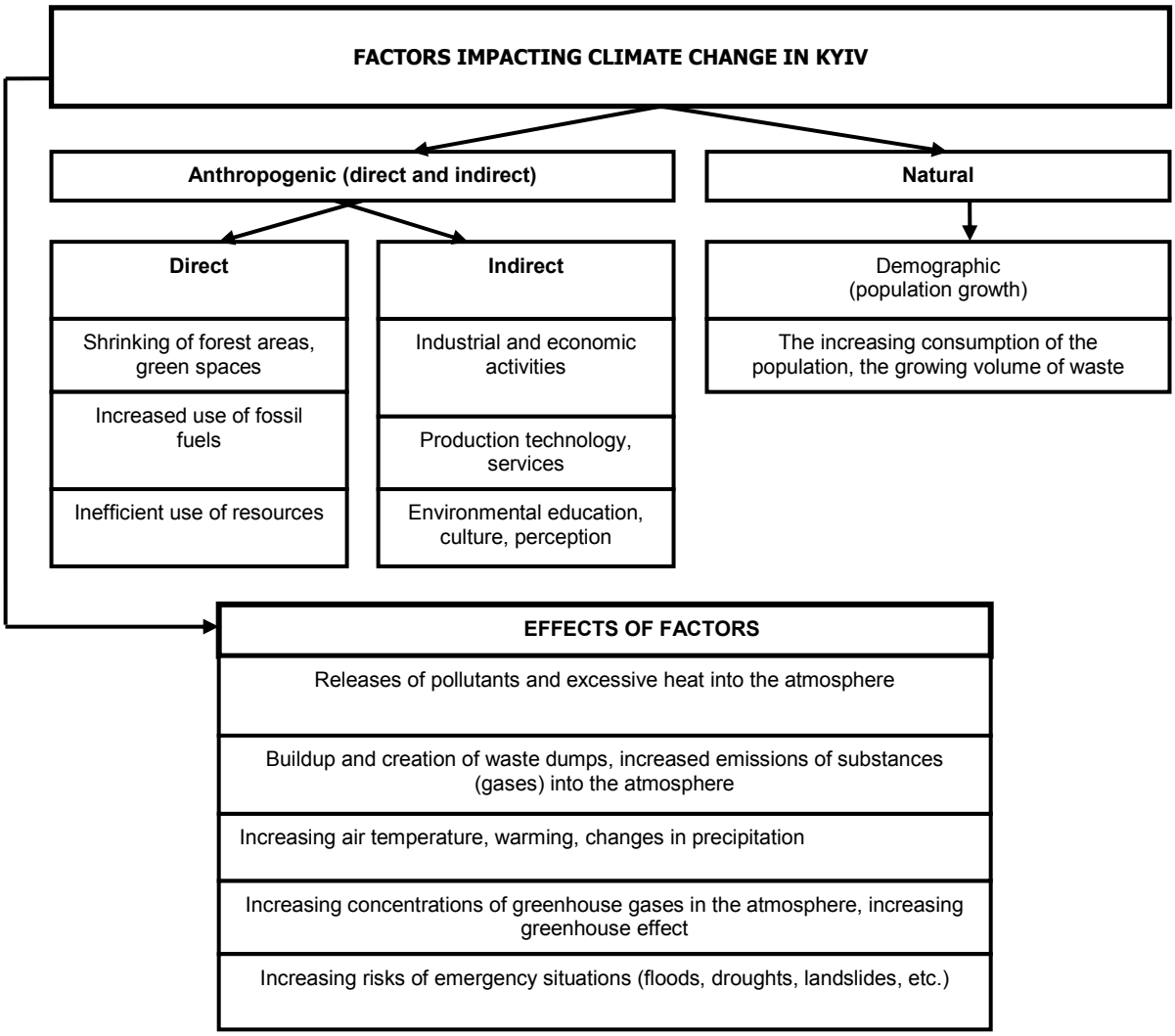


Fig. 1. Key factors and consequences due to their impact on climate change in Kyiv

Source: Developed by the authors

The grounds for such a negative impact of transport on environment are the wear of vehicles, their and fuel incompliance with the current international environmental standards, the poor state of roads, their failure to accept a rapidly increasing number of vehicles. According to the State Statistics Service of Ukraine at the end of 2011 there were 743,200 cars, 60,400 trucks and 17,200 buses

in Kyiv, which, respectively by 15.5%, 24.5 and 65.4% greater, as to the data of 2007.

Another source of emissions into the atmosphere is the manufacture and business activities of Kyiv enterprises and organizations. Generation and distribution of electricity, gas and water are principal sorts of industrial technologies that affect climate of Kyiv due to great volume of harmful emissions into atmosphere from stationary sources. In 2011 the stationary sources of twelve companies of this branch released 27,772,300 tons of harmful materials (an average of 2,314,400 t per enterprise) into atmosphere, which accounted for 83.4% of the total emissions. Such a high share in the amount of emissions is due to the fact that the economy of the city, like of Ukraine as a whole, is characterized by a high level of energy consumption when compared with other advanced economies. There are three powerful fuel-burning power plants in the city that meet the city's power needs: CHP-5 (Goloseevskij district, 700 MW), CHP-6 (Desnyanskiy district, 500 MW) and ZAT DARteplotsentral (160 MW). Their cleaning and waste treatment equipment does not comply in full with modern environmental requirements. Thermal power plants emit the largest share of those compounds which fall as acid rain.

Processing industry was second after utilities that generate and distribute electricity, supply gas and water. Emissions from 178 enterprises reached 4,225.6 t (23.7 tons per enterprise), or 12.7%. The dirtiest of processing plants is the production of rubber and plastic products (Table 2.)

Table 1. **The volume and structure of emissions into the atmosphere of Kyiv in 2007 and 2011 by the source of emission***

Source of emission	Total emission	of which:							
		sulfur dioxin	nitrogen dioxin	nitrogen oxide	carbon monoxide	methane	non-methane organic compounds	soot	other
2007									
All sources (thousand ton)	230.5	7.2	30.4	0.2	155.9	0.9	28.7	2.1	5.1
including:									
stationary	26.5	5.4	9.1	0.0	3.4	0.2	3.3	0.0	5.1
mobile	204.0	1.8	21.3	0.2	152.5	0.7	25.4	2.1	0.0
Mobile sources by kinds of vehicles, thousand ton:									
automobile	190.8	1.4	15.2	0.1	148.1	0.7	23.7	1.6	0.0
air, rail, water, industrial machinery	13.2	0.4	6.1	0.1	4.4	0.0	1.7	0.5	0.0
All sources, %	100.0	3.1	13.1	0.1	67.7	0.4	12.4	0.9	2.3
including:									
stationary	11.5	2.3	3.9	0.0	1.5	0.1	1.4	0.0	2.3
mobile	88.5	0.8	9.2	0.1	66.2	0.3	11.0	0.9	0.0
2011									
Всі джерела, тис. т	254.5	11.9	31.9	0.2	169.3	1.4	31.5	2.4	5.9
including:									
stationary	33.3	9.9	10.7	0.0	2.7	0.7	3.4	0.0	5.9
mobile	221.2	2.0	21.2	0.2	166.6	0.7	28.1	2.4	0.0
Mobile sources by kinds of vehicles, thousand ton:									
automobile	212.7	1.8	18.6	0.1	162.9	0.7	26.4	2.2	0.0
air, rail, water, industrial machinery	8.5	0.2	2.7	0.0	3.7	0.0	1.7	0.2	0.0
All sources, %	100.0	4.7	12.5	0.1	66.5	0.6	12.4	0.9	2.3
including:									
stationary	13.1	3.9	4.2	0.0	1.1	0.3	1.3	0.0	2.3
mobile	86.9	0.8	8.3	0.1	65.4	0.3	11.1	0.9	0.0
2011 compared to 2007 (%, +,- percent points)									
All sources, %	110.4	165.3	104.9	100.0	108.6	155.6	109.8	114.3	115.7
including:									
stationary	125.7	183.3	117.6	-	79.4	350.0	103.0	-	115.7
mobile	108.4	111.1	99.5	100.0	109.2	100.0	110.6	114.3	-
Mobile sources by kinds of vehicles, thousand ton:									
automobile	111.5	128.6	122.4	100.0	110.0	100.0	111.4	137.5	-
air, rail, water, industrial machinery	64.4	50.0	44.3	0.0	84.1	-	100.0	40.0	-
All sources, +, %	0.0	1.6	-0.6	0.0	-1.2	0.2	0.0	0.0	0.0
including:									
stationary	1.6	1.6	0.3	0.0	-0.4	0.2	-0.1	0.0	0.0
mobile	-1.6	0.0	-0.9	0.0	-0.8	0.0	0.1	0.0	0.0

***** *Source:* Compiled by the authors with data of the State Statistics Service of Ukraine [7, p. 381].

Activities of the housing and communal services and accumulation of household waste cause changes in the urban environment as well. In 2011 Kyiv companies produced over 7,087,700 tons of waste, of which 7,076,500 tons, or 99.8% were of the fourth class of hazard. Almost all of the waste products (91.7%) were hazardous. The most dangerous among them were the products of the dust and gas-trapping units (6.4%), and the waste containing heavy metals or their compounds (1.9%). The greatest amounts of waste of the I-IV hazard classes were produced in Pecherskyi district (89.1% of the total city waste), and almost 95.2% of extremely hazardous waste of the first class of hazards were in Svyatoshynskyi district [8, p.73.]

At the beginning of 2012, nearly 10.2 million tons of the I-IV class hazardous waste, of which 95.7% were from the treatment of industrial waste and sewage, piled up on territories of the manufacturing facilities or in specially allocated areas [8, p.73]. Because of the lack of separate collection and sorting of waste, it is impossible to provide proper utilization and that involves superfluous energy consumption at the waste incineration. Only a small portion (5998.2 t, i.e.less than 1%) of the above-mentioned hazardous waste

was recycled, processed or refined in 2011. A part of the waste (154,962.7 tons – 2.2%) was burned at the "Energy" incinerator, but the dominant volume of waste (6,585,033 t, i.e. 92.9%) was transported into the specially designated areas. At the beginning of 2012, the volume of waste reached 12,137.8 tons per square kilometer [7, p. 387.]

Table 2. **Amount and structure of 2011 atmospheric emissions from Kyiv stationary sources by sorts of economic activities***

Economic activity	Number of business units	Amount of emission (tonnes)		A share in %
		Total	Per 1 enterprise	
All sorts of economic activities	355	33289.9	93.8	100.0
of which:				
agriculture, hunting and forestry	4	46.6	11.7	0.1
manufacture	178	4225.6	23.7	12.7
including:				
food, beverages and tobacco products	23	582.9	25.3	1.8
wood, manufacture of wood products, except furniture	6	231.4	38.6	0.7
pulp and paper production, publishing	19	316.3	16.6	1.0
chemical manufacture	16	75.7	4.7	0.2
rubber and plastic products	11	1905.0	173.2	5.7
other non-metallic mineral products	23	470.3	20.4	1.4
machinery and equipment	20	123.3	6.2	0.4
electrical, electronic and optical equipment	18	60.5	3.4	0.2
vehicles and transport equipment	14	380.4	27.2	1.1
Other industries	28	79.8	2.9	0.2
power generation and distribution, gas and water supply	12	27772.3	2314.4	83.4
construction	21	82.6	3.9	0.2
trade, repair of vehicles and household goods	23	548.5	23.8	1.6
Transport and communications, in total	62	313.2	5.1	0.9
including land transportation	39	128.5	3.3	0.4
communal, social and individual services; cultural and sport activities	14	86.6	6.2	0.3
Other	41	214.5	5.2	0.6

* *Source*: Compiled by the authors with data of the State Statistics Service of Ukraine [6, c. 35].

Unprocessed waste dumped at the sites is an additional source of gas generation and emissions in the atmosphere of the capital and its adjacent areas. The situation is particularly critical regarding processing electronic devices, as only 3% of them are recycled. This is not only because of a technological backwardness, but imperfection of the system of state regulation and legislation. In particular, the Law of Ukraine of 05.03.1998 No 187/98-BP *On Waste* has an indirect mode of action, especially in the aspect of processing electronic waste (screens, mobile phones, etc.). In addition, some Kyiv enterprises have accumulated significant amounts of toxic substances, including metal constructions and buildings, land contaminated by mercury waste at the territory of former *Radical* plant.

The negative effect of the above and other factors leads to changes in temperature of Ukraine and that of in Kyiv. Thus, between 1980–2011, compared to 1950–1980, the temperature in Ukraine increased by 0.5–0.6 °C [9, p.16]. Over the past 100–120 years temperature in Kyiv has increased by an average of 1.5 °C [10]. By the data of the Ukrainian Research Hydrometeorological Institute of the State Service of Ukraine of Emergencies and according to reports of NAS of Ukraine, the ultraviolet radiation in the geographical area of Kyiv is becoming more intense every year, for example, in 2012 it exceeded the norm by 3 or 4 times [11.]

The negative impact of these factors leads to extreme weather events, natural disasters, which in recent years have become more frequent and evident. The climatic changes in Kyiv manifest themselves in not previously so characteristic extremely high and low temperatures, increased number of hot days, heavy rains, floods, landslides and so on. Thus, according to the State Service of Ukraine on Emergencies as of 8 April 2013 there occurred 18 landslides (at Vydubytsky monastery Askold's Tomb, Naddnipryanske Shose, Vulytsya Frunze, Pecherskyi district, etc.) due to snow melt, rise of groundwater and water levels in rivers all over the city. In addition, another 12 sites were identified as potentially hazardous landslide areas. Among them, a major threat is the destruction of the Dnieper slopes, causing soil slips onto Parkova Doroga. It should be noted that this negative process has being enhanced by the unreasonable and uncoordinated, often chaotic city development policy that impedes or blocks the airflows.

To prevent climate change in Kyiv and make adaptation to those alterations that have already occurred, it is necessary to implement a set of effective measures of legal, economic and organizational sort. It is necessary to follow example of the advanced economies and in the beginning develop the Kyiv city strategy and after that the city's programme of preventing climatic changes and adaptation to some of them.

The study of the German experience has shown that the Senate of Berlin develops a climate program of the city, which is formed by two components: climate protection and adaptation to climate change. Berlin district offices develop their district programmes for climate protection and adaptation to changes in their detailed reference to the area and taking into account peculiarities of the territorial development. The main sections of climate programmess are: green zoning, transport, logistics, energy saving, waste recycling, buildings and constructions, housing and communal services.

Based on the study and evaluation of the main factors that influence climate change in Kyiv, which are listed in the Kyiv Municipal Strategies for Preventing and Adapting to Climate Change, it is necessary to highlight the following key trends in developing the economic, organizational and legal mechanism to prevent climate changes and adapt to climate alterations:

– upgrading (rehabilitation) of existing buildings, urban infrastructure facilities,

– formation of climate-friendly architectural environment,

– developing an efficient transport and logistic systems, stimulating transition to ecological vehicles,

– planting areas and buildings, creating green areas,

– providing effective resource-saving technologies and equipment; use of renewable energy sources,

– improvement of processing the industrial and household waste, creating an effective system of waste management,

– modernization of housing and utilities,

– fostering green culture and improving environmental knowledge of the citizens.

The above scope of tasks should be considered in more detail.

Modernization (sanitation) of the buildings and objects of the available infrastructure. This primarily concerns old residential buildings, the social and manufacture sectors and involves a number of engineering efforts to improve thermal characteristics of the building, reduce the loss of energy and water. These measures include: insulation of walls, windows, door, installation of solar collectors on the roofs, updating the water, sewer, electrical, ventilation networks, and so on. Only the exterior walls insulation can save can save a third of the heat energy for heating the buildings. These processes must be preceded by an energy audit of buildings, especially by a thermal survey. Implementation of an energy management system, development of the building energy efficiency passports will also improve energy efficiency of the housing stock. A number of measures to improve energy efficiency in Ukraine are foreseen by the "State Special-Purpose Economic Program of Energy Efficiency for 2010-2015", which was approved by the Cabinet of Ministers by the Decree No 243 of 1 March 2010.

European countries are increasingly introducing new compact design of buildings with windows oriented to the south side and reduced glass-covered areas of the walls. The buildings are erected with an account for wind rose and their walls are painted in light colors.

Formation of climate-friendly architectural environment is a new for Ukraine strategy for architecture and construction development that entails implementation of a set of effective actions as to taking into account an effect of environmental factors at design, construction and operation of buildings and structures of production and non-production areas in order to ensure favorable environmental and climatic conditions for people's life there. One of these actions is planning of the street planning with an account for the prevailing wind direction that allows creation of optimal wind conditions, cooling of buildings, structures, industrial and residential areas. Disorganized, often chaotic land development that ignores the prevailing direction of air masses results in thermal imbalance in the urban area. The imbalance is aggravated with reduction of the natural active surface due to asphalt, concrete streets and squares and construction of multi-storey buildings with metal or asphalt roofs.

Creation of an efficient transport and logistics system, augmented with a transition to environmentally-friendly vehicle, is a prerequisite for better management of climate change. Ukraine has made some progress in the development of eco-friendly cars. Thus, the first eco-friendly car in Ukraine – HADI-34 AIS was presented at SIA-2013, the 21st International Motor Show, which took place in Kyiv in the spring of 2013. Using 1 liter of gasoline, the car drove 575 km. The vehicle weight is 43 kg, fuel tank capacity is 100 g of gasoline, the top speed is 60 km/h. At low-consumption contest of the European Shell Eco-marathon in Rotterdam 2013 the HADI-34 AIS was twenty second among eco-cars of 200 teams. The developers of this car is a team of "LSA Hadi AIS" (High-speed car laboratory at Kharkiv National Automobile and Highway University under support of a group of companies AIS.)

The first electro-taxi fleet company is being created now in Kyiv owing to a private investor. The pilot project is being implemented with the active support of the Kyiv City State Administration, which assists in the allocation of land for the taxis and organization of charging units. By reducing harmful emissions from transport Kyiv will improve its environmental conditions and lessen the motor vehicles' impact on air quality.

Of special attention is solving the problem of improving quality of roads and increasing of the state control over their use. Currently, the load on the axle of trucks is on average 80% higher than that of the standards. This results in destruction of the road beds and intense emission of pollutants, especially of carbon monoxide. Therefore, Ukraine should equip its motorways with the automatic load weight verification systems for trucks/trailers (like in Chop) and legitimize the road fund payments for exceeding permissible weight of vehicles. The country should also encourage development of cycling with allocation of sites with special harness for bike parking and foresee such parking sites in the new construction plans.

The Kyiv transport scheme requires improvement. Prior to allocating land for supermarkets and other retailers it is vital to make an assessment of trade and transport flows, in order to identify existing or potential environmental problems and develop an effective logistics strategy.

Landscape gardening, arrangement of green spaces is essential for the formation of the urban environment, optimizing climatic conditions. Greenery is a biological filter for harmful substances emitted into the atmosphere. Vegetation lowers temperature in summer, maintains humidity and air mobility. Unfortunately, there is no single record of greenery in Kyiv. Bookkeeping of trees is scattered throughout business entities, and thus there is no complete picture, which complicates analysis, management, planning and control. In addition, there is an imperfect system of financing and public procurement of seedlings of trees, shrubs (too late held tenders for purchase of seedlings, seedling.) There has not been conducted any audit of Kyiv green zones, and therefore the estimations and planning of green spaces are based on outdated data.

Advanced economies pay great attention to gardening, arrangement of green spaces and control over preservation of plants and vegetation, especially at the construction sites. Germany, for example, has established a precise record of trees, each of which is furnished with an inventory number tag. An electronic record system of trees is presently implemented with a support of a special satellite program. Construction plans have to foresee planting of trees. There is a law on protection of trees in Berlin. Actions are held to restore the number of trees and new plantings. The height of buildings and structures (up to four storeys) is under strict control for not to interfere with the growth of trees. Ukraine and Kyiv need implementation of similar actions. Unfortunately, in recent years, the city allocated areas for construction sites among many green spaces, including parks, urban forests, and protected areas (Zhukov island, for example.)

Thus, well formed and well-developed network of urban green space will optimize wind conditions, reduce the temperature contrast of the city and suburbs, increasing relative humidity.

Implementation of effective environmentally friendly and resource-saving technologies and machinery, with the use of renewable energy sources will contribute to saving energy, reducing greenhouse gas emissions, protecting climate in the city. All the above-mentioned constitute objectives of the Energy Strategy of Ukraine up to 2030 and the State Environmental Policy Strategy of Ukraine up to 2020. Both documents stipulate a technical re-equipment of manufacture through accomplishment of innovative projects, implementation of energy-efficient and resource-saving technolo-

gies, low-waste, waste-free and environmentally friendly processes; introduction by 2015 a system of economic and administrative mechanisms to motivate manufacturers use sustainable and renewable natural resources, provide environmental protection, care about new cleaner technologies, innovations in nature management [14.]

The current regulatory framework also needs to be improved in terms of its harmonization with the legal framework of the European Union, the application of environmental norms, standards, rules and requirements in the aspect of resource conservation, environmental protection, use of mineral wealth, implementation of the environmental management systems and environmental criteria to goods and services. The Strategy of State Environmental Policy of Ukraine for the period up to 2020 indicated the need to improve the taxes on emissions and releases into environment, increase the fee for the discharge of a mass unit of substances in the atmosphere to the European level, taking into account the toxicity [14.]

The system of carbon labeling for consumer goods adopted in some advanced economies (the UK, Sweden, France), is noteworthy. Since 2007 British Tesco, for example, has introduced carbon labeling system for 70 thousand kinds of products all over its supermarket chains [15, p. 12]. The purpose of this marking is, on the one hand, to encourage consumers to buy local products due to reduction of distances of the goods carriage and, consequently, a reduction of harmful emissions into the atmosphere. On the other hand, such a labeling is a causative factor for manufacturers to implement environmentally cleaner, more efficient resource-and energy-saving, though more expensive technologies.

To improve processing of industrial and domestic waste with a creation of an effective system of waste management is a high priority for Kyiv. In order to solve this problem, firstly it is necessary to improve the acting laws. The Law of Ukraine of 05.03.1998 No 187/98-BP *On Waste* has an indirect mode of action, especially in the aspect of processing electronic waste (screens, mobile phones, etc.) It is necessary to decide on implementation of European standards of waste management, requirements and regulations on responsibility of importers, and a guarantee as to joint responsibility of local authorities, business structures (HCS) and enterprises. An assistance (soft loans, etc.) should be foreseen in purchasing expensive equipment for recycling electronic waste. However, with the low volume processing (3%), it is not profitable. It is also necessary to introduce non-waste technology. For example, Berlin botanical garden is an effective model of zero waste nowadays.

Modernization of housing and communal services implies renovation of the water-supply, drainage and sewage systems, extension of the open space parking areas that are not covered with concrete or asphalt. In addition, the housing and construction branch requires further improvement of the existing regulatory framework to ensure its compliance with environmental requirements, particularly in terms of saving energy and resources, industrial and residential design, construction, renovation and dismantling of buildings and structures, as well as in improving energy and resource conservation in dwelling houses.

Improving environmental education, culture and awareness will enhance competence of the employees in implementing the modern and efficient environmental policy, caring in taking low-cost economic and energy-saving decisions to preserve environment and natural resources. Berlin municipal realizes importance of awareness of residents of the ideas and goals of environmental conservation, climate protection, for example, in the Lichtenberg district office manager at a special climate, which deals with, among other types of work, awareness and education and information among the population of the district. Such experience must also be included in Kyiv.

Improving environmental knowledge, culture and awareness will enhance competence of the Kyiv employees who implement modern and efficient environmental policy, care about low-cost economic and energy-saving decisions, protection of nature and resources. Berlin Senate recognizes importance that its residents be aware of ideas and objectives as to preservation of environment, protection of climate, and for example, the Lichtenberg District Office employs a special climate manager, who besides other types of work is responsible for promoting environmental knowledge and awareness among population of the district. Such a practice must also be introduced in Kyiv.

Findings of the study and prospects for further research into the field. Outcomes of the study into the main factors affecting climate change in Kyiv, as well as the expertise of the advanced economies show feasibility of the system of actions of economic, organizational and legal sort in order to prevent these changes or adapt to them. The most important of the actions comprise modernization of buildings and structures; organization of an efficient transport and logistic systems; changing for green transport vehicles; creation of green spaces; implementation of clean and resource-saving technologies; use of renewable energy sources; organizing an effective system of management; modernization of housing and utilities; spreading environmental knowledge, culture and awareness. It is these measures should form the basis of the Kyiv city strategy to prevent climate changes or adapt to climate alterations.

References

1. Review of Nikolas Stern's report: "Ekonomika izmenenija klimata" Izdanie 2-oe, dopolnennoe i pererabotannoe / Kokorin A. O., Kuraev S. N., Julkin M. A. WWF, Strategic Programme Fund (SPF). – M.: WWF Rossii, 2009. – 60 s.

2. Scho take zmini klimatu?: //http://wwf.panda.org/uk/campaigns/ climate_change_camp_ukr/what_is_climate_changes_ukr/

3. Global'noe izmenenie klimata i jekonomicheskoe razvitie. Uchebnoe posobie dlja kursa jekonomiki prirodopol'zovanija vysshih special'nyh uchebnyh zavedenij /Bobylev S.N., Gricevich I.G. – M.: JuNEP, WWF (Rossija), 2005. – 64 s.

4. Formuvannja ta realizacija nacional'noї ekologichnoї politiki Ukraini / [Veklich O.O., Voloshin S.M., Zharova L.V. ta in.]. – Sumi: Universitets'ka kniga, 2012. – 336 s.

5. Potapenko V.G. Strategichni prioriteti bezpechnogo rozvitku na zasadah "zelenoi ekonomiki". – K.: NISD, 2012. – 360 s.

6. Snizhko S.I., Shevchenko O.G. Urbometeorologichni aspekti zabrudnennja atmosfernogo povitrja velikogo mista. – K.: Vidavnictvo geografichnoї literaturi "Obrii", 2011. – 297 s.

7. Statistichnij shhorichnik m. Kieva. – K.: Derzhavna sluzhba statistiki Ukraïni, 2012. – 467 s.

8. Osnovni pokazniki ohoroni navkolishn'ogo prirodnogo seredovishha m. Kieva. Statistichnij zbirnik. – K.: Derzhavna sluzhba statistiki Ukraïni, 2012. – 123 s.

9.Izmenenie klimata v Vostochnoj Evrope, Belarus', Moldova, Ukraina. – Bresson: GRAPHI 4, 2011. – 59 s.

10. Klimat Kieva: http://www.meteoprog.ua/ru/climate/Kyiv/.

11. My zhivem na pike ocherednogo pod#ema letnih temperatur. Jekskljuzivnoe interv'ju s chlenom-korrespondentom NAN Ukrainy Vladimirom Osadchim: http://www.from-ua.com/technology/f64307de6c611.html).

12. Shhodo vikidiv zabrudnjujuchih rechovin na TEC-5: //http://kyivenergo.ua/ua/news/company/4-news-company/8363-2009-09-18

13. Kïïvenergo zaproshue meshkanciv stolici vidvidati z ekskursijami energetichni ob'ekti!: //http://kyivenergo.ua/ua/news/company/4-news-company/9225-2011-11-24.

14. Strategija derzhavnoi ecologichnoi politiki Ukraïni na period do 2020 roku.: http://www.menr.gov.ua/content/article/8328.

15. Nartova O. Markirovka tovarov po uglerodnoj sostavljajushhej v mirovoj torgovle: jeticheskie, jekonomicheskie i juridicheskie aspekty //Mosty mezhdu torgovlej i ustojchivym razvitiem. – S.12-14.

Надійшла до редакції 01.10.13

В. Базилевич, д-р екон. наук, проф.,
Г. Купалова, д-р екон. наук, проф.
КНУ імені Тараса Шевченка, Київ

ЗМІНА КЛІМАТУ МІСТА КИЄВА: ШЛЯХИ ПОПЕРЕДЖЕННЯ ТА УСУНЕННЯ НЕГАТИВНИХ НАСЛІДКІВ

Досліджені актуальні питання зміни клімату, обґрунтована необхідність розробки наукової методики комплексного аналізу та оцінки впливу сукупності різноманітних факторів на цей процес. Висвітлені антропогенні та природні чинники, які впливають на формування та зміну клімату м. Києва. З урахуванням досвіду розвинених зарубіжних країн сформульовані пропозиції щодо упередження та усунення негативних наслідків зміни клімату столиці за допомогою сучасних організаційно-економічних та нормативно-правових інструментів управління.

Ключові слова: довкілля; викиди; зміна клімату; захист клімату; управління кліматом.

В. Базилевич, д-р экон. наук, проф.,
Г. Купалова, д-р экон. наук, проф.
КНУ имени Тараса Шевченко, Киев

ИЗМЕНЕНИЕ КЛИМАТА ГОРОДА КИЕВА: ПУТИ ПРЕДУПРЕЖДЕНИЯ И УСТРАНЕНИЯ НЕГАТИВНЫХ ПОСЛЕДСТВИЙ

Исследованы актуальные вопросы изменения климата и обоснована необходимость разработки научной методики комплексного анализа и оценки влияния совокупности различных факторов на этот процесс. Освещены антропогенные и природные факторы, влияющие на формирование и изменение климата г. Киева. С учетом опыта развитых зарубежных стран сформированы предложения по предупреждению и устранению негативных последствий изменения климата столицы с помощью современных организационно-экономических и нормативно-правовых инструментов управления.

Ключевые слова: окружающая среда; выбросы; изменение климата; защита климата; управление климатом.

UDC 311.312
JEL C19, F13, N73, N74, O24

V. Babirad-Lazunin, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

DEVELOPMENT OF THE CUSTOMS STATISTICS IN UKRAINE: HISTORICAL ASPECTS

This article examines the history of the origin and development of customs statistics in Ukraine. Stages of its formation are characterized and singled out. The role and place of customs statistics in the state regulation of the Ukrainian economy and making of managerial decisions are determined.

Keywords: statistics; customs statistics; customs; statistics history; duties; taxes; fees.

Statement of the problem. Effective social and economic development of any country, its state management and regulation are impossible without the timely receipt of complete, accurate, scientifically grounded official statistical information on economic, social, demographic, environmental and other public events taking place in Ukraine. Customs statistics takes an important role in this process.

Analysis of the recent researches and publications. Nowadays customs statistics and the history of its development are paid almost no attention, caused, as we see it, by the lack of fundamental, comprehensive, coherent theoretical development of this customs authorities activity in Ukraine, although some aspects of this subject were dealt with in the researches by S. Kivalov, A. Pavlov, V. Chentsov, N. Kovtun, E. Chekotovskyy, E. Dodin, P. Pashko, B. Kormych, O. Morozov, P. Kravchenko and some other Ukrainian scientists, where customs statistics is examined to some extent, but, in our opinion, not as thoroughly and extensively as it deserves. Some questions of the historical aspect of the customs statistics development were covered mainly in the writings of economists that in bear only the observational nature the context of genesis. Consequently, the issue of customs statistics and the history of its origin are not developed enough in the Ukrainian science and require further comprehensive study. **The purpose of this paper** is to study the formation and to separate the stages of the customs statistics of Ukraine development.

The main material of the study. With the formation of the first states the need for the statistical practice appeared, i.e. in the accumulation of information on the availability of land, the amount of projected and actual harvest, population, its property situation – the system of public and administrative records has developed. Several thousand years ago such accounting existed in ancient China, Rome, Greece, Egypt and Israel [1]. In particular, this is evidenced in Bible, where in the Fourth Book of Moses – "Numbers" – the accounting of the male population capable of bearing arms is described.

The study of historical sources revealed that customs statistics as a separate branch of statistics was being studied only from the late XIX – early XX centuries, but its formation begins since ancient times, with the formation of the first powerful states, the development of their external trade, tax system and customs.

Thus, we can highlight the following stages of the customs statistics development:

Stage I (early IX – the end of XI century) – the era of Kiev Rus. According to the chronicles, various information was already gathered in IX-XI centuries gathered about the origin and development of urban settlements located on the waterways, the presence of temples, churches, monasteries, residential buildings in them, as well as information related to taxation. One of the organizers of customs in Ukraine was Prince Oleg, who gave great importance to the creation of customs outposts around the perimeter of the Princely state, collection of duties and other fees from the international merchants. In 911, after the victorious campaign against Constantinople, Oleg signed a treaty with the Byzantine Empire, under which the city's inhabitants had to not only pay a large indemnity, but also gave the Rus merchants the right to the duty-free trade. Collecting a trading duty ('tslo', 'myt') in Kyiv Rus was a state matter. It was personally conducted by the Prince and leaders of his retinue, the crown trustees appointed by the ruler. Financial management was in direct charge of the Prince. For collecting taxes and tribute, he appointed special officials – customs officers, 'danschyks', 'p'yatenschyks' that did not depend on the crown trustees – governors and 'volostelis'. The money they collected was passed to the Prince or whomever he ordered. Historic accounts sometimes mention governors and 'volostelis' as

those who collected duties. The Prince granted those very people who were close to him some part of the collected fees as their allowance.

During the decline of the Kyiv State and civil wars in the Rus dozens of limits and boundaries were created, for passing through which the lords levied the so-called travel, commercial and bridges duties. Travel duty included fees for the carriage of goods from 1 to 3 'grosh' from a cart. Depending on the size of a cart in 'sazhens' there were a variety of duties levied that are known as 'posazhene' duty. In case of unauthorized detour of a customs outpost by a merchant in order to avoid paying taxes, a double fine was levied on each cart – the so-called 'promyt' – and an extra fine from a merchant – commandment.

A special capitation tax from a person who was in the cart or boat was 'holovschyna' – 0.5 to 6 'grosh' in different areas. Sometimes the so-called 'kostkis' was collected from the people that accompanied the goods – 1 'grosh' per person. 'Mostovschyna' ('bridges duty') and 'pereviz' ('transportation duty') were collected for using a bridge or a ferriage, although not by customs officers, but 'mostovschyks' in order to maintain bridges and ferriages in the proper condition: 0.5 'grosh' from the pedestrians, 1 'grosh' from the horsemen, 2 to 4 'grosh' from the carts and when returning back – 2 more 'grosh' [2].

The main trade artery that connected the Kyiv Rus, the Scandinavian and Baltic countries with the Ottoman Empire and the countries of the Southern Europe and the Middle East was the Dnieper – Slavutich historic route from the Varangians to the Greeks. It consisted of a system of the river routes and portages with the total length of over 3000 kilometers, connecting the Baltic Sea with Rus (Black) Sea. After that the Muravskyi path stretched through the wide fields between the Don and the Dnieper, from which Bakaeva road was coming out, connectiing the channels of Sejm and Psol. A large trade route connected Kyiv with Moscow. It passed through Nizhin, Baturin, Konotop, Putyvl, Sevsk, Kaluga and further to Moscow. A special place among the commercial roads had the chumaks' ways, which ran through the wild steppes and the ferriages of the Dnieper to the Crimea and salt firths of the Black Sea. These ways stretched to the south from Halychyna, Volhynia, the territory of the future Slobozhanshchina, Podillya, Kyiv, and also from Poland and Lithuania.

At the times of the Kyiv Rus and the Galicia–Volhynia Kingdom Ukrainian merchants maintained close trade relations with the Western Europe. Outposts and customs storehouses where duties were collected, were built along the ways that ran from Kyiv to Lutsk, then – to Krakow and Wroclaw and from Lviv – to Sandomierz and Radom.

In 906 the Rafalshteten and then, in 1288, the Ostrohomsk customs regulations began to act, becoming the legal basis for the international trade and customs relations in Europe. At that time these statutes were already known to our merchants, who were gradually involved in a common trade and economic field, covering Eastern and Central Europe, Baltic region and the Moscow Kingdom.

Since the second half of the XI century Kyiv Rus was losing its power.

Stage II (late XI century – the middle of the XVI century) – The Lithuanian age. A significant number of the Ukrainian lands passed to Lithuania after the Mongol invasion and the collapse of the Kyiv State. Accordingly, this territory was a subject to the Lithuanian laws, including the customs-related ones. Volhynia, Podillya and later, Kyiv and Siverschyna passed under the control of the Lithuanian princes. Ukrainian, Belorussian and Russian lands partly accounted for about 90% of the Grand Duchy's total area. This situation has stimulated the convergence of the Lithuanian and East Slavic elite, putting the Rus (Ukrainian) language into daily life of the Lithuanians, and in the end, the establishment of a single economic and trade field between Kyiv and Vilnius.

In a single state Ukraine reproduced administrative divisions along the lines of the former Kyiv Rus. The whole territory of Ukraine was divided into the principalities, which, in fact, were the separate autonomous state formations. Each of them was setting the tax and customs system, determining the procedure and conditions for the conduction of the international and domestic trade. Semen, a son of the Prince Oleksandr Volodymyrovych, was on the Kyiv throne for 15 years. Prince Semen paid significant attention to the trade links with the neighboring countries and especially the Byzantine Empire, the Crimea and Moldavia. He established the customs outposts and ferriages that collected the duty for the Prince's treasury on the southern border in the lower Dniester and the lower Dnieper [3].

Although historical data on customs is scarce, we know that customs duties were very diverse as they often changed. The Lithuanian government provisioned quite severe penalties for trying to get around the cities, where customs duties were levied. Among these cities were Chernihiv, Kyiv, Chernobyl. For example, in Chernihiv a fee was established, amounting 2 'grosh' from the package of goods and 3 'grosh' from the cart, and in Kiev – 30 'grosh' from the cart. Although various kinds of the fees collection were established, duties often constituted a fraction of the goods cost. Development of the trade relations was prevented by the numerous domestic duties: 'zamyt' (bringing goods to sell or money to purchase the goods), 'yavka' (notice of intent to sell products), 'hostinne' ('host') when renting rooms), 'vagove' (weight) duty (in determining the weight of goods) [4]. However, at this time a significant increase in the import of the Western European goods to the Ukrainian markets is observed. These goods were primarily cloth, satin, velvet, weapons, crafts, glass, paper, wine. According to the Sejm decision the payment of duty for the imported goods ('infuka') was very low and amounted to 4% of their value. At the same time, the duty for exporting ('eveka') was more than 6 %.

Customs of the Lithuanian age, whose law applied to the territory of Ukraine, was a fairly complex and confusing system of regulations and standards regarding the organization and practice of customs, taxation, registration and payment of the customs duties. Individual acts of the Sejm set the rules of paying customs duties both for the import and for the export of the goods. The collection of duty on the roads and crossings was the prerogative of the local governors, elders and owners of the large estates who in collecting customs duties were guided by the decisions of the Lublin Sejm of 1559, the Lithuanian Statutes of 1566 (the "Volhynia" ones) and 1588 (the "New" ones). For example, the decision of the Lublin Sejm was to set a permanent rule forever – no fees should ever be taken from the spiritual and secular people of noble rank and their subjects, of all things related to their own work and feeding, but to the fact, however, that in this way they would have not been contributing to the avoidance of merchant fees, which would lead to a decrease and concealment of the old duties and duties of other ranks in Poland and Lithuania [5].

An important factor that hindered the further development of the international trade was a multi-layered and yet fraudulent system of customs fees. Border customs storehouses operated within the Rzeczpospolita in accordance with the provisions of the Sejm, the orders of the king, local governors and magnates, gathering various levies and taxes, of which the overwhelming majority were passed not in the royal treasury, but in the pockets of the local incum-

bents and customs' renters. Extensive regulation of trade, the spirit of fiscalism and privileges, an opportunity to buy these privileges created serious difficulties in the organization of both the external and internal trade.

Smuggling – a concealment of goods from the customs duty collection by secret traffic across the border – became outstandingly common in the XVI century on the territory of the Rzeczpospolita. International merchants who tried to import goods beyond the major, customs-controlled ways were particularly noted in this respect. Then, upon coming to a city, they tried to settle at the local townspeople's places and then illegally, without paying any taxes, sell the imported goods. Due to the fact that such incidents had acquired a routine nature, on November 13th, 1567, the Grand Duke of Lithuania Zsigmond August addressed to the peasants, townspeople and nobility of the Grand Duchy of Lithuania with the report, where he described the mechanism of these smuggling operations, which, according to the monarch, harmed the state treasury. Augustus ordered the townspeople to inform the customs officials on such merchants and provide them with their apartments only upon this informing. Violators of the rescript could face a fine of 500 'cops' of 'grosh' [6]. Eventually, this and other similar decrees and decisions of the Sejm, around ten of which was published during the XVI century, did not significantly affect the overcoming smuggling epidemic. Unfortunately, it still exists today.

Stage III (mid XVI – mid-seventeenth century) – the epoch of the Cossack state. In 1552, Hetman Dmytro Vyshnyvetskyy had built the first Cossack fortress on the small island of Khortytsya. Since then, the Ukraine entered a new stage of political development. Accordingly, its own customs system was created. As Professor Joseph Rysicha states, the system of the Cossacks land fell under the system of Lithuania and Poland customs condominium. Zaporizhia used the customs infrastructure of these countries. Roads by which goods were transported, were separated by the customs borders. The payment went to those whose land was passed: the duties included the pay for entry to the Cossack lands, passing a bridge, driving cattle. Cossacks' outposts, 'uhody,' became the places for trading. A brisk trade in salt from the sea firths, large and small trade routes went through the 'uhody' [7].

The main source of income of the Zaporizha army, along with spoils of war, was international and domestic trade. Considerable sums of money for military cash went to the military fund of Kosh from the duties, various taxes and fees. The Cossacks received significant money from the merchants who supplied various products through the Dnieper to Ochakov and Kinburn, as well as from the ships that passed the Dnieper Rapids. All merchants and manufacturers who exported goods to the Sich, traded in the settlements, villages and winter quarters, paid a certain fee to the military treasury. In order to charge a fee from the merchants there were special chiefs in all the Zaporozhian markets, the military 'kantarzheyis' who oversaw the accuracy of weightings and measures, determined the price of imported goods and collected fees for the military treasury [8].

An Universal of Bohdan Khmelnytsky from 1654 exists, which assigned the arrangement of customs on the Turkish and Moscow borders of Ukraine, customs fees, the so-called 'indicts' from the imported merchandise, are set. The main source of data on socioeconomic status were 'pysni' and 'perepysni' ('census') books, then clerks paperwork. The Universal of 1654, despite its relatively small size, can be recognized as the first Ukrainian State Customs Tariff. The document defined the amount of duty on all major commodities that were imported in Ukraine by the internatioal merchants. This is mainly luxury goods, gold, silver, precious stones, pearls and other products. That same year, Bohdan Khmelnytsky signed an agreement on the military alliance with Moscow that freed Ukraine from the subjection of Poland. The first steps of Bohdan Khmelnytsky was the joining of some areas of Belarus to the territory of Ukraine, namely, Mogilev, Gomel, Novyi Byhov. As pointed out by the prominent historian of Ukraine Dmytro Doroshenko, "This accession was important for Ukraine not only because of the strategic reasons, protecting it from the north, but also economic: the trade route to the Baltic Sea, where Ukrainian exports went, was easier through the Belarusian lands. Khmelnytsky even established the 'free port' in Staryi Byhov, and, although the historian states that the Hetman failed to achieve significant success with collecting taxes from the population, duties on imported merchandise and indirect taxes on honey, beer and vodka remained the main source of revenue to the state treasury for the Ukrainian people.

Building its own customs system was fundamentally important to continue the process of nation-building, strengthening economic and financial independence of Ukraine. It was well understood by Hetman Bohdan Khmelnytsky. Upon launching the first national customs service in Ukraine, first of all Hetman instructed its leadership to organize the first Ukrainian customs outposts at the borders of Muscovy and Turkey.

The tariffs on Turkish goods which were usually imported from Moldavia and Crimea to Ukraine, were established separately. Their size was determined independently of the customs value, both in monetary terms and in the goods themselves. Fixed sum customs duties were introduced for the import of gold, silve, precious stones and pearls in Ukraine, from every 100 thalers of these goods' value a fee of 5 gold coins was paid.

But soon Ukraine began to lose its independence. For example, after the signing of the "Pereiaslav articles" by Yuri Khmelnitsky in 1659 Ukraine lost the right to independent international relations and, therefore, could no longer negotiate with other countries on the matters of free trade, as it was earlier [9].

Stage IV (mid-XVII – end of XIX century) – age of the Russian empire. At this stage there were reforms related to almost all aspects of the social life in the Russian state, of which Ukraine was a part at the time. These reforms were aimed at increasing the accurate statistical data: among the introduced developments were accounting of the bread prices, accounting of the number of cities and urban population, international trade, registration of new factories and plants. During this period, the current accounting of the population by the church emerged: registration of marriages, births, deaths. As the complexity of social life was increasing, the range of phenomena that could be subject to accounting, expanded.

For nearly one and a half of the century census or revisions were the main form of the national accounting. Census sheets that had the name 'kazky' ('tales'), were the basis for the general enumerative statement. The main disadvantage of 'revizsky kazky' ('census tales') as a source of population data was that they did not cover the entire population. It should be noted that there was a certain underestimation of the population through the avoidance of revisions due to them having a fiscal nature. In fact, they appeared at the beginning of XVIII century due to the transfer from the homestead levy to the poll one. Only male persons ('census souls') were recorded to the 'census tales'. Each such 'census' soul was considered until the next revision (it was held on average once every 20 years), even in the case of death. Entries in these statements were made at the time of compilation. As a result, it was impossible to establish the number and composition of the popu-

lation at some point. But despite all their flaws revisions were an essential source of data on the size, composition and location of the general population at that time.

After the death of Peter the Great Russian government circles started redefining financial, industrial and trade policy. The financial system in times of Peter the Great, which was designed for the extreme conditions of military stress to the economy, only hampered the economic development in peacetime. In 1726 the government had already issued orders aimed at liberalizing fiscal pressures and increasing international trade of the country by expanding the social strata that were able to engage in trade and industry [10].

In the period of capitalism formation growth of public production, the expansion of trade and international relations was the stimulus for the development of accounting and statistics. Along with the simple accounting system a double-entry bookkeeping system appears in which a transaction is recorded twice – by debit and by credit. A need to analyze economic conditions significantly increases, and, consequently, the amount of statistical information increases especially sharply; the information is required about the size and placement of industrial and agricultural production, markets for goods, labor markets, raw materials and others.

However, in the early XIX century the political leaders of the Russian state realized that international trade is not only a source of the tax revenues, but also an important sector of the economy. This realization of this fact influenced the desire to regulate international trade through the customs taxation. This process, in turn, required to classify the customs statements. The initiative to address this issue was made by the Minister of Commerce M. Rumyantsev. In 1804 on his orders, statistical reports for 1802 and 1803 were compiled. This is how the preparation and publication of the annual compilations of statistics on international trade of the Russian Empire began. Under the different names they were issued for a hundred years – until 1917. The first annual statistical reports were called 'The state trade in its different types' and issued from 1802 to 1815. Later the name was changed several times: since 1812 – 'The state international trade in its different types', from 1863 to 1869 – 'Types of the state international trade' and 'Types of the international trade of Russia' and from 1870 – 'Overview of the international trade of Russia through the European and Russian boundaries' [11].

Stage V (end of the XIX century – 1991). At this stage, further development came into fiscal accounting whose primary purpose was the control of customs revenue and customs official sources of statistics were monthly forms called 'The international trade of Russia', published since 1884, and another type of publications – retrospective collections about the international trade of Russia, which became widespread since the 1880s. The entity that processed and published customs statistics was the counting expedition of the Commerce Board under the Ministry of Commerce. In March 1813 it became a part of the new Department of International Trade of the Ministry of Finance. In 1864, during the ministerial reform within the Ministry of Finance a new Department of Customs Duties was established, which also included the counting section, and in 1883, it was reorganized into the statistical office of the department. In the second half of the 1890s V. Pokrovsky radically rebuilt the work of the statistical department. The main element of the restructuring was the introduction of the card system of the customs reporting.

At the end of XIX – early XX century a number of customs control forms were singled out that were components in the formation of the customs statistics:

– Customs clearance (check of the actual measures with those that were entered in the consignment);

– Control of the supporting documents;

– Control, processing, classification, analysis of primary data from the customs in the statistical department where the test had a multistage nature.

At the end of the XIX century another problem emerged for the customs statistics – increasing the reliability of the price indices for imports and exports as an important component of the total customs statistics. In particular, according to V. Pokrovsky, from 1890 to 1896 customs valuation of imports was systematically increasing up to 10%, with exports valuation reducing to 5%. This phenomenon was also influenced by the tax reform of 1898, where the income tax was introduced, forcing manufacturers to hide the real data on their trade turnover to reduce the amount of taxes paid. All these circumstances required the customs statisticians to introduce urgent measures to improve the quality of the cost parameters. In 1898, a special valuation department was created in the statistical office, whose function was to develop the reference prices for the exports and imports value determination. Reference prices were developed based on information from the exchange price lists, newspapers, magazines, statistical publications [4].

The disadvantage of this system, as its authors acknowledged, was its limitation. The nature of this limitation was as follows: reference prices could be calculated only for the goods that passed through the stock exchange. The finished products were the ones that mostly did not fall under this category. In Russia of those times the existing system of valuation allowed to reliably identify a larger part of the international trade value. Interestingly, V. Pokrovsky himself did not exclude the appropriateness of adding special commission expert assessments to the reference prices (the value of the international trade operations based on expert opinion was defined in Germany, Austria-Hungary, France, Belgium). Although such committees did not exist in Russia, customs statisticians commonly the expert reviews of the international statistics.

After analytical processing annual custom reports were reflected in the official publications of the Ministry of Finance. Since then, the customs statistics started gaining a public nature and being used in many areas of social and academic life.

Numerous changes in the Russian customs borders during the XIX century created a problem of comparing data from different years by statistical area. In 1883, the Statistics Division of the Department of Customs Duties carried out a radical change in the forms of tables. The so-called monographic tables were introduced. Every single table contained a group exports or imports for one customs post or the counterparty country. However, after a short use the main disadvantage was revealed – a loss of generality. Given these shortcomings of the monographic tables, in 1894 V. Pokrovsky decided to return to the tables, which were formed on the basis of the product groups list based on the experience of the customs statistics of 1860 s – 1880 s. [12].

With regard to the customs statistics of the late XIX – XX centuries we can make the following conclusions:

– Customs statistics are an important source of objective assessment of the customs policy influence on the economic and political development of the country;

– The analysis of archival documents shows that a high quality keeping of the customs statistics was strictly monitored by the Department of Customs Duties, and after it gained an official nature, it was the basis for forecasts and reports on the economic situation of the provinces;

– The customs statistics of the late XIX – early XX century brightly represented the regional characteristics of the international economic activity of Russia [13].

With the increase in turnover since 1930 customs accounting became centralized – all goods received and exported started being accounted by the specialized bodies. In 1942 customs borders were violated, and accounting of goods was taken over by the Ministry of International Trade, where information was coming in the form of accounts both regarding imports and exports. The Ministry of International Trade accounted exports and imports of goods carried out on a commercial basis. Until 1959, the USSR Central Customs Department and the Ministry of International Trade conducted a parallel, duplicate accounting of the international trade. Since 1959, the control over international economic activity was passed to the Ministry of International Trade, which took over the main functions of the international trade accounting.

Stage VI (from 1991 – present). Since Ukraine gained independence, the customs system of the newly formed state has also become independent. Now the customs statistics is a part of the national system of statistical accounting and reporting, consisting of the customs statistics of the international trade and special customs statistics (Figure 1).

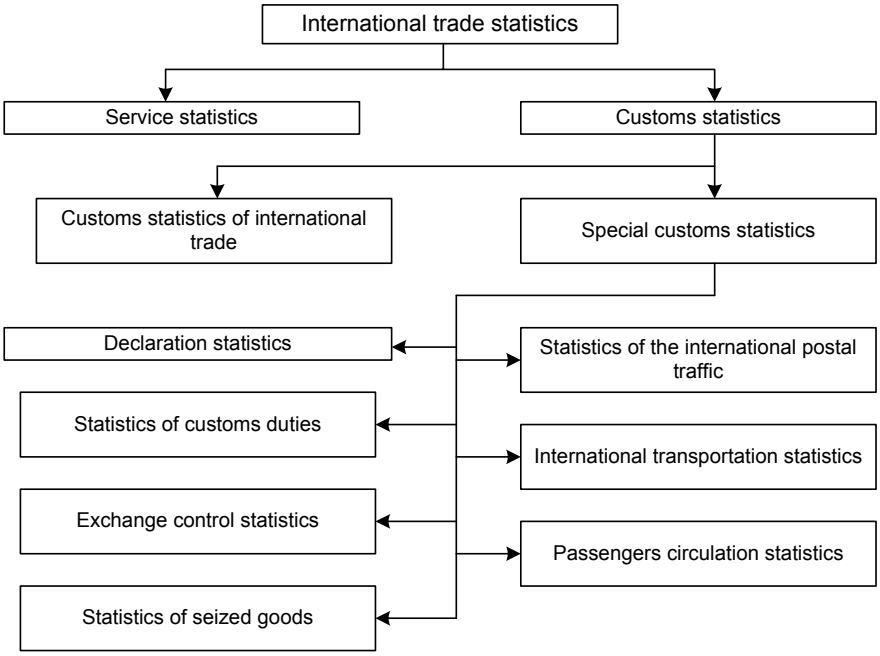


Fig. 1. Customs statistics in the international trade statistics system

* *Source:* Author's own study.

Customs statistics of international trade is a summarized and appropriately systematized information on the movement of goods across the customs border of Ukraine. To perform the tasks entrusted to the customs authorities by the Verkhovna Rada of Ukraine, President of Ukraine, the Cabinet of Ministers of Ukraine, such authorities form, summarize and analyze the special customs statistics. Statistical information that is formed, summarized and analyzed by the customs authorities, is used to strengthen the international economic relations, improvement of the tariff and non-tariff regulation, further integration of Ukraine into the global system of economic relations.

The objectives of customs statistics are [14]:

1) objective and reliable accounting of data on the movement of goods across the customs border of Ukraine;

2) collection, formation, processing, compilation, comprehensive analysis and storage of statistical information regarding the state customs and international goods trade;

3) submission of statistical, reference, analytical information regarding the state customs and international goods trade to the public authorities in the manner prescribed by the law;

4) providing relevant information to the international organizations and other countries' customs authorities in accordance with international treaties of Ukraine concluded in compliance with the law and the laws of Ukraine ;

5) protection of statistical information that in accordance with the law shall not be disclosed.

Customs statistics of international trade is summarized and appropriately systematized information on the movement of goods across the customs border of Ukraine. Customs statistics of the international trade is formed, reviewed and analyzed by the central executive body to implement the realization of the state policy in the sphere of the state customs, based on data contained in customs declarations. In the manner prescribed by the law, the relevant public authorities to control the flow of customs payments to the state budget, international exchange controls, analysis of Ukraine's international trade, its balance of trade and payments and the economy as a whole use the data of the customs statistics of international trade. Customs statistics accounting is conducted in the accordance with the methodology that ensures comparability of customs statistics of the international trade of Ukraine to the government statistics of other states. The central executive body that implements the state policy in the sphere of the state customs ensures regular publication of customs statistics of the international trade.

Special customs statistics is a system of collecting, processing, analyzing, disseminating, storing, protecting and using statistical information that reflects the activities of the customs authorities in exercising the state customs. The central executive body that implements the state policy in the sphere of the state customs in order to ensure the tasks entrusted to the customs service of Ukraine in accordance with the law conducts special customs statistics accounting. The accounting of the special customs statistics is determined by the law.

The main objective of the special customs statistics is to ensure an appropriate level of work on the collection, analysis, generalization of the statistical data, the reliability and efficiency of which affect the adoption of the aforementioned managerial decisions.

The components of the special customs statistics are [15]:

– Statistics on declaration, which contains information about the goods, vehicles, items that are subject to declaration by the customs authorities regarding the purpose of their movement across the customs border of Ukraine, that are moved across the customs border of Ukraine;

– Statistics on taxes and fees, which contains information about the amount of accrued and paid taxes and fees when moving goods, vehicles, items across the customs border of Ukraine;

– Statistics on countering smuggling and customs regulations' violations, which contains information about the violation of customs regulations detected by the customs authorities, the outcome of cases of the customs regulations' violations by the judicial authorities, the goods, vehicles, items seized by the customs authorities, the results of the cooperation with the law enforcement agencies etc.;

– Statistics on passenger traffic, which contains information on the number of individuals crossing the customs border of Ukraine;

– statistics on the international transportation, which contains information about moving of certain vehicles used for the transport of goods, vehicles, items and individuals across the customs border of Ukraine;

– other special customs statistics, containing information on human resources, countering the offenses in the customs bodies, administrative and economic issues and other information.

Special customs statistics accounting is defined by the Cabinet of Ministers of Ukraine Decree 'On the accounting of the special customs statistics' of 12.12.2002 № 1865 which came into force on January 1, 2004.

However, there are not two, but three sections that should be considered the constituent part of the customs statistics: customs statistics of international trade, special customs statistics and statistics of customs offenses. Herewith, if the first two types of customs statistics today are defined in the national legislation (the Customs Code of Ukraine and a number of subordinate legislative acts), the statistics of the customs offenses is not mentioned in the legislation at all. This is somewhat surprising due to the fact that, according to the customs of this sub-sector statistics can get the most complete picture of the state of crime and criminalization when crossing the customs border, get a picture of criminological offenses and crimes, and, consequently, to develop some suggestions for dealing with them and their prevention.

Conclusions. Thus based on the research we have identified six stages in the development of customs statistics of Ukraine. Also, we defined the role and place of the customs statistics in the system of International trade statistics. Therefore we may say, that customs statistics belongs to a number of sources that are commonly used in historical research on various issues. In addition, this type of statistics is used as an indirect indicator for the general characteristics of the country's economic development. Another important aspect of the customs statistics as source is that external relations economy is often directly confronted with the policy and statistical indicators on international trade may be the notably more important sources for the study of international relations, than diplomatic documents. Using the customs statistics by means of the quantitative analysis methods allows to reconstruct the economic processes of the past and to understand the reasons which forced the state, the government to make certain decisions. This approach allows to avoid mythologizing and politicization of history in the process of scientific research.

References

1. Abstracts of lectures and assignments for the professional development of employees, accepted to the Customs Service for the first time, prepared by the Khmelnytsky center for the professional development and retraining of the SCSU employees: Compiled by Voytseschuk A.D. (supervisor), Korniichuk O.T., Ovcharuk I.G., Babenko B.I., Shershun A.A. – [Electronic resource]. – Access mode: http://www.center.km.ua/old_version/library/tezy_lekciy/tezy_np/rozd4/1.7.1.html.

2. Markov L. Essays on the history of the customs service. – Irkutsk: Izd. Irkutsk University. – 1987. – p. 27.

3. Pavlov A. Ukrainian customs on the way to recovery and development: legal and historical aspects. – K.: Accent, 2002. – 417 p. 24-26.

4. P.A. Kravchenko – Legal survey of the formation and development of customs statistics – Customs no. 4 (70) – 2010 – p. 16.

5. Akt unii Polski z Litwa, 1385-1791. – Krakow. – 1932. – L. 86-87.

6. Central State Historical Archives of Ukraine in Kiev. – Fund 28, description, case 2, ff. 201 BC. – 202.

7. Rysich. J. Trade and customs relations in the history of the Dnieper / / Bulletin of the Academy of Customs Service of Ukraine. – 2001. – № 2. – p. 89.

8. Yavornytsky D. History of Zaporizhzhya Cossacks. Volume II – Kyiv: "Scientific Thought." – 1990. – p. 428-429.

9. Lodyzhenskyy K. History of the Russian customs tariff. – Moscow: Sotsyum, 2005. – p. 68-69.

10. Morozov O.V. Customs component in the structure of public revenues of the Russian Empire in the first half of the XVII century. / O. Morozov // Grani. – 2008. – № 1, p.16-18.

11. Morozov O V. Customs statistics as an important element in the study of customs policy XIX-early XX century. / Morozov AV / / Customs. – 1999. – № 6. – p. 20-23. – p. 23.

12. Central State Historical Archive in Kyiv. – F. 1153, Op. 1 cpr. 198, ff. 31 (cited in: A. Morozov Customs statistics of XIX-early XX century. as a source of study of the Customs Policy / Morozov A.V. / / Grani. – 2009. – № 5 (67.) – p. 30 – 33.

13. The higher and central state institutions of Russia. 1801-1917, Vol.2: The central state institutions. Ministry of Internal Affairs. Ministry of Justice. Ministry of Finance. Ministry of Trade and Industry. State control. St. Petersburg. : Nauka, 2001. – p. 122.

14. The Customs Code of Ukraine of 13.03.2012 № 4495 – VI.

15. Customs. In 3 volumes. Volume 1: Teach. handbook. – Lectures / Ed. Voytseschuk A.D. – K.: Izd of "ID" Manufacture "2006. – 412 p. (303-304).

Надійшла до редакції 30.09.13

В. Бабірад-Лазунін, асп.
КНУ імені Тараса Шевченка, Київ

РОЗВИТОК МИТНОЇ СТАТИСТИКИ УКРАЇНИ: ІСТОРИЧНИЙ АСПЕКТ

В статті досліджено історію зародження та розвитку митної статистики України. Виокремлено та охарактеризовано етапи її становлення. Визначено роль та місце митної статистики в системі державного регулювання економіки України та прийнятті управлінських рішень.

Ключові слова: статистика; митна статистика; митна справа; історія статистики; збори; податки; мито.

В. Бабирад-Лазунин, асп.
КНУ имени Тараса Шевченко, Киев

РАЗВИТИЕ ТАМОЖЕННОЙ СТАТИСТИКИ УКРАИНЫ: ИСТОРИЧЕСКИЙ АСПЕКТ

В статье исследована история зарождения и развития таможенной статистики Украины. Выделены и охарактеризированы этапы ее становления. Определены роль и место таможенной статистики в системе государственного регулирования экономики Украины и принятии управленческих решений.

Ключевые слова: статистика; таможенная статистика; таможенное дело; история статистики; сборы; налоги; пошлины.

UDC 303.024: [331.52+331.56]
JEL J 210

M. Balcerowicz-Szkutnik, Doctor of Sciences (Economics), Professor
University of Economics in Katowice, Republic of Poland

THE COMPARATIVE ANALYSIS OF THE LABOR MARKET INDICATORS IN A SELECTED GROUP OF EU COUNTRIES

The paper presents, in a synthetic way, the problems of dynamics of labour market of "ten new member states" that joined EU in 2004, focusing mainly on the level of employment and taking into account the lines of business and age employees. The time range from 2000 to 2011, selected for the purpose of the analysis, includes the years that directly preceded and directly followed the accession to the EU and aims at determining possible changes in parameters that characterise the labour market in selected states.

Keywords: labour market; level of employment; servicisation of labour market.

Introduction. 2004 was the ground-breaking year for economy and position of 10 European countries on the market of Europe. This was because that was the year of their accession to Union community. Usually, together with economic changes, hopes for specific changes in everyday life occur in society. Some of those hopes were related to labour market, particularly to extending the possibilities to find work and improve people's well-being. Oriented changes were to, and could, bring decrease in unemployment and increase in the level of employment. Particularly enormous hopes were rested in possibilities of employment in "old Union" member states. In the present chapter the analysis of major statistical parameters that characterise the situation of the labour market in spatial approach, that is, for selected group of states and time approach, for the years between 2000 and 2011, is performed. Presented results have the quality of initial analyses of the level of employment and unemployment in the group of states that joined the EU in 2004. The analyses were limited to the period of time between 2000 and 2011 to show whether important changes in the sphere of the level of employment and unemployment rate occurred in the years directly preceding 2004 and in the years following the accession to the EU. Establishment of occurrence of specific changes shall allow formulating conclusions concerning the influence of economic changes associated with accession to the EU on the situation on the labour market. The chapter is divided into several parts. The first includes general characteristics of the age structure of individual countries – new EU member states; the second includes the analyses of the level of employment that takes into account the division of working people by lines of business. What is more, the changes in the level of employment in the following three age groups of employees are studied: the school-leavers (15 to 24 years of age), people on the highest level of professional activity (24 to 54 years of age) and at pre-retirement age (55 to 64 years of age). The next part of the case study is made of analyses concerning unemployment rate while taking into consideration the employee's age and education, and separately, the analysis of a particular type of unemployment, that is long-term unemployment is performed. Data taken from Eurostat that were appropriately compiled for the needs of the subject matter included in the topic make empirical base for performed analyses.Population structure of "new" EU member states. On 1st May 2004 European Union was enlarged by 74 141 654 new people, the citizens of ten states that included: Cyprus, Estonia, Lithuania, Latvia, Poland, the Czech Republic, Slovenia, Slovakia and Hungary. The number of people in these states was really varied. Polish people made the most numerous group of people (around 51 %) and inhabitants of the small Malta and Cyprus made the least numerous group (around 1 % each). Considering the age structure of populations of these states we can state that, while measuring the rate of people under 24 years of age, the youngest populations were those of Cyprus (35.1 %), Poland and Slovakia (33.2 %) and the oldest were the populations of Slovenia (27.8 %) and the Czech Republic (28.3 %), whereas the rate of young people under 24 years of age in the whole EU was 28.7 %.

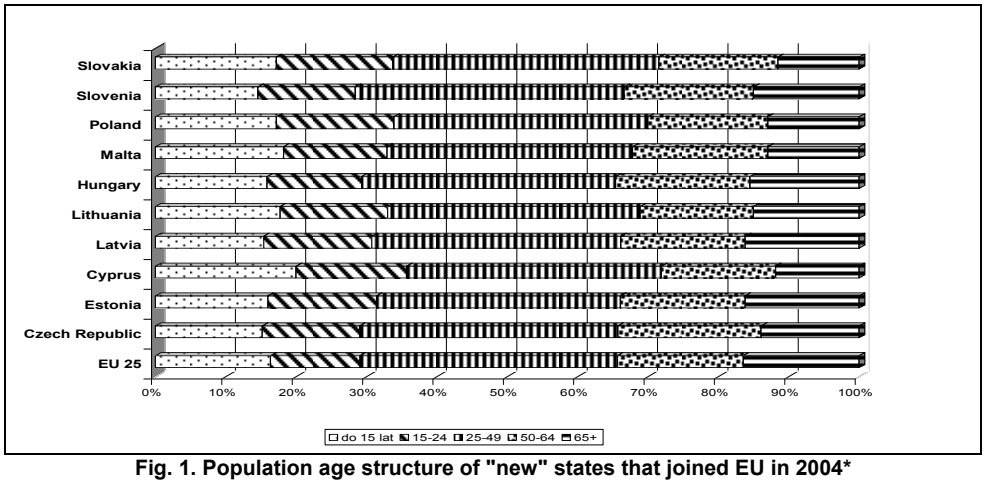


Fig. 1. Population age structure of "new" states that joined EU in 2004*

* *Source:* Own case study on the basis of Eurostat database.

Varied age structure is confirmed by age median (tab. 1). Populations of Cyprus and Slovakia were made of people who were not older than 35 years of age. In the case of other states, half of populations reached the age under 39 years of age and with respect to age median only Lithuanians and Slovenians are close to EU level that is to 39.3 years of age. Additionally analysing the level of population aging of each of the states as seen in the rate of people at over 65 years of age, we can state that it none of the states it was higher than the EU level, that is than 16.5 %. Therefore, the "new ten states" are the countries of relatively young people, who, from the point of view of labour market, make large labour resources.

Table 1. **Population age median of selected group of EU states in 2004 (in years)***

EU 25	CZ.	EE	CY	LV	LT	HU	MT	PL	SI	SK
39.3	38.5	38.7	34.8	39.0	37.3	38.8	37.7	36.2	39.4	35.0

* *Source:* Own case study on the basis of Eurostat database.

Extending the analyses of population structures of gender we can state that in each of the states a clear advantage of females over males was observed and only in the case of Cyprus, Malta and Slovenia, feminisation coefficient (that is the measure that determines the level of specific "excess" in the number of females over males) was lower than in EU (105.2) and in the case of other member states it was reaching higher values of even 117.1 (Estonia and Lithuania). This is presented in table 2.

Table 2. **Feminisation coefficient for selected group of EU states in 2004***

EU 25	CZ.	EE	CY	LV	LT	HU	MT	PL	SI	SK
105.2	105.3	117.1	103.3	117.1	114.2	110.6	101.9	106.6	104.4	106.0

* *Source:* Own case study on the basis of Eurostat database.

Level of employment and its social importance. According to Eurostat data [1] the number of people working in EU states was 203 253.7 thousand people in 2004, out of which 29 285.9 thousand (that is 14.41 %) was made of citizens of the new states that joined the EU. Therefore EU structures grew by a large number of new employees. In 2011 the potential of working people increased in comparison with 2004 by 3.89 % and amounted to 211 157.3 thousand people and for the "ten new EU member states" this increase was more dynamic because it increased by as much as 8.35 % (to the level of 31 729.8 thousand people). The level of changes in resources of working people in selected group of countries was differentiated and in part of them a decrease was observed. For example, in Estonia by 0.55 % in Lithuania and Hungary by around 3.9 % and 2.4 % in Latvia by about 14.4 %. On the other hand, in others the increase in the number of working people was observed. This was reported in Cyprus (11.3 %), Malta (13.8 %) and finally in Poland (16.8 %). This differentiation can be reasonably explained by emigration to earn a living and by entering the labour market by the generation of young people who were, for example in the case of Poland, the generation born in the 80s of the 20th century, that is in the period of the so-called second post-war birth rate boom.

Employment rate measured as the percentage of working people in total number of people in a particular age group is one of the simplest and at the same time most expressive, as well as easy to interpret, measure of professional activity of people. In international analyses, the total employment rate is defined for the age group at 15 to 64 years of age. In the group of the "ten states" the dynamics of this rate was significantly.

It is observed that from 2004, that is, since the year of accession of a group of new member states to the European Union, the level of employment was successively growing for all analysed states until 2008. In 2008 in majority of states a rapid decrease in employment level is observed. The situation is certainly the reflection of the world financial crisis, when problems in world economy structures directly influenced the labour market and brought, as a consequence, its real crash. It was particularly noticeable in the case of such countries as Estonia, Lithuania, and Latvia, that is, the states of the former Soviet Union, but also in Slovakia and Hungary.

The change in the structure of the labour market with respect to employment sectors has been a serious problem for the last two decades. Frequent changes in proportion of the number of people employed in industry and service sector have been observed. Employment in agriculture in each of the states and in the whole EU is scant, or even marginal, because only in Poland it is over 10 %. The figures beneath (fig. 2, fig. 3 and fig.4) present in a simplified form the structure of employment in three economy sectors – industry, services and agriculture in selected years. For detailed analyses the years of 2004, 2008 and 2011 were selected. These were the years of EU structures enlargement by 10 new member states, the year of the world financial crisis and the last year for which complete statistical data collected in Eurostat database was available. Apart from employment rates in three particular sectors, the values of total employment rate for each of the states were also presented for the purpose of comparative analyses.

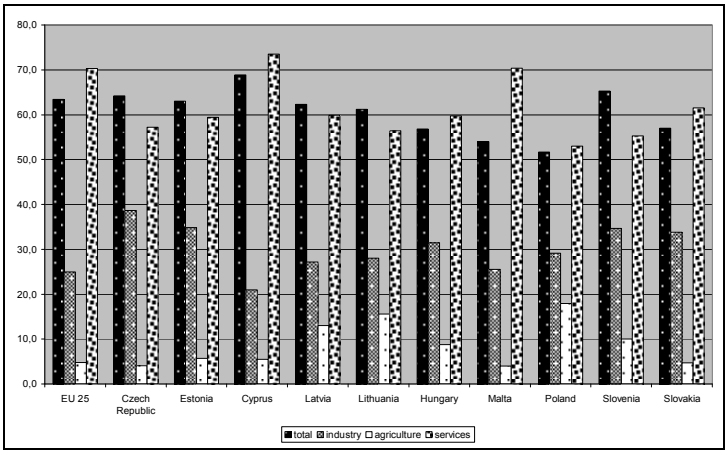


Fig. 2. Structure of employment by sectors in selected group of EU states in 2004*

* *Source:* Own case study on the basis of Eurostat database (access on 15th March 2013).

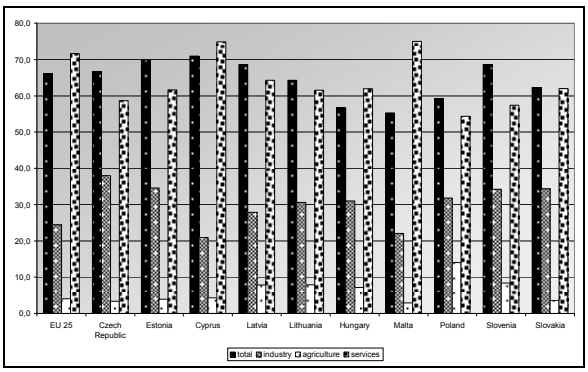


Fig. 3. Structure of employment by sectors in selected group of EU states in 2008*

**Source:* Own case study on the basis of Eurostat database (access on 15th March 2013).

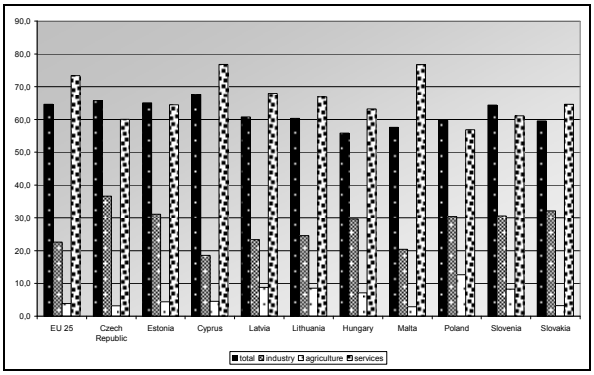


Fig. 4. Structure of employment by sectors in selected group of EU states in 2011*

**Source:* Own case study on the basis of Eurostat database (access on 15th March 2013).

Careful analysis of the figures above confirms the observation formulated before and concerning the marginal share of agricultural sector in national labour markets. Still in 2004, beside Poland the level of employment in agriculture was higher than 10 % in Slovenia, Latvia, and Lithuania, but by 2008 and then by 2011 employment in agriculture was higher than 10 % only in Poland. It is seriously alarming that market labour structures are so significantly distorted and agricultural production is dominated by services. This is related to servicisation of labour market, national economy and even everyday life that has been observed for some time. In simple explanation, servicisation means the increase in proportion of services in the structure of the studied phenomenon. Servicisation of national economy – in macroeconomic approach means increase in employment in the third sector, that is in services. On the other hand, servicisation of consumption in households represents a percentage growth in expenditures on services in the structure of household expenditures. We have been facing this phenomenon recently all over the world because higher and higher rate of expenditures in household budgets is consumed by services, such as for example consumption in catering places, hiring baby-sitters, ordering catering for meetings and hiring people to clean the house.

On the scale of national economy of each of the "ten states", the process of servicisation has been developing for the last years at various paces and proceeded with various intensity. Corresponding relationships between employment rates in services and in industry are respectively presented in figures beneath. Fig. 5 is the image of changes in proportion in employment in services and industry for each of the states.

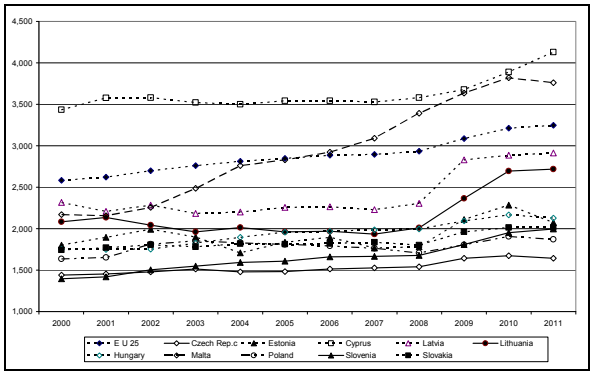


Fig. 5 Dynamics of changes in the rate of employment in services and industry for selected states in the years from 2000 to 2011*

* *Source:* Own case study on the basis of Eurostat database (access on 15th March 2013).

Differentiation in the labour market in the sphere of the level of employment is observed not only in the view of economy sectors but also in demographic view that is while taking the employee's gender and age into consideration.

As it is generally known, the employees' gender simply determines their position on labour market. While having to choose, in most cases, employers are more likely to offer employment to men than women. Certainly, the major rea-

son for such a decision is larger professional mobility and availability of men than women. Family and maternity duties, that women are responsible for, are another argument presented in discussions on preferences of employers as for the gender of employees, which decreases their attractiveness on labour market. In "regional" discussions, that include considerations made for various countries, cultural burdens and religious beliefs play an important role, although the latters are less and less significant nowadays. However, the problem of inequality of employment due to the employee's gender is still open.

The values of appropriate columns of the diagram clearly show the scale of differences between the levels of employment in individual countries. The values of particular rates are additionally presented in tab. 3, in which the last column includes the quantity values that define differences in the level of employment of males and females (the excess of employment rate for men and women in %).

The values presented in the last column of the table show that in Malta male employment is over twice higher than of females (female employment is 32.7 % and is lower by 42.4 % than male employment), in the Czech Republic it is higher by 16.3 % and in Cyprus by 21.1 %. In other countries it is lower than EU level that reaches the level of 15.2 %.

Analysing employment rates in a different way (fig. 11) we can state that in EU in 2004 there were 127 males employed for every 100 employed women and this level was higher only in the Czech Republic (129), in Cyprus (136) and in Malta (226). On the other hand, the most proportional level of employment, almost not "discriminating" women on the labour market was observed in Lithuania (112), Latvia (113) and in Estonia (111) and also in Slovenia (116).

Analysing the level of employment, we ought to pay attention to one of the measures preferred in "Europe 2020 strategy" that was announced by European Commission [2] that is, the employment rate in the age group between 20 and 64 years of age. For all studied states the value of measurement compliant with Union standards included in aforementioned project is higher than the value of generally adopted rate determined for the group of 15 to 64 years of age

According to the assumptions of "Europe 2020 strategy", in the sphere of employment, that is the major goal of the strategy, in 2020, 75 % of the total population between 20 and 64 years of age should have work. These are common goals that are going to be accomplished through a series of activities undertaken both on the level of member states as well as on the level of EU. At present none of the EU countries, nor the whole community of the states reach this level. In 2004, out of the group of analysed states, only Lithuania, Latvia, Estonia, Cyprus, Czech Republic and Slovenia exceeded the EU level. In 2011, the mean level of employment rate of the population from 20 to 64 years of age grew by 1.3 %; however, it was slightly higher only in the case of Cyprus, Estonia and the Czech Republic. There are still a few percentage points in some states, and several more percentage points missing in some others (Poland, Malta, Hungary) to reach the "magic" level of 75. This is most clearly seen in table 3.

Table 3. **Employment rate in the years 2004, 2008 and 2011 by age groups for selected EU states**

GEO/AGE	2004		2008		2011	
	15-64	20-64	15-64	20-64	15-64	20-64
EU 25	63.4	67.7	66.1	70.6	64.6	69.0
Czech Rep.	64.2	70.1	66.6	72.4	65.7	70.9
Estonia	63.0	70.6	69.8	77.0	65.1	70.4
Cyprus	68.9	74.9	70.9	76.5	67.6	73.4
Latvia	62.3	69.3	68.6	75.8	60.8	66.3
Lithuania	61.2	69.0	64.3	72.0	60.3	67.0
Hungary	56.8	62.1	56.7	61.9	55.8	60.7
Malta	54.0	57.9	55.3	59.1	57.6	61.5
Poland	51.7	57.3	59.2	65.0	59.7	64.8
Slovenia	65.3	70.4	68.6	73.0	64.4	68.4
Slovakia	57.0	63.7	62.3	68.8	59.5	65.1

**Source:* Own case study on the basis of Eurostat database (available on 2nd April 2013).

As it has already been mentioned above, in the project Europe 2020, particular goals [1] are strictly related to each other, and mutually complement each other. In the sphere of employment, attention ought to be drawn to such relationships as:

- improvement of the situation in the sphere of education, which should reduce unemployment and poverty,
- larger focus on research and development as well as innovations in economy, together with more effective use of resources should increase competitiveness of EU and shall contribute to creation of new working places,
- investment in cleaner technologies shall facilitate the struggle with climate changes and at the same time it shall create new possibilities for development of enterprises and employees.

These goals show what general European Union situation in 2020 should be with respect to the most important parameters. They are arranged in such a way that each member state might control their progress in their implementation.

The ideas of the aforementioned strategy of development define the assumptions concerning the level of employment for a wide age range of employees. However, it is obvious that the rates that describe the level of employment are responsive to age of employees and depending on the age group they take various values. Therefore, the analysis of employment rates for various age groups of employees is going to be performed to complement the conducted studies. A simplified division includes three age groups: 15 to 24 years of age, 25 to 54 years of age, and 55 to 64 years of age. They are a group of school-leavers, professionally mobile employees[2] and people at the end of their professional career.

In fig. 6 – 7 employment rates by major age groups are presented for the years 2004 and 2011. It can be seen that the highest value is taken by the rate for the age group between 25 – 54 years of age and apart from Malta, in each of the states it is the value that is not smaller than 68 % (in 2004), 74 % (in 2008) and 73 % (in 2013). On the other hand school-leavers, that is people at 15 – 24 years of age, had the largest problems with employment. This is observed in the value of employment coefficient for this age group[3]] which is not higher than 37 % (in 2004), 38 %

[1] Within the project "Europe 2020 Strategy" five major goals in the sphere of employment, research and development, climate changing and sustained energy use, education and fighting the poverty and also social exclusion are being implemented.

[2] Appropriate age of occupationally mobile employees is between 25 to 44 years of age, but due to extension of life expectancy in more and more publications we can find the age between 25 to 54 years of age to be the age of life and occupational mobility.

[3] The rate values for this age group can be most distorted and, because of that, the least reliable because actually a part of this population is made of students, which means that they are people who do not undertake work.

(in 2008) and 31 % (in 2011). These are the values of the rate for all the states apart from Malta. In the case of Malta the rates take the values definitely different from the EU level and probably this is the result of economic and cultural specificity of this tiny island country.

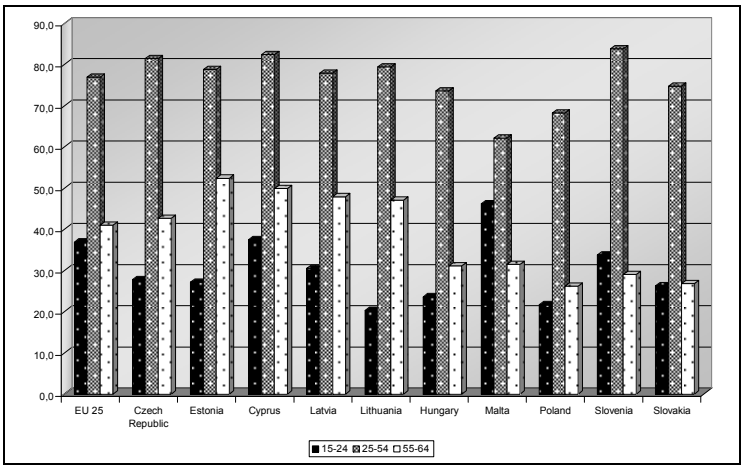


Fig. 6. Employment rate by age in 2004 for selected EU member states*

**Source:* Own case study on the basis of Eurostat database (access on 2nd April 2013).

In the third of selected age group of employees the level of employment is definitely lower than in the middle group, but higher than in the group of school-leavers. It is a group of employees that constitutes the so-called "55+ generation" that is, people who are most exposed to effects of economic changes, burdened with lesions because of their age and the least prone to possible retraining that results from economy restructuring. Special programs activating them and counteracting their occupational marginalisation are created for this group of prospective employees. Unemployment resulting from the assumptions of changing economy, lack of opportunities and sometimes the lack of motivation to accept resulting challenges is most experienced by the group of the oldest employees. Comprehensive solutions suggested by governmental institutions not always find understanding among the people they are aimed at.

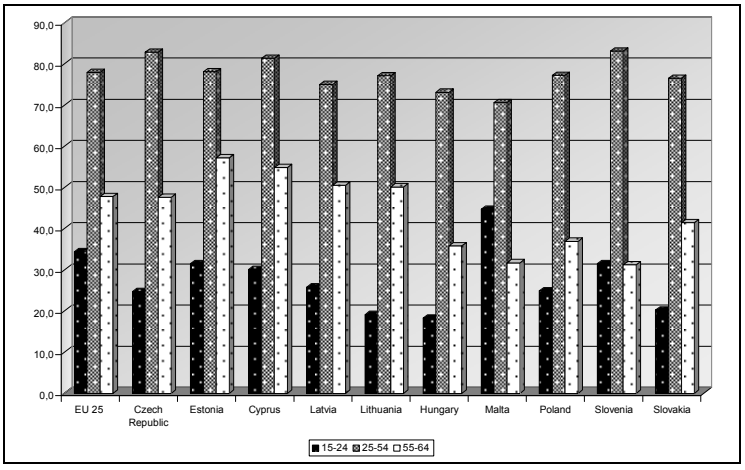


Fig. 7. Employment rate by age in 2011 for selected EU states*

**Source:* Own case study on the basis of Eurostat database (access on 2nd April 2013).

In each of the three distinguished age groups the changes in the level of employment are also observed in the analysed period.

For the youngest employees (15 to 24 years of age) the lowest values of the rate were observed in the case of Hungary and Lithuania. This can be the result of a high solarisation coefficient which means that young people devote more time to study and they do not to work.

In each of the age groups a decrease in employment rate is observed in 2011 when compared with 2004 and 2008. It is a specific echo of financial crisis of 2008 to 2009 when economies of particular countries were reducing employment for the purpose of restructuring and saving.

The analysis of fig. 18 lets us state that in case of some countries, including Poland, we can notice the results of observing the assumptions of the Lisbon strategy of 2000 that set the requirement of increasing the employment rate in the age group of over 50 years of age on the level of 50 %. Although this level was not reached, a definite growing tendency of its value was observed.

Comparing the dynamics of changes in employment rate by age groups (fig. 19) in total we obtain a complete image of changes in the phenomenon. Analysing the average pace of changes with the use of geometric mean we can state that in the case of group of the youngest employees (15 – 24 years of age) in the studied period of twelve years a decrease in the level of employment was observed

in each of the "ten states" (except for Estonia). In Poland quite a stable level with slight growing tendency was maintained (by 0.15 %). The most dynamic changes and the strongest mean pace of growth in the level of employment are observed in the case of employees who are at most advanced age (55 – 64 years of age). As it has been mentioned before, this is probably the result of observing the principles of Lisbon Strategy of 2000 in the sphere of extension of occupational activation of the 50+ age group.

The states in which progress in employment of people over 55 years of age was most apparent included Slovakia and Hungary.

Conclusions. As analysis shows, problems of lack of employment stability are characteristic for every EU country, especially those "new" ones. To strength European economic system, social insurance system and to improve conditions of public finances, European Committee is taking efforts to improve general condition of European economy. Within the *Europe 2020 *program one of main goals is to improve general level of employment up to 75 % in age group 20-64. There is group of actions which are about to lead to this goal. One of them is so called flexicurity of labour market, which characteristics is to improve social security. Another one is to take care about well skilled employees which will improve level of productivity, competitiveness and economic growth. Next directions are to create new, better labour places and better labour conditions. To improve level of employment it is important to create policy which will use main new labour places and promote entrepreneurship and self-employment.

EU states are able to achieve those goals and improve general level of employment, (especially women and elder citizens) if some vigorous actions are taken. Important fact is, that responsibility will be held by particular member states, because they have many essential instruments, not only political, but also social ones.

References

1. Population on 1 January by age and sex [Dostemp] // Eurostat [plakat]. – E-mail. dane. – Dostemp: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en.

2. Europe 2020 strategy [Elyektronichny zasub] // European Commission [plakat]. – E-mail. dane. – Dostemp: http://ec.europa.eu/europe2020/europe-2020-in-your-country/index_pl.htm.

3. Diahnoza spolechna 2009: varunki i yakoshchch zhycha polyakuv" [Elyektronichny zasub] // Varshava: Rada monitorynhu Spolechnoho, Vyshcha Shkola Finansuv i Zazhondzhanya v Varshavye [plakat]. – E-mail.. dane. – Dostemp: www.diagnoza.com/pliki/raporty/diagnoza_raport_2009.pdf.

4. Rynki Rynki pratsy novykh pan'stv shlonkovskikh UE [Elyektronichny zasub] // rynekpracy.pl [plakat]. – E-mail. dane. – Dostemp: http://www.rynekpracy.pl/raporty_1.php/wpis.38.

5. Eurostat. Statistics. Browse / Search [Dostemp] // European Commission: [teren]. – Dostemp: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.

Надійшла до редакції 15.10.13

М. Бальцеровіч-Шкутнік, д-р екон. наук, проф.
Економічний університет м. Катовіце, Республіка Польща

ПОРІВНЯЛЬНИЙ АНАЛІЗ ПОКАЗНИКІВ РИНКУ ПРАЦІ В ГРУПІ НОВИХ ЧЛЕНІВ ЄС

У статті проаналізовано динаміку показників зайнятості у розрізі галузевої та вікової структури зайнятого населення "10 нових країн-членів"Європейського Союзу, які увійшли до складу ЄС у 2004 році, Для проведення аналізу обрано часовий ряд 2000-2011 рр., який охоплює періоди до та після вступу цих країн до ЄС, що дало змогу визначити зміни у показниках зайнятості, які характеризують стан та тенденції розвитку ринку праці вищезазначених країн за цей період.

Ключові слова: ринок праці; рівень безробіття; сервісізація ринка праці.

М. Бальцерович-Шкутник, д-р экон. наук, проф.
Экономический университет г. Катовице, Республика Польша

СРАВНИТЕЛЬНЫЙ АНАЛИЗ ПОКАЗАТЕЛЕЙ РЫНКА ТРУДА В ГРУППЕ НОВЫХ ЧЛЕНОВ ЕС

В статье проанализирована динамика показателей занятости в разрезе отраслевой и возрастной структуры занятого населения "10 новых государств-членов" Европейского Союза, которые вошли в состав ЕС в 2004 году. Для проведения анализа выбран временной ряд 2000-2011 гг., который охватывает периоды до и после вступления этих стран в ЕС, что позволило проследить изменения в показателях занятости, которые характеризуют состояние и тенденции развития рынка труда вышеупомянутых стран за исследуемый период.

Ключевые слова: рынок труда; уровень безработицы; сервисизация рынка труда.

UDC 338.45:339.138
JEL M310

N. Butenko, PhD in Economics, Associate Professor,
L. Paschuk, PhD in Economics, Assistant of Professor
Taras Shevchenko National University of Kyiv, Kyiv

SYNERGIC EFFECTS OF THE PARTNERSHIP NETWORKS FORMATION AT THE INDUSTRIAL MARKET

In article the partnership network essence is defined, the major perspectives and specifics of synergic effect appearance within partnership networks at industrial market is analyzed.

Keywords: synergic effects; partnership networks; industrial market; partnership marketing.

Problem definition. Active search of the competiveness sources in the modern conditions of the globalization of the economy stipulates enforcement of the attention to the opportunities of the development to the additional values to the customer with resulting competitive advantages at the basis of partnership relations development with the major partners – suppliers, distributors, customers and others. Each of the partners contributes to the development of competitive advantages at the market. Partnership relations are one of the key elements of maintenance of the sustainability of the economic subjects of the industrial or business-to-business market. Moreover, in the current situation one of the major competitive advantages is readiness to collaborate and constant search of the most effective partners' relations, which would enable the organization to gain, retain and strengthen its competitive advantages. Taking into account mentioned above formation of the partners' connections which represent the basis of business relations is one of the elements of the strategy of the enterprise and forms the basis for successful competi-

tion. Synergic effects which appear in the process of collaboration between the participants of industrial market are able to form the additional conditions for economic growth based at partnership mechanism.

Analysis of the recent researches and publication. Problems of the partnership relations at business-to-business market are not sufficiently covered. Western researchers at certain extent are touching the aspects of the management of the process of interaction with customers, but their papers did not get sufficient and appropriate reflection in Ukrainian and foreign scientific literature. The most famous scientists in this area are such scientists as Webser Jr., Shet, Bauer, Lewitt. Kusch, Yuldasheva and other. Among Ukrainian researchers it is worth to mention such scientific results as those obtained by A.Starostina, Ye. Krykavskiy, O. Tielietov, N. Chukhray. The issues of synergy in management activity are covered in papers of such scientists as I.Ansoff, M.Porter, E.Campbell, V.Anderson, Ye.Khodakivskiy, V.Melkin.

Unsolved earlier parts of the general problem. Taking into account significant scientific results of Ukrainian and foreign researchers it is worth to underline that the level of industrial market development which defines the leading role in renovation of economic stability forms the need for further scienctific research of the problems and aspects of the theoretical and methodical bases of synergic effects formation based at partners networks within industrial market.

Development of the tasks and aims of the article. The aim of this paper is study and summarization of the theoretical and methodic bases of the formation of synergic effects of partners' network development to improve the positions of the enterprises at the industrial market.

Results. Enforcement of the unstable conditions within economic environment in the process of the market transformation of Ukraine justifies the need for investigation of the forms of the partnerships of the enterprises developed at the principles of adaptation, self-organisation and agreement of their economic interests. It is worth to underline that activity of the subjects of the industrial market may be considered as stable only in case of satisfying of one of the following requirements:

– general goals of the subjects are unification of the goals of the interested parties, or

– combination of the goals of the interested partied is an expansion of the goals of the whole system [1, c. 14-15].

So, subjects of the industrial market are interested in formation of the effective system of the relations which responds to the requirements of the modern market environment. In this connection traditional marketing goals, such as intend to get the maximal profit of each operation, are changing at the favor of effective relationship system with customers and other interested participants of the market environment, namely distributors, dealers, suppliers. Pursuant to this the major motives for the establishment of the strong relations of the industrial market participants is approach to the new marketing technologies due to collaboration with the marketing department of partner enterprise, two side exchange of goodwill, application of the opportunities of the labor productivity, extension of product portfolio, long-term growth of the market share; mutual utilization of the production facilities and promotion; protection of the own interests at the market as reaction at direct foreign investments of the foreign partners; export of the technologies to the territory of foreign states; reliability of the purchase of the raw materials, access to the databases; protection of the market position by integration with a competitor; long-term growth of the market share; extension of the distribution network; opportunity of the regional diversification, etc.

The majority of the global companies already realized the necessity of the effective partner's relations formation, considering them to be one of the core competencies of the company. Also there is a trend of the gradually recognition by the Ukrainian companies operating at industrial market of the fact that at the current stage of the global economy development the relations are the most important resource as well as physical, financial, information and other assets. The relations become the key factor which defines the long-term success and stability of an enterprise. Nevertheless, it is worth to underline that there is a certain delay in terms of the practical implementation of the partnership relations concept. under influence of the market conditions change subjects of the industrial market transform into over-complicated dynamic structures, effective management of which requires application of the methods which are adequate to the complication of the external and internal environment. Also the significant transformation of the industrial market subject over the recent years makes the consideration of the transaction process from marketing perspective itself not sufficient. The success factor in such conditions is existence of established, close relations with stakeholders or interested participants of the market environment. So, the methodological basis of the effective activity of industrial market subjects is recognition of the essence and practical implementation of the partnership relation concept.

The specific features of the partnership relations between the subjects of the industrial market at the large extent are caused by the nature of B2B market which determines specifics of its complication are as listed below:

1. The moving force of the partnership relations of the industrial market participants are the needs of organization in a certain industrial goods. The needs are caused by the specific features of the enterprises' activity.
2. The character of the partnership relations of the industrial market subjects stipulates that all components of the business are oriented as the final customer and marketing decision of all the subjects are based at perfect understanding of its needs.
3. Limitation of the relations. Every participant of b2b market collaborates with limited quantity of the partners which is caused by specialties of this particular enterprise, technologies, raw areas, etc.
4. Geographic dependence – the location of the industrial market participants in certain industries, dependence of raw bases causes significant limitations in selection of the participants of relations which causes the development of the partnership relations.
5. Volume of agreements – the quantity of the agreements at b2b market is much lower in comparison with b2c market, but the contracts are much more significant in terms of its size, every agreement is valuable for the industrial market subject and justifies the need of development the effective partnership relations in production chain.
6. Procurement process is complicated. Procurement on B2B markets is long-lasting complicated multistage process which results in decision based on rational motives since the subjects of the industrial market are hard to influence at in comparison with final customers. There is a need for undertake actions not only from the marketing department side but also other functional and production division (operations, technological, financial, etc.). the effectiveness of such influence highly depends from the level of collaboration between all departments involved.
7. High level of customer competence. Industrial customers possess deep knowledge of the market conditions, they are very quality oriented in the process of the goods and services selection.

8. Activity of the customer in the process of suppliers' choice – industrial customers are active in the suppliers' choice but quite conservative in the process of change suppliers.

9. Complication of the industrial product – complication of the industrial product forms the need for decision-making regarding purchase at high professional level by representatives of several departments of the parties involved (for instance, financial and manufacturing departments, departments of distribution, etc.); this issue requires high level of technical innovation, creativity and risk, connected with significant expenses at scientific researches and research and constructive developments.

10. Connection retrospective and perspective of relations, their complication – every interaction of the industrial market subjects is a separate element in the system of relations which is determined by the previous experience of the relations and defines the perspective of the relations;

11. High level of the technological development – the production process of the industrial goods is highly complicated, which causes the need for adaptation of every participant to the requirements of the general technological process.

12. High level of the social dependence – limited quantity of the relation participants defines the detailed study of its participants, high level of relations' individualization, negative social impact of loss of the relations, etc.

13. Development of the information technologies – significant quantity of the modern information systems appeared as the result of relations and stipulates the utilization of the leading management and information technologies with assistance of which company gathers the information about its partners at all stages of life cycle and utilizes it with a purpose of formation of mutually benefit relations.

Taking into account considered limitations in application of the partnership relations on a one hand and specifics of the industrial market which determine the specifics of partnership relations and justify their necessity on the other hand, as for today the following forms are currently used:

- Bilateral relation of the manufacturer and customer;
- Mutually profitable collaboration on the basis of cooperation and integration with supplier.

Modern development of the market logically proves the need of application of the new forms of the relations between the industrial market subjects (industrial clusters, technical parks, business incubators, financial industrial groups, etc.) which are able to activate the manufacturing and business activity of the subjects of industrial market. The choice of the influence methods and technologies of the economic relations

The choice of the influence methods and technologies of the economic relations should be adequate to the general goals and expected results of the both participants which would support the final positive effect of the partnership relations. It is worth to mention that globalization process provide significant stimuli for development of the new forms of the partnership strategies. Participation in partnership strategies should correspond with interests of its participants, support the development of the agreed position regarding their strategy of behavior at the market.

Normally, the stress is made at transfer the partners from one type of relations to another (from single transactions to periodical relations, from periodical relations to regular, etc.) as demonstrated at Figure 1 below.

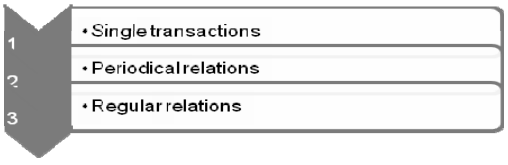


Fig. 1. Evolution of the partnership relations

* *Source:* developed by authors based on [5, 6].

Over the recent years there were growing trends of application and creation of cooperation, alliance, partnerships which is caused according to some researchers [21], by the number macrolevel reasons, intensive international competition, more deep integration of the economies of the different countries, active political changes, growing expenses of development and implementation of the new goods to the market and shortage of the product life cycle. Not all the relationships are passing all the types. Sometimes it is more efficient to maintain the periodical relations and there is n sense in transformation them into regular. If there is non-fulfillment of the basic terms and there are no perspectives to change the situation there is no need to develop relations with such a customer. In order to choose those customers development of the relations with which is appropriate Ya. Kryvoruchko recommends to measure value of relations with them [3, 4].

According to some authors globalization of the world economy cause significant growth of the international investment processes [2]. Execution of the technological and innovative policy as key factor of the structure renovation of the production should become an axiom of the transformational process on the way to development of the economy of the state. From angle of the international integration and economic globalization which are visible in economy of Ukraine, the complicated business networks are developing, where operational business partnerships become strategic. According to Bivainis [5], synergy of the partnerships is one of the major factors which define the opportunities of the enterprise to compete locale and globally.

So theoretical researches and practical observation of the partnership relations of the Ukrainian industrial market subjects enabled the author to formulate the following statements which form the basis of the concept of partnership relations at industrial market:

1) Entrance into partnership relations at a goodwill basis;

2) The distinctive characteristics of the partnership relations at industrial market is not competition but mutually profitable collaboration with assistance of cooperation and integration between the partners;

3) Existence between the participants of the partnership relations of the mutual dependence which appears based at distribution of risk, responsibility, resources, authorities and incomes;

4) In the basis of the partnership mechanism thre are synergic effects which appear between the participant so of the industrial market and are able to formulate an additional source of competitive advantage;

5) Formation of the partnership relations is one of the elements of the enterprise strategy and forms a fundament for successful competition;

6) Readiness to operate jointly. The partnerships' participants in the majority of cases work together at all the levels and stages of the business process.

So, the partnership relations may be defined as a form of economic relations between two or more subjects of the industrial market which stipulates systematized complex of economic, legal, technical, cognitive, social connections between subjects of the industrial market and is executed at the grounds of mutual usage of the assets, optimization of the transaction expenses level, repeat of transactions, readiness to collaborate, trust to formation of the competitive advantages of the realization of the own economic interests of the partnership relations participants.

The participants of the partnership relations should possess the necessary abilities of management of the partnership relations, they should clearly understand defined between the partners authorities, functions and responsibility, trust each other, recognize the existence of

mutually beneficial partnership between them, which enables to create new consumption value and ensure the external customer satisfaction.

So, among specific features of the essential understanding of the partnership relations at industrial market it is worth to underline the following:

– Partnership relations at industrial market are long-tern and mutually beneficial collaboration of the industrial market participants at the basis of continuous personified process regarding development of values and further mutual division of the benefits gained with partners;

– Partnership relations on the industrial market are to be considered not as a general competition but as mutually beneficial collaboration with assistance of cooperation and integration with partners;

– Partnership relations are the source of the unique long-term competitive advantages;

– Partnership relations are to be considered as a resource which is able to create mutual values which increase competitiveness on the one hand and on the other hand may be a measure of partnership relations effectiveness;

– Partnership relations are based at the recognition of equal position of all the participants of partnership channel but the final result depends on the level of customers' needs satisfaction, so the customers get the priority meaning among all the partners and become a forming element of whole partnership channel;

– Partnership relations stipulate agreement of the product and market strategies of all the partnership channel participants;

– Partnership in framework of the industrial market stipulates availability of two and more subjects which mutually promote goods with purpose of development a competitive advantage within all participants of partnership channel;

– Partnership relations marketing opposite to traditional marketing is not directed at satisfaction of the need by itself but at satisfaction of the partners' needs in general;

– Partnership relations stipulate constant feedback from all the partners.

Pursuant to all mentioned above theoretic and methodological maintenance of the partnership relations requires agreement of the economic interests of the industrial market subjects. In this connection especially actual at the level of economic researches is a new thinking regarding theoretical and methodological statements of the formation of the modern partnership relations concept at the basis of mutual agreement of the economic interests of the subjects of industrial marker and modern management science.

Formation of the *partnership relations concept* requires to define the key elements of the agreement of economic interests of the partners which enables to develop mechanism of consolidation the interests of all market processes' participants and develop the complex scheme of getting the goals. But effectiveness of formation the partnership relations requires providing the balance of interests and opportunities of interested subjects of industrial market at the bsis of the following statements:

1. Readiness which stipulate recognition of the need and existence of appropriate motivation of a certain subject of industrial market to define the opportunity of usage the leading experience of partnership relations while implementing own strategy;

2. *Economic and organizational practicability* which stipulates the definition of the responsibility centers and development of the target effectiveness indicators of partnership relations from perspective of getting bigger competitive advantages comparison with separate activity.

3. *Division of authority and responsibility* in issues of agreement of economic interests of the partners which stipulates the definition in new developed structure of partnership relations the department with defined functions and responsibility regarding realization of agreement the economic interests.

4. *Innovative activity*, namely some partnership relations are interesting for potential participant due to the opportunity of getting new opportunities of innovations' development.

5. *Complex system of business motivation*, which provides the consolidation of the interests of all the partnership relations' participants in reaching strategic priorities of the industrial market subjects

6. *Consolidation of the basic subprocesses of the partnership relations participants* stipulates an opportunity of maintenance the unique competitive advantages of the separate subjects of industrial market and general functional direction of the partnership relation activity.

Execution of these principles will support the development of effective mechanism of entrance of the industrial market subjects into partnership relation and will form a basis for effective collaboration of all the participants.

The result of the implementation of the partnership relations concept at the industrial market is formation of partnership network, which is a unique intangible asset containing enterprise and all other interested in its activities parties (stakeholders): customers, suppliers, distributors, retailers, competitors, advertising companies, employees and others which whom enterprise established beneficial business relations.

Partnership network of the industrial market participants is defined as a system of two or more enterprise which interact on a regular basis with particular aim and in the process of development of a competitive final product in order to propose it to the customers by mutual agreement of the personal economic interests. So, partnership network is a system which consists of elements among which the participants of partnership relations are considered, i.e. subjects of industrial market and multiple interactions of the enterprises belonging to the system which form the connections between its element.

There are two major perspectives to characterize the partnership network:

- Matter perspective which is about raw materials, additional materials and cooperative elements (information, communications, connections, etc.) which are purchased at the consumption market and are directed to the manufacturing process and also from the ready products which are passed from the manufacturing area to the sales are.
- Subjective perspective which is about enterprises which are interacting one with each other and form its separate components.

Each partnership network is a complex technical and administrative system which coordinates realization of all the functions and connections for correct management of which there is need to take into account aims, interests and behavior of every channel participant.

The major system forming features of the partnership network are as follows:

- Agreed purpose of partnership network functioning
- Execution of the functions of the partnership network participants according to the general purpose. Each of the network participants as a part of a system fulfills in this system a certain function, and aims at reaching individual goals in such a way;
- Existence of the coordinative body in the framework of a partnership network. Coordination influences as the subsystems which makes them to act as agreed;
- Recognition by the participants of the partnership network of the need to orient at the final customers. Needs

of the partnership network members are to correlate with consumers of the final product;

- Existence in the framework of partnership network clear agreements among members regarding their rights and obligations, algorithms of collaboration, ways of conflict solution between participants, division of expenses and profit, risks;
- Results of mutual activity of the partnership network due to synergic effect of collaboration in the area of manufacturing organization, mutual utilization of financial proceeds, development and distribution of innovations, etc., have to extend the possible results of a single activity;
- Collaboration between the participants of partnership network is fulfilled on a lasting and profitable basis.

Summarizing it may be stated that partnership network is a complex, complicated process of value creation starting from phase of getting the raw materials and finishing with passing the final product to the customer. Architecture of the partnership network at the industrial market has to cover the relations with partners, definition of the industrial goods and services portfolio, definition their qualitative parameters, assessment and definition of the principles of relationship management. In the process of partnership network development the industrial market subjects have to take into account the following aspects:

- *Individualization of the elements*: in spite of the existence of typical tasks for the market participants (thereof supply, sales, manufacturing), market participants may demonstrate different market behavior which requires individual approaches;
- *Impact of the actions*: any decisions of one subject of the network have direct or circumstantial impact at other members of a partnership network;
- *Interactivity*: a constant process of execution and adaptation of the members' activities one to each other;
- *Recognition of the need in relations*: is developed though the knowledge networks by cooperation.

The major point in the process of partnership structure formation is to understand that networks consist of connected and dependant one of each other organizations, i.e. networks members are also dependant one of each other while fulfilling particular tasks. So, the network may be considered as a system of connected elements which take part in the getting of final results. Every partnership network participant in the process of reaching its aims depends on other participants and while collaborating with the gets some profit.

In spite of all the mentioned above limitations and difficulties there is a place to appearance of synergy which is about "the interaction or cooperation of two or more organizations, substances, or other agents to produce a combined effect greater than the sum of their separate effects" as mentioned in Oxford dictionary [0]. While collaborating within a framework of the partnership network all the participants fully benefit due to the appearance of the synergic effect. In general synergic effects may be described be three major variables:

– increase of the profit in cash;

– decline of the transaction and operation costs;

– decrease of the investment needs as illustrated at the Figure 2.

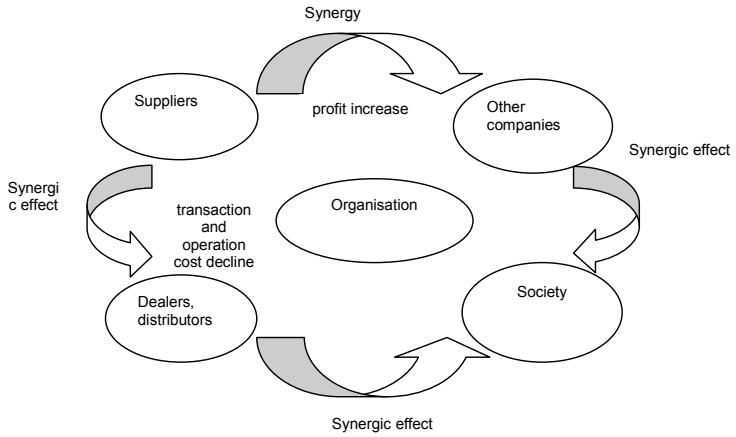


Fig. 2. Synergic effect within partnership network

* *Source:*developed by authors based on [1, 5, 6].

Analysis of partnership networks enabled to discover that it is crucially important for formation of synergic effects of partnership networks to consider a certain list of qualitative and quantitative criteria to which partnership networks should correspond.

Among qualitative parameters it is worth to mention:

- Share of the purchases of the partner in total sales volume;
- Price level of industrial good in comparison with alternative market proposition;
- Level of slaes prices comparing with those of competitors
- Specific expenses of enterprise regarding its competitors.

Among qualitative criteria it is worth to divide such as:

- Quality level and level of adaptation of the appropriate industrial goods regarding the alternatives at the market;
- Comparison of the quality with the quality of competitors;
- Impact force which is measured by the part of procurement of an enterprise in the total volume, quantity of the alternative suppliers, volume of expenses, by level of standardization, etc.
- Possessing of key competencies by the partners which define their potential, its influence at partners, perspectives of the relations;
- Structural mutual dependence developed in the results of implementation of the modern technologies and product adapted to the requirement of the relations participants
- Agreement of the general goals of a certain partnership relations participant with general interests of the network, by agreeing of the aims, the participants of the partnership relations are looking for compromise between a short-term opportunism and formation of the long-term relations with a partner.

- Compatibility of the corporate cultures, management style, innovation level of the company, intend of the enterprice to avoid uncertainty.
- Compatibility of the partners in terms of size, potential, image. Brand force, etc.
- Reputation within network, based at experience of collaboration with this partner forms guarantee connected with drawbacks and benefits which appear in the process of collaboration with a certain partner.

It is impossible to develop the whole list of all the quantitative and qualitative criteria of evaluation of the synergic effects of the participants of partnership relations since it depends on the purposes of research, specifics of the industry, members, kind of network, etc.

Conclusions. The results of research enabled to summarize leacing scientific and practical experience of foreign and Ukrainian companies and scientists and to define the partnership network as a unique intangible asset containing enterprise and all other interested in its activities parties (stakeholders): customers, suppliers, distributors, retailers, competitors, advertising companies, employees and others with whom enterprise established beneficial business relations. Also the major features of effective partnership network were defined as well as the major drawbacks. In the process of the partnership networks forming and functioning the synergic effect appears which reflects in three major benefits which are increase of the profit in cash; decline of the transaction and operation costs; decrease of the investment needs as illustrated. This benefits are the same for all types of industry. Moreover, the qualitative and quantative networks' criteria for formation of synergic effects of partnership networks were defined.

Perspectives of further reasearches in this direction. In framework of growing competition at all level and taking into account increasing role of partnerships in all all sphere there is a need for further researches and development of practical recommendations regarding opportunities of increase of the synergic effect within partnership networks.

References

1. Bulah I.V. Strategija promyslovogo marketyngu – pidhid do vyznachennja / I.V. Bulah // Suchasni problemy upravlinnja vyrobnyctvom: tezy dopovideў V Mizhnar. n.-pr. konf. – Donec'k: DVNZ "DonNTU", 2010. – 227 s. (posylannja st. 14-15)

2. Dem'janenko P. Rynkova transformacija ekonomiky: stan, problemy, perspektyvy / P.V. Dem'janenko // Aktual'ni problemy ekonomiky. – 2008. – №7 (85). – S. 241 – 249.

3. Kryvoruchko Ja. Metodychnyj pidhid do ocinjuvannja ta rozvytku vidnosyn mizh pidpryjemstvamy / Ja.Ju. Kryvoruchko // Visnyk Hmel'nyc'kogo nacional'nogo universytetu. – 2007. – №6: Ekonomichni nauky, Tom 3. – S. 249–254.

4. Kryvoruchko Ja.Ju. Formuvannja i rozvytok vzajemovidnosyn mashynobudivnogo pidpryjemstva z biznes-partneramy : avtoreferat dysertacii' na zdobuttja naukovogo stupenja kandydata ekonomichnyh nauk / Ja.Ju. Kryvoruchko. – L'viv, 2009.

5. Bivainis J. A six-phase model of business partners selection // Ekonomichnyj visnyk Nacional'nogo tehnichnogo universytetu "Kyi'vs'kyj politehnichnyj instytut". – 2006. – №3. – C. 351 – 357.

6. Johnston J. International Industrial Marketing Interactions: Dyadic and Network Perspectives / J. Johnston, J.E. Lewin, R.E. Spekman // Journal of Business Research. – 1999. – № 46. – P. 259–271.

7. Haldane, G. (2009) Professional Diploma in Marketing. Study Text. Project Management in Marketing. /– London : BPP Learning Media, Aldine Place.

Надійшла до редакції 06.10.13

Н. Бутенко, канд. екон. наук, доц.,
Л. Пащук, канд. екон. наук, асист.
КНУ імені Тараса Шевченка, Київ

СИНЕРГІЧНІ ЕФЕКТИ СТВОРЕННЯ ПАРТНЕРСЬКИХ МЕРЕЖ НА ПРОМИСЛОВИХ РИНКАХ

В статті визначено сутність партнерських мереж, розкрито передумови та особливості виникнення синергічного ефекту в рамках партнерських мереж на промисловому ринку.

Ключові слова: синергетичні ефекти, партнерські мережі, промисловий ринок, партнерський маркетинг.

Н. Бутенко, канд. экон. наук, доц.,
Л. Пащук, канд. экон. наук, ассист.
КНУ имени Тараса Шевченко, Киев

СИНЕРГИЧЕСКИЕ ЭФФЕКТЫ СОЗДАНИЯ ПАРТНЕРСКИХ СЕТЕЙ НА ПРОМЫШЛЕННЫХ РЫНКАХ

В статье определена сущность партнерских сетей, раскрыты первопричины и особенности возникновения синергического эффекта в рамках партнерских сетей на промышленном рынке.

Ключевые слова: синергетические эффекты, партнёрские сети, промышленный рынок, партнёрский маркетинг.

UDK 005.21:339.138](045)
JEL L22, M10, M31

A. Dligach, PhD in Economics, Associate Professor
Taras Shevchenko National University of Kyiv, Kyiv

SYSTEM REFLEXIVE STRATEGIC MARKETING MANAGEMENT

This article reviews the System Reflexive paradigm of strategic marketing management, being based on the alignment of strategic economic interests of stakeholders, specifically, enterprise owners and hired managers, and consumers. The essence of marketing concept of management comes under review, along with the strategic management approaches to business, buildup and alignment of economic interests of business stakeholders. A roadmap for resolving the problems of modern marketing is proposed through the adoption of System Reflexive marketing theory.

Keywords: marketing; strategic management; strategic marketing; system reflexive marketing; reflexive management.

Introduction. Strategic management, as a framework to business administration, is currently experiencing rapid development. Strategic planning, until late considered a basic model for strategic management, proved its inefficiency in the stringent context of market globalization and world economy recession. Thus emerged the need for discussing and developing a new paradigm of strategic management.

The concept of Strategic Management has been extensively studied by many theorists, including David A. Aaker, Igor H. Ansoff, Jean-Jacques Lambin, Peter Lorange, Henry Mintzberg, Michael E. Porter, Gary Hamel, C.K. Prahalad, Arthur A. Thompson Jr., A.J. Strickland III, George A. Steiner, John B. Miner, Michael J. Stahl, David N. Grigsby. From the post-Soviet perspective, questions of Strategic Management and Strategic Marketing have been researched by Bagiev G.L., Vikhansky O.S., Golubkov E.P., Kevorkov V.V., Lipsits I.V., Nikiforov S.V., Pankrukhin A.P., Rayko D.V., Starostina A.A., Fathutdinov R.A., Shkardun V. D. and others.

The majority of authors concur that strategic marketing is becoming the foundational framework for modern enterprise management.

However, strategic management and strategic marketing are often treated as independent management systems. It is more common in the business operation that practical application of marketing concept is implemented by means of various marketing tools. Apart stands the internal marketing that is commonly considered a vehicle for delivering enterprise ideology to employees. Neither in strategic management nor in strategic marketing, the problem of alignment of economic interests of company's owners, managers and employees, as well as suppliers, customers, consumers and competitors has never been approached system-wide. This practically leads to escalation of conflict, and theoretically – to the lack of system-level handling of specific notions, such as "economic interest", "alignment of interests", and the roles that strategic marketing and strategic management play in the processes of interests alignment.

Setting the problem. A conflict between enterprise owners and hired executives has become a topical issue recently. Owners stay uptight about retiring from the operations management due to substantial risks of losing their own business. Hired executives, in turn, are forced into attending the ever-changing ideas and moods of owners instead of building up effective strategies. This vicious cycle compromises the efficiency of business, which already had outgrown an entrepreneurial level, also impairs fund raising (through IPO and such) and undermines internal climate in the organization.

The business at a whole can be identified as a tool for meeting the interests of formal and actual owners. Let's separate these notions. Formal owner is a person whose ownership is certified by legal documents or any other agreements with legitimate owners. Actual owner, on the other side, is a person who uses the given business to realize their own interests.

Particular interests of the actual owner (or owners) are becoming the driving force of a business. However, actual owner can be, at the same time, a formal owner as well as a hired chief executive or any other person from internal or external environment of an organization (contact audiences).

The key characters (including formal owners, hired executives or others) – with specific interests that must be taken into account in the frame of developing the vision of an enterprise – will be referred to as Stakeholders. It is important to note, that stakeholders not necessarily pertain to the senior executives board of an enterprise. A stakeholder may represent any of the contact audiences, or appear to be the person to some extent associated with the business leader. Stakeholders may as well belong to customers or consumers. Specific interests of stakeholders correspondingly impact their actions, aimed at transforming the business.

The essence of the marketing concept of management lies within the realization of personal interest by means of contributing to the interests of the counter-agent in the exchange process. Most commonly, counter-agent is referred to as a consumer. Accepting the interests of a counterpart in the exchange process is the key principle beyond the marketing concept. Current trends in the development of market management methods have lead to the fact that addressing the actual interests of consumers is no more a key driver for a company's growth, due to saturation of the most product markets. The new source for business development turns up to be the realization and generation of new demands (interests). Therewith, among the parties engaged in business development (besides the consumers), other internal and external stakeholders can be uncovered.

Consequently, arises the task of building up the new marketing management paradigm – centered on strategic marketing approach to alignment of economic interests of all the stakeholders of the subject of management (business).

Findings. To summarize, the main problems of marketing in Ukraine can be outlined: (indicated below is the per cent share of problem's occurrence; sampling: 387 enterprises of different types of ownership; research period: 2007–2012; research carried out by Advanter Group in Russia, Belarus, and Ukraine)

- Perception of marketing as a separate business function or set of business tools, rather than the business management paradigm (92%).
- Noninvolvement of company's employees into marketing, failure to comprehend the essence of marketing or activities and functions of marketing department by the rest of the staff (84%).
- Poor efficiency of marketing activities (77%).
- Funding the marketing activity by the leftover principle (58%).
- Top management perceives marketing as a function of marketing department; low priority of marketing in the business operations (81%).
- Marketing researches have no impact on managerial decision-making process (49%).
- Disruptive functional conflicts on the "Marketing–Sales" level (73%).
- Primacy of creative approach to marketing while disregarding the strategic approach (59%).
- Poor level of expertise among marketing managers; establishing the marketing functions by the leftover principle (64%).
- Domination of standardized marketing strategies, adopted by foreign companies in Ukraine – the majority of leading Ukrainian marketers, employed by foreign enterprises, have limited responsibilities, are not involved in the process of market development, though are held in respect by the professional marketing community at the expense of huge marketing budgets and ad campaigns (60%, sampling: 48 companies).
- Commitment of marketers to promoting the self-brand, rather than the business efficiency (36%).

According to our reckoning, the majority of the above problems result from senior executives and owners' inadequate comprehension of the marketing essence and its role in the business management.

Let's summarize the problem of aligning the business interests of a specific group of persons. A business can be revealed, at the same time, as an object or as an instrument in a single or multiple management systems, which may draw on different management paradigms.

Simplified system: formal owner is the actual owner, all at once being the chief executive officer of the business. In this case, inner role conflict can be rather constructive, given the self-reflexive attitude of the owner. A conflict generally occurs between two or more interests that a person is guided by. For instance, promoting personal social status and, on the other hand, increasing operational revenue implies adopting different business strategies.

More complex system suggests that different people hold positions of formal owner and chief general manager (managing or executive director, CEO, president – the title not necessarily reflects the matter). Whereby the position of actual owner is taken up by a person with superior rank of reflexive attitude and the most comprehensive view of business and its environment. Realization of interests of such a person becomes a key priority of the enterprise. A conflict of gaining the actual ownership of the business may arise inside the group of formal owners and hired executives.

Alternatively, stakeholders of a business may represent consumer group (where the classic concept of marketing management is implemented), as well as competitors, suppliers, contact audiences, etc.

Stakeholders' interests may draw on the following:

- Ambitions, visions, desires (cognitive interest, gaining specific status, personal fulfillment, building/maintaining relationships, material security, etc.),
- Ideas,
- Capabilities,
- Resources (for example, the key interest of agricultural business manager may operate from the notion: "The land must be cropped"),
- Liability (self-preservation, etc.)

It is to be noted, that interests of stakeholders are getting globalized in the course of market environment globalization. This indicates the following:

- In the process of interests alignment it is essential to bear in mind the potential distortion of geographical coverage of different stakeholders' interests.
- New stakeholders from other market geographies may occur, asserting their own interests towards the object of management, on the primary market.
- Interests of specific stakeholders may concern only some of the local strands of the global business (thus the minor subject of management shall be regarded).

Depending on the nature of subjects, whom we consider stakeholders, different models of management can be segregated, defining the form of object management (Fig. 1).

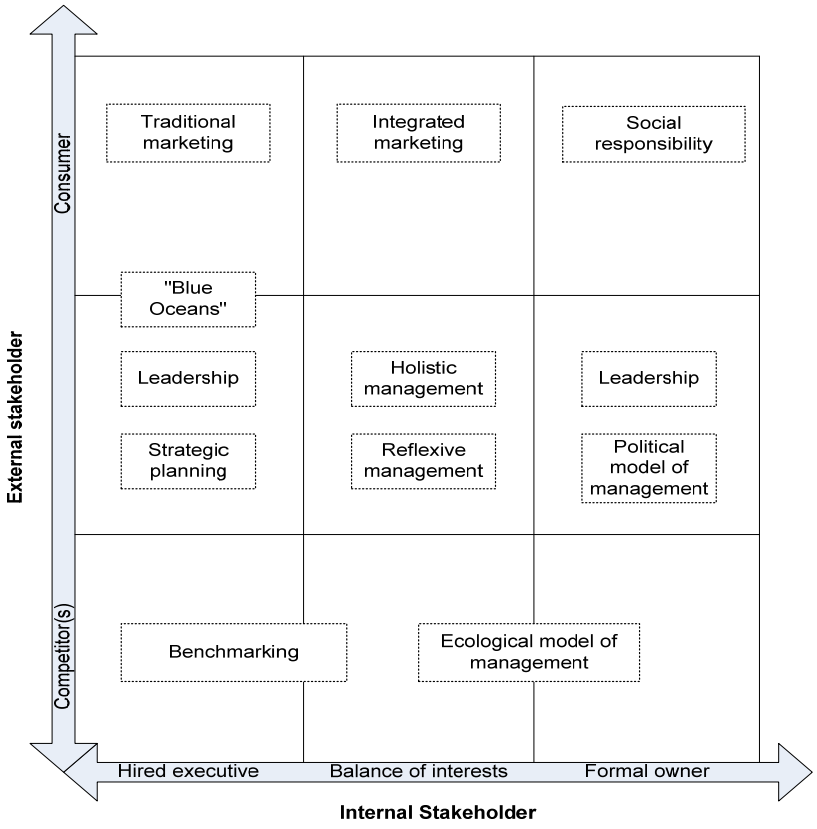


Fig. 1. Models of Strategic Management aligned to internal and external stakeholders

* *Source:* Author's own study.

One of the most coherent models from the perspective of aligning the stakeholders' interests proves to be the Reflexive Control concept.

American management theorist T. L. Thomas defines Reflexive Control as a method of communicating the purposely designed information to a party, or a rival, with intent to bias them and adopt a "voluntary" decision for the benefit of the initiator. This theory was introduced in the 60s Russia; however it is still being developed (Thomas 2004).

Vladimir A. Lefebvre – the author of Reflexive Control theory – draws the following definition: Reflexive management is a special method of influencing a rival for the purpose of making a decision, beneficial to the starter (Lefebvre 1966). According to V. A. Lefebvre, the essence of reflexive control involves exploiting the capabilities of a subject to "voluntary design the images of self and others".

The combination of reflexive control insights with the marketing concept allowed for molding a concept of System Reflexive Marketing.

System Reflexive Marketing–is a marketing theory where management is carried out through system-level distribution of interests of economic agents – and the alignment of the interests is exercised from the perspective of reflexive marketing manager.

System Reflexive Marketing – is a special approach to management, built upon the following key principles:

1. The actual owner of the object of management–the person who determines the direction and transformation of the object – is a stakeholder with superior rank of reflexive attitude, i.e. the one who has got systematic and clear vision of the management object, its stakeholders and their interests, also the environment (the principle of System Reflexion).

2. The actual owner of management object realizes their interest by means of aligning it with the interests of stakeholders (the principle of Marketing). The actual owner engages stakeholders into the object of management.

System Reflexion Rank implies certain level of realization of management object, coverage in the process of situation analysis, and elaboration of managerial decisions by the affluent economic agents, specific to their interests. System reflexive marketing covers different levels of marketing decision-making process, due to the rank of reflexion:

0. Process of sales.
1. Relationship marketing. Tools of influence marketing.
2. Customer behavior management. Demand generation, sales promotion.
3. Classic marketing: Marketing Mix, positioning, functional marketing strategies.
4. Category management.
5. Strategic marketing. Alignment of internal stakeholders' interests via defining the strategic vision.
6. Strategic management from the perspective of the actual owner of business.
7. The market is considered as an object to management. Formation of new markets ("Blue Oceans").

Based on the methodological principles of system reflexive management, we have developed a concept of strategic marketing. Here we implicate System Reflexive Strategic Marketing Management. It does not contradict the traditional concept of strategic marketing and strategic marketing management of an enterprise (and its business activity). Yet still, there are certain distinctions, and they are as follows (Table 1):

Table 1. **Traditional vs. System Reflexive Marketing paradigms**

Traditional marketing concept	System reflexive marketing
Traditional marketing, along with strategic management, refers to an enterprise as a subject of management. Accordingly, an enterprise is considered a closed system operating in the market environment.	Subject of management is referred to as a person that may represent the group of actual owners or hired managers, or may not (for example, consultant; customer, in case of monopsony; technology guru; ad campaign identity; etc.).
Market environment may exist as controlled and uncontrolled.	Market environment can be manageable and conditionally unmanageable. If Reflexive Marketing Manager (RMM) knows that certain factor of market environment conceptually does not imply the manager, RMM may, when applicable, include this factor in the management object.
Market environment cannot be neutral towards the enterprise. An enterprise may deploy proactive or reactive policy, relative to the environment.	Market environment (or a market itself–in the ultimate case) appears as an object to management.
Different marketing frameworks exist concurrently: marketing as a set of tools in the commercial paradigm of business management, traditional marketing (4P), relationship marketing, holistic marketing, and so on.	System reflexive marketing enables coexistence of different types of marketing (in terms of approaches to management) within a single business. System reflexive marketing addresses different approaches to defining marketing roles and methodologies, according to different ranks of system reflexion of the subject of management.
Customer is considered to be rational–with conscious interest. Marketing is pointed on serving customer interests.	Customer is considered to be irrational (subjectively rational)–with subconscious interest. Marketing is pointed on building up customer interests.
Marketing involves the study of interests of market counter-agents (through marketing researches).	Marketing implies management (and study as well) of interests of market counter-agents.
Subject of management is considered as one of the parties in the process of interests alignment.	Subject of management (reflexive marketing manager) may act as a subject in the process of interests alignment, herein holding a reflexive position towards the other subjects of interests alignment. RMM supervises the process of interests alignment, i.e. takes up the external stand, instead of operating from the inside of a relationship. Basically, RMM does not align the interests, but creates conditions for the alignment.
In the ultimate case, marketing is regarded as a theory and practice of business management (strategic marketing management).	In the ultimate case, marketing (system reflexive marketing of 7^{th} rank) is regarded as theory and practice of market management.
Subject of management deals with incomplete and asymmetric information in the process of decision-making. Correspondingly, decision taking is based on refining the information.	Subject of management deals with incomplete and asymmetric information in the process of decision-making. Correspondingly, the output function of subject of management turns out to be the process of building up the knowledge system–where the interests of counter-agents are integrated into the management object. One of the subjects of single object to management–who has got better understanding of the situation about the object, affluent counter-agents and their interests–gains the capabilities for more effective transformation of the object in accordance with personal interests.
Traditional approach to strategic management reckons marketing strategy as an integral part of the corporate strategy, strategies of subdivision and business units.	System reflexive strategic marketing management identifies marketing strategy as a background (aggregate of base solutions) for corporate strategy and sublevel strategies.
Initial solution corresponds to shaping the vision of an enterprise, and decomposing it into the system of strategic objectives.	Initial activity of the subject results in the realization of the management object, their personal interests towards the object, along with the management of vision designing process (alignment of stakeholders' interests).

In reliance on the research data, we have found a direct correlation of the success of business activity and the rank of system reflexion of a manager.

We have identified methodological background, system of methods and tools – aimed at implementing the System Reflexive Marketing (SRM) as guidance for strategic management of business activity.

It was determined, that the actual owner of the management object – the person who determines the direction and transformation of the object – is a stakeholder with superior rank of reflexive attitude, more specifically, the one who has got systematic and clear vision of the management object, its stakeholders and their interests, also the environment (the principle of system reflexion).

The actual owner of the management object realizes personal interest by means of aligning it with the interests of stakeholders (the principle of marketing). The actual owner engages stakeholders into the extended object of management.

System Reflexive Marketing (SRM) is defined as a theory and practice of management, carried out through the system-level distribution of economic agents' interests, and the alignment of their interests from the perspective of reflexive marketing manager.

SRM defines the strategic vision of the management object and strengthens the activities on transforming the object, by means of realization of personal strategic interests (as a subject of management) together with intentions and actions of market counter-agents, and through creation of conditions for realizing the personal interests as well as interests of market counter-agents.

System reflexion rank of a subject of management defines the role of marketing (from a tool in the management technology to the technology itself), as shown in the Table 2.

Table 2. **System Reflexive Marketing in relation to Reflexion Rank**

System reflexion rank	0	1	2	3	4	5	6	7
Marketing paradigm (fundamental theory)	Sales	Relationship management	Customer behavior management	Classic marketing (Marketing Mix)	Category management	Strategic marketing	Strategic marketing management	System reflexive strategic marketing management
Object to management	Disposal of goods	Customer relationships regarding the exchange	Customer interests	Aggregate of relations and interests within sales and consumption channel	Aggregate of relations and interests within creation, sales and consumption channel	Aggregate of interests and market relations within market	Business activity	Market as a whole
Enterprise function of marketing	Sales (absence of marketing function)	Sales promotion (in the business structure)	Trade marketing (in the business structure)	Marketing (separate function)	Marketing integrates into commercial function	Marketing determines business strategy	Marketing serves as a management technology of business activity	Marketing serves as a management technology
Dominant technology of impacting the counter-agents	Activation	Stimulation	Manipulation	Manipulation and confrontation (particularly "Marketing Wars")	Alignment of interests	Partnership	Reflexive management	System reflexive management
Basic solutions of marketing strategy	-	System of sales promotion	Trade marketing solution (merchandising, etc.)	Strategy of market penetratio, positioning	Category policy	Growth strategy, competitive strategy	Shaping the vision of an enterprise	Defining the parameters of key market
Brand management	Product strategy	Trade mark management	Trade mark management	Traditional brand management	Traditional brand management	Brand leadership	360˚ Brand Management	Total brand management (strategy of dominating brands)
Pricing policy	Cost-based pricing	Sales promotion (discount system)	Value-based pricing	Value-based pricing	Pricing based on demand and rival strategies	Pricing based on demand and rival strategies	Market pricing	Market pricing
Matching environment analysis to market globalization	Maximum (local key market/local environment)	Maximum (local key market/local environment)	Medium	Minimum (local key market/globalized environment)	Minimum (local key market/globalized environment)	Medium	Maximum (globalized key market/globalized environment)	Maximum (globalized key market/globalized environment)
Role of internal marketing	Absence of internal marketing	Limited role	Secondary role	Internal positioning of brands	Integrated marketing (integration of functions around market objectives)	Corporate culture management	Orientation on key internal stakeholders	Internal environment as part of the management object
Proactive approach to external environment	Reactive policy	Reactive policy	Policy of limited proactiveness (in terms of management object)	Policy of limited proactiveness (in terms of management object)	Proactive policy	Proactive policy	Policy of environment management	Policy of environment management
Theoretical foundation	Marginal utility theory / Theory of surplus value	Rational choice theory / Behaviorism	Game theory / Expected utility hypothesis (John von Neumann, Oskar Morgenstern, 1944)	Cognitive psychology (George Miller and others, 1956) Subjective expected utility theory (Leonard Savage, 1954)	Systems theory (Ludwig von Bertalanffy, 1937)	Prospect theory (Daniel Kahneman, Amos Tversky, 1979)	Reflexive management (Vladimir Lefebvre, 1972)	Concept of intellectual leadership (Gary Hamel and C. K. Prahalad, 1990) / Blue Ocean Strategy (W. Chan Kim, 2005)
Years of occurrence	1930s–1950s	1950s–1960s	1960s–1970s	1970s–1990s	1980s–2000s	1980s–2000s	1990s–till now	2000s–till now

Every next rank of reflexion implies not only the expansion of knowledge system about stakeholders and forces that must be taken into consideration (in fact – expansion of management object), but also the scoop of knowledge about the stakeholders that have already been included in the management object. The same conclusion was reached by the authors of Spiral Dynamics theory.

We have carried out the research dedicated to "The model of strategic management of business and marketing activities", involving 54 various enterprises (from Russia, Ukraine and Belarus) with focus on the following subject matters: observation of technologies of market activity and managerial decision-making processes, in the course of 2–4 years (continually during 2007–2012); analysis of operating efficiency; analysis of brand success; expert surveys of senior and operational internal management, as well as external experts and partners; customer surveys; modeling and empirical studies (particularly, through the adoption of system reflexive strategic marketing management).

Correlation of success of business activity and the rank of manager's system reflexion – based on the results of our study – is illustrated in Fig. 2. The diameter of the circle on the diagram corresponds to the share of enterprises being studied, with the specified parameters. Horizontal axis represents the rank of manager's system reflexion, while vertical–corresponds to integral rating of business activity success. Corresponding trend line was drawn to illustrate the growth of success in relation to the advance of manager's rank of reflexion.

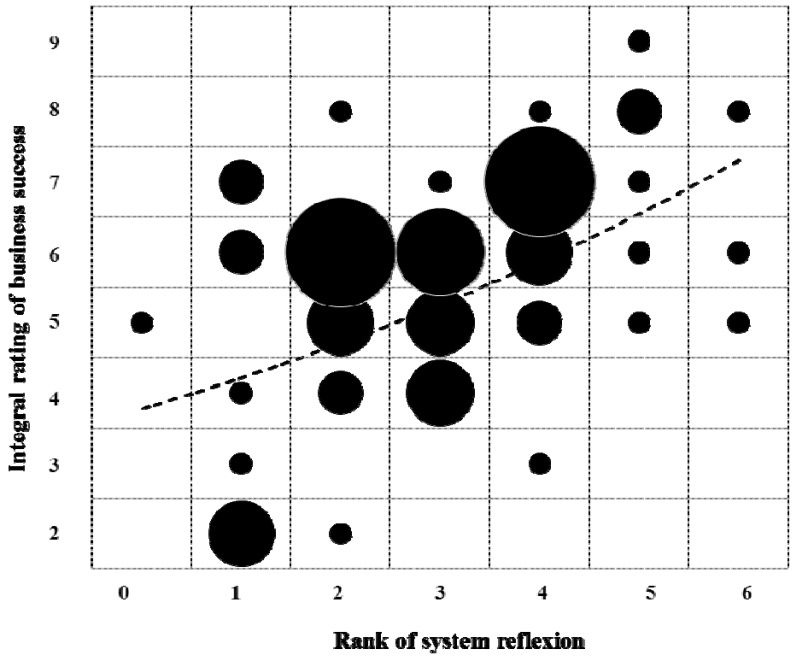


Fig. 2. Association of manager's rank of reflexion and success of an enterprise*

* *Source:* author's research data.

To determine the association of these two parameters, Cramer's V coefficient was calculated (V=0.43). This indicates medium association of success of business activity and the rank of system reflexion of the manager; and corresponds to one of the largest rating of association among the parameters studied.

Hence, system reflexive strategic marketing management outlines the following: (1) Subject of business activity is referred to as a manager (person); (2) The basis for making managerial decisions turns into system reflexion of a manager, where the highest rank enables the manager to gain the actual ownership of the management object; (3) The concept of marketing (meeting the personal interests of a manager by means of aligning and meeting the interests of other stakeholders of the management object) shall be regarded as the foundation of managerial activity; (4) Flexible form of activity arrangement (particularly, business activity) implies collaborative effort of group of subjects – stakeholders of the management object; (5) Expansion of the management object, covering counter-agents (i.e. subjects of confrontational management; partners involved) with regard to their interests, intentions and actions being considered and governed as well.

System reflexive management assumes: realization of personal interests by the manager; realization of personal interest towards the management object, definition of the object–respective to the interest of system reflexive manager; identification of counter-agents in terms of confrontational relationship, and interaction in the frame of management object; system management of counter-agents' behavior under reflexive position – by means of delegating the authority to make decisions.

It should be noted that System Reflexive Marketing not only consolidates the evolution stages of marketing development, but also enables the feasibility for different concepts to coexist in the frame of single object management. In such instance, the actual owner, or a manager of the management object, becomes the subject – possessive of the highest rank of system reflexion.

Conclusions. The study integrates the concepts of marketing, strategic management, and reflexion, where the latter is examined not on the act/action level, but on the activity level (system reflexion) of the subject of management.

System Reflexive Marketing introduces the new marketing and strategic management paradigm, and consolidates its evolution stages of development. Adopting the

System Reflexive Marketing enables the enterprise to resolve internal and external conflicts, elaborate strategic vision–together with corporate strategy, facilitates realization of interests by the subjects of management towards the management object, as well as improves the overall efficiency of business operation. In turn, this contributes to the advancement of entrepreneurship in the post-Soviet space and competitive recovery of domestic enterprises in the context of globalized market environment.

References

1. Ansoff, I. H. Strategic Management: Classic Edition. – Hampshire, UK: Palgrave Macmillan, 2007. – 272 p.
2. Dligach, A. A. Strategic Marketing Management. – Kyiv, 2012.
3. Fathutdinov, R. A. Strategic Marketing. – St. Petersburg: Piter, 2002. – 448 p.
4. Hamel, G. – Prahalad, C. K. Competing for the future. – Boston, MA: Harvard Business School Press, 1996. – 384 p.
5. Kahneman, D. – Tversky, A. Choices, values and frames. – New York: Cambridge University Press, 2000. – 860 p.
6. Kim, W. Chan. – Mauborgne, R. Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant. – Boston, MA: Harvard Business Review Press, 2005. – 256 p.
7. Lefebvre, V. A. Elements of logic in reflective games. Problems of engineering psychology. 1966 (4): 273–299.
8. Mintzberg H. – Ahlstrand, B. – Lampel, J. B. Strategy Safari: The Complete Guide Through the Wilds of Strategic Management. London, UK: FT Prentice Hall, 2008. – 464 p.
9. Pankrukhin, A. P. Marketing. Moscow: Omega-L, 2005. – 656 p.
10. Thomas, L. T. Russia's Reflexive Control: Theory and the Military. Journal of Slavic Military Studies. 2004, 17 (2): 237–256.
11. Vesnin, V. R. Strategic Management. – Moscow: Velbi, Prospekt, 2006. – 328 p.

Надійшла до редколегії 09.10.13

А. Длігач, канд. екон. наук, доц.
КНУ імені Тараса Шевченка, Київ

СИСТЕМНО-РЕФЛЕКСИВНЕ СТРАТЕГІЧНЕ МАРКЕТИНГОВЕ УПРАВЛІННЯ

У статті розглядаються системно-рефлексивна парадигма стратегічного маркетингового управління, яка базується на погодженні стратегічних економічних інтересів стейкхолдерів, зокрема, власників підприємств, найманих керівників і споживачів. Розглядається сутність маркетингової концепції управління, а також стратегічні підходи до управління бізнесом та погодження економічних інтересів стекйхолдерів бізнесу. Пропонується підхід до вирішення сучасних маркетингових проблем шляхом застосування на підприємстві теорії системно-рефлексивного маркетингу.

Ключові слова: маркетинг; стратегічний менеджмент; стратегічний маркетинг; системно-рефлексивний маркетинг; рефлексивне управління.

А. Длигач, канд. экон. наук, доц.
КНУ имени Тараса Шевченко, Киев

СИСТЕМНО-РЕФЛЕКСИВНОЕ СТРАТЕГИЧЕСКОЕ МАРКЕТИНГОВОЕ УПРАВЛЕНИЕ

В статье рассматривается системно-рефлексивная парадигма стратегического маркетингового управления, которая базируется на согласовании стратегических экономических интересов стейкхолдеров, в частности, владельцев предприятий, наемных руководителей и потребителей. Рассматривается сущность маркетинговой концепции управления, а также стратегические подходы к управлению бизнесом и согласования экономических интересов стекйхолдеров бизнеса. Предлагается подход к решению современных маркетинговых проблем путем применения на предприятии теории системно-рефлексивного маркетинга.

Ключевые слова: маркетинг, стратегический менеджмент, стратегический маркетинг, системно-рефлексивный маркетинг, рефлексивное управление.

UDC 330.341.2: 334.7.01
JEL O15, Q01, R11, Z13

N. Grazhevska, Doctor of Sciences (Economics), Professor
Taras Shevchenko National University of Kyiv, Kyiv,
Y. Petrushenko, PhD in Economics,
N. Kostyuchenko, PhD in Economics
Sumy State University, Sumy

IMPACT OF SOCIAL CAPITAL CHARACTERISTICS ON THE EFFECTIVENESS OF COMMUNITY-BASED APPROACH TO LOCAL DEVELOPMENT

The article examines the impact of social capital characteristics of local communities on the effectiveness of the community-based approach to economic development. The conclusion that such social capital characteristics as (anti)paternalism, solidarity and cooperation have the greatest importance for the economic development is made based on the analysis of UNDP and the European Union project "Community-based approach to local development". It was hypothesized that the creation of community organizations could be an effective mechanism to actualize the existing social capital of rural communities in Ukraine.

Keywords: social capital; communities; social mobilization; economic development.

Introduction. Nowadays an agricultural sector in Ukraine is strongly depressed. The quality of life is very low in rural areas. According to recent public opinion polls, more than 50 percent of rural residents consider themselves to be poor. The number of rural residents decreased by 2,5 millions over 20 years of independence. During that time 348 villages have disappeared from the map of Ukraine.

Along with economic problems the social ones arose. The rural residents who live within a single area do not constitute the community in fact. They do not have common goals and values. And therefore the community members cannot use common resources effectively despite the fact that there are quite a lot of these resources (social infrastructure, common roads, land, water and so on). All this leads to further degradation of the villages [18].

Under these conditions, the search for effective economic and organizational mechanisms which could activate social capital of rural communities and favour its realization is extremely important.

Over the years of independence of Ukraine, the state economic and social policy in agricultural sphere has not established the prerequisites for enabling rural communities to solve the local level development problems on their own. The level of paternalism of rural communities is extremely high.

Trying to support the development of rural areas by means of administrative methods and micromanagement, the state has overregulated agricultural sector completely. As a result, the development of farm enterprises does not take place. Small and medium-sized businesses do not exist practically. Even the problems of rural communities that villagers could solve by joint actions without the help of the state are not solved, as there is a lack of confidence between the members of rural communities and lack of organizational structures needed for collective decision-making.

The Ukrainian government rather late found out the fact that there is a need to stimulate the increase in social capital of local communities through the development of civil society institutions and to encourage the rural residents to unite to solve problems they can not solve alone. The first concept of facilitation of civil society development supported by the executive power has been approved by the Decree of the Cabinet of Ministers of Ukraine № 1035-r dated 21.11.2007. But it has not led to any visible results practically. The decree of the President of Ukraine № 212/2012 dated 24.03.2012 "On the state policy strategy of facilitation of civil society development in Ukraine and priority measures for its implementation" was its successor. According to the decree, by the end of 2012 the regional programs facilitating civil society development have been developed and approved in all regions of Ukraine.

An alternative public policy of the local community intensification for their lives problem resolution is to assist non-government development programs which presume economic cooperation and social mobilization of the community members. The United Nations Development Programme is currently implementing one of the most comprehensive and systematic project in the area of economic cooperation and social mobilization called "Community Based Approach to Local Development" in Ukraine (hereinafter referred to as the CBA project).

The CBA project is funded by the European Union and is co-financed and implemented by UNDP in Ukraine under the support of Ukrainian government. The CBA project aims to stimulate sustainable social and economic development by facilitating initiatives of community members and authorities in prioritization and solution of local level problems. The community members have to self-organize themselves in order to establish community organizations, to design and to implement micro public goods projects with organizational and financial support from the UNDP and the local authorities. The project is one of the most large-scales projects of economic cooperation and social mobilization of the rural community members in the history of Ukrainian independence. The project operated throughout Ukraine. The districts and the village councils were selected for the CBA project based on selection criteria. Certain score was assigned by the projects experts to each village council which applied for the CBA project based on these selection criteria. The village councils from each selected district were ranked based on the obtained score. Those above the threshold were selected to participate in the program.

The project provides small grants to community organizations to implement their priorities on a self-help basis and within the framework of public-private partnership. Whereby each partner shares a portion of the development cost. The established mechanism is that half of the budget must be financed with contributions of local community members (not less than 5%), the private sector, and the central and local budgets while the Project will contribute up to remaining half of the cost. The community takes responsibility to maintain the resulting output and get benefit from it on a sustained basis with support from the local authorities. The mechanism of financing can be considered as one of important mechanisms which could motivate the community members to self-organization, initiative work and fruitful cooperation with the authorities.

The first phase of the CBA project lasted in Ukraine from December 2007 till June 2011. During this period the project helped over 1000 Ukrainian communities in improving their living condition through collective actions and partnership with local authorities to realize community initiatives such as health, environment, energy, water management, and the local transport.

In total 1303 micro projects were implemented by the community organizations. The communities were choosing the priorities for the community development through the voting process during the common meeting. The budget of the first phase of the project was EUR 13.5 million that was approximately 0,002% of Ukrainian GDP for 2007 [16].

Literature review. The practice of a community based approach, which encourages economic cooperation and social mobilization, its importance, and its beneficial outcomes have been widely discussed in the literature: Dongier P., Domelen J. V., Ostrom E., Ryan A., Wakeman W., Bebbington A., Polski M. [4], Hardin G. [6], Mansuri G., Rao V. [8], Olson M. [11], Tanaka S., Singh J., Songco D., Maclean J. [1], etc.

American researcher, Nobel Laureate Ostrom E. in her book "Governing the Commons: The Evolution of Institutions for Collective Action" [13] proved the ability of society to solve the problem of using collective resources more effectively than if these resources were privately owned or state-controlled.

Dongier P. et al. [4] defined the key reasons why community-driven development should form the base for any strategy of local development, which would lead to the social and economic success of communities. The first reason is that the community-driven development involves different sectors of the economy – community based organizations, government and non-government organizations, and the private sector. The market alone cannot provide a sufficient amount of the inelastic goods, and the community-driven development allows for an efficient complementarily of the private and public sectors in public goods provision. The second reason is that the community-driven development promotes the sustainability of development. The authors also state that the community-driven development improves the cost efficiency of services and increases the efficiency of assets usage in such sectors as infrastructure, education, micro finance, and natural resource management. This approach empowers and gives a voice in determining development priorities to such groups which usually are excluded from the development process.

Walker I., Cid R., Ordonez F. and Rodriguez F. [5] investigated the impact of the program aimed to improve living conditions of marginal social groups through financial and organizational support of infrastructural subprojects realization on social capital characteristics.

Studying the community-driven approach, Harrison L. and Huntington S. [7] analyzed an example of political strategy due to which corruption was overcome in Singapore.

Marcus A. and Fotini C. [9] investigated introduction of institutions of integration which increased interethnic cooperation and facilitated peace in post-conflict divided societies in Bosnia-Herzegovina.

Chase R. and Holmemo C. [3] have identified the positive impact of the Linking Arms against Poverty – Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS) project in the Philippines on household welfare, accessibility, and social capital.

Fearon J., Humphreys M. and Weinstein J. [2] have identified a positive impact of the community-based reconstruction program which was realized in Northern Liberia between 2006 and 2008 on the formation of local patterns of cooperation.

At the same time, the new line of research in this area is an attempt to identify the impact of social capital on the effectiveness of the community-based approach to local development.

Statement of the research problem. The aim of our research is to analyze the influence of the social capital characteristics of local communities on the effectiveness of the UNDP and European Union project "Community-based Approach to Local Development", which is reflected in the change of the economic indicators of communities which participated in the program.

The subject of our study is the impact of social capital characteristics on economic indicators of rural communities' development in Sumy region which took part in the first phase of the project "Community Based Approach to Local Development". During the period of implementing of the first phase of the CBA project (2007-2010 years) 49 micro-projects in 33 communities for more than 8.7 million UAH were realized in 8 districts of Sumy region.

Despite the fact that the CBA project had a clearly defined infrastructural nature, we believe that its main achievement was social mobilization of community members, which led to activation of "dormant" potential of collective actions and the desire of people to help themselves.

Model specification. To estimate the causal effect of social capital characteristics on the changes in economic indicators, the following model specification was used:

$$\frac{\text{EI per capita}_i^{2010} - \text{EI per capita}_i^{2005}}{\text{EI per capita}_i^{2005}} = \beta_0 + \sum_{j=1}^{9} \beta_j SCC_{ji} + \varepsilon_i \quad (1)$$

The dependent variable $\frac{\text{EI per capita}_i^{2010} - \text{EI per capita}_i^{2005}}{\text{EI per capita}_i^{2005}}$ is the changes in a certain economic indicator for community *i*. SCC_{ji} is a social capital characteristic for community *i, j* is the number of the social capital characteristic, *j*=1–9. Social capital characteristics are the independent variables.

The model is designed to estimate the parameter β_j which provides an estimate of the change in the certain economic indicator occurred due to the difference in the initial level of a certain social capital characteristic.

The data on economic indicators for both intervention and comparison communities are available from the conditioning of Sumy region villages for years 2005 and 2010, i.e. before and after the first phase of the CBA project was implemented [17]. The choice of the social and economic indicators to be analyzed was driven by the aim to study different sides of social and economic life of the rural communities and by the possibility to get reliable data for all analyzed communities.

The data on social capital characteristics were obtained as a result of the survey process implementation at the end of 2011. To measure the level of social capital we used a questionnaire designed based on the Integrated Questionnaire for the Measurement of Social Capital worked out by the World Bank [10], The World Values Survey [12], The European Social Survey [15], and The Social Capital Question Bank [14]. The questionnaire was field tested and adapted to Ukrainian realities before implementation[4]. The survey was performed at a household level. The values of social capital characteristics do vary across respondents of different age, gender, and across districts.

However, many scientists agree that social capital characteristics are inert. And there were no significant social shocks in 2011 (The first phase of the CBA project started in 2007. In most communities the first phase has already finished by 2011. During this period no special state programs for social development were implemented). So the difference in time for social capital characteristics can be considered negligible.

We examined the causal effect of social capital characteristics (Traditions of the community; Information and communication; Empowerment and political action; (Anti-)paternalism; Level of trust; Solidarity and inclusion; General norms; Collective action and cooperation; General characteristics of the community) on selected economic indicators of community development (Number of households, Number of people who left the village per capita, Number of people occupied at all sectors per capita, Number of people occupied out of the village per capita, Number of officially unemployed people per capita, Number of seats at schools and kindergartens per capita, Bus connection (the number of trips per day) per capita, Budget expenses per capita) in three different groups:

1. Treated communities (Table 1).
2. Communities that applied for the first phase of the CBA project but were not selected to participate (Table 2).
3. Communities that did not apply for participation in the program (Table 3).

Estimation results. The results presented in the tables 1, 2 and 3 indicate that such social capital characteristics as *Collective action and cooperation, Solidarity and inclusion,* and *(Anti-)paternalism* have the biggest effect on employment indicators.

[4] There were 59 questions is the questionnaire. Five-point scale of answers was proposed for each question. We grouped these questions into 9 characteristics of social capital: Traditions of the community; Information and communication; Empowerment and political action; (Anti-) paternalism; Level of trust; Solidarity and inclusion; General norms; Collective action and cooperation; and General characteristics of the community, which include information on groups and networks and the quality of life in the community (particularly, propensity to migrate, employment conditions, safety and others). The value of each characteristic was measured as the sum of the points selected by the respondents for respective questions. The survey was conducted with the help of Tetyana Holets, CERGE-EI, a joint workplace of Charles University and the Economics Institute of the Academy of Sciences of the Czech Republic.

***Table 1*. Impact of social capital characteristics on economic indicators for the communities which participated in the first phase of the CBA project**

Social capital characteristic	Economic indicators							
	Number of households	Number of people who left the village per capita	Number of people occupied at all sectors per capita	Number of people occupied out of the village per capita	Number of officially unemployed people per capita	Number of seats at schools and kindergartens per capita	Bus connection (the number of trips per day) per capita	Budget expenses per capita
The traditions of the community	13.903+	0.005	0.056+	-0.033	-0.026	-0.111	-0.001	58.566
Information and communication	210.873	-0.018	0.718	-0.119	0.206	0.074	0.002	-600.760
Empowerment and political action	-294.534*	-0.000	0.324	-0.242	-0.049	0.248	0.005	536.340
(Anti-)paternalism	126.180	0.004	0.420*	-0.243	-0.009*	0.043	-0.003	-36.660
Level of trust	123.853	-0.014	0.279	-0.158	-0.138	0.003	-0.008	6.805
Solidarity and inclusion	437.367+	-0.012	1.177**	-0.439+	0.228	0.470+	0.002	-986.779
General norms	-113.592	0.010	0.365	0.046	0.040	0.182+	-0.008	711.465
Collective action and cooperation	225.553	-0.042*	1.004+	-0.159	-0.150+	0.045	-0.002	208.002
General characteristics of the community	138.820	0.003	0.184	0.062	-0.287*	-0.016	0.006	-10.389
The number of observations for the regression analysis = 66								
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001								

***Table 2* Impact of social capital characteristics on economic indicators for the communities which applied for participation in the first phase of the CBA project but were not selected**

Social capital characteristic	Economic indicators							
	Number of households	Number of people who left the village per capita	Number of people occupied at all sectors per capita	Number of people occupied out of the village per capita	Number of officially unemployed people per capita	Number of seats at schools and kindergartens per capita	Bus connection (the number of trips per day) per capita	Budget expenses per capita
The traditions of the community	166.539	-0.004	0.108	-0.016	-0.045	-0.083+	-0.000	-444.894*
Information and communication	358.110	-0.019	0.147	0.039	0.039	0.088	0.004	125.103
Empowerment and political action	-92.035	-0.037+	0.457	0.079	-0.070	0.058	0.013	258.607
(Anti-)paternalism	75.999	0.002	0.071+	-0.105	0.002	-0.073	-0.003	-48.673
Level of trust	112.508	0.031	0.153	-0.117	0.071	-0.225	0.008	105.202
Solidarity and inclusion	155.938	0.006	0.158+	-0.048	0.014	0.144	0.008	304.269
General norms	-172.565	-0.024	0.560*	0.074	-0.058	-0.038	-0.009	-84.222
Collective action and cooperation	461.763	-0.005	0.106+	0.236	-0.007	0.295	-0.015	-137.561
General characteristics of the community	353.082	-0.020	0.152	0.083	-0.073	-0.016	0.002	712.802
The number of observations for the regression analysis = 88								
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001								

***Table 3.* Impact of social capital characteristics on economic indicators for the communities which did not apply for participation in the first phase of the CBA project**

Social capital characteristic	Economic indicators							
	Number of households	Number of people who left the village per capita	Number of people occupied at all sectors per capita	Number of people occupied out of the village per capita	Number of officially unemployed people per capita	Number of seats at schools and kindergartens per capita	Bus connection (the number of trips per day) per capita	Budget expenses per capita
The traditions of the community	55.838+	-0.003	0.144	0.017	-0.029+	0.055	0.010	32.004
Information and communication	236.828+	0.013	-0.489	-0.045	0.016	-0.126	0.007	-324.634
Empowerment and political action	-125.304	-0.000	-0.161	0.046	-0.003	-0.162	-0.051	331.095
(Anti-)paternalism	-74.801	-0.003	0.142+	-0.000	-0.017	-0.067	0.014	121.366
Level of trust	-129.607	-0.008	-0.557	0.175	0.070	-0.198	-0.037	323.502
Solidarity and inclusion	300.765	-0.014	-0.294	-0.032	-0.030	-0.074	-0.110	324.833
General norms	58.750	0.002	0.373	-0.036	0.021	0.189+	0.068	54.788
Collective action and cooperation	58.555	-0.001	0.920	-0.004	-0.029	0.177	0.134	253.719
General characteristics of the community	430.160	0.010	0.584	-0.051	-0.063	0.387	0.038	818.757
The number of observations for the regression analysis = 138								
+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001								

(Anti-)paternalism has a positive effect on employment for all the three groups of communities. Particularly, the increase of such social capital characteristic as *(Anti-)paternalism* by 1 point causes an increase in such economic indicator as *Number of people occupied at all sectors per capita* by 0.42* in the communities of the first group. The increase in *(Anti-)paternalism* by 1 point in the communities of the second and the third groups mentioned above causes an increase in *Number of people occupied at all sectors per capita* by 0.071+ and 0.142+ respectively.

The impact of *Collective action and cooperation* and *Solidarity and inclusion* on the employment indicators is significant both for the first and second groups of communities indicated above. Thereby, increase of such social capital characteristic as *Collective action and cooperation* by 1 point may cause increase in such economic indicator as *Number of people occupied at all sectors per capita* by 1.004+ in treated communities and by 0.106+ in communities that applied for the first phase of the CBA project but were not selected. Increase in *Solidarity and inclusion* by 1 point causes increase in *Number of people occupied at all sectors* per capita by 1.177** in treated communities and by 0.158+ in communities that applied for the first phase of the CBA project but were not selected. There is also an interesting result showing that the increase in *Solidarity and inclusion* by 1 point causes a decrease in *Number of people occupied out of the village* per capita by 0.439+. This may result in higher number of people occupied in the communities which participated in the first phase of the CBA project.

Negative significant causal effect is seen between unemployment indicator and *Collective actions and cooperation* for communities that participated in the first phase of the CBA project and also between unemployment indicator and *(Anti)paternalism* for the same group of communities. The increase in such social capital characteristic as *Collective action and cooperation* by 1 point causes a decrease in such an economic indicator as *Number of officially unemployed people per capita* by 0.15+ in treated communities. The increase in *(Anti-) paternalism* by 1 point causes a decrease in *Number of officially unemployed people per capita* by 0.009* in treated communities.

Conclusions. The existence of the causal effect between social capital characteristics and economic indicators gives us the chance to hypothesize that social capital was revitalized in communities, which participated in the project, and it had its subsequent impact on the economic indicators of the rural communities' development.

Employment indicators were sensitive to the program participation. The analysis of the impact of social capital characteristics on economic indicators of community development showed that the effect is more significant in the communities which participated in the CBA project. We found out there was a significant impact of some social capital characteristics (such as *(Anti)paternalism, Solidarity* and *cooperation*) on employment indicators. Lesser people were leaving the villages in which the CBA project was implemented. Negative and significant changes in the number of people who have left the village give evidence that due to the CBA project implementation the living conditions and social atmosphere (captured by the level of the social capital) has improved that created additional incentives for people to stay in the villages and contributed to their development. More working places can be created that is confirmed with the fact that the number of employed people increased in communities that took part in the CBA project. Thus, the *Number of people occupied at all sectors per capita* increased in treatment communities. And lower number of people started to work out of the village as compared to those communities that did not participate in the CBA project.

Models used in the research demonstrated there was an impact of social capital characteristics on economic indicators of community development. At the same time, the results are to be checked by the other models (like stationary processes models and principal component analysis).

The fact that the members of those communities which applied for the CBA project reacted on the possibility to participate in the program suggests that the resources of social activity are very important, because those villages which applied but were not selected for the program demonstrate better indicators of development than those villages which did not apply for the program. This suggests that institutional factors – and the level of the accumulated social capital, first of all – do affect the rates of economic development of the rural communities.This results in the conclusion that social capital is a resource for economic development in the presence of an effective institutional mechanism for joint collective actions. The community organization can be considered as such institutional mechanism in the communities involved into the program. To participate in the CBA project, the community members had to set up the community organization. Community organization acted as an institution that transformed the potential of social capital of community members into economic results of its development. The success of the CBA project in a particular community depends on the capacity of a community organization. The weak points of community organization (the incompetence of its members or dominant leadership, etc.) led to serious complications in the work of communities on local development projects. And vice versa, those communities, in which organizations were focused on making joint decisions with local authorities, mobilizing resources, implementing not only short-term local priorities, but also focused on the long-term support of the results, succeeded.

Therefore, one can conclude that community organizations, based on which legitimate collective decision-making is implemented, are the key tools of community-based approach.

The conducted analysis of the impact of the CBA project on social and economic indicators of the communities in Ukraine confirmed the conclusion made by Ostrom E. [13] – governing the common community resources and its development can be effective in the presence of an effective mechanism of collective decision-making and monitoring of its implementation. The community organization can be considered as such organizational mechanism for decision-making and its implementation in the rural communities in Ukraine. Therefore, facilitating the setting up of the community organizations and growth of their capacity should become a priority of the state policy in the field of rural development in Ukraine. And the methodology of the CBA project should actively be incorporated into the short-term and long-term programs of social and economic development of regions and districts of Ukraine.

An important direction of further analysis of economic policy in this area is to ensure the long term sustainability of the community based approach to local development, and to find effective ways to spread its experience to the new communities.

* The effect is significant at 5% significance level.
+ The effect is significant at 10% significance level.
** The effect is significant at 1% significance level.

References

1. A review of community-driven development and its application to the Asian development bank [Electronic resource] / Tanaka S., Singh J., Songco D., Maclean J. – 2006. – [Electronic resource]. http://www.adb.org/Documents/Participation/Review-CDD-Application-ADB.pdf.

2. Can development aid contribute to social cohesion after civil war? Evidence from a field experiment in post-conflict Liberia. / Fearon J. D.,

Humphreys M., Weinstein J. M. // American Economic Review: Papers & Proceedings, 2009. – 99:2, 287–291.

3. Chase R. Community Driven Development and Social Capital: Impact Designing a Baseline Survey in the Philippines [Electronic resource] / Chase R., Holmemo C. – Social Development Department, 2005. – Report No: 32405-PH, 1-108. – [Electronic resource]. http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/EXTEAPREGTOPSOCDEV/0,,contentMDK:20589113~pagePK:34004173~piPK:34003707~theSitePK:502940,00.html.

4. Community-driven development / Dongier P., Domelen J. V., Ostrom E., Ryan A., Wakeman W., Bebbington A., Polski M. – In World Bank, Poverty Reduction Strategy Paper Sourcebook, 2001. – 1. Washington, D.C., 1-32.

5. Ex-Post Evaluation of the Honduran Social Investment Fund (FHIS 2) / Walker I., Cid R., Ordonez F., Rodriguez F. – Produced by ESA Consultants, Honduras, for the World Bank, Latin American and Caribbean Region (LCSHD), 1999.

6. Hardin G. The Tragedy of the Commons / G. Hardin // Science. New Series, 1968. – 162(3859), 1243-1248.

7. Harrison L. E. Culture matters: How values shape human progress / Harrison L. E., Huntington S. P. – New York, NY: Published by Basic books, 2000.

8. Mansuri G. Community based and driven development: a critical review / Mansuri G., Rao V. // The World Bank Research Observer, 2004. – 19(1), 1-39.

9. Marcus A. Institutionalizing cooperation: Public goods experiments in the aftermath of civil war / Marcus A., Fotini C. – Published by the Weatherhead Center for International Affairs, Harvard University, 2009. – Paper No. 2009-0005, 1-43.

10. Measuring social capital: An integrated questionnaire / Grootaert C., Narayan D., Jones V. N., Woolcock M. – World Bank working paper; 2004. – no. 18, 1-53.

11. Olson M. The logic of collective action: public goods and the theory of groups / Olson M. – Cambridge, Mass.: Harvard University Press, 1965.

12. Online Data Analysis in the World Values Survey. [Electronic resource]. – ежим доступу http://www.wvsevsdb.com/wvs/WVSAnalizeStudy.jsp.

13. Ostrom E. Governing the Commons: The Evolution of Institutions for Collective Action / Ostrom E. – Cambridge, UK: Cambridge University Press, 1990.

14. Ruston D. Social Capital Question Bank. [Electronic resource] / Ruston D., Akinrodoye L. – Social Analysis and Reporting Division, 2002. [Electronic resource]. http://www.google.cz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CEkQFjAB&url=http%3A%2F%2Fwww.ons.gov.uk%2Fons%2Fguide-method%2Fuser-guidance%2Fsocial-capital-guide%2Fthe-question-bank%2Fsocial-capital-question-bank--pdf-document.pdf&ei=VE3wT9uvKu3P4Qsa7LD8DQ&usg=AFQjCNHbvHSJDrxMkrqhbduicg0mAYgZRQ&sig2=ZXDqZjtwabyrAsyAuKUXFg.

15. The European Social Survey. SOURCE QUESTIONNAIRE (Round 1, 2002/3). [Electronic resource]. – http://www.europeansocialsurvey.org/index.php?option=com_content&view=article&id=63&Itemid=98.

16. The official site of the United Nations Development Program "Community-based Approach to Local Development" [Electronic resource]. – http://cba.org.ua/en/about/about-cba.

17. Pasportyzacia silskyh naselenyh punktiv. [Electronic resource]. – http://www.sau.sumy.ua/index.php?option=com_content&view=article&id=1664&catid=194&Itemid=239&lang=uk.

18. Chyselnist silskogo naselennja skorotylas na 2,5 mln. osib. [Electronic resource]. – http://health.unian.net/ukr/detail/224241.

Надійшла до редакції 01.10.13

Н. Гражевська, д-р екон. наук, проф.
КНУ імені Тараса Шевченка, Київ,
Ю. Петрушенко, канд.екон.наук, доц., докторант,
Н. Костюченко, канд.екон.наук, доц.
Сумський державний університет, Суми

ВПЛИВ ХАРАКТЕРИСТИК СОЦІАЛЬНОГО КАПІТАЛУ НА ЕФЕКТИВНІСТЬ ПІДХОДУ ДО МІСЦЕВОГО РОЗВИТКУ, ОРІЄНТОВАНОГО НА УЧАСТЬ ГРОМАД

У статті досліджується вплив характеристик соціального капіталу місцевих спільнот на ефективність підходу до економічного розвитку, орієнтованого на участь громади. На основі аналізу результатів проекту Програми розвитку ООН та Європейського Союзу "Місцевий розвиток, орієнтований на громаду" зроблено висновок про найбільшу важливість для економічного розвитку таких характеристик соціального капіталу як (анти)патерналізм, солідарність та кооперація. Висунуто гіпотезу про те, що створення організацій громади може стати дієвим механізмом, який дозволить реалізувати наявний соціальний капітал сільських громад в Україні.

Ключові слова: соціальний капітал; місцеві спільноти; соціальна мобілізація; економічний розвиток.

Н. Гражевская, д-р экон. наук, проф.
КНУ имени Тараса Шевченко, Киев,
Ю. Петрушенко, канд. экон. наук, доц., докторант,
Н. Костюченко, канд. экон. наук, доц.
Сумской государственный университет, Сумы

ВЛИЯНИЕ ХАРАКТЕРИСТИК СОЦИАЛЬНОГО КАПИТАЛА НА ЭФФЕКТИВНОСТЬ ПОДХОДА К МЕСТНОМУ РАЗВИТИЮ, ОРИЕНТИРОВАННОМУ НА УЧАСТИЕ СООБЩЕСТВ

В статье исследуется влияние характеристик социального капитала местных сообществ на эффективность подхода к экономическому развитию, ориентированного на участие общины. На основе анализа результатов проекта Программы развития ООН и Европейского Союза "Местное развитие, ориентированное на сообщество" сделан вывод о наибольшей важности для экономического развития таких характеристик социального капитала как (анти)патернализм, солидарность и кооперация. Выдвинута гипотеза о том, что создание организаций сообществ может стать действенным механизмом, который позволит реализовать имеющийся социальный капитал сельских общин в Украине.

Ключевые слова: социальный капитал; местные сообщества; социальная мобилизация; экономическое развитие.

UDC 339.9.012.23:339.138:330:334
JEL F230, D210, L160, O310

O. Kanishchenko, Doctor of Sciences (Economics), Professor,
N. Kuznetsova, PhD in Economics, Assistant of Professor,
M. Ustimenko, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

INTERNATIONALIZATION OF INDUSTRIAL CLUSTERS: OBJECTIVES AND PERSPECTIVES

Nowadays the actual issue is to explore the ways of international competitiveness strengthening in order to be able to compete effectively in the global market. Clusters are considered as one of the most effective ways for competitiveness enhancement, production effectiveness and companies' market performance improvement, due to synergy effects of interaction among its agents, reducing costs, cooperative decision making and ability to implement innovations productively.

Keywords: cluster; international cluster; cluster internationalization; cluster initiatives; international cluster formation.

Introduction. The creation of cluster systems is one of the most actual methods of increasing the competitive ability. Potentially all the market players are vitally interested in it. But first of all – the representatives of the so called transitional (post-socialist) economies, which receive the real possibility for fast integration into world economic system by deepening scientific, industrial and commercial cooperation with foreign partners. M. Porter's theory of the "national

diamond" creates the appropriate background for further adaptation of cluster mechanisms to the unstable and dynamic economic environment of the states in transition.

Analysis of the previous researches and publications. Many works of national and foreign scholars were dedicated to the cluster formation and cluster functioning issues. Theoretical aspects of the cluster performance were revealed in the studies of national authors, such as V. Bazylevych, E. Bezvushko, I. Brizhan, S. Bushueva, S. Varnaliy, M. Voynarenko, N. Kanishchenko, A. Kanishchenko, D. Lukyanenko, C. Moskvina, S. Mochernogo, V. Novitsky, Yuri Pavlenko, M. Petrushenko, B. Saw, K. Poychenko, A. Plotnikov, C. Rosenfeld, Y. Saveliev, V. Savchenko, V. Sizonenko, S. Sokolenko, M. Timchuk, A. Filippenko, A. Shnyrkov. The main focus of these studies is devoted to the cluster nature, the effects of cluster interactions and competitive advantages obtained by companies as a result of such interactions.

The theoretical framework of the industrial clusters formation and development was described by foreign scientists: M. Keating, M. Porter, B. Price, P. Samuelson, D. Jacobs and L. Young, E. Bergman, E. Feser, studies are devoted to the identification and evaluation of clusters, M. Enright, S. Rosenfeld – examine the theoretical foundations of industrial integration and organization of the productive forces, M. Steiner, M. Todaro, P. Fischer, M. Feldman, Schumpeter and others outlined the main principles of innovative structures formation based on practical experience. These studies mainly focus on a separate range of issues devoted to the process of clusters formation and its international performance.

There are almost no complex studies on international innovation clusters issued and its formation peculiarities, especially for transition economies. That is why there is a need for a systematic study of international innovation clusters formation issues; opportunities for transitive countries to integrate in international cluster systems identification and uncovering the economic interests of the entities from different countries in such activity. The problems of Ukrainian companies' involvement in international cluster structures are still not identified.

Results of research. Actually the sufficient empiric experience in cluster systems' development has been already accumulated. That compels scientists to analyze the essential points of this organizational and economic phenomenon. Now it is already possible to determine its basic objectives influencing its evolution: interests, organizational simplicity, interdependence, focus on innovations, intensification of information flows, internal instability etc.

World experience demonstrates a lot of successful examples of international co-operation between enterprises, which due to a geographical or a particular branch concentration, firmness of intercommunications and receipted additional synergetic effects of collaboration can carry out more effective activity. Such cooperation provides a higher competitiveness in comparison with the separated functioning of enterprises, and positively influences on the countries' economic development.

Forming and development of such cooperative structures which can be described as international clusters depend on both the specific of country-initiator business-environment, its international relations and position in international division of labor. Cluster concept comes out as alternative to traditional sector (industry) approach, which is based on horizontal relations and competitive interdependence. Cluster approach focuses on the importance of developing the complicated vertical links between businesses and of integration of their economic interests that makes it possible to multiply the efficiency of mutual actions.

Cluster internationalization process is different from enterprise internationalization and has its own peculiarities. It is due to the fact that each group of cluster members perform different activities in the market, has various strategies, capacities, sizes and financial resources. These factors contribute to the case that not all cluster members are involved in the process of internationalization in the same degree.

On the basis of conducted analysis, we can assume that innovational cluster may include research centers or may not, and there is almost anyone studies devoted to the measurement of the innovativeness level. The innovation cluster is regarded as cluster which enables to exploit new knowledge, discoveries and inventions faster and more successively.

Thus, the innovative cluster may be determined as the cluster which implements innovations de facto. Besides, there could be various types of innovative clusters depending on relationships between the cluster members, cluster structure, different consequences of its performance, regardless of whether the main objective of such undertaking is to innovate. International clusters may be defined as foundation composed of members from different countries which compete, cooperate and complement one another simultaneously (Table 1).

Table 1. **International clusters types by the structure of relationship among its members***

№	Type	Definition
1	Transborder cluster	Network of suppliers, producers and buyers that are residents of different countries geographically located in transborder region.
2	Transnational cluster	International networks of national clusters, which compete and cooperate, collaborate with transnational foundations, local and national government institutions, and international organizations in order to improve cluster performance and national competitiveness.

**Source:* adapted by author on the basis [1, 2, 3].

The Table 1 shows, that transborder cluster is considered to be a network of suppliers, producers and buyers that are residents of different countries geographically located in transborder region. Transborder clusters are often characterized as formations with stable relationship among its members which have the opportunities to gain competitive advantages from cluster interactions in border territories that once more emphasis the geographical aspect of the cluster formation.

Transnational cluster is an international network of national clusters which at compete and cooperate, collaborate with transnational foundations (educational and scientific organizations, business infrastructure), local and national government institutions, and international organizations in order to improve cluster performance and national competitiveness. Actually, transnational cluster is the association of national clusters connected with international relationship. These foundations widely exploit the advantages of joint R&D, the economy of scale and network effects to promote products to new markets.

It is possible to assume that entities from countries with different economic level of development may have various interests stimulating them to integrate into international cluster systems (Table 2).

Table 2. **Entities' economic interests for associating into international innovation clusters***

Countries	Sphere		
	R&D	Production	Marketing
Developed countries interests	- Joint R&D - Access to the latest technology. - Technology transfer for joint research and production	- Production cooperation for exploiting advantages from division of labor and specialization - Production outsourcing for cheaper recourses - Establishment production closer to consumer	- Promoting products to foreign markets
Developing countries interests	- Access to unknown technology. - Joint R&D - (with developed and other developing countries)	- Production cooperation for exploiting advantages from division of labor and specialization - Organization of production at national territories (oriented on external markets)	- Joint promoting foreign products in national markets
Transition countries interests	- Access to unknown technology. - Joint R&D (mainly with entities from countries with similar level of economy and innovational performance development)	- Production cooperation for exploiting advantages from division of labor and specialization - Organization of production at national territories (oriented on internal market)	- Joint promoting foreign products in national markets - Promoting national products internationally

**Source:* developed by author on the basis [4, 5].

In this case, developed countries often play role of knowledge and technology donors and developing countries together with countries in transition are recipients. Exhausting of potential or even impossibility of independent effective development aims national businesses to combine efforts for multiplying the cumulative synergetic effect of their entrepreneurial activities by cooperation on the basis of: geographic position (territorial, regional, trans-boundary, continental etc), economic goals, mode of industry etc.

Cluster internationalization has its peculiarities. Investigation of cluster internationalization factors, as noted by scholars, should be done with consideration of external and internal factors of the entity's market environment. National researcher O. Kanishchenko proposes to analyze company's international business environment in the following way, which can be adapted to cluster internationalization analysis [6]:

- *international clusters global trends* of functioning identification, and ranging factors that influence their activity at the macro level, including political, legal, economic, cultural, socio-cultural, demographic, natural, technological, and outlining the factors on a micro level, providing consumer, suppliers, intermediaries, competitors analysis and the contact audiences effects determination on the cluster association activities.
- *internal factors* determining the company's commitment to integration into the international cluster systems research. When studying internal factors that determine the company's commitment to integration into international cluster systems, it is important to identify the main reasons for companies to launch international activities. The underlying reason for companies to enter foreign markets is to increase profits, but one factor alone is rarely a spur to the action, there is usually a combination of factors.

Recent trends demonstrate the significant impact of globalization on the cluster initiation process. Such influence can be shown through international production cooperation development, which is an important factor affecting economic relationship establishment and forming preconditions for cluster initiation [7].

Multilateral development of international economical relationship opens great opportunities for SMEs to occupy their positions in the global supply chains. Usually, the complexity of the SMEs from emerging markets penetration in global supply chain is connected with the presence of leading firms that coordinate and control the processes of production and marketing of the final product (service) as well as with the ability of enterprises, institutions and organizations to create or use sources of competitive advantage and opportunities for modernization. Thereby, globalization open great opportunities to the local business entities for future growth and become a part of the competitive units such as clusters. In this case the globalization can be a trigger for cluster spring.

The globalization facilitates the attraction of foreign direct investment to the country, which contributes in the foundation of manufacturing companies, intermediaries and other entities. For example, Japanese car producers, which base clusters abroad, usually establish them by copying their own clusters. Such trend promotes production expansion, infrastructure development, knowledge and innovation diffusion and promote market expansion for small and medium-sized enterprises in the cluster. Such trend is highly connected with TNC performance and can result in cluster spring by production, distribution, R&D relationship establishment with foreign entities and other TNC. That proceeds to cluster formation and initiation of such structures in developing countries.

Clustering makes it necessary the introspection the territorial aspects of the national economy development, and, specifically, regional and interregional links. And that is the important key element of monitoring the growth of the competitive ability of the territory. The main problem is the domination of intuitive initiatives and absence of analytic background, which could allow using internal advantages and possibilities of clusters competently. The clusters functioning today in Ukraine in majority had the natural (evolutionary) development; they are not based on reasonable organizational and economical methods of formation. And actually they are not governed adequately. An important aspect of the cluster internationalization research is to determine the degree of internationalization and members' involvement in the structure of international economic relationship. There are several approaches to determine the international business activities phases: export activity, multinational activity and global activity. The stages of internationalization process depend on the cluster members initiative interests, product peculiarities, international experience etc.

On the basis of Upsala internationalization model and the model of international expansion stages for Ukrainian entities proposed by O. Kanischenko, in addition to recent trends of international cluster formation analysis, we may propose following approach to the research of cluster internationalization process (see scheme below).

The process of cluster creation should be conducted under reasonable consideration – its existence and effective development becomes possible only with the observance of the following conditions and participants' economic interests, specifically:

- territorial unity;
- innovative activity;
- high professional level in administrative decisions making;

- effective information, transportation and financial infrastructure;
- effective utilization of internal and external resources;
- displacement of accents from centralized to regional / local economic system.

The creation of cluster systems in Ukraine and their internationalization require the detailed study of theoretical bases and practical experience regarded to business cooperative activities, as well as observance of all important conditions of their functioning. Thanks to the adequate use of cluster method the administrative and productive potential of separate national enterprises or industries could be intensively activated and developed. Ukrainian enterprises will get possibility to increase their competitiveness, promoting the level of country position in the international market environment. Moreover the contemporary development of separate businesses and economic systems becomes impossible without two important trends: internationalization and close international cooperation [8]. Both determine the level of competitiveness, which is one of the major international market imperatives.

As to the world experience the creation of industrial clusters is one among the most common and effective ways of business activities in national and international levels [9]. Due to intensive exchange with financial and intellectual recourses this mode of entrepreneurship allows to multiply the separate economic units' productive potential significantly. The cluster's functioning is provided with development of outsourcing. These takes place when one company delegates some functions and operations to another one, often to the countries with cheaper production recourses. It can be an impetus for supportive industry to develop. For example, Benetton and IKEA have created international production networks between the manufacturers all over the world; they use the capabilities of national producers and this influences supportive industries development, which supply materials and components to the new production.

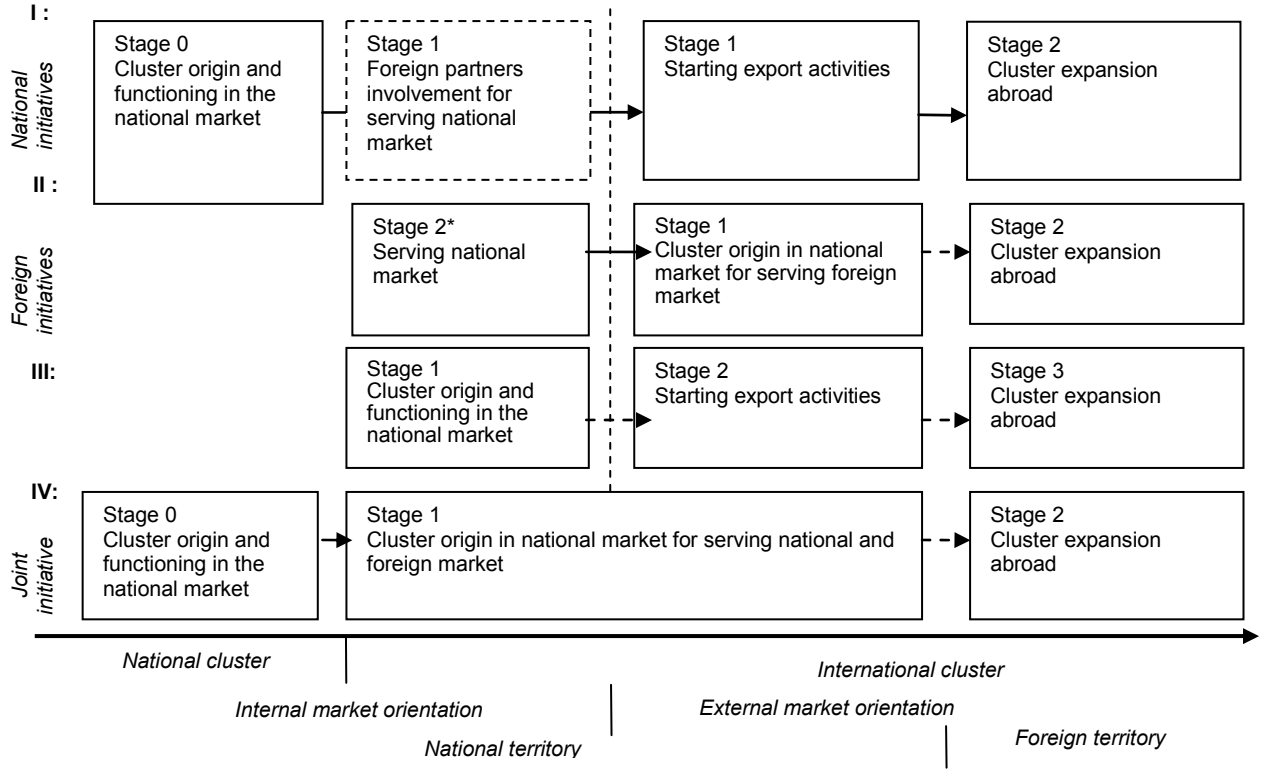


Fig. 1. Alternative scenarios of international cluster initiation

There are a lot of theoretical misunderstandings as to cluster classification. Complication consists in their generous amount and variety. These associations could be based on different bases: size of business (large and small enterprises), territorial areas, level of diversification (within one or few different industries) etc. Thus the clusters could be divided into groups as to: territorial division; industry focus; cluster structure; character of economic relations; amount of cluster members; depth of co-operation between the cluster participants.

That makes the clear classification rather problematic. The main question: is cluster a method of making business or institutional organization?

Forming of clusters is an ambiguous process, which generates a number of internal contradictions ignoring of which leads to disintegration and disappearance of clusters, in particular:

Table 3. **Contradictions of clusterization**

Positive results	Negative consequences
- intensification of exchange with information and empirical experience between the enterprises of the industry - probability of new approach appearance due to unification of ideas and financial base of different enterprises; - appearance of new producers (more frequent all they appear among participants a cluster and become new participants, or by a separation)	- defense of copyrights, patents, aspiration of non-proliferation of commercial information; - it is strengthening of interdependence between participants, limitation of forms of collaboration with external partners; - is appearance of new competitors and others like that

As to Ukrainian experience the territorial clusters stimulate the development of not only the main key industry, but also a number of supporting industries attracted to cooperation. Cluster development is accelerated with growth of productivity, activation of innovations, new enterprises foundation, and moreover – with activating of competition. All of these are very important for new transitional economies [10].

From the analysis of clusters functioning practice we can assume that clusters have positive and negative aspects of functioning. There are benefits for the cluster organization derived from access to new international partners for cooperation and exchange of personnel, benchmarking etc. Regions and state benefit from the increase in competitiveness and export intensification, access to potential investors and external finance rising.

As noted in the OECD report on "Clusters, Innovation and Entrepreneurship" at the aggregate level, where the clusters positive aspects predominate, it is difficult to identify negative aspects [4]. The report also states that the cluster activities can lead to region overloading, resources inflation and the risk of the region over-specialization, which makes the whole area more vulnerable to external shocks. Ukrainian researchers also emit other negative clustering effects, such as: overconfidence regarding local contacts and knowledge, combined with the external connections neglect and faulty predictions may result in "isolation effect". Cooperation may involve the reduction of competitive pressure that automatically means the innovation driving forces reduction.

Thus, the next step – is the internationalization of the Ukrainian clusters by looking for good international partnership [11]. Business entities from countries with different levels of economic development have different motives for integration into the international cluster structures. Developed countries are mainly "donors" of production, marketing, technology and the developing countries and transition economies act as host countries. Due to this, EU scientists conducted research of main aims for clusters formation by different groups of countries with various levels of economic development: developed countries, developing countries and transition economies.

Based on the analysis of the international innovation clusters formation experience, we can identify the following reasons for the cluster internationalization: technology joint development and implementation to strengthen its own position in the global market, access to know-how and technology, which has not its own network, company's production capacity potential realization, marketing efforts optimization, conducting joint production and marketing activities, improving exchange of experience and information at the international level.

An important issue of the cluster initiation process study is to determine the cluster core interests pursued by business entities while integrating into clusters. Presumably, there are common peculiarities of international cluster formation process for countries with similar levels of economic development, so in order to analyze the international clusters formation experience, we had outlined the main features inherent to this process for each group of countries depending on their level of economic development: developed countries, developing and transitive economies.

The greatest success in the cluster formation reached developed countries [5], where clusters are successfully established and flourishing, providing an important GDP share. In most of developed countries this can be done due to the effective national economic policy aimed at cluster fostering and development.

Developing countries clusters differ from developed countries' ones in at least three aspects: the dynamics of growth (endogenous versus exogenous), organizational structure and geographical distribution. In developing countries, the cluster dynamics is predominantly determined by transnational corporations presence or international customers access. Most developing countries clusters can be represented in the form of so-called satellite clusters, clusters of small and medium enterprises engaged in similar industry and dominated by multinational corporations. Correspondingly, the innovation also depends on the TNC.

Cluster development features in countries in transition is similar to the clusterization in developing countries, however, have some fundamental differences. Transition economies clusters develop under the influence of exogenous and endogenous factors. There are developing own national clusters on the territory of this group of countries. While gradually increasing, these cluster systems initiate international cooperation mainly with other countries in transition, basically for industrial and commercial reasons, and to a lesser matter for joint R&D, further development, collaborating with developed countries and developing countries. An important role on cluster development has national policy, which is mainly focused on the former soviet regional production systems restructuring on the principles of market economy and innovation promotion. Thus, the government main efforts aimed at creating clusters to serve the domestic market.

There are prerequisites for international cluster formation involving Ukrainian counterparts on the basis of international production, scientific, technology cooperation with neighborhood regions (transborder cluster) or involving foreign counterparts from countries which do not have joint border with Ukraine (see Table 4).

Table 4. **Prospects of international industrial cluster formation involving Ukrainian counterparts**

Cluster name, territory	Cluster initiative type, members	International activity	Prospects for innovation
"Swema", Yaroslavna euroregion (Sumska oblast (Ukraine), Kurska oblast (Russian Federation))	Joint initiative of national and foreign agents (Type 4). Industrial park "Swema", government	There are prerequisites for cluster origin and functioning in the national market (Stage 0)	International R&D cooperation, prospects for innovative cluster formation
Transport engeneering, Donbas euroregion (Donetska oblast (Ukraine), Rostovska oblast (Russian Federation))	National initiatives due to the high production potential (Type 1). Railway plants, educational institutions	Foreign partners involvement for serving national market, starting export activities (Stage 1)	Traditional cluster
Slobodzanschina, Slobodzanschina euroregion (Harkivska oblast (Ukraine), Belgorodska oblast (Russian Federation))	Joint initiative of national and foreign agents (Type 4) for R&D commercialization. Slobodzanschina technology park	Cluster origin in national market for serving national and foreign market (Stage 1)	International scientific and technology cooperation may lead to innovative cluster formation

Table 4 continued

Cluster name, territory	Cluster initiative type, members	International activity	Prospects for innovation
Engineering for agriculture production, (Hersonska oblast, German enterprises)	Mostly national initiatives (Type 1). Government, engineering for agriculture production plants (Hersonmash), educational institutions, scientific institutions (at later stages)	Foreign partners involvement for serving national market, starting export activities (Stage 1)	Cluster formation may be possible after new production technologies and new products implementation. It is possible due to foreign technology exploit and international scientific cooperation. It may lead to innovative cluster formation
Shipbuilding (Crimea (Ukraine), Russian Federation enterprises)	Foreign initiatives (Type 3). Cluster organization assemble as a result of a need for serving foreign orders	Cluster origin and functioning in the national market and stating export activities (Stage 2)	Traditional cluster
IT, Lvivska oblast (Ukraine), Dolina Lotnicza, Dolina Ekologicznej żywności (Poland))	Foreign initiatives (Type 2). IT outsourcing from Poland to Lviv	Cluster origin in national market for serving foreign market (Stage 1)	Innovative cluster

The table 4 shows there are prospects for international industrial cluster formation involving Ukraine. The spring for a cluster formation may be as a result of national or foreign initiative, or may take the form of joint initiative of Ukrainian and foreign enterprises, government, scientific institutions. Nowadays most of such cluster groupings are being at agglomeration and foreign counterparts' involvement stage. Further cluster expansion, scientific organizations involving may lead to innovative activity.

Summary. Globalization plays an important role in the international innovative cluster formation by opening new opportunities for collaboration with foreign partners and encouraging entities to seek more effective methods of cooperation and improving their competitiveness.

Along with the benefits of the cluster activity, which are widely asserted nowadays, clusterization may leads to some negative effects, such as: region overloading, cost inflation, over-specialization, which makes the whole cluster area more vulnerable to external shocks.

Cluster internationalization process is influenced by internal and external factors. There are different approaches to the analysis of cluster formation, which basically describes this process in terms of stages, types and models of cluster initiation. It is explored, that international cluster formation can be initiated by national entities, foreign entities or can take the form of foreign and domestic enterprises joint initiative.

The international innovation cluster formation mechanism for Ukrainian business entities may be proposed to be done in a following way: preconditions for the cluster formation and potential participants monitoring, research and evaluation of mutual interests between aimed participants, relationship establishment, further involvement of other parties and the stable cluster links formation to gain benefits from a cluster interaction.

The prerequisites for international clusters formation involving Ukrainians entities are: economic cooperation within Euro-region, foreign trade (based on free trade agreements), international scientific and industrial cooperation and other links. The international innovative clusters formation should be made on the basis of former international economic relations between Ukraine and post-Soviet countries recovery, and new areas of economic activity development. The criteria for determination the priority spheres for cluster development need to be selected, for example, it may be: cluster activities should enhance the competitiveness (current or potential) of goods and services with high value added in the international market, the level of international recognition and so on.

References

1. Sokolenko S.I. Klastery u hlobalnii ekonomitsi – K.: Logos, 2004. – 848 s.

2. Yasheva G.A. Formirovanie mezhdunarodnykh klasterov kak factor povysheniia konkurentospoobnosti economic Rosii, Belarusii I Ukrainy [http://www.gosbook.ru.] Yasheva G.

3. Vnukova N. Transkordonni klastery: zakordonnyi ta vitchiznianyi dosvid [http://www.inno.kharkov.ua/wp-content/uploads/2009/10/transkordonnd196 -klasteri1.pdf.] / Vnukova N. Ketels, Christian, Göran Lindqvist, and Örjan Sölvell. 2006. Cluster initiatives in developing countries and transition economies. Stockholm: Center for Strategy and Competitiveness.

4. OECD (2009), Clusters, Innovation and Entrepreneurship, Local Economic and Employment Development (LEED), OECD Publishing.

5. Klastery v razvitykh stranakh / / Ofitsiinyi web-portal Stanislava Sokolenko ta organizatsii Mizhdnarodna fundatsiia spryiannia Rynku (MFCR): [http://ucluster.org.] / Sokolenko S.

6. Kanishchenko O.L. Mizhnarodnyi marketynh u diialnosti ukrainskikh pidpryiemstv: Monographiia. – K.: Znannia – Pres, 2007. – 448 s.: il.

7. Dubnytskyy V.I. Teoretyko-metodolohichne j,gruntuvannia systemy ekonomichnyh klasteriv v ymovakh spivrobitnitstva rehioniv/ V.I. Dubnytskyi / / Ekonomichni nauky. Seriia "Ekonomichna teoriia ta ekonomichna istoriia". Zbirnyk naukovih prats. LNTU. – Vypusk 6 (23). – CH.1. – Lutsk, 2009.

8. National Research Council, Growing Innovation Clusters for American Prosperity, Charles W. Wessner, Rapporteur, Washington, DC: The National Academies Press, 2011.

9. Clusters Models, Factors and Characteristics. International Journal of Economic Practices and Theories, Vol. 1, No. 1, 2011 (July)

10. Global Cluster Initiative Survey 2012. Survey Summary Report. European Commission, European Cluster Observatory, Stockholm, 2012.

11. Industrialnyie klastery kak factor economicheskoho chuda Kitaia: [http://www.ageoint.com.]

Надійшла до редакції 11.11.13

О. Каніщенко, д-р екон. наук, проф.,
Н. Кузнецова, канд. екон. наук, асист.,
М. Устименко, асп.
КНУ імені Тараса Шевченка, Київ

ІНТЕРНАЦІОНАЛІЗАЦІЯ ПРОМИСЛОВИХ КЛАСТЕРІВ: ЦІЛІ ТА ПЕРСПЕКТИВИ

В статті розглянуто чинники, інструменти, результати та наслідки формування міжнародних кластерів як фактору активізації інноваційного розвитку національних підприємств.

Ключові слова: кластер, міжнародний кластер, інтернаціоналізація кластерів, кластерні ініціативи, формування кластеру.

Е. Канищенко, д-р экон. наук, проф.,
Н. Кузнецова, канд. экон. наук, ассист.,
М. Устименко, асп.
КНУ имени Тараса Шевченко, Киев

ИНТЕРНАЦИОНАЛИЗАЦИЯ ПРОМЫШЛЕННЫХ КЛАСТЕРОВ: ЦЕЛИ И ПЕРСПЕКТИВЫ

В статье рассмотрены причины, инструменты, результаты и последствия формирования международных кластеров, как фактора активизации инновационного развития национальных предприятий.

Ключевые слова: кластер, международный кластер, интернационализация кластеров, кластерные инициативы, формирование кластера.

UDC 339.9
JEL F02, J4

O. Komendant, PhD in Economics, Assistant of Professor
Taras Shevchenko National University of Kyiv, Kyiv

THE MECHANISM OF TRANSFORMATION OF THE LABOR MARKET OF UKRAINE TO THE NEW ECONOMY UNDER POST-CRISIS PERIOD

Major components of a mechanism of transformation of the Ukrainian labor market under new economy or knowledge-based economy are identified. Modern period of mechanism of transformation is considered. Level of implementation of the mechanism of transformation of the Ukrainian labor market under new economy is shown.

Keywords: mechanism of transformation; Ukrainian labor market; new economy; knowledge-based economy; post-crisis period; global instability time.

Introduction. Modern post-crisis world tests substantial changes and general transformation of both society and an economic basis of its construction. Even such unalterable things as nature of production, trade, and employment will differ in the nearest future from that we had at the beginning of XXI st. In this context, an important value acquires research of questions of influence of changes on development of modern society and the world economy on the whole. World Labor Market as an inalienable component of the world economy tests transformation changes too. These changes are weaker for the changes in the world financial market. The changes in a labor market of a non-developed country such as Ukraine, have taken second character of influence of the global financial crisis. Ukrainian labor market continues to feel the impact of the global financial crisis. It is therefore very interesting for researchers who start writing about the impact of the global financial crisis on labor market describing the current situation and giving new and original ideas to the issue.

The research aim is to study the interaction between global financial crisis and national labor market of Ukraine by means of "new economy". The objectives are to offer a mechanism of transformation of the labor market of Ukraine. It requires assess to the post-crisis cooperation of world labor market, financial environment in Ukraine, current trends of government programs.

Research methodology and results.

The research methodology is based on the application of international macro- and microeconomic approaches as well as structural comparative analysis. A study is dedicated to describing of components of the mechanism of the transformation of the labor market of Ukraine and estimation of its level of development.

A huge number of publications devoted to the global financial crisis and particularly to its lessons have been published. The most interesting among the foreign scientific publications are the books of two Nobel Prize winners J. Stiglitz and P. Krugman. Among Ukrainian scientists thefolloving works have to be encouraged in the financial sphere the works of: U. Bazal, V. Bazylevych, I. Lutiy, V. Muntiyan, O. Rogach, V.Shevchenko and in the labor sphere: O. Grishnova E. Libanova, A. Starostina.

The classical economic approach gives a vision that "new economy" is not just a new phenomenon but quite young, which practically has existed only for 0 – 15 years. On different approach, it is accepted to consider the year of the foundation of new economy is 1995, when global business and mass – media began to use possibilities of world free information network – the Internet. The theoretical roots of comprehension of processes of origin of new economic structure starts from the middle of the last century. It is certainly known that all economies, starting from the simplest, were based on knowledge about that, how to do that or this: how to grow, how to collect, how to obtain, how to build and all this knowledge has been accumulated with development of the society. But till the middle of the last century this knowledge carried more complementary character. The knowledge began to play first fiddle in the middle of the last century.

The process of training workers for the changes in the labor market is slow and constant. Till the end past century a characteristic of the new type of the worker began to appear more frequently in the western literature. The reason for its appearance unconditionally became the environment of inhabiting. Extrapolating for the labor market we see that that objective reasons of changes in the character and intensity of labor are in favor of scientific-technical and informational revolution. The mechanism of transformation and the transformation of the labor market rather in terms of the spread of the global information economy provides a range of measures to enhance the effectiveness of the functioning of the labor market. Among them are:

- self-education and science, search for additional sources of financing;
- providing of favorable terms for development of education;
- leadthrough of active policy of employment of population, including new forms – tele- and controlled form of distance employment;
- the further development of cooperation between research centers and enterprises of the final production;
- state of development and production of IT products;
- ensuring the protection of intellectual property rights and support of international scientific-technical cooperation.

Braving the logic of the transformation process in live nature [4], proposed by M. Magometom-Emìnovim in the labor market, which is experiencing changes in the global economic information we will get the picture of general transformation as follows: the object of transformation is a labor market of Ukraine, "transformetr" – relations in the market of labor of Ukraine, instrument of transformation, are influence of IT, time is time of process of changes, "psitemenos" is "new economy", transistor is the transitional period between industrial and postindustrial periods, a transformation link is the government programs at the market of labor of Ukraine. For us the descriptive chart of mechanism of influence of informative economy went out to the world market of labor (pic. 1).

Stage 1. Object of Transformation – LABOR MARKET OF UKRAINE.

Like other countries in the region of Europe and Central Asia, the labor market in Ukraine is seriously affected by the financial crisis. The unemployment rate has significantly increased since the beginning of 2009 – up to 9.5 percent and now is 8.7 percent.

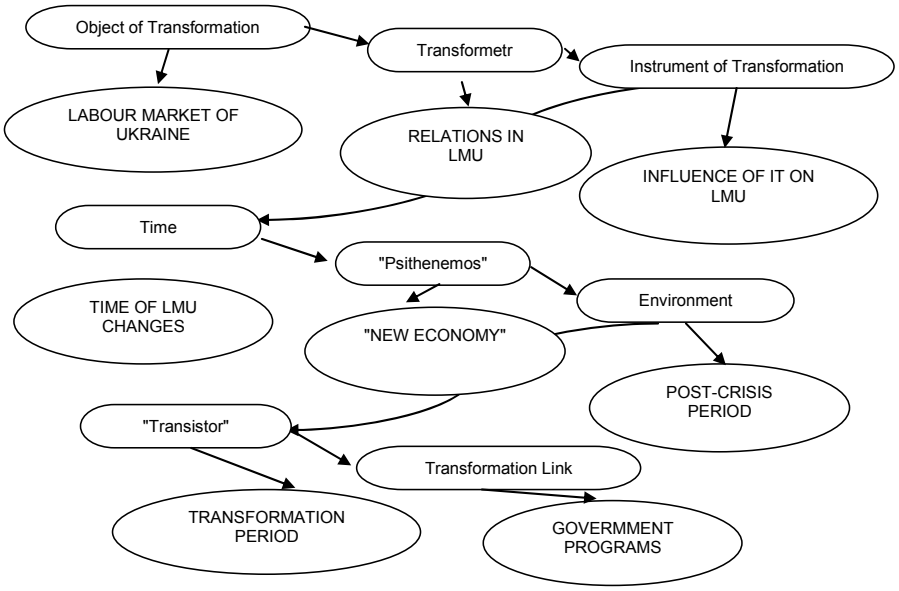


Fig. 1. The transformation process of labor market of Ukraine

* *Source :* created by the author.

Unemployment remains a problem for large parts of the youth, and a large number of graduates are unable to find work after graduation. The main problems that now faces the Ukrainian labor market includes low internal mobility within the country, the high level of unofficial unemployment and disparity of qualification or professional skills to the needs of the labor market in new conditions.

Growing international experience indicates that internal labor mobility has a positive impact on productivity and growth of the country. In Ukraine, the level of internal migration is at extremely low conditions compared with other countries. The population does not migrate even when there is substantial and constant inappropriate level of average wages and unemployment rate in the labor market. This indicates that people do not have economic opportunities outside the place of their current residence. It is significant to consider the unofficial unemployment rate in Ukraine. In 2010 to 4.6 million people in Ukraine were working in the informal sector, which constitutes 22.9 percent of total employment.

In 2013, according to the data of the State employment service, there are 20.5 million people employed in Ukraine or 60 percent of the able-bodied population in the age between 15 and 70 years old. The figures have slightly improved comparing to 2012 (59.5 percent). At the same time, the figures of employment data differ significantly from the unemployment rate, which made 2 percent in January. As of February 2013, the average enrolment competition was ten applicants per one vacancy.

However, some experts say that last year the domestic labor market grew. Employers were looking for workers even during festivals and summer holidays, while job seekers traditionally preferred vacations [2]. Candidates showed higher activity in 2012 compared to 2011. One of the trends in 2012 was the increase in demand for skilled workers. Companies were investing in creation of their HR-brands, they implemented new methods of non-material motivation, contributed into the training and development of personnel, as well as focused on retention of experts, which was confirmed by the significant number of counteroffers from employers to their employees who were going to change jobs. In 2012, the companies invested in their staff, and we expect this trend to continue in 2013 [6].

Other experts indicate no significant dynamics in labor market of Ukraine. Market volume of stuffing, including search and selection of staff on temporary projects, did not exceed 10-12 percent. Many domestic companies had frozen their positions before the parliamentary elections. To some extent, the updated Law on Employment also affected the activity of companies, since they were expecting amendments and explanatory notes. However, significant fluctuations in the demand for staff were not observed. The average salary increased in 2012 at about 5-10 percent, and we expect that in 2013, salaries will grow up the same [6].

Stage 2. "Transformetr" – RELATIONS IN THE LABOR MARKET OF UKRAINE

The labor market in Ukraine has changed gradually. Having passed first from an agricultural state to an industrial one during the time after the breakdown of the USSR. Last 10 years Ukraine has started on the path of a service-oriented economy as the national labor market increasingly become oriented toward such industries as tourism, entertainment, and leisure. Today, more than half the national labor force is involved in the service sector.

However, the Ukrainian labor force is characterized as highly qualified and skilled; the level of labor pay is much lower than in developed countries. Ongoing political and economic instability has led to rapidly increasing labor migration, in which both skilled and unskilled workers leave the country in order to find more reliable sources of income. The countries where most Ukrainians emigrate or go to work for shorter or longer periods of time include Russia, Western Europe, Canada and the United States. In addition, political and economic realities present many challenges to management on a national level. Exploitation of workers and an extensive underground economy in which workers are "paid under the table," – colloquially described as "salary in an envelope" -- are issues which need to be addressed.

The main problem of the Labor market of Ukraine is still remaining its informal segment. Reduction of the informal segment is important for Ukraine's development in terms of social structure, protection of workers, the efficiency of the labor market and the market of goods, increase of productivity, the rule of law and public administration.

Stage 3. Instrument of Transformation- INFLUENCE OF IT ON LMU

Indicators of access to the Internet in Ukraine are also growing over the fast pace in recent years. Today, the number of Ukrainian Internet users continues to increase. Rate of Internet users (per 100 people) increased from 0,7

in 2000 to 22,4 in 2008. At the beginning of 2013 in Ukraine the Internet was used by over 13 million people per day (according to the latest data from bigmir.net – even more, 15 million) when the total number of the population is of nearly 46 million people. Ukraine came to the third place among European countries in terms of growth in the number of Internet users in the period 2000-2013 years. This is evidenced by recent data from the Internet World Stats. Since 2000, this indicator increased by 6 thousand percent [8].

Significant changes in the geographic distribution of the Internet users have not been observed in recent years. The largest audience growth dynamics observed in cities with a population of 50-100 thousand. Also, in 2013, the Internet is used much more actively – day coverage in the current year amounted to 31 percent of residents in cities with a population of 50 thousand (including over one million) against 18 percent in 2008. Kiev is still an lead region. Its share amounted to 58,96 percent of the total audience. Next, in descending order, there are regions such as: Odessa, Dnepropetrovsk, Donetsk, Kharkiv, Lviv, Crimea, Zaporozhye. Their total share is 30,65 percent. The other regions account for 9,79 percent. In Zhytomyr and Volyn regions, the smallest activity – only 0,21 percent and 0,17 percent respectively, in Chernivtzi region – 0,22 percent.

The number of Ukrainian domains (ua) has risen to 247 400, with registered 36 thousand. Web sites. Among search engines, of which was crossing the Ukrainian audience on Ukrainian sites, the leader was Google its share is 72,74 percent. Then there is Yandex (16,88 percent), ukr.net (2,35 percent), bigmir.net (2,04 percent) and Meta.ua (2,01 percent) [8].

Increase of the use of communication services in Ukraine demonstrates considerable pace. Dominant values thus acquired the rapid spread of mobile communication – as of July 1, 2013, the number of mobile phone subscribers reached 55 541 thousand subscribers. For comparison, on 1 January 2007 in Ukraine subscribers had for 10 percent less – 50 952. Accelerated growth in the number of users of communication services occurs including expanding infrastructure market. Ukraine in terms of the number of Internet users per 1,000 people is low (97). That is even not every tenth has access to the network. Our closest neighbors Poland have the indicator level 262 persons, Slovakia – 272 persons, Romania – 208 persons, Russia 153 persons. There are worse level of indicator than in Ukraine have Georgia – 39 persons and Moldova – 96 persons [14].

Stage 4. Time TIME OF LMU CHANGES

Despite the agrarian-industrial international specialization of Ukraine, the first positive changes as the defining social indicator of the newest trends are observed in the labor market. The largest and most rapid changes observed in urbanized cities, primarily in the capital. The main symptom of the appearance of new trend in the Kyiv labor market is a phenomenon of "head hunting", which is applied typical only for highly developed societies.

It is known that the basic idea of "head hunting" is to "hunt" not only for an existing knowledge of hired workers but for the implicit, so-called "essential knowledge" that an organization can get only by attracting specialists only with unique experience. This phenomenon has demonstrated the symptoms of the new economy, i.e. work acquires the characters of creativity, demand not only for the worker – "human economic" ("homoeconomicus"), but also for worker – "human creative" (homo creator). This phenomenon has seen only in the capital of Ukraine Kiev and some another big cities such as Donetsk, Dnepropetrovsk, Lviv.

For example, according to the "Ankor" agency at the beginning of 2013 Russia experienced shortages of labor for 17 percent and 72 percent of companies plan to expand the number of staff [5]. It has not observed such situation in Ukraine yet, but to take into account this modern tendency of the nearest neighbor is necessary. There is a need for balancing of professional orientation of an employee to achieve an improvement on the effectiveness of the functioning of the labor market. Labor market in Ukraine has observed a decline in a demand for professional's for sector of services and growth for professionals of worker's profession. According to Derzhkomstat, the greatest demand at the beginning of 2013 has industry sector – 18.9 thous. people [9]. That is opposite to the world tendency. According to the Ukrainian Centre for Economic and Political Studies, more than fifty graduating students are competing for one available workplace in services sector and only one is searching job in industry sector [15]. Priority trend on Labor market is increasing of a share of graduate of the economists and the lawyers (36.2 and 43.6 percent). Present situation of market overloading of the economists and lawyers will inevitably affect the employment of specialists of these specialties. Instead, the present situation of the economy requests highly skilled specialists of engineering, which will be able to implement innovative principles of economic growth.

Under expert expectation for the next 3-5 years, the labor market will need specialists in the following sectors: engineering, IT and software development, nanotechnologies, specialties across electronic engineering and bioengineering, marketing and sales, consumer services, logistics, ecology, medical specialties on prolongation of life, chemistry [2]. It means that the labor market of Ukraine will develop not only quantitatively, but also qualitative in high-tech trends of XXI century, which is an obligatory condition for crisis consequences.

Stage 5. "Psithenemos" – "NEW ECONOMY"

Modern, post-industrial economy requires an active social policy, encouraging personal development and providing motivation for development of one's knowledge, skills and abilities. The highest level of involving the environment of the information economy are in postindustrial countries – leaders of the introduction of the "knowledge economy" in Western Europe. It has been approved that this happened due to special attention of the Government to the educational sphere: the level of State support for education is higher than in the countries of the "G7" (1.8-2.2 percent). They have beaten other countries for indicators of quality also, such as the introduction of a system of "lifelong learning" and "normalized knowledge", the development of the "information professions and employees of the Office of economy" [1]. By the way, there are several synonymous to the term of "knowledge economy" such as "postindustrial economy, "information economy," "cognitive economy", "the economy based on knowledge," "virtual economy" and "new economy".

There are the conceptual bases of "knowledge-based economy" as following:

- the information society is a modern model of the market economy, in which the main factor of production is information;
- "knowledge-based economy" is an economy of an open type;
- "knowledge-based economy "with its technological principle of the way of the organization of economic activity is the highest level of development of industrial relations in modern society.

Stage 6. Environment POST-CRISIS PERIOD

A huge number of publications devoted to the global financial crisis and particularly to its lessons have been published. Two main of them we have indicated at the beginning of this article. Since the onset of the current crisis, asset prices have tumbled in the United States and elsewhere along the tracks lain down by historical precedent

[13]. "We find that asset market collapses are deep and prolonged. On a peak-to-trough basis, real housing price declines average 35 percent stretched out over six years, while equity price collapses average 55 percent over a downturn of about three and a half years. Not surprisingly, banking crises are associated with profound declines in output and employment" [12].The analysis of the post-crisis outcomes for unemployment, output and government debt provide sobering benchmark numbers for how the crisis will continue to unfold. The global nature of the crisis will make it far more difficult for many countries to grow their way out through higher exports, or to smooth the consumption effects through foreign borrowing. Economy of Ukraine also suffer from the global financial crisis.

Economic activity in Ukraine in 2012 has decreased. Real GDP growth has decreased of 5.2 percent in 2011. In the third quarter of 2012, reducing of GDP was 1.3 percent. In general, economic growth declined sharply to 0.2 percent in 2012. Domestic demand has continued to grow as a result of the expansion of consumption, while real exports has declined On the one hand, in 2012, an increase in real retail turnover should broadly two-digit number. On the other hand, industrial production declined in 2012 by 1.8 percent due to the bad performance of export-oriented industries, especially metallurgy [9]. At the beginning of 2013, economic growth remained at low level. The economy still requires a balancing for its better adjustment to changing external conditions. It seems that further uncertainty expectations of stability of complex of measures of economic policy, which now supports the Ukrainian authorities and sustained external demand. This scenario implies a slow but systematic overcoming of crisis in Europe. Increase in external demand in the second half of 2013 can help to accelerate the growth of the Ukrainian economy.

Stage 7. "Transistor" TRANSFORMATION PERIOD

The transformation of the labor market starts with, on the one hand, the simplest, and on the other hand, the most complicated thing – the way of thinking most of the people. "Knowledge-based economy" requires better flexibility, speed, the nonlinearity of the actions and behavior of employees. There has been an internal restructuring, the so-called transmutation level of the awareness of the identity, together with desire to change their consciousness under the new information environment. As an indirect indicator of the transformation of consciousness can be applied exceptionally uneconomical indicator, such as the level of trust in the society in general and the enterprises in particular.

In Ukraine, the situation with reputation of domestic enterprises is a very contradictory. Depending on the choice of scales, comparison results will vary a lot. If we compare the situation of trust that has observed in the country, with the developed countries of the West, then the level of trust to the products as financial institutions and industrial enterprises in Ukraine is extremely low. Moreover. If we consider the dynamics inside the country, compared with what it was 10 years ago, then the situation can be evaluated as an acceptable. The concept of the trust and the reputation is directly connected with the categories of brand and trademark. In Ukraine, ratings of most expensive Ukrainian brands are published each year. The latest ranking for 2012 showed that only three of ten the most expensive brands belong to the sphere of services, the other companies represent the oil-processing industry, light and food industry [11].

Stage 8. Transformation Link – GOVERMMENT PROGRAMS

Education and professional training are generally recognized as a leading factors of the economic development. Professional skills play a central role in improving results, increasing productivity and economic growth. However, education and professional training are not always can provide required professional skill in order to have success on the labor market. For example, 20 percent of Ukrainian companies believe that the lack of professional skills of employees is the main barrier of growth of their companies. Despite this fact, many graduates cannot find work or are forced to take on a job that does not match their professional ability. One of the resolving of this problem could be STEP – program. Initiative to support professional skills so called STEP aims to improve awareness about the distribution of different professional skills between the workforce, as well as the demand for these skills in different economic sectors. In order to be able to support the development of government policy and the development of skills and habits in order to improve employment opportunities and productivity, the creation of an educational system capable of an adequate response to the needs of the market.

The Government of Ukraine and the World Bank made the strategy for the 2012 – 2016, based on consultations with representatives of the private sector, civil society and donors. In the framework of the strategy, there are several projects in the current year: Export development project (27.06.2006 – 31.12.2014). Program of higher of resources effectiveness in Ukraine (01.10.1012-12.31.2014), Program of a strengthening capacity in the field of statistics (STATCAP) (31.12.2009-31.12.2013) Project development of the system of State statistics for monitoring socio-economic transformations (31.12.2009-31.12.2013) Project to improve access to the agricultural (11.01.2010-10.31.2014), "Astarte" (13.082012-31.12.2013), JV "East" (18.12.2012-31.12.2013) [10]

Conclusion. Thus, this paper is dedicated to the proposition of the new mechanism of transformation of the labor market of Ukraine to the new economy under post-crisis period of global financial crisis. Such mechanism has a several components: object of transformation – the labor market of Ukraine, "Transformetr" – Relations at the labor market of Ukraine, Instrument of transformation- Influence of information technology on labor market of Ukraine, time – period of changes on the labor market of Ukraine, "Psithenemos" – "new economy", environment – post-crisis period, "transistor" – transformation period, and transformation link – government programs. The effectiveness of involving of this mechanism is in the field of two-way road of the government and society cooperation.

References

1. Asheim B. Constructing knowledge-based regional advantage: implications for regional innovation policy / B. Asheim, L. Coenen, J. Moodysson, J.Vang. [Electronic source]. – Access at: http://inderscience.metapress.com/content/cm9akx5l873xdvr0/.

2. Boyarunets A. Labor market of Ukraine: Revival despite crisis. / A. Boyarunets. [Electronic source]. – Access at: http://en.for-ua.com/analytics/2013/02/26/113435.html.

3. Krugman, P. The Return of the Depression. Economy and the Crisis of 2008. / P.Krugman. – Sofia, East-West, 2009.

4. Magomed-Yevminov. M. Transformation of personality. / M. Magomed-Yevminov. – M.: Psycho Association, 1998. – 496 c.

5.Official site of Ankor agency. [On-line]: [web-page]. – Access at: http://www.ancor.ru/.

6. Official site of European Business Assosiation. Forecasts for the labor market of Ukraine in 2013. [[On-line]: [web-page]. – Access at: http://www.eba.com.ua/en/information-support/news-from-members/item/6591-2013-2-4-1634.

7. Official site of European Central Bank. [On-line]: [web-page]. – Access at: http://sdw.ecb.europa.eu.

8. Official site of Internet World Stats. Usage and population statistics. [On-line]: [web-page]. – Access at: http://www.internetworldstats.com/europa2.htm#ua.

9. Official site of State Statistics Service of Ukraine. [On-line]: [web-page]. – Access at: www.ukrstat.gov.ua/.

10. Official site of World Bank. Projects and Operation in Ukraine. [On-line]: [web-page]. – Access at: http://www.worldbank.org/projects.

11. Rating of the most expensive Ukrainian brands // Yellow page. [Electronic source]. – Access at: http://yellowpage.in.ua/en/archives/49176.

12. Reinhar C.The aftermath of financial crises / C. Reinhar, K. Rogoff. [Electronic source] // National Bureau of Economic Research. Working Paper 14656 – Access at: http://www.nber.org/papers/w14656.
13. Stiglitz, J. Free Falling. / J. Stiglitz. – Sofia, DAR, 2010.
14. World Bank database of indicators. [On-line]: [web-page]. – Access at: http://data.worldbank.org/indicator.
15. Yurchishin V. World economy and Ukraine / V.Yurchishin. [Electronic source]. – Access at: http://www.razumkov.org.ua/upload/yurchyshyn_global_ecnomy_2012.pdf.

Надійшла до редакції 16.10.13

О. Комендант, канд. екон. наук, асист.
КНУ ім. Тараса Шевченка, Київ

МЕХАНІЗМ ТРАНСФОРМАЦІЇ УКРАЇНСЬКОГО РИНКУ ПРАЦІ ДО "НОВОЇ ЕКОНОМІКИ" В ПОСТКРИЗОВИХ УМОВАХ СВІТОВОЇ ФІНАНСОВОЇ КРИЗИ

Визначено основні складові механізму трансформації українського ринку праці в посткризових умовах "нової економіки" або економіки, заснованої на знаннях. Розглянуто сучасний стан складових трансформаційного процесу. Зроблено висновок про рівень трансформації українського ринку праці в ситуації глобальної нестабільності.

Ключові слова: трансформаційний механізм; український ринок праці; нова економіка; економіка заснована на знаннях; посткризові умови; глобальна нестабільність.

Е. Комендант, канд. экон. наук, ассист.
КНУ им. Тараса Шевченко, Киев

МЕХАНИЗМ ТРАНСФОРМАЦИИ УКРАИНСКОГО РИНКА ТРУДА К УСЛОВИЯМ "НОВОЙ ЭКОНОМИКИ" В ПОСТКРИЗИСНЫХ УСЛОВИЯХ МИРОВОГО ФИНАНСОВОГО КРИЗИСА

Определены основные составляющие механизма трансформации украинского рынка труда в посткризисных условиях "новой экономики" или экономики, основывающийся на знаниях. Рассмотрено современное состояние составляющих трансформационного процесса. Сделано вывод о уровне трансформации украинского рынка труда в ситуации глобальной нестабильности.

Ключевые слова: трансформационный механизм; украинский рынок труда; новая экономика; экономика основывающаяся на знаниях; посткризисные условия; глобальная нестабильность.

UDK 338.43.636
JEL Q 17

Z. Konurbaeva, PhD in Economics, Associate Professor,
A. Zakimova, PhD in Economics, Associate Professor
D. Serikbayev East Kazakhstan State Technical University, Republic of Kazakhstan,
M. Rahkimberdinova, doctoral student,
Turar Ryskulov Kazakh Economic University, Republic of Kazakhstan

DEVELOPMENT OF ANIMAL SECONDARY RAW MATERIAL MARKET AS A FACTOR OF DIVERSIFICATION OF KAZAKHSTAN'S EXPORT POTENTIAL

Products of the recycling of livestock should become the most important part of the Kazakhstani export potential. Using recycled materials in the finished production cycle would significantly diversify the export component of national agro-industrial sector of the Republic.The article proposes an approach to the placement of industries, processing secondary raw materials in order to obtain market product with high added value, which will result in implementing the existing potential of the agricultural sector of the state.

Keywords: raw material, diversification, export, economics potential, animal brceding.

Kazakhstan has always been considered to be one of a largest cattle-breeding country due to its peculiar natural conditions and work skills of local people. Up to the development of virgin and long-fallow lands in the mid-fifties country's livestock was the main branch of agriculture. Despite the rapid development of agriculture since developing the virgin land, the value of livestock in the economy of Kazakhstan is still very high.

Livestock production has been key economic activity in Kazakhstan for centuries and remains still one of the major sources of employment, food, and earnings of rural people. This branch of the agricultural sector is traditional in Kazakhstan due to national peculiarities of the population. Locals living in a village cannot be imagined without their own farms. From time immemorial, domestic animals (horses, sheep, cows, camels) were the basis of the "economy of a family" for Kazakhs.

From 1990 to 1998 the consumption of livestock products reduced by approximately 40%. Decreased consumers' income, high prices for animal products due to liberalization of prices, inflation, and the consumer's subsidies abolition led to a sharp decline in the consumption of these products. Fluctuation in the domestic market demand deteriorated sharply with reduced export markets.

Export of meat, the main export product until 1990, virtually disappeared after the demand in the former Soviet Union countries fell, and meat export to other countries was difficult due to the inland location of Kazakhstan, poor products quality, lack of in international sales experience and increasing restrictions on trade in the region. Compared to other Central Asian countries, the decline in the industry in Kazakhstan was more serious, as Kazakhstan had been the largest supplier of animal products to the market of the Soviet Union throughout the region, including supplying the Ministry of Defence, a large part of public procurement (one of the largest meat processing plants in Semipalatinsk provided the entire Soviet Union with its production, as an example). Meat and wool processing industry especially in the eastern and northern regions, was highly developed. Many of related companies worked only for export markets and livestock production in these regions was oriented to the needs of the processing industry. Since domestic demand was less the conservation of livestock population after the reform seemed less possible than in other Central Asian countries.

The period of the establishing independent Kazakhstan influenced the livestock industry, so in 1993-1994 such factors as increase in fuel prices, food concentrates, food additives and veterinary drugs, together with import growth and other macroeconomic indicators, have led to a reduction of livestock in the country.

The total number of cattle decreased sharply from 1992 to 1998. This tendency varied in the regions of the country. For example, the northern regions have lost about 72% of

the number of sheep herds, compared to 30% in the western region. At the same time with the change in livestock at the beginning of 1990s the livestock production also started to decline. From 1990 to 2000, meat production decreased by 58%, milk production decreased by 31% and wool production decreased by 78%.

The number of cattle in the country has decreased from 9 to 6 million animals for the past 20 years. Meat exports scored 180 000 tons, and today there is hardly anything left. Quality characteristics of livestock have been deteriorating. If earlier an average carcass cattle slaughter weight was 230 kilograms, it has fallen to 156. The share of animal meat in the national herd has decreased to 9%, and it should be raised to 50%. For example, in such exporters as the U.S. and Canada beef cattle share is 75-85% of the total population.

Despite the decline in the livestock sector during the years of independence, Kazakhstan's cattle industry has a number of comparative advantages, which will enable the sector to contribute significantly to revenue growth, employment and export potential of the country. These are extensive, but little used pasture and hay land, flexible and cheap industrial structure of small farms, as well as the availability of cheap by-product of large-scale crops (feed grain and oilseeds from food crops).

It seems that the further growth of the livestock will be due to the industry's ability to realize the comparative advantages that have occurred during the years of independence. These are significant growth opportunities in the local market in the medium term and export opportunities in the long run. Growth of national income increases the demand for livestock products in Kazakhstan.

At present the export of animal products is low, but there are some opportunities in niche markets for high quality products. The government is taking steps to improve the quality of the meat and to make adjustment to accepted international standards, the most important of which are given in Table 1.

Table 1. **Activities aimed at the development of livestock in Kazakhstan**

№	Name of event	Showing
1	The program of development of small and medium farmers in the period from 2011 to 2015	28 billion tenge
2	Purchase of breeding animals for meat	72 thousand tenge
3	Building feeding platforms	60 pcs
4	Building reproducers	50 pcs
5	Building modern centers of breeding cattle reproduction	North, South, East, West
6	Finance the first stage of the Project	148 billion tenge

For the implementation of these activities it is necessary to develop the following infrastructure: veterinary stations, veterinary laboratories, equipment and transport, chemical laboratories, organizing and equipping slaughter areas, personnel training for livestock and providing veterinarians.

Implementation of the tasks will export 60 tons of meat in 2015, and 120 thousand tons in 2020. Calculations show that the Kazakh livestock has at least five-fold potential starting from today. The genetic potential will raise the average daily gain to the required 1600 grams, and the output of meat will be 55-60%.

Meat producing industry in East Kazahstan region is considered to be one of the largest branches with a share of 11.4% in the total volume of marketable produce. The region is referred to as a stock-raising in agricultural sense and has productive capacity of 38 plants for meat processing of all kinds of cattle.

The factors making the region one of the most promising to formation and development of meat are as follows:

– a positive trend of production growth of meat of all kinds of cattle;

– availability and optimal placement of slaughterhouses and meat producing businesses;

– the ability to recover large enterprises for processing animal raw materials and the introduction of new production capacities;

– potential foreign markets with large demand of meat products.

Enterprises that are recommended to unite in meat production, are part of (or are themselves the basis) of large, vertically integrated organizations – from the cultivation of all kinds of cattle breeding to the production of finished products. It is intended to introduce deep processing of meat in 11 regions and cities in the region, which, of course, will be accompanied by the output of a large number of secondary raw materials. Secondary raw materials can be further processed and used as a finished product or raw material for the manufacturing products with complete production cycle. The bill of goods, and recycled products and animal products and their application are quite varied: from the textile and light industry to cosmetics and engineering.

Since the most part of the secondary raw materials is lost during slaughter, the main points of collection should be placed at meat-processing plants and slaughter grounds.

The development of regional clusters of livestock can solve not only the problems with meeting domestic needs, but also to expand export opportunities in foreign markets both through the expansion of the range of meat products and through the production of exclusive products based on recycling.

Quality criteria are of key importance in determining the benefits of export of agricultural products. Therefore, the priority should be given to issues of livestock breeding. According to the studies conducted by the East-Kazakhstan Scientific – Research Institute of Agriculture, promising areas for pedigree sheep breeding were identified. Keeping livestock breeding will allow providing quality conversion of sheep and then raising its productivity in short terms. The success of pedigree stock-breeding depends on the state of primary and zoo technical breeding records on a sheep farm. The proposed plan of pedigree breeding involves considerable financial investments and experienced personnel supply.

In the process of studying the state and prospects of animal husbandry development in the East Kazakhstan region the areas were classified in order to identify priority ones, which are then to be recommended as a priority in the processing and delivery of recycled livestock sector.

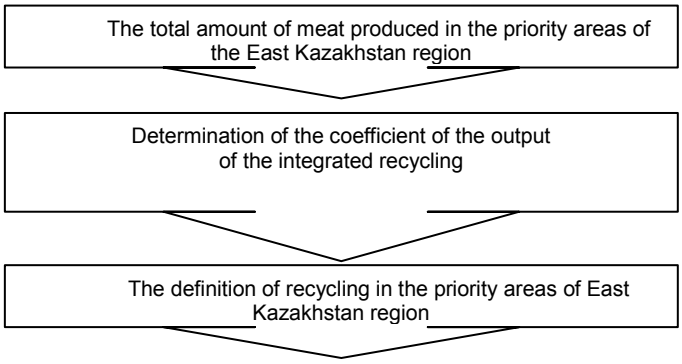


Fig. 1. The algorithm for determining the yield of secondary raw materials in the slaughter of cattle

The algorithm involves the following steps: Step 1. The volume of meat produced in the priority areas is defined by the data of official statistics. Particularly the information from statistical collection was used [1]. Summary information on the amount of produced meat is given in Table 2.

Table 2. **Amount of meat produced in the priority areas of the East Kazakhstan region in 2011**

Groups of Areas	Area	Marketable meat (thousands of tons)
Areas of the first order	Tarbagatay	19779,2
	Urdjar	16758,9
	Zharmin	13017,8
Priority areas of the second order	Abay	11850,4
	Ayagoz	16034,9
Total		77441,2
Note – compiled by the author according to the East Kazakhstan Department of Statistics		

Step 2 The coefficient of the output of the integrated recycling is calculated by formula 1.

$$\bar{C} = \frac{C_i}{S_i} \times 100\% \quad (1)$$

Where: $\bar{C}$ – average integrated rate of recycled materials output in various types of livestock slaughter C_i – the ultimate production of recycled materials in S_i – total live weight of cattle in tons

Table 3. **Basic data and calculations to determine the average ratio of the integrated recycling**

Kind of livestock (i)	Quantity produced meat in East Kazakhstan in 2011(thousand of tons) m_i	Recycled materials output* p_i	Cattle live weight $S_i = \frac{m_i}{1-0.01*p_i}$	Recycled materials output, tons $c_i = 0.01*p_i*S_i$
Cattle	58108,1	0.42	58353,18	24508,34
Small cattle	22607,2	0.29	22672,95	6575,156
horses	11040,5	0.26	11069,28	2878,013
swine	9923,7	0.5	9973,568	4986,784
Total	101679,5		102069	38948,29

* - the exit rate of recycled materials of different cattle types are taken from reference and normative [2, 3, 4, 5].

$$\overline{C} = 38948,29 / 102069 * 100 = 38,15$$

The calculations showed that the integrated recycled output ratio is 38,15%

Step 3 Determine the amount of recycled materials in the East Kazakhstan priority areas by formula (2).

$$V = M * \bar{C} \quad (2)$$

Where: V – recycled materials amount M – produced meat amount $\bar{C}$ average integrated coefficient of recycled materials output in slaughter of various types of livestock

Table 4. **Output recycled in priority areas of the East Kazakhstan region in 2011 (in tons)**

Priority areas	East Kazakhstan areas	Meat produced, tons, 2008	average yield differential coefficient of recycled materials $\bar{C}$	Quantity recycled materials (V=M* $\bar{C}$) tons**
Areas of the first order	Tarbagatay area	19779,2	0,3815	7547,504
	Urdjar area	16758,9		6394,994
	Zharmin area	13017,8		4967,435
Areas of the second order	Abay area	11850,4		4521,969
	Ajagoz area	16034,9		6118,724
Total		77441,2		29550,63
* – Data taken from East Kazakhstan official statistics ** – calculated by the author				

The calculations showed that the amount of recycled materials in the priority areas in 2011 equals to 29550,63 tons. The expected effect can be differentiated by the beneficiaries as follows:

– on a state scale – reducing the shadow economy of all recycled materials, the development of manufacturing industries with innovative processing technologies, diversification of export component in the agricultural sector; resourced domestic processors of raw materials, ensuring the domestic market with quality and eco-friendly products, expanding the range of exports and profits on exports of goods with a high level of local content, the intended using of investments in agro-industrial complex (monitoring of expenditures), involvement of financial resources of specialized and private institutions in the turnover, establishing a specialized agricultural bank, bank, developing related industries;

– across regions and districts – for rural areas – increase the revenues of the district budget in the form of tax revenues, create new businesses in rural areas, promote livestock development in the area as a profitable agricultural sector, and stimulate the introduction of livestock species, create new jobs, increase in income of country people, an additional source of revenue for private holdings, reducing the outflow of people from rural areas, improve market, industrial and transport infrastructure in rural areas, loyal access to financial resources, develop small and medium-sized enterprises in rural areas, form rural specific business – environment, attract experts and improve the professional competency of the participants of recycling process [6].

We believe that this approach in locating industry, processing secondary raw materials to obtain market products with high added value, will actualize the existing potential of agriculture.

The Kazakhstan's export potential should comprise animal secondary raw materials recycled. The use of recycled materials in the finished production cycle would significantly diversify the Kazakhstan's export component of the agro-industrial complex in. In addition, the constraints on the production of export oriented products in the livestock sector can be divided into system or objective factors, not influenced by anything, and subjective ones.

System factors include undeveloped markets for recycled materials, and in some cases, complete lack of demand, and lack of necessary facilities for transportation and storage, as well as partial processing of raw materials in the collection sites, low interest of agricultural structures in livestock breeding, a significant proportion of private livestock.

Subjective factors include the low level of skills in processing industry, imperfect legal framework, the lack of state support for processors of agricultural raw materials, poor information and marketing support, poor transportation infrastructure. These factors together lead to inefficient use of recycled livestock. Export potential of the country is closely connected to problems of transportation, storage, gathering and processing. In general, providing a comprehensive approach to recycling will be followed by the export potential growth.

References

1. E-resource: http://www.shygys.stat.kz/.

2 M.S. Kulazhanov. Development of import substitution and export focus on light industry production in Kazakhstan: Abstract of a thesis for the degree of Candidate of Economic sciences : 08.00.05-Almaty, 2005. – 25 pp.

3. D.M.Madiyarova. World Product Markets: textbook-Almaty: Economy, 2005. – 400 pp.

4. A.B.Temirova. Building and Development of Region Export Potential (Kyzylorda region), 2006. – 29 pp.

5. G.N.Dobrohotov. Zootechnician reference book/4th Edition – Moscow: Kolos. – 767 pp.

6. A.M.Zakimova. – Export Potential Priorities in Agricultural Sector in Kazakhstan (East Kazakhstan Region) Abstract of a thesis for the degree of Candidate of Economic Sciences. Printed by Әрекет – Print, Almaty.

Надійшла до редакції 11.09.13

Ж. Конурбаева, канд. екон. наук, доц.,
А. Закімова, канд. екон. наук, доц.
Східно-Казахський державний технічний університет ім. Д. Серикбаєва, Республіка Казахстан,
М. Рахимбердинова, докторант
Казахський економічний університет ім. Т. Рискулова, Республіка Казахстан

РОЗВИТОК РИНКУ ВТОРИННОЇ СИРОВИНИ ТВАРИННИЦВА ЯК ФАКТОР ДИВЕРСИФІКАЦІЇ ЕКСПОРТНОГО ПОТЕНЦІАЛУ КАЗАХСТАНУ

Найважливішою складовою частиною експортного потенціалу Казахстану мають стати продукти переробки вторинної сировини тваринництва. Використання вторинної сировини в завершеному циклі виробництва дозволить у багато разів диверсифікувати експортну складову країни в агропромисловому комплексі Республіки. Використання запропонованого в статті підходу в розміщенні галузей переробки вторинної сировини з метою отримання ринкового продукту з високою доданою вартістю, дозволить реалізувати потенціал агропромислового комплексу держави.

Ключові слова: сировина, диверсифікація, експорт, потенціал, тваринництво.

Ж. Конурбаева, канд. экон. наук, доц.,
А. Закимова, канд. экон. наук, доц.
Восточно-Казахстанский государственный технический университет им. Д. Серикбаева, Республика Казахстан,
М. Рахимбердинова, докторант
Казахский экономический университет им. Т. Рыскулова, Республика Казахстан

РАЗВИТИЕ РЫНКА ВТОРИЧНОГО СЫРЬЯ ЖИВОТНОВОДЧЕСТВА КАК ФАКТОР ДИВЕРСИФИКАЦИИ ЭКСПОРТНОГО ПОТЕНЦИАЛА КАЗАХСТАНА

Важнейшей составной частью экспортного потенциала Казахстана должны стать продукты переработки вторичного сырья животноводства. Использование вторичного сырья в завершенном цикле производства позволит во много раз диверсифицировать экспортную составляющую страны в агропромышленном комплексе Республики. Использование предложенного в статье подхода в размещении отраслей, перерабатывающих вторичное сырье с целью получения рыночного продукта с высокой добавленной стоимостью, позволит реализовать потенциал агропромышленного комплекса государства.

Ключевые слова: сырье, диверсификация, экспорт, потенциал, животноводство.

JEL: D83, F61, P33
UDC 334.012

O. Kuzioma, PhD in Economics, Associate Professor
Taras Shevchenko National of Kyiv, Kyiv

IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES AS A FACTOR OF COMPETITIVENESS GROWTH BY THE SMALL ENTERPRISES IN CIS STATES

The article shows that the international network of electronic communication helps the various economic agents in finding new partners, responding to the changing conditions quicker, facilitates the greater interaction of the economic partners and establishment of the trusting and long-term relationships, reduces the transaction costs and the distance between the partners, while simultaneously increasing the economic benefits of their relationship. It justifies the fact that the widespread implementation of information and communication technologies in the CIS countries might contribute to increasing the number of small businesses and private business organizations, as well as strengthen their competitive positions in the domestic and foreign markets. This article proves that the use of ICTs can enhance the effectiveness of the production and companies' management system by increasing their access to the information, knowledge, financial services and other resources. As explained in this work, due to the use of ICTs new opportunities are created for the small private enterprises to develop the existing and discover the new types and directions of activity, which will contribute to the improvement of the population well-being. It also rationalizes that the expansion of the ICTs' use by the government and other public bodies may support the increase of the business environment transparency and simplify procedures for starting and running a business. It determines why the spread of information technology, especially in the CIS countries, requires governmental support primarily in the development of information infrastructure and adaptation of the legislation to the conditions of the information economy.

Keywords: information and communication technologies (ICTs); competitiveness; small enterprises; information infrastructure; ICTs goods' exports and imports; ICTs services' exports and imports.

Introduction. It can be argued that there are almost no areas left in the modern economic life, where information and communication technologies (ICTs) are not used. Their widespread use on an international scale has greatly accelerated the spread of the economic relations' globalization processes. International network of electronic communications helps different economic actors at both national and international level in finding partners quicker and responding quickly to the changing conditions. All this contributes to the greater interaction of economic partners, establishment of the trusting and long-term relationships, reduction of the distances and transaction costs and increasing of the economic benefits of such relationships.

In a market economy, especially in the period of its formation and development, as it occurs in the CIS countries, small businesses should be given a defining role in ensuring the sustainable economic development of the state, creation of jobs, replenishment of the state budget and improvement of the population's welfare.

Questions of formation and development of the information society and the economy as a stage of the modern civilization's development that is based on the use of ICTs and the creative work of human, cause the scientific debate among both Ukrainian and foreign scholars. The economists and experts view information economy as a multidimensional phenomenon from different positions. In particular, the works of Y.Bazhal, V.Heyets, S.Zhabin, A.Maslov, V.Skalatsky, L.Fedulova and A.Chukhno are devoted to the development of theory and the analysis of the information society models; the researches of I. Vahovich, B. Grivnak, S. Grinkevitch, A. Zharinova, L. Ischuk, G. Kucherov, T.Lepeyko, O.Mazorenko and S.Pirig highlight the problems of the knowledge economy formation in Ukraine; Ukraine's readiness to accept and integrate ICTs is seen in the works of V.Furashev, D.Lande, O.Furashev, O.Shevchuk, A.Golobutsky; the use of the ICTs in the economy and its individual sectors is studied by such Ukrainian and foreign scholars as G.Anilovska, A.Bakaev, L.Bazhan, O.Volk, V.Guzhva, L.Dubchak, S.Dyatlov, P.Eschenko, L.Kaydan, V.Koshkin, M.Kurkov, A.Rumyantsev, V.Khoroshko, N.Shpak, M.Yatsenko.

However, despite the numerous studies the problems of the information economy formation in the different countries of the world, practical aspects of this problem and the impact of the information technology on the development of certain economic sectors remain insufficiently researched.

The **purpose** of this article is to provide a rationale for the wide use of ICTs by small businesses in the CIS countries for the improvement of their competitiveness, including the competitiveness on the international markets. We would like to show what possibilities and advantages the use of information technology by the small enterprises creates for their development and prove that the massive spread of the small business can be a basis for the formation of the strong and competitive economies in the CIS countries.

In our opinion, great prospects are opened for the small businesses, especially for start-ups, in the knowledge economy. In the modern conditions the newly created small enterprises find it easier to work according to the new principles, it is easier for them to take risks, they can be more flexible and can adapt to the rapidly changing business conditions quicker than the divisions of the powerful multinationals. However, in order to act and react in such a way it is required to have a broad and timely access to the information that modern ICTs can provide.

Under the conditions of the increased competition at both national and international level, companies constantly have to find the ways to make the system of production and its management more efficient. The use of ICTs can significantly help firms in this process due to the improved access to information, knowledge, financial services and other resources. In addition, ICTs can contribute to the improvement of the business environment transparency, which makes the competition conditions closer to perfect.

Thanks to the use of ICTs by the small private enterprises, new opportunities are created for the development of the existing and discovery of the new types and directions of activity, which, in turn, will contribute to the creation of the additional jobs, increase of the tax revenues and improvement of the population well-being. The dynamic functioning of the private sector can facilitate attraction of the foreign investors and expansion of trade relations with other countries that may also help to alleviate and reduce the cost of implementing innovations. In this regard, in many countries it is understood that the full implementation of ICTs in the private sector will help boost its competitiveness.

In the current circumstances, the use of the mobile communications and the Internet greatly increases the prospects of the small enterprises' development in the CIS countries. The modern technology of the broadband access to the Internet (BBA) significantly improves the opportunities of the enterprises to develop forms of e-business

and the sale of goods and services through e-commerce and increases the impact of ICTs by creating additional areas of the business development and contributing to the economic growth of the state [1]. Thanks to e-business, entrepreneurs gain additional opportunities to start their own businesses with minor investments.

However, statistical data shows that despite significant progress in the recent years the access of the small enterprises that belong to the CIS countries' private sector to the broadband (high-speed) Internet is still insufficient. According to the International Bank for Reconstruction and Development (IBRD) [2] that uses an indicator of the number of the fixed broadband Internet subscribers per 100 inhabitants, the best situation among the CIS countries in 2011 was in Belarus, Russia, Azerbaijan and Moldova, where the figure varies from 10 to 22 (Table 1). Meanwhile, in such countries as Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan it was less than 1. For comparison, in the developed countries this indicator ranges from 22.8 in Italy to 39.2 in Switzerland.

As for the number of the Internet users per 100 inhabitants, the leaders among the CIS countries in 2012 were Azerbaijan, Russian Federation and Kazakhstan, where this indicator amounted more than 50 people, being close to the level of the developed countries, such as Greece and Italy (56-58 people). At the same time, in the Nordic countries this figure is 94-96 inhabitants [2]. In most CIS countries, the number of Internet users per 100 inhabitants is in the range of 30 to 40 people, with the smallest number of them in 2012 being in Turkmenistan, Tajikistan and Kyrgyzstan (Table 1).

Table 1. **Indicators of the information infrastructure development in the CIS countries**

Indicators / countries	Number of fixed broadband access to the Internet users (per 100 inhabitants)		Number of fixed broadband access to the Internet users (thousands)		Number of the Internet users (per 100 inhabitants)		Number of mobile subscribers (thousands)	
	2008	2012	2008	2012	2008	2012	2008	2012
Azerbaijan	0,67	13,80	58,7	1283,1	17,4	54,2	73	107
Armenia	0,36	6,64	11,1	197,1	6,2	39,2	47	107
Belarus	4,94	26,56	474,3	2513,6	23,2	46,9	84	112
Kazakhstan	4,22	9,72	661,4	1632,7	11,0	53,3	95	175
Kyrgyzstan	0,36	2,62	19,1	146,3	15,4	21,7	65	125
Moldavia	3,17	11,85	113,2	421,8	23,8	43,4	67	116
Russia	6,48	14,48	9198,4	20783,6	27,1	53,3	139	184
Tajikistan	0,05	0,08	3,3	6,4	8,8	14,5	55	92
Turkmenistan	0,00	0,03	-	1,6	1,8	7,2	23	76
Uzbekistan	0,25	0,72	68,3	214,4	8,9	36,5	46	72
Ukraine	3,48	8,11	1609,8	3697,6	10,9	33,7	121	132

* *Source*: compiled and calculated from the data provided by the IBRD // http://data.worldbank.org/topic/infrastructure/

Indicator of the mobile communications' availability in all CIS countries, except Uzbekistan, Tajikistan and Turkmenistan, is high – more than one mobile phone per each resident, with the figure for Russia being as high as 1.8 [2]. The widespread use of the mobile communications, especially with the possibilities of the Internet access, can be a positive factor for the development of the small businesses and individual entrepreneurs as mobile connection provides quick access to the information and allows responding quickly to the changes in the market environment. Mobile communication also facilitates closer links with the suppliers and customers and increases the effectiveness of the business communications with them, reducing the need for the frequent business trips, consequently reducing the management costs. In addition, thanks to the extension of the mobile applications range (from text messaging to financial transactions) the possibility of providing a variety of related services is increasing for small businesses.

The use of ICTs in the production of goods and services opens up additional opportunities for the businesses to develop and generate innovations that can promote technology upgrade and improvement of the population well-being on the state level.

The implementation of the mobile payment systems is one of the most promising potential opportunities of ICTs use for the development of the small businesses and private entrepreneurship. The aforementioned process will allow them to save money on financial services while these business entities conduct transactions, receive small amounts of money or process microcredits. The more employers will use these systems, the stronger will be the effect of such an implementation, and these employers, in turn, will be more tailored to the needs of the small businesses [1].

The use of the ICTs by the different government agencies will help to reduce the time and cost of business registration and licensing, which is especially important for the small businesses and entrepreneurs. The simplification of the company registration procedures will mean greater transparency of the business environment that also contributes to the solution of a number of the pressing problems for most CIS countries, such as the reduction of the shadow economy, the growth in tax revenues and an increase in legal employment. In addition, a list of e-Government services for the businesses can include the declaration of income and payment of taxes with the use of the Internet, utilities' and other services' payments, an automated system of customs duties and the functioning of the vacancies bank for the potential employees. It should be noted that today e-government in CIS operates only in Russia, Kazakhstan and Belarus, with the works on its creation in Ukraine being performed and scheduled for completion in 2014.

As the data in Table 2 shows, the CIS countries are relative outsiders on the global market for goods and services of the ICTs sector. Moreover, low values are typical not only for the absolute, but also for the relative volumes of both exports and imports.

For example, while the share of ICTs goods in the total world goods' export in 2011 amounted to 10.9%, being 19.2% in the developing countries 19.2% and 6.2% in the developed countries, in the CIS countries this figure was the lowest – only 0.3%. More or less prominent exporters of ICTs goods among the Commonwealth countries are Russia, Ukraine, Belarus and Kazakhstan, but even the export of the leading CIS country – Russia – in 2011 was more than 400 times less than that of China, which holds a leading position in the world export in the ICTs sector. The share of Russia in the global export of such goods in 2011 was only 0.07%. For comparison, in the same period for China it amounted to 28.2%. Accordingly, for the other Commonwealth countries these figures are even worse.

Table 2. **Trade performance of individual countries in the ICTs sector in 2008-2011**

Indicators / countries	2008	2009	2010	2011
Export of the ICTs sector goods (millions USD)				
Belarus	111	85	126	156
Kazakhstan	19	27	-	125
The Russian Federation	784	838	926	1 227
Ukraine	648	438	551	610
World	1 637 683	1 409 546	1 726 578	1 803 017
China	396 424	356 301	459 522	508 012
Hong Kong (China)	151 599	141 881	176 964	193 528
Taiwan (China)	75 487	67 054	94 702	105 765
USA	138 001	113 157	134 549	140 568
Singapore	117 154	91 442	120 806	118 391
Import of the ICTs sector goods (millions USD)				
Belarus	794	530	853	781
Kazakhstan	738	829	-	2 183
The Russian Federation	20 810	12 435	19 526	21 906
Ukraine	1 628	993	1 940	2 136
World	1757764	1 506 040	1 876 486	1 947 221
China	239 961	220 214	284 783	313 798
Hong Kong (China)	156 527	149 537	188 736	206 446
Taiwan (China)	256 235	230 627	280 074	290 565
USA	94 718	78 522	97 728	100 187
Singapore	73 841	62 726	83 132	86 724
The share of ICTs goods in total exports (%)				
World	10,54	11,63	11,78	10,94
Developing countries	17,43	19,42	19,54	19,24
CIS countries	0,23	0,33	0,29	0,30
Developed countries	6,91	7,08	6,91	6,15
Export of the ICTs sector services **(millions USD)**				
Belarus	298	307	385	450
Moldavia	112	114	133	148
The Russian Federation	2 950	2 472	2 538	2 970
Ukraine	597	777	947	1 275
World	297 496	287 211	310 117	351 662
USA	23 421	23 761	25 090	28 301
Germany	20 714	19 491	21 714	24 040
United Kingdom	21 686	21 185	21 759	23 991
China	7 822	7 710	10 476	13 863

Note: "-" – denotes the absence of data.

* *Source:* compiled and calculated from the data provided by UNCTAD // http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx/

It should be noted that the CIS countries import much more ICTs goods than they export, which, incidentally, is also characteristic of most developed countries, but the volume of such import by the Commonwealth countries is ten times (for Russia) and one hundred times (for the other CIS countries) less than that of the leading countries of the world ICTs sector market. Again, the share of Russian import, which ranks first among the CIS countries, amounted to only 1.1% of the world ICTs sector production import in 2011, and the largest volume of ICTs goods' import came to China, amounting to 16% of the global import in this commodity group.

As for the export of ICTs services by the CIS countries, the situation is somewhat better than the export of goods of this group, but we still have to note a low level of competitiveness of the Commonwealth countries in the world market of ICTs services, as evidenced by both absolute and relative performance. Leading positions among the CIS countries in the export of ICTs services are held by almost the same countries as in the export of this sector's goods – Russia, Ukraine, Belarus and Moldavia. However, even the largest volume of such exports, reached by Russia in 2011, was 9.5 times less than the volume of the ICTs services sold on the world market by the U.S. – the leading country in this segment. The share of exports of Russia and Ukraine in the world ICTs services export in 2011 amounted to only 0.8% and 0.36% respectively.

In this regard, it should be noted that Russia, Ukraine and Belarus, at least, have the sufficient potential for increasing the volume of the ICTs services export. In Ukraine, for example, domestic providers of this kind of services have traditionally been more oriented to the external customers than to the domestic market. In 2010, Ukrainian export of ICTs services reached 947 million USD [3], while ICTs services' volume in the corporate sector of the domestic market amounted to only 189 million USD [4]. Even with taking into account the provision of such services to the private users, their export exceeds the amount of consumption in the domestic market by 2-2.5 times, that, on the one hand, demonstrates the competitiveness of the domestic ICTs services in the world market, and, on the other, a lack of demand for these services from the domestic private entities. According to the international consulting agency IDC, the market development of ICTs services in Ukraine is constrained by the insufficient qualification of both customers and services' providers, a high share of the shadow economy and the dominance of corruption in both public and private sectors [4]. Experts also point out the imbalance in the consumption structure on the ICTs services market: in Ukraine more than half of such services are provided to the financial institutions and communication services, while in Eastern Europe this indicator does not exceed 40%, amounting to 34% in Russia. These facts show a lack of proper attention to the information technol-

ogy from the industrial private companies and the low level of its use, which, in turn, open up opportunities for the domestic companies supplying ICTs services to expand the domestic demand for these services and realize the existing potential in this area. In addition, the increase of the competitiveness of the companies providing ICTs services in the internal market can also contribute to the expansion of their export activities.

However, the conducted statistical analysis shows the lack of competitiveness of the ICTs sector goods and services, produced in the CIS countries, and the lack of attention to the development of this sector in the aforementioned countries at the state level.

Conclusions. As a result of the conducted research, we can identify the following:

– opportunities that are created for the small businesses due to the use of ICTs, i.e. the decrease in investments required to start a business, reduction of the time and cost of business registration thanks to the functioning of the e-Government, the increase of the sales volumes through the use of the e-commerce channels, the opening of the new kinds and directions of activity not only on the domestic, but also on the foreign markets, the increase of the production and efficiency of the production management system through the reduction of the operating and transaction costs, cheapening of the financial and credit operations based on the use of the mobile payment systems and an increase in production and sales of goods and services in the ICTs sector itself through the stimulation of the domestic demand and the realization of the export potential;

– benefits that the widespread introduction of ICTs creates for the small businesses: greater flexibility and mobility, opportunities to risk without the significant losses and better adaptability to the rapidly changing conditions compared to the large enterprises and corporations;

– benefits for the state, in which the small businesses are actively developing with the use of ICTs: growth in employment (including self-employment) and tax revenues, reduction in payments to the unemployed, creation of the innovations on the basis of growth in demand for products and services of the ICTs sector, improvement of the investment climate in the country through the strengthening of the ICTs infrastructure, the development of the trade and investment relations with the other countries, the reduction of the shadow economy sector and the level of corruption facilitated by the simplification of the procedures of starting and running a business and the use of the e-Government facilities.

However, along with the highlighted advantages, certain problems significantly inhibit the large-scale use of ICTs by the small businesses in the CIS countries, e.g. the lack of the population's access to the Internet, underdevelopment of the information infrastructure, the absence of the legal framework for the development of e-commerce in most of the analyzed countries, the high cost of the mobile applications, absence of the e-Government in most CIS countries and a substantial lagging of the national exporters of goods and services in the ICTs sector compared to the global market leaders in terms of sales and the market share. The possibilities of overcoming these problems, as well as the role of the state in the process of stimulating the development and implementation of information and communication technologies, can open perspectives for further research in this area.

References:

1. Information Economy Report 2011. ICTs as an Enabler for Private Sector Development / UNCTAD. [On-line] – Access at: http://www.unctad.org/en/docs/ier2011_en.pdf/

2. Infrastructure / Data of the World Bank. [On-line] – Access at: http://data.worldbank.org/topic/infrastructure/

3. Information and communication technology / Data of the UNCTAD. [On-line] – Access at: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx/

4. IDC: in 2010 the Ukrainian IT services market rose only by 2.4%. / 04.08.2011. [On-line] – Access at: http://www.pcweek.ua/themes/detail.php?ID=133897/

Надійшла до редакції 16.10.13

О. Кузьома, канд. екон. наук, доц.
КНУ імені Тараса Шевченка, Київ

ВПРОВАДЖЕННЯ ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНИХ ТЕХНОЛОГІЙ МАЛИМИ ПІДПРИЄМСТВАМИ КРАЇН СНД ЯК ФАКТОР ЗРОСТАННЯ ЇХНЬОЇ КОНКУРЕНТОСПРОМОЖНОСТІ

Визначено, що міжнародна мережа електронних комунікацій допомагає різним економічним суб'єктам швидше знаходити партнерів, оперативніше реагувати на мінливі умови, зменшує відстані і трансакційні витрати між партнерами, підвищує економічну вигоду їх взаємовідносин. Обґрунтовано, що широке впровадження інформаційно-комунікаційних технологій в країнах СНД може сприяти збільшенню кількості малих підприємств і приватних підприємницьких структур, а також посиленню їхніх конкурентних позицій як на внутрішньому, так і на зовнішніх ринках. Доведено, що використання ІКТ може сприяти підвищенню ефективності системи виробництва і управління компаній завдяки розширенню їхнього доступу до інформації, знань, фінансових послуг та інших ресурсів. Завдяки використанню ІКТ для малих приватних підприємств створюються нові можливості розвитку існуючих і відкриття нових видів і напрямків діяльності, що, у свою чергу, сприятиме створенню додаткових робочих місць, збільшенню податкових надходжень і зростанню добробуту населення. Динамічне функціонування приватного сектора може сприяти залученню іноземних інвесторів, розширенню торговельних відносин з іншими країнами, що також може сприяти полегшенню і здешевленню впровадження інновацій. Обґрунтовано, що поширення інформаційних технологій, особливо в країнах СНД, потребує державної підтримки, в першу чергу, з розвитку інформаційної інфраструктури та адаптації законодавства до умов інформаційної економіки.

Ключові слова: інформаційно-комунікаційні технології (ІКТ); конкурентоспроможність; малі підприємства; інформаційна інфраструктура; експорт / імпорт ІКТ-товарів і послуг.

Е. Кузёма, канд. экон. наук, доц.
КНУ имени Тараса Шевченко, Киев

ВНЕДРЕНИЕ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ МАЛЫМИ ПРЕДПРИЯТИЯМИ СТРАН СНГ КАК ФАКТОР РОСТА ИХ КОНКУРЕНТОСПОСОБНОСТИ

Определено, что международная сеть электронных коммуникаций помогает различным экономическим субъектам быстрее находить партнеров, оперативнее реагировать на изменяющиеся условия, уменьшает расстояния и транзакционные издержки между партнерами, повышает экономическую выгоду их взаимоотношений. Обосновано, что широкое внедрение информационно-коммуникационных технологий в странах СНГ может способствовать увеличению количества малых предприятий и частных предпринимательских структур, а также укреплению их конкурентных позиций как на внутреннем, так и на внешних рынках. Доказано, что использование ИКТ может способствовать повышению эффективности системы производства и управления компаний благодаря расширению их доступа к информации, знаниям, финансовым услугам и другим ресурсам. Благодаря использованию ИКТ для малых частных предприятий создаются новые возможности развития существующих и открытия новых видов и направлений деятельности, что, в свою очередь, будет способствовать созданию дополнительных рабочих мест, увеличению налоговых поступлений и повышению благосостояния населения. Динамическое функционирование частного сектора может способствовать привлечению иностранных инвесторов, расширению торговых отношений с другими странами, что также может способствовать облегчению и удешевлению внедрения инноваций. Обосновано, что распространение информационных технологий, особенно в странах СНГ, нуждается в государственной поддержке, в первую очередь, по развитию информационной инфраструктуры и адаптации законодательства к условиям информационной экономики.

Ключевые слова: информационно-коммуникационные технологии (ИКТ); конкурентоспособность; малые предприятия; информационная инфраструктура; экспорт/импорт ИКТ-товаров и услуг.

UDK 337.7
JEL G20

O. Liubkina, PhD in Economics, Associate Professor,
M. Borovikova, PhD in Economics, Assistant of Professor
Taras Shevchenko National University of Kyiv, Kyiv

IMBALANCES IN THE FINANCIAL SYSTEM OF UKRAINE AND THEIR TRANSMISSION TO THE SYSTEMATIC RISKS IN THE MONETARY STABILITY

The article examines the current state and major imbalances in the financial market of Ukraine, which are the source of risk to the national economy and can significantly affect the monetary stability during the post-crisis period and the period of recession. Threats that are associated with peculiarities of the institutional structure of the financial market of Ukraine are analyzed, namely, on the one hand, the importance of banking institutions, and on the other – functional inadequacy of the banking systems in ensuring monetary and financial stability. The analysis shows that the weaknesses of the banking system have led to the accumulation of risks and structural misbalances in the Ukrainian economy which pose a danger to stability in the financial sector. Conclusions and measures are substantiated for the use of tools of monetary policy in order to strengthen monetary and financial stability. Among them are: the necessity of changes in the methodological tools of assessment of the financial stability and accumulation of systemic risk in the economy, measures to manage the inflation risk as the main internal risk for Ukraine, ways of enhancement of interaction between the banking system and the national economy through the interest rate benchmark.

Keywords: financial market, monetary stability, banking system, credit boom, financial institutions, systematic risk.

In recent decades the expansion of financial intermediation and, consequently, increase of the impact of financial institutions on the economy has been taking place. This influence can be either stimulating and guiding nor suppressing and devastating. Therefore theoretical basis as the rationale of the financial system features becomes especially significant which serve to economic interests of the society in the financial sector.

Institutionally financial system is represented by a set of agents that perform a number of wide functions (transformation, money creation and control of money supply, intermediary in payments, etc.) and specific functions (e.g. act as backbone institutions whose activities affect the stability of the financial system and determine the financial safety). In practice, these functions are difficult to clearly delineate. Effective performance of the financial system is provided by the existence of certain qualities and necessary structural organization. At the same time, these characteristics are not internally inherent for the financial institutions, they are provided through the development of the legal framework in which a certain power, authority and mission of different financial institutions is specified. In this form the state creates the conditions for financial institutions for effective financial intermediation and risk management. However, the creation of such conditions should be done on mutually beneficial basis and have predictable consequences. It is expected that financial intermediaries with sufficient potential in the detection and removal of threats to financial stability will act on the financial market in the interests of society and the state. The nature and form of the financial system participation to ensure the financial stability have begun to be perceived by the society in Ukrainejust recently. It is important to find the right incentives for financial institutions to maintain financial stability, even if sometimes it is contrary to commercial interests. At the same time, it is necessary to develop the society trust in the ability of financial institutions to influence financial stability in the country, to develop the quality requirements to the financial system in the context of financial stability. These measures will help to establish an efficient system to protect the economy of Ukraine from the domestic and external shocks.

Studies of parameters that determine the ability of the financial system to perform assigned functions were deployed in the study of the phenomenon of financial stability. The most significant contribution to the study of these problems did Bernanke B., H. Shinazi, J. Stiglitz and F. Mishkin. Research on the impact of financial institutions on the financial stability is carried out on a regular basis by the specialists of domestic institutions that act as regulators in different countries, including the ECB, Bank of England, the Bank of the Netherlands, the Bundesbank, the U.S. Federal Reserve System, the leading international organizations, including the IMF, the Bank for International Settlements, institutions of WB.

The relevance of this problem becomes more complicated in the case of indefinite relations between elements of the financial system, which is typical case for countries with developing economies.

Thus, the **aim** of this article is to identify and summarize the problems and risks in financial markets that form negative trends in the economy of Ukraine, particularly in the monetary area.

Features of the economy of Ukraine after the crisis 2008.

The escalation of the crisis 2008 in Ukraine showed that the financial system can be a conductor of global financial risks into the economy, even if it does not experience the problems that triggered the global financial crisis in developed countries.

Economy of Ukraine can be characterized as a small and open by international standards. Such kind of economy is vulnerable to some of the internal and external factors that have global or national influence and are challenges for the financial system to preserve financial stability.

The openness of the economy is used to be evaluated in two vectors: trade openness and financial openness. The first one shows level of participation of the country in world trade (measured as the ratio of imports and exports to GDP), the second one estimates the degree of the involvement of national financial markets to global financial flows (measured as the ratio of foreign assets and liabilities to GDP). Figures 1 and 2 show the dynamics of financial and trade openness for a group of countries during 2000-2008. As shown in the figure Ukraine had shown strong growth of financial openness since 2005 in comparison to other countries with emerging market. However, trade openness of Ukraine for a long period had remained roughly unchanged. This indicates the increase of the vulnerability of the Ukrainian economy from fluctuations in the financial markets mainly(Ministry of Economic Development and Trade of Ukraine, 2012); (Liubkina O., 2012).

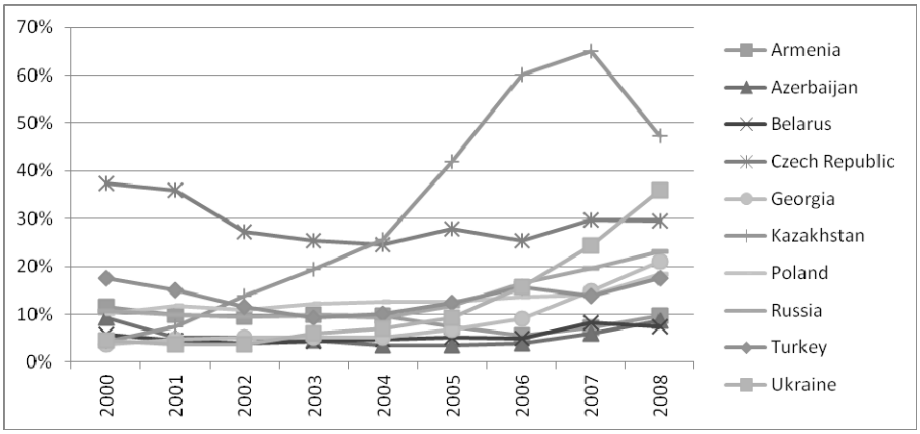


Fig. 1. Financial openness of the selected countries with emerging market (International Monetary Fund, 2012)

* *Source:* [4].

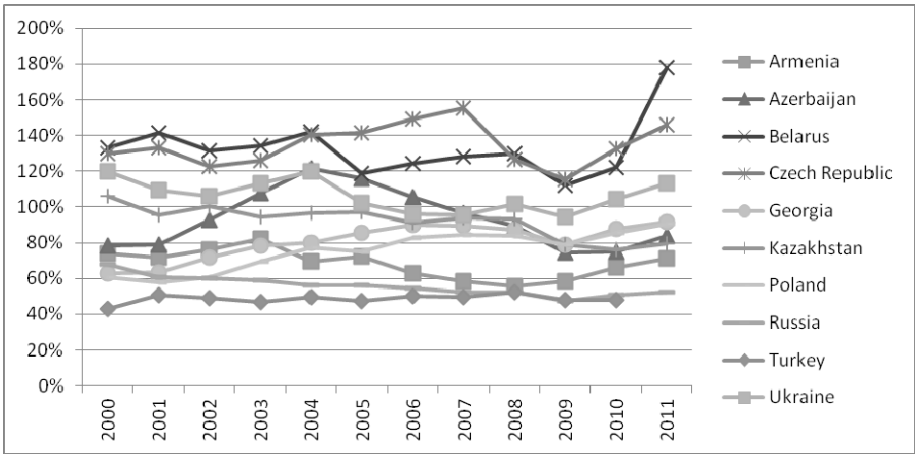


Fig. 2. Trade openness of the selected countries with emerging market (International Monetary Fund, 2012)

* *Source:* [4].

The World Bank has developed criteria for the division of national economies into groups according to the level of gross national income per capita: low income (less than US$ 995), with income below average (US$ 996 – 3945), with income above the average (US$ 3,946 – 12,195) and high income (over US$ 12,196) (World Bank Group, 2012). Following this classification the economy of Ukraine refers to a class of economies with income below average: gross national income per capita as of 2009 was $ 2800.

These parameters specify the level of economic damage from the global financial crisis. Firstly, the impact was significant due to the changes in world trade. Because of the decline in real GDP, and hence drop in demand in most countries and primarily in developed ones, exports and imports decreased both in separate countries and in the world as a whole (and not only in money terms due to the fall in prices, but also in volume). This affected the volume of foreign trade of Ukraine, there were changes in the structure of bilateral trade, the role of import-export operations with energy suppliers including Russia increased. This was due to dependence of Ukraine on energy imports, as well as the relatively low competitiveness of Ukrainian products on foreign markets. Reduced demand for Ukrainian export, while the rising cost of energy supply contracts were powerful drivers of growth of corporate debt, mainly export-oriented corporations, which by nature of its products are key consumers of energy (National Bank of Ukraine, 2012).

This was a challenge for the banking system to meet the needs of strategically important clients in lending in the general trend of accumulation of corporate debt private sector.

Another powerful channel of influence on the economy of Ukraine was the decline in external financing. Restricting access of banks to external sources of financial capital, reduced volumes of foreign financing because of the global crisis together with the fading of economic activity within the country and the mass withdrawal of savings from the banking system worsened significantly the ability of banks to properly serve their liabilities.

Accordingly some of banks went bankrupt and for most of them the risk of bankruptcy became very probable. At this time, rose the number of requests of commercial banks for urgent refinancing to the National Bank of Ukraine (NBU).

High vulnerability of domestic financial system has also been linked to a lack of experience in the successful implementation of anti-crisis programs in the financial markets, the lack of a single, comprehensive government policy for maintaining financial stability.

Thus, the external risks influenced Ukraine through trade and financial channels that connected the economy with the rest of the world, and all of them directly or indirectly were related to the financial institutions and to the banking sector the most.

Banking as the determinant part of financial system of Ukraine

Banking sector is the largest component of the financial system of Ukraine and covers more than 70% of the total assets of the financial market, that is why its contribution to the formation of financial stability is the most important.

Key characteristics of the banking system of Ukraine are in general consistent with the characteristics of the banking systems of other countries with emerging markets.

In particular, the industrial structure of loan portfolio is characterized by a focus on industries with high demand on credits and solvency of companies. The largest concentration of loans is in trade, manufacturing and real estate – 9%, 6% and 4%, respectively. Most loans in foreign currency are obtained by manufacturing, transport and communication and construction industries (55%, 42% and 38% of the volume of loans in the sector respectively). The largest share of income banks receive through interest margin, which is a typical practice for countries with emerging markets (Batkovskyi V., 2009).

There are also significant regional imbalances of banks' activity (Figure 3). Most banking institutions are concentrated in developed industrial regions – in the metropolitan area is concentrated 63% of the total number of banking institutions, in four industrial regions – almost 24%, ten regions do not have any existing bank (no bank is registered in region, only branches).

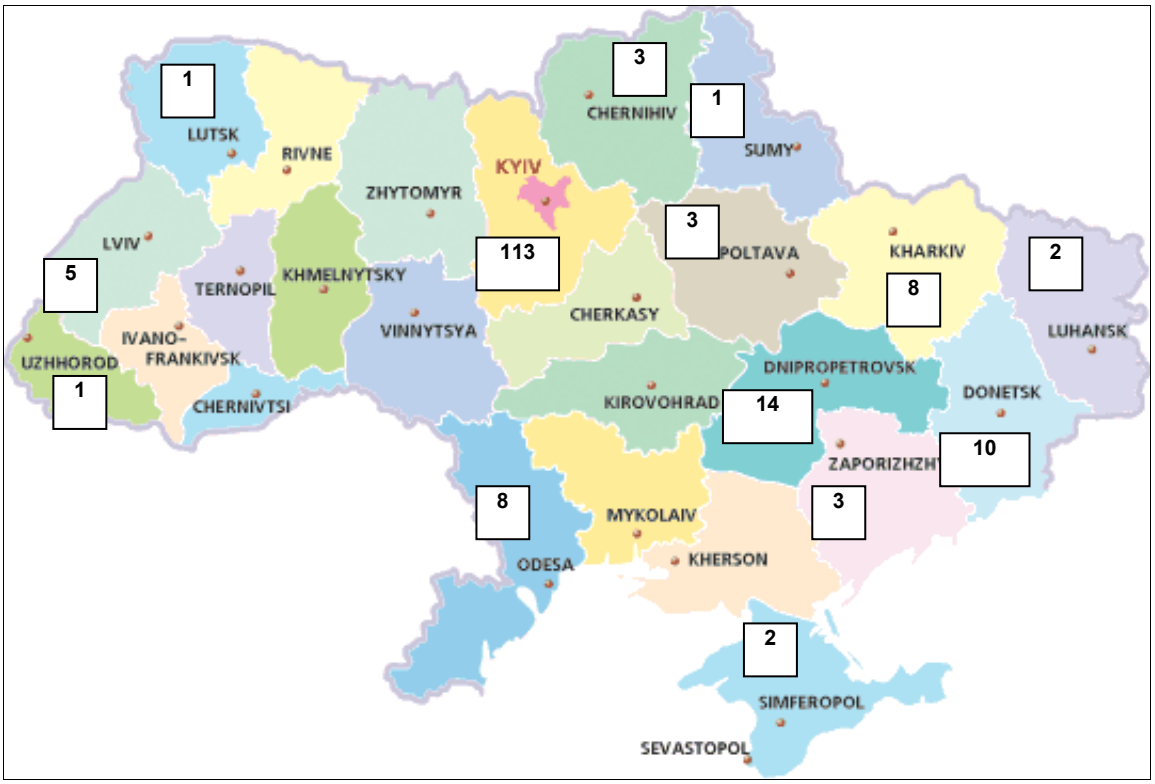


Fig. 3. Concentration of banks by regions of Ukraine, as of March 2012 (National Bank of Ukraine, 2011)

Source: [13].

The reason for such disproportion is the comparatively greater demand from administrative centers and industrialized regions of banking services and a high concentration of businesses. At the same time banks deliberately avoid additional risk in regions with agricultural specialization. This this is the main reason why agricultural regions are inferior to industrially developed regions in the use of banking services – high financial risks, particularly from bad harvests, fluctuations in agricultural prices, profits depending on the price of fuel and gas, planting materials, government subsidies, etc. However, given the recent global and regional trends in the economy, the agricultural sector in Ukraine is increasingly highlighted as a promising sector. The competitive advantages of agriculture in Ukraine are: climate and large areas of farmland, vertical integration and weak competition, entrepreneurial approach based on management, low level of debt, accumulated liquidity, high demand in the domestic market and export potential, government support and more. Given the significant growth potential of the agricultural sector, in the nearest time it is likely to expect changes in the sector orientation of the banking system of Ukraine.

The credit boom as the driving force to the financial crisis.

The growing interest of banks in profit by expanding lending activity together with a high demand for financing creates additional risks for banks which can turn into a systemic risk. Thus, the dynamic development of the banking sector and expansion of credit activity in transition economies are often accompanied by a credit boom phenomenon – the rapid growth in lending.

The credit boom was also observed in Ukraine before the 2008 crisis. Since 2000, the real growth rate was on average 45.9p.p. per year, reaching a peak of 60% in November 2003, and decelerating to 55.2% in the end of 2004 (National Bank of Ukraine, 2010). This revival of lending had ambivalent nature considering the consequences for the economy of Ukraine. On the one hand credit boom created the conditions for the expansion of reproductive processes, on the other – was the main source of risks to financial stability.

Research of western economists shows that the periods of abnormal credit growth (from 20% to 60% of GDP and more) come before the banking crisis with 20% probability (IMF, 2005). In Ukraine this trend was confirmed since 4 years before the 2008 crisis, the ratio of loans to GDP in the banking system of Ukraine amounted to almost 24%. A similar value was observed three years before the 1994 crisis in Mexico and four years before the 1997 crisis in the Philippines.

In Ukraine, the formation of the threats from the credit boom was caused by the following factors:

• reduced quality of credit risk assessment because of the large number of loans;

• underestimation of credit risk because the estimation was based on the current state of the economy and sustainable growth of the collateral value in the future;

• facts of refinancing of existing obligations with the new loans;

• deterioration of the quality of loan portfolios of banks.

During the credit boom there were facts of negative figures of real interest rates on loans. For example, in 2007 and 2008 the average interest rate of commercial banks in relation to inflation was -3.1% and -6.3% respectively. This is compelling evidence that the banks actually provided loans at a loss, probably because of greater interest in expanding the number of borrowers that subsequently promised greater profits from their service.

Credit growth without adequate supervision policy on credit risks actually increased the destructive potential of the crisis, as provoked accumulation of huge volumes of debt in the banking system, which subsequently stopped to be properly maintained. Boundary figures of the growth of credit volumes can be determined from the historical data and information about their impact on economic dynamics across countries. The figure shows the maximum rate of bank retail lending which was in the years 2002-2009 in selected countries (Figure 4). The year when there were such maximum rate of loans are specified in parentheses next to the country. In all these countries after the credit boom there was observed the sharp drop in lending, which was associated with either the following factors:

1) reduction or external financing (Ukraine, Belarus, Georgia, Azerbaijan) in 2008;

2) slowdown of economic growth because of the decrease in exports (Turkey, Kazakhstan).

Thus, after 2005 Turkey lost its competitive position in the market of the textile industry in East Asia, which affected the rate of lending and the trade deficit of the country increased dramatically. In Kazakhstan the impact of the global crisis became noticeable earlier than in other countries of Eastern Europe – in 2007 the economy of the country went into recession due to slump in prices on oil, which occupied 90% in the share of exports on the country. Further reduction in the rate of lending in Turkey and Kazakhstan has been associated with the crisis in 2008, the effects of which have been increased by the accumulated foreign debts of banks and the risks that have been accumulated in the banking system during the credit boom.

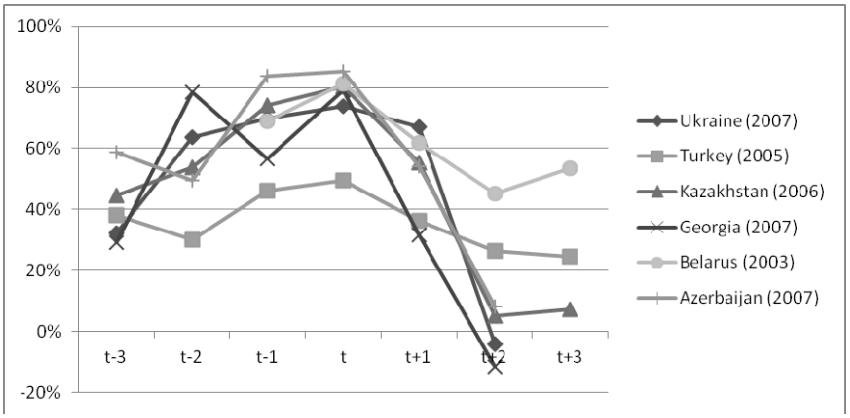


Fig. 4. Dynamics of lending during the credit boom in 2002-2009

* *Source:* [5].

Thus, the rates of lending in the range from 50% to 80% are critical considering the financial safety of the country. After such cases of credit boom a sharp slowdown in lending and a crisis is likely to take place in the economy over the next two to three years. Such wide gap in lending rates range is associated with features of the economy, the structure of lending and ability of national regulators to take the necessary measures for risk management during credit boom.

Impact of financial institutions on the monetary system of Ukraine. Influence of financial institutions and, in particular, banks on the financial stability is caused through the both direct and indirect channels. Thus, from our point of view it is not so important the channels of influence themselves but the potential possibility of different indicators of financial institutions affect the achievement of the crucial parameters that determine the standing of financial system.

Influence of financial institutions on the stability of money market is determined with the measures in response to the economic challenges, the main of which is inflation. The consumer price index (CPI) form components such as core and headline inflation, while core inflation (which share in the structure of the CPI is 54.6%) determines the change in prices of food products with a high degree of processing, consumer goods and services that are not regulated by administration. Headline inflation (whose share in the structure of the CPI is 45.4%) is composed with raw foods (their share in headline inflation – 28.1%), administrative goods and services (15.7%), fuel (1.6%). Along with this, situation in the money market affects directly the narrow core inflation which is defined as the change in prices of non-food products except fuel (as an indicator of imported inflation) and its share in core inflation is 17%. In September 2010, the narrow core inflation increase by 0.5p.p. (0.2p.p. is its contribution to the change in the core CPI) was associated with a weakening of the nominal effective exchange rate and strengthening the euro on world markets.

Under such conditions, there exists indirect impact of banks on the structure of the CPI: by establishing the level of consumers' solvency (interest rate policy on loans and deposits for households), changes in production costs (the cost of loans to producers), or a change in purchasing power of the national currency (the influence of exchange rate changes on prices of imported goods) and inflation expectations (including trust in the banking system and the national currency) (Batkovskyi V., 2009).

In addition, it should be noted that the critical level of inflation is also a controversial issue. One of the recommendations of the IMF to Ukraine is to reduce inflation to level less than 10%. In particular, European Central Bank has set a benchmark for inflation at 2% for the Eurozone countries. In the methods of calculating the level of economic safety there is defined 7% limit for this indicator.

Meanwhile, inflation is the target figure and is determined annually in the budget law, the responsibility for compliance with the target is on the government, and the competence of the central bank is to promote price stability. Therefore, to streamline the ability of banks to influence the price dynamics the permissible boundaries of inflation rate deviation from benchmark, that is customary, for example, in the UK (Prasad E., 2003).

The most obvious demonstration of the role of banking system in the stability of money market is the ability to influence the sizes of the monetary aggregates (Figure 5).

As seen in the figure, reducing the level of monetization made it possible to influence on inflation, which was received in inheritance after the 2008 crisis. Along with this is the influence on the inflation is rather strategic than operational measure because the reduction of monetization in practice is a long process, which negatively affects economic activity.

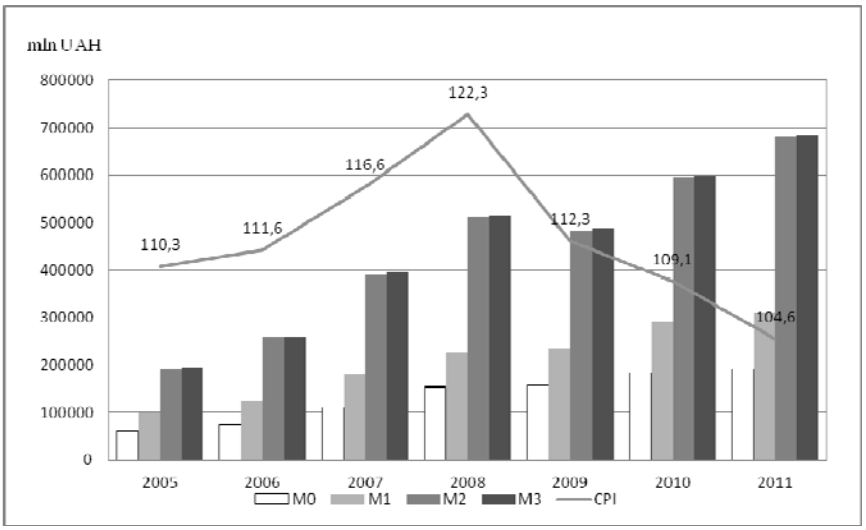


Fig. 5. Dynamics of monetary aggregates and inflation

Source: [13].

Over the past five years in circulation has been accumulated a huge amount of cash, an indicator of cash 4 times higher than the recommended amount during all five years. Overall, the growing demand for cash is evidence of mistrust of economic players to the financial system and expanding shadow sector of economy (World Bank and International Financial Corporation, 2012). It is also a evidence of the undeveloped banking sector, which is not able to absorb cash by offering adequate and convenient non-cash forms of payment and savings accounts.

Specifically, in 2009 the Ministry of Economy estimated that the share of the shadow economy had increased by up to 35p.p. of official GDP. In absolute value this is almost US$40 billion of GDP, which was created in the shadow sector. During the crisis, the level of shadowing in general has risen by 10p.p. to a maximum of 39%. According to the independent research the overall size of the shadow economy in 2009 including criminal element is estimated at 45-47%, most of which is presented by the domestic business (Ministry of Economic Development and Trade of Ukraine, 2010).

Current trend in the development of the monetary system of Ukraine is the spread of quasi-money. The trend in the growth of monetization observed in all emerging market economies; monetization rate exceeds 50% and above, particularly in the Czech Republic it reached the level of 75% in 2009 (Table 1). Thus, in 2009, in Ukraine the ratio of monetary aggregate M3 to GDP was similar to the level of monetization in Poland and Turkey.

Table 1. **Level of monetization of the selected countries**

Country	2005	2006	2007	2008	2009
Eurozone	88%	91%	96%	102%	105%
Czech Republic	61%	64%	67%	73%	75%
Brazil	54%	58%	61%	64%	70%
Poland	43%	47%	48%	52%	54%
Turkey	40%	42%	44%	48%	54%
Ukraine	44%	48%	55%	54%	53%
Kazakhstan	27%	36%	37%	38%	48%
Belarus	19%	22%	24%	24%	29%
Georgia	16%	20%	24%	23%	26%
Azerbaijan	15%	16%	21%	21%	24%

Evaluation of this trend is unambiguous: in the case of an innovative investment model of growth monetization helps to increase production, and in case of the excess of the rate of monetary growth – contributes price stability. In general, it should be noted that the growth of the velocity of money circulation and the amount of "broad" money by expanding the range of financial instruments reflects the objective trends of money circulation – the introduction of new technologies in the field of payments, issuance of new payment instruments, expansion of electronic payments and more.

Interest rate channel is traditionally considered the main channel of Central Bank influence. Changes in interest rates effects the total cost and demand on capital, stimulates or restrains capital flow between different segments of the financial market which results in affecting the dynamics of macroeconomic indicators. One feature of monetary market of Ukraine is the lack of interest rate benchmarks, which complicates the process of assessing ongoing operations, minimizes the volume of operations, significantly increasing insurance premiums on risks which accordingly slow down the markets growth. Establishment of interest rate benchmarks prevents the imbalances of money market. Thus, 80% of the total money turnover occurs with overnight tools. About 90% of the turnover in the money market relates to transactions that are initiated by customers of banks and relatively small volume of transactions carried out by the decisions of the banks. The stan-

dard practice is to use tools of Central banks refinancing at rates significantly higher than rates in the money markets.

The absence of interest rate benchmark affects negatively the measures of influence on price stability because interest rates fluctuations become more uncertain. So currently an unofficial compromise is found – exchange rate flexibility is limited and interest rates are changed considering the price dynamics and the needs of the economy in cheap financing which is necessary to stimulate economic activity (National Institute of Strategic Research, 2011).

During the crisis, the National Bank of Ukraine has been keeping the discount rate at an acceptable level. In April, 2008 discount rate was increased by 2p.p. to 12%. Last time the discount rate has been reduced by 1p.p. to 11% in June 2009. This policy has had some positive effects: allowed to restrain the capital outflow from the country and curbed inflationary expectations.

Conclusions and recommendations

Quantitative and qualitative parameters of the economy of Ukraine determine special role and importance of financial institutions to ensure financial stability. The analysis of quantitative and qualitative figures of financial system of Ukraine shows that the structural and organizational weaknesses of the banking system led to the accumulation of risks and structural inconsistencies in the economy of Ukraine. Identified imbalances in Ukraine's banking system pose a real danger to the maintenance of stability in the financial sector and increase threat due to external and internal factors.

The analysis of credit activity of banks in Ukraine gives reason to argue that not only regional but also sector imbalances influence the economy of the country. Over 60% of deposit institutions are concentrated in Kiev and Kiev region, objectively resulting in greater demand for banking services and a high concentration of businesses, and attempting to avoid additional risk in regions with agricultural specialization.

Given the results of the analysis of the channels of influence of lending activities on the accumulation of systemic risk in the economy, the following changes in the methodological tools of assessment of the financial stability are appropriate:

1) setting the limit for the volume of lending of real sector at 40% (% of GDP), which corresponds to a positive economic dynamics of the country, observed since 2010;

2) new indicator introduction – the share of overdue loans to volumes of lending to real economy (%) with a limit no more than 17%. Selection of such limit is based on empirical studies of growth of rate of lending activity during the crisis that occurred in the world during the 1977-2003.

One of the key internal risks for Ukraine is the inflation risk. Thus, national feature is distrust of the national population and business to inflation figures that are presented by official statistics and work as quantitative "beacon" for politics. Inflation expectations which determine essentially the level of current inflation and its projected level are mainly influenced by the dynamics of the exchange rate. Practically it is the exchange rate is an anchor in inflation expectations for the population.

Analysis of the structure and dynamics of the components of inflation in Ukraine indicates a slight weight of monetary factors in the growth of the CPI.

Research of interaction between the banking system and the national economy through the interest rate channel reveals the lack of interest rate benchmarks in Ukraine through money market imbalances.

Contradictory influence of different factors leads to distortions in the instrument of financial policy. To solve this complex problem, integrated financial regulation needs to be introduced, such as:

1) the introduction of the format of two separate regulatory and supervisory authorities (model "twin peaks") – financial supervisory service in the organizational structure of the NBU and the separate regulator of the financial market;

2) the expansion of the mandate of the central bank through a combination of monetary and financial stability objectives, which is enshrined directly in national legislation;

3) the implementation of financial stability policy not only in times of crisis, but continuously; expanding the range of preventive tools to promote financial stability;

4) ensuring full independence of the central bank when developing monetary policy;

5) the introduction of inflation targeting, which based on modern approaches – the inflation target should be higher, so there was room for a maneuver to reduce the interest rate during the crisis;

6) "flexible targeting" of inflation (inflation rate is enlarged the target level not immediately, but gradually, assuming fluctuations in consumer prices, if inflation expectations are remained unchanged);

7) enhancement of analytical and predictive abilities of the NBU to identify objectively the influence of monetary policy on the economy;

8) development of communications system for the mutual exchange of information with other public authorities, businesses, population to contribute a better understanding of the measures of the central bank to achieve the inflation target, improve the quality of forecasts of inflation expectations, strengthen confidence in the financial system.

References

1. Batkovskyi V. (2009). Restructuring of the banking system of Ukraine in the context of the strategy to overcome the consequences of global financial crisis. Journal of Taras Shevchenko National University of Kyiv, 112: 39–43.

2. Batkovskyi V. (2009).The safety of monetary system and the mechanism to overcome threats for its development. Journal of Taras Shevchenko National University of Kyiv, 111: 37–41.

3. IMF. (2005). Ukraine: Selected Issues. IMF Country Report, 05/20.

4. International Monetary Fund. (2012). Financial Soudness Indicator (FSIs). Available from the Internet: http://fsi.imf.org

5. Liubkina O., Borovikova M. (2012). Problems and prospects of the development of Ukraine stock market in the context of financial liberalization and integration process. International Scientific Conference "Whither Our Economies". October 15-16, 2012. Proceedings:111-118.Available from the Internet: http://woe.mruni.eu/wp-content/uploads/2012/06/Conference-Proceedings1.pdf

6. Liutyi I. (2011) Bank ing Institutions in the Conditions of Globalization of Financial Services Market. 357 p.

7. Masashi Saito. (2010).Financial Integration and Economic Growth: An Empirical Analysis Using International Panel Data from 1974-2007.Available from the Internet:http://www.bis.org/repofficepubl/arpresearch201003.13.pdf

8. Ministry of Economic Development and Trade of Ukraine. (2012). Basic Indicators of Economic and Social Development of Ukraine. Available from the Internet:http://www.me.gov.ua/control/uk/publish/printable_article?art_id=38501.

9. Ministry of Economic Development and Trade of Ukraine. Available from the Internet: http://www.me.gov.ua

10. National Bank of Ukraine. (2011). Bulleting of the National Bank of Ukraine, №01/2011: 56-59.

11. National Bank of Ukraine. (2012). Balance of Payments and External Debt of Ukraine. Available from the Internet:http://www.bank.gov.ua/doccatalog/document?id=118305.

12. National Bank of Ukraine. (2012). Bulleting of the National Bank of Ukraine. Available from the Internet: http://www.bank.gov.ua/control/uk/publish/category?cat_id=58127 13. NationalInstituteof StrategicResearch. (2011). Post-crisis Development ofUkrainian Economy: Modernization Strategy. Available from the Internet:http://www.niss.gov.ua/public/File/2012_nauk_an_rozrobku/postkryz_moder_new.pdf.

14. Prasad E., Rogoff K., Wei S, Kose A. (2003). Effects of Financial Globalization on Developing Countries: Some Empirical Evidence. International Monetary Fund, March.Available from the Internet:http://www.imf.org/external/np/apd/seminars/2003/newdelhi/prasad.pdf

15. Sebnem Kalemli-Ozcan, Bent E. Sorensen, Vadym Volosovych. (2010). Deep Financial Integration and Volatility. Available from the Internet: http://siteresources.worldbank.org/INTMACRO/Resources/Volatility_jan18_10.pdf

16. World Bank and International Financial Corporation. (2012). Ease of Doing Business in Ukraine. Available from the Internet:http://www.doingbusiness.org/data/exploreeconomies/ukraine.

17. World Bank Group. World Economic Outlook Database. Available from the Internet: http://data.worldbank.org/about/country-classifications

18. World Bank. (2011). Is Small Beautiful? Financial Structure, Size and Access to Finance. Available from the Internet:http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2011/09/22/000158349_20110922133048/Rendered/PDF/WPS5806.pdf

Надійшла до редакції 10.06.13

О. Любкіна, канд. екон. наук, доц.,
М. Боровікова, канд. екон. наук, асист.
КНУ імені Тараса Шевченка, Київ

ДИСБАЛАНСИ У ФІНАНСОВІЙ СИСТЕМІ УКРАЇНИ І КАНАЛИ ЇХ ТРАНСМІСІЇ У СИСТЕМНІ РИЗИКИ В МОНЕТАРНІЙ СФЕРІ

У статті досліджено сучасний стан та основні дисбаланси в системі фінансового ринку України, що здатні суттєво впливати на досягнення монетарної стабільності країни в післякризовий період та період рецесії. Проаналізовані загрози, пов'язані із значущістю банківських інститутів та функціональною неадекватністю банківської системи у забезпеченні монетарної та фінансової стабільності. Обґрунтуванні висновки та заходи щодо застосування інструментів монетарної політики з метою зміцнення фінансової стабільності.

Ключові слова: фінансовий ринок; валютна стабільність; банківська система; кредитний бум; фінансові установи; систематичний ризик.

Е. Любкина, канд. экон. наук, доц.,
М. Боровикова, канд. экон. наук, ассист.
КНУ имени Тараса Шевченко, Киев

ДИСБАЛАНСЫ В ФИНАНСОВОЙ СИСТЕМЕ УКРАИНЫ И КАНАЛЫ ИХ ТРАНСМИССИИ В СИСТЕМНЫЕ РИСКИ В МОНЕТАРНОЙ СФЕРЕ

В статье исследовано современное состояние и основные дисбалансы в системе финансового рынка Украины, которые способны существенно влиять на достижение монетарной стабильности страны в посткризисный период и период рецессии. Проанализованы угрозы, связанные со значимостью банковских институтов и функциональной неадекватностью банковской системы в обеспечении монетарной и финансовой стабильности. Обосновании выводы и меры по применению инструментов монетарной политики с целью укрепления финансовой стабильности.

Ключевые слова: финансовый рынок; валютная стабильность; банковская система; кредитный бум; финансовые учреждения; систематический риск.

UDC 330.1
JEL E6, E3, E5

V. Osetskyi, Doctor of Sciences (Economics), Professor,
I. Kalinkova, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

DISCOURAGING SHOCKWAVES UNDER SIMULATED GREEN SHOOTS AMONG DEVELOPED COUNTRIES

Current paper performs a range of economic recovery signs during a permanent stagnation of the business cycle phase preview. However, most of those green shoots are simulated on the back of almost total macroeconomic policy disability. Meanwhile, an economic immobility escalates along with a new developing countries' domination trend. Mentioned forces finally predetermine current macroeconomic policy architectonics.

Keywords: green shoots; shocks; monetary shocks; shockwaves; developing countries domination; discouraging trend; recession.

INTRODUCTION

Presenting the problem in its general outline and relation to important scientific and practical challenges. Regarding macroeconomic agenda of the latest few quarters the global business environment and policies have faced another period for delusive expectations in 2013. Instability and uncertainty are the most referenced features of the world economy since the crises 2008. Reminding the latest data, it should be stated that the United States (the U.S.) had finished 2012 with 2.2% annual Gross Domestic Product (GDP) growth while Western Europe contracted by -0.5% recession.

Such results, nevertheless, were maintained with numerous green shoots so accurately fixed by policymakers. What are they? First and foremost is the housing industry, which represents directly or indirectly one in seven jobs in the U.S. and steadily demonstrates increasing trend since August 2012. Thus, experts concluded further improvement of the latter in about 8% till the end of 2013. Still housing's recovery in the U.S. is too overestimated as far as the major part of such deals refers to speculative stock trade with an unemployment level is above 7.5%. Other unemployment statistic data for developed countries is even worthier. Europe, where at least 12-25% of citizens are unsuccessfully looking for a job, can be taken as an example. Perhaps, further indifferent strategy around this issue will finally release in a new market bubble.

Review of the recent studies and publications on the issue in questions. The problem of current world economy instability, uncertainty and global market force potential disproportion is widely discussed in academic surround and on the policymakers' sidelines. Among the first are O.Blanchard, B.Bernanke, J.Cochrane, G.Cohen, M.Draghi, P.Krugman, Ch.Lagarde, N.Roubini, A.Sparrow, J.Stiglits, D.Wessel, J.Yellen and other great scientists and public figures. Lots of them got a sight of the latest trend, briefly shown as developing countries domination, especially concerning GDP growth prospects. Looking through the latest works of B.Bernanke, H.Walsh and M.Dakers including Financial Times and Vedomosti analytics we are able to conclude that the Asia Pacific region is set to be the fastest growing region in 2013 with real growth of 5.9% forecast. Developed countries, instead, expect the growth of 1.4% in real terms in 2013 while the main engines of growth, the developed countries, are forecast to expand by 5.5%. Finally, we are aware of the Europe Union (EU) economic results in 2012 that are contracted by -0.5% before returning to growth of 0.2% in the first quarter of 2013 [1].

Statement of the paper goals. Current paper is aiming to improve understanding of the modern allocation of forces among greatest economic potentials. Another aim is to single out the most probable shockwaves basing on the green shoots simulated nature assumption.

DEVELOPING COUNTRIES DOMINATION AND SHOCKS

Main material of the study with evaluation of the research results. As International Monetary Fund (IMF) predicts, the share of developing countries in 2013 among the world GDP will outweigh the share of developed as 50.9% per 49.1%. Previous year results showed that developed economies managed to maintain a very slight advantage assessed as 50.1%. The contribution of emerging economies will continue to grow and going to reach 55% by 2018 (*forecast) (Fig.1).

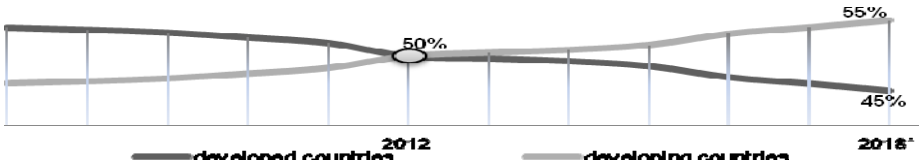


Fig. 1. World GDP Shares of Developed and Developing Countries (purchasing-power parity)*

**Source:* Vedomosti, 06.06.2013, 98 (3360), Printed in partnership with Financial Times, The Wall Street Journal and Independent Media [2].

Developing countries growth rate advances developed one since early 80s' while the living standards estimation is keeping with five times gap still. Thus, it has been several phases in the global economy transformation in the last thirty years. In the mid-80s' leaders of developed countries dominated and supported global GDP: the U.S. contribution was about a third and EU countries nearly 20%. The six countries of the G7 (with the exception of France) were in the top ten countries with the largest contribution to global economic growth. In the 90s' Germany and Italy were excluded from this list, the impact of Japan dropped by more than half, and the top 10 got in Mexico and Indonesia. In 2002/2007, the list of leaders included only three developed countries that used to be the U.S., Britain and Japan. By 2017, just the United States, Japan and South Korea will stay while the EU contribution to global GDP growth will total just 5.7%.

Russia was in the top 10 in 2000-2007 contributing to the global growth rate about 4.7%, yet till the end of 2017 its weight will drop to 2.5%. According to the forecast of Economic Development, Russia's growth will slow down from 3.4 to 2.4% in 2013 and increase to 4.2% by 2016. Since crisis was fixed large-scaled innovations based reindustrialization became one the greatest aims for local governments through the vast majority of developed countries (the U.S., Britain, France). In addition, the boom in shale resources in the United States made business more attractive in the U.S. and production will return to the country.

3. SIMULATED GREEN SHOOTS DIVERSITY

Building on such a background we nevertheless fix further positive signs in the world economy especially due to the Composite Leading Indicators (CLI) [3]. This index predicts further economic trend on the month basis considering labor market trend, logistic, real sector demands dynamic, real estate, stock market behavior, M2 and interest rate targeting, consumer sentiments shifts. Furthermore, recently this indicator is generally interpreted as a green shoot (Fig.2).

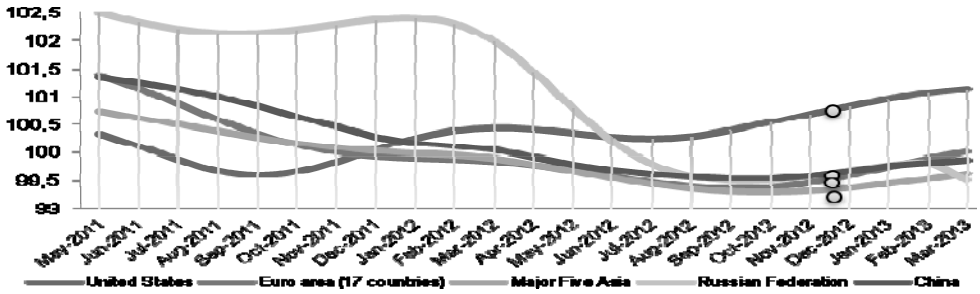


Fig. 1. Composite Leading Indicator: the U.S., EU, Major Five Asia, the Russian Federation, China*

**Source:* OECD Data base at OECD Statistic Extracts.

As it can be seen on the chart, a control data (2012, IV quarter) is characterized with the up-going trend for the U.S. economy and EU as well as for Major Five Asia and China (green shoots). Meanwhile, the Russian Federation trend is still expected to deviate out of the world economy dynamic. This index is not built for Ukraine.

A range of internal macroeconomic disturbances and imbalances are going to affect local market in the long-run period and create new business challenges.

However, mentioned above green shoots are locally identified and do not create sufficient foundation for the long term recovery.

MONETARY SHOCKS DIFFUSION

As it was highlighted by the representatives of the countries of the G20 at the International summit in Mexico City, for today all developed economies are facing the risks of the next global crisis maturing. Thus, G20 members noted that the rate of growth of the world economy is far behind the expectations. In addition, there is a risk of the delay of the implementation of the decision about the Europe crisis and the sharp decline in government expenditure on the part of the United States [4]. Finally, those current anxieties are deeply corresponded with major monetary policy role and targets as well as urgent financial policy measures in the context of fiscal cliff threat.

In the IMF Staff Position Note, named "Rethinking Macroeconomic Policy"[5] as of February 12/2010, was made a critical review of the major macro-regulation problems through the years before the crisis of 2007. Thus, inflation targeting (such as referent 2% level, an inflation expectation stabilization, a permanent interest rate correction, balance effects managing (crucial export/import values changes and capital in/outflows), arbitrage) was marked as desirable. The most efficient target, while financial agency was minimized and lost its consideration object status among macroeconomic stability maintenance and counter-cyclical macroeconomic policy implementation. In general, the current FRS macroeconomic policy innovations resulted in long-run interest rate manipulation (lowering efforts) and discretionary policy. The last one is a referent indexes non-oriented policy made by the previously announced plan.[5]

[5]Academically this problem was examined back by David and Christina Romer: co-director of the Program in Monetary Economics at the National Bureau of Economic Research, a member of the NBER Business Cycle Dating Committee and his wife – Council of Economic Advisers former Chairwoman: [6], [7].

So, during almost two decades a short-run interest rate was considered as the dominant macroeconomic policy instrument that is directly managed by the Central bank using open-market transactions. Thereby, a government expenditures reduction was supposed to be totally in congruence with Keynesian macroeconomic policy concept. This concept said that money supply immediately affect a real economy considering current price stickiness. However, since 1970s the budget policy has been redirected, by contrast to monetary, as a minor in the macroeconomic stability support, being toughly limited by the range politic factors. Nevertheless, since late 2012 some analytical materials, concerning the accommodation macroeconomic policy, disclosed the program of the fiscal policy renovation. Meanwhile the EU (ten countries-members) had agreed on the procedure of collection of the Financial Transaction Tax (or better known as FTT) (0.1% on shares and bonds and 0.01% on their derivatives, from each financial transaction), waiting for EUR 40-50 billion of revenue in the budget. The idea of such tax introduction belongs to Keynes, who suggested limiting speculative activity on the financial market in favor of "entrepreneurs" that, finally, should minimize the risks of the relevant imbalances occurrence.[8] Since the last world crisis exploded there were debates regarding the necessity of such tax burden, while another campaign in favor of the "responsibility tax" or "Robin Good Tax" received great support amid Euro zone countries. More than four out of five of the British and about a thousand of the leading economists of the world officially admitted the financial sector to be responsible for the outcomes of the global crisis.

However, it is worth to highlight that in contrast to the Keynesian program of "casino" occurrence prevention at the market, today an FTT is implementing amid full macroeconomic imbalance. Thus, the IMF's report on October 9th/2012 provides the following dynamic of macroeconomic risks and the assessment of the current economic environment. Thus, considering the risk appetite reduction, zero point economic growth forecast and economic shocks spread among the countries of the European periphery, the growth of the general level of macroeconomic risks is defined. In addition, being closely linked with the global cycle, developing economies are also under the high macroeconomic risks pressure [9].

As illustrated, the increase of macroeconomic risks, volatility and vulnerability to the spillover effect among the economic shocks diffusion in developing countries is observed considering their flexibility level. Meanwhile, additional policy space and resilience reduction of the economic system will initiate the new challenges. The credit and market risks and liquidity risks remained on the same level (compared to April 2012), while generally macroeconomic risks have increased. Moreover, the chart shows that the market is rather flatting, showing new risk appetite lowering (compared to April 2012) on the background of constant financial and, especially, monetary policy performance.

Indeed, in the post-crisis period, the Fed's Governors have implemented quasi-theoretical approach to the accommodative monetary policy which is considerably adopted points of M.Friedman's and Chicago school academic experience. It is Friedman who believed that for the economic stabilization widely used policy of the Federal Reserve should exist, rather than direct government expenditures, which, however, may also affect the level of employment in the country. Thus, P.Krugman in his article in New York Times "How did Economists get it so wrong?" said: "In fact, rereading Friedman's 1970 summary of his ideas, "A Theoretical Framework for Monetary Analysis," what's striking is how Keynesian it seems" [10]. Also, the classic of Chicago Monetarism School never agreed with the postulates of the "voluntary unemployment", but his idea of the "necessity" of economic recessions is still strongly controversial. Even eliminating their favourable economic role he still paid tribute to their "efficiency" in further qualitative and quantitative promotion of economic systems, including awkward cases of immature capitalist market. Eventually, together with the discrediting of the Washington Consensus consistency in 2011 the IMF refused to simulate economy "shocking", as a means of further growth.

Moreover, in accordance with "Rethinking macroeconomic policy" O.Blanchard declared his negative attitude to the "monopoly" of the interest rate as a basic tool of macroeconomic policy regarding financial shocks of the last five years: "The policy rate is a poor tool to deal with excess leverage, excessive risk taking, or apparent deviations of asset prices from fundamentals. Even if a higher policy rate reduces some excessively high asset price, it is likely to do so at the cost of a larger output gap" [5].

Thus, a trivial interest rate channel understanding for an economic shock transmission is:

"M↑ → i↓ → AD↑ → Y↑" or "i↓ → I↑, C↑ → Y↑",while an Aggregate Demand includes Investment and Consumption expenses. A function of investment demand related in inverse ratio to the interest rate and AD improvement will cause Domestic Product driving up (directly or mediating a labor market). However, presenter's logic path does not clarify an interest rate transmission definitely. Firstly, an interest rate is affected by the market (commercial banks) and a government (central bank). Secondly, a total investment value shows a slight interest rate shifts response while there is no developed financial market.

If such a logic path is implemented into the local market environment (financial shock), then Investments (I) dynamic and output dynamic will be identified not so much by interest rate shifts as by such a non-monetary factor as a dividends risk and paid-in capital risk: "i↓, risk↑ → I↓, C↓ → Y↓" and "i↑, risk↑ → I↓, C↓ → Y↓".

Thus, an interest rate is indifferent to investment values and, therefore, an output that was determined by the capital inputs increase.

Consequently, henceforth the key interest rate will be responsible for the general level of economic activity, and additional "special" regulation tools will be in charge of the issue structure, financing or asset prices. Thus, we are suggested to exclude the interest rate from the list of countercyclical tools, and focus on "particular cases": capital adequacy ratio (CAR), liquidity and security requirements, etc. Ideologically, following summary indicates a necessity to consolidate both of general and local managing functions at call of the Central banks. This process has particularly been carried out in the EU since the autumn of 2012.

At the same time, current resumes of the macroeconomic policy are accurately put in the earlier mentioned "Communiqué of the Ministers of Finance and Central Bank Governors of the G20, Mexico City". [4]There were voiced a few fiscal anxieties regarding budget deficit that exceeds a trillion dollars fourth year already as well as "fiscal cliff"[6]. Thus, a Budget Control Act 2011 is aiming at the U.S. budget deficit cutback while its ratio to GDP will be halved. According to the Congressional Budget Office data, if the U.S. does not implement a Budget Control Act 2011 now, than economy will suffer a temporary growth but not a full value expansion [11]. Concerning previous assessments, a budget deficit cut down will total about $560 bn. while GDP value is likely to shrink for four percentage points. In con-

[6]"Fiscal cliff" – financial gap that could take a place since January 1 /2013 in the U.S. according to the Budget Control Act 2011 means tax burden strengthening and spending cuts which are leading to the sluggish economic development or even recession.

junction with IMF forecast (October 2012) it will release in the new recession phase of the business cycle [12].

One of the questions discussed in Mexico was focusing more on the so-called structural deficits of countries with budget problems excluding recession outcomes, such as high unemployment and great costs of social security, as well as lower tax revenues. Thus, Managing Director of the IMF, Christine Lagarde, noted that the budget reduction "should be determined structurally but not fixed at the nominal targets". Simultaneously with fiscal discipline the world economy is still being under "advanced" risks, including European debt crisis and politic disturbances in Japan. Therefore, "global growth remains modest and downside risks are still elevated, including possible delays in the complex implementation of recent policy announcements in Europe, a potential sharp fiscal tightening in the United States, securing funding for this year's budget in Japan, weaker growth in some emerging markets and additional supply shocks in some commodity markets. The reduction of global imbalances has not been sufficient, and in many countries the process of necessary deleveraging by the private and public sectors is ongoing, and unemployment remains high" [4]. Finally, an abundant anxiety regarding new EU banking union creation assisted in new tough banking rules introduction regarding capital ratios.

These rules, known as "Basel III" [13], are a response to the financial crisis and should have come into force in January. As it was earlier proclaimed, "full, timely and consistent implementation of the Basel III framework is essential for promoting confidence in the regulatory framework for banks and for helping secure a stable global banking system. The Basel Committee is monitoring its member jurisdictions' implementation through a recently launched a comprehensive review programme. A key element of the process is transparency, including periodic reports to the G20" [14].

So, referring the monetary policy "successful" implementation, it's hard to omit convincing issue during the "Great moderation"[5] period, when significant diminishing in the output fluctuations and inflation were experienced. Otherwise, such a "success" might turn out to be just a result of temporary reduction of the economic shocks quantity and several structural changes. However, is it possible to consider an economic policy as "improved" when it results in a global financial crisis?

With an appropriate answer to the last question we should refer to J. H. Cochrane's, [15] a Professor of Finance at the University of Chicago Booth School of Business, reply to mentioned above P. Krugman's The New York Times article. First of all, he declared that the market stability isn't conditioned by its efficiency. Therefore, each economic risk is approved if its value is acceptable for other economic agents during some determined time. This point occasionally misses strategic or even tactical thinking. As professor Cochrane confirmed, only market was "successful" whereas indifferent or negative state effects followed. Aiming any academic confirmation of the point above, Cochrane recollected F. Hayek's words: "no academic, bureaucrat or regulator will ever be able to explain market price movements fully. Nobody knows what "fundamental" or "hold to maturity value" is. If anyone could tell what the price of tomatoes should be, let alone the price of Microsoft stock, communism would have worked" [15]. Thus, D.Wessel's work "In Fed We Trust: Ben Bernanke's War on the Great Panic" (2009) [16], which was mentioned in everlasting discussion, proclaimed inefficiency of the current mainstream macroeconomic managing, while valid monetary policy was noted as an equal to financial guidance.

Consequently, it should be noted that the inflation rate and output gap stability could be experienced correspondingly with an unacceptable assets price and credit aggregates dynamic, as well as structure of production (for example, overinvested real estate, hyper-consumption values, high current-account deficit). In addition, the low inflation and its interest rate tool dependence strongly reduce monetary flexibility. It is worth to recall that J.Yellen's report presented an in-depth look at a problem of Taylor rule "failure" in correspondence with the question of zero nominal interest rate and policy tolerance (Zero interest rate policy, ZIRP). In such cases, the "textbook" macroeconomic policy points to fiscal policy reimplementation necessity, when the fiscal public spending multiplier is highly important in new employment providing. In Keynesian Economics multiplier greater than one, which means that public expenditure effectively increase the GDP. M.Woodford considers that in the case of zero interest rates an optimal government policy is to increase spending to close GDP gap. However, the events of September 2012 showed that the Fed and B.Bernanke in particular are not ready to affect the poor unemployment data by the fiscal instruments and implemented QE3 that indirectly brings into force S.Gesell's ideas. Furthermore, in J.Yellen's report (Vice Chair of the Board of Governors of the Federal Reserve System) were highlighted, that the basic challenges towards a global economy recover are: housing sector, fiscal policy and sluggish pace of growth abroad as well as global financial market strains [17].

At the official website of the Federal Reserve Bank of New York on August 29, 2012 an article from Liberty Street Economics editors K. Garbade and J. McAndrews titled "If Interest Rates Go Negative... Or, Be Careful What You Wish For" has been posted and removed later. In particular, it has revealed a few assumptions about how an agent's opportunistic behavior would have taken a place if negative interest rates were implemented. In addition, the authors demonstrate interest rates in the 13-year-week Treasury bonds dynamic since 1960 until 2012.

Nevertheless, an assessment made under the Taylor rule, have shown, that in the U.S. an interest rate could be reduced by another 3-5%, being nominally below zero (and even more "negative" in real terms). However, the problem of Taylor model is non-traditional Federal Reserve's tools ignoring, such as Quantitative easing policy. Thus, further interest rate reduction problem (and a liquidity trap) since early 2009 is tightly related to the state assets redemption program. Those values are: USD 1.7 tn, USD 600 bn and USD 40 bn per month (according to preliminary estimates of up to 2015 in correspondence with "Twist" program). Meanwhile the dollar currency, as well as debt value, devaluate under the threat of inflation jumps.

Thus, the government is experiencing Taylor's rule lack of relevance in the new monetary context of almost unlimited money supply expansion in the U.S. Nevertheless, due to political conditions a budget deficit reduction (8-10% of GDP according to the Fed) is failed, and a zero nominal interest rate is reluctant to be declared.

DISCOURAGING SHOCKWAVES UNDER THE REAL GDP STAGNATION TREND

Looking at the latest macroeconomic dynamic an unpromising stagnation trend (Fig.3) had become apparent. Considering the latest global economy growth trends publications there are the following issues that are likely to impact negatively in 2013:

- macroeconomic policy austerities in developed economies are set to continue in 2013, despite fiscal consolidation negative impact on the real GDP growth in 2012;

• macroeconomic policy austerities in developed economies are set to continue in 2013, despite fiscal consolidation negative impact on the real GDP growth in 2012;

• considering pursued macroeconomic policy in 2012 a crisis among Europe will sounds a lot through the whole 2013;

• new commodity security concerns will persist in 2013 because of quite strict protectionist measures that will affect an international trade flows (especially foreign money flowing out stop and competitive devaluation implementation);

• an unemployment rate will be one of the key indicators, across the Europe countries in particular. With the lowest interest rates and vast quantitative easing policy implementation are aimed at stimulation of employment and creating new vacancies.

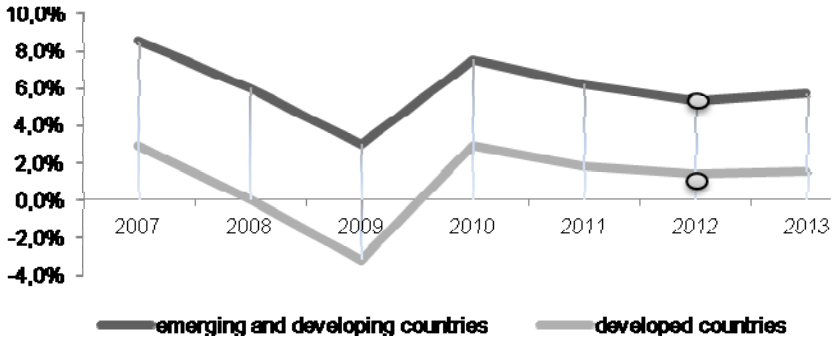


Fig. 2. Real GDP Growth in 2007-2013*

**Source:* Euromonitor International from national statistics/Eurostat/OECD/UN/International Monetary Fund (IMF), World Economic Outlook (WEO).

Despite a slowly raising aggregated trend the Eurozone and U.S. economies are still at risk of further output restriction and certain markets crash. Moreover, many of issue that has been experienced in 2012 will become the same challenges in 2013 while another green shoots emerge.

SUMMARY

Findings of the study and prospects for further research into the field. To top all previous results of the current paper, we'd like to combine three main trends that have been singled out before and present the following macroeconomic map. On the back of controversial green shoots (two bottom curves at the Fig.4) among developed countries there is a new trend of developing countries potential domination (another crossed curves at the Fig.4) while the real GDP dynamic is almost stagnating (two lighted dashed curves).

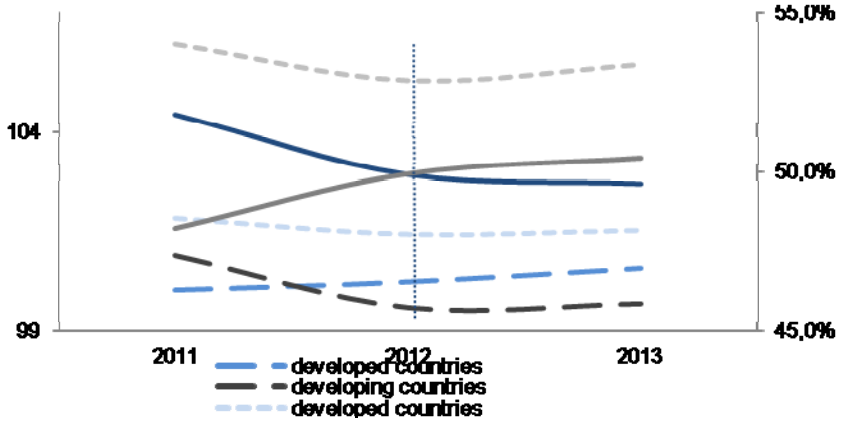


Fig. 4. Aggregated macroeconomic map*

**Source:* self-presented basing on Fig.1-3.

Thus, it should be concluded that developing countries are trying to enlarge their economic weight. This new economic forces allocation can contradict a typical shock-waves diffusion map.

Earlier we noted that, developed countries introduced non-conventional macroeconomic policy. Today in the U.S., an additional costs burden due to the money "over-valuation" is undertaken by the banking system. While further detailing in economic agent's interactions is absent, it is important to note that some kind of cash saving "tax" is definitely new kind of monetary policy and market risk. Thus, as a mainstream trend should be mentioned the U.S. protectionism policy (long term strategy), interest rate and inflation targeting (short term strategy) as well as the unemployment rate targeting (referent value is 6.5% that is pre-crisis level). Meanwhile an aggregated value of developing economies contribution disclosed this business environment as one of the greatest drivers till 2018 at least.

However, new macroeconomic policy tools, new economic and social risks, as well as inaccurate simulated green shoots are likely speak for the overall output values contraction. These two macro trends weight in favor of new global capitalist or market system transformation, and it is a fundamental point singled out of our paper.

Which new or transformed system will be set as an efficient and challenging? We are referring to the new economic map with a few divided but interactive force centers that are mostly self-sustained, and developing countries will take on enormous importance in this new economic world.

References:

1. Walsh H. Global Economy in 2013: Shockwaves from 2012 will Shake the Foundations of Recovery in 2013 // Global Economic Prospects for 2013, Euromonitor International (January 2, 2013). – Access mode: http://blog.euromonitor.com/2013/01/global-economy-in-2013-shockwaves-from-2012-will-shake-the-foundations-of-recovery-in-2013.html
2. Kravchenko E., Averchenko M. A New World Economy Driver // Vedomosti, 06.06.2013, 98 (3360). – Access mode: http://www.vedomosti.ru/newspaper/article/464841/novyj_dvigatel_mirovoj_ekonomiki
3. Kohl D. Green Shoots in the U.S. Economy. – Access mode: http://m.cornandsoybeandigest.com/blog/green-shoots-us-economy
4. G20, 2012., "Communiqué of the Ministers of Finance and Central Bank Governors of the G20, Mexico City", Mexico City, 4-5 November 2012. – Access mode: http://www.g20mexico.org/index.php/en/press-releases/537-final-communique
5. Blanchard O., Dell'Ariccia G., Mauro P. "Rethinking Macroeconomic Policy", IMF Staff Position Note, February 2010, SPN/10/03, pp. 2-19. – Access mode: http://www.imf.org/external/pubs/ft/spn/2010/spn1003.pdf
6. Romer C.D. Spurious Volatility in Historical Unemployment Data // Journal of Political Economy 94 (February 1986), pp. 1-37
7. Romer C.D. Is the Stabilization of the Postwar Economy a Figment of the Data? // American Economic Review 76 (June 1986), pp. 314-334.
8. Dr Spratt St.. A Sterling Solution. Implementing a stamp duty on sterling to finance international development // A report for Stamp Out Poverty by Dr Stephen Spratt of Intelligence Capital Limited, Second edition. Stamp Out Poverty, September 2006. – Access mode: http://www.stampoutpoverty.org/?lid=9889
9. "GLOBAL FINANCIAL STABILITY REPORT: Restoring Confidence and progressing on Reforms (October 2012)" – Washington, DC : International Monetary Fund, 2012, 188 p. – Access mode: http://www.imf.org/external/pubs/ft/gfsr/2012/02/pdf/text.pdf
10. Krugman P. How Did Economists Get It So Wrong? // The New York Times, September 2, 2009. P.7 – Access mode: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=0
11. Kenny T. What is the Fiscal Cliff? // About.com Guide. – Access mode:http://bonds.about.com/od/Issues-in-the-News/a/What-Is-The-Fiscal-Cliff.htm
12. World economic outlook October 2012: Coping with high debt and sluggish growth. – Washington, DC : International Monetary Fund, 2012, 250 p. – Access mode: http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf
13. Report to G20 Finance Ministers and Central Bank Governors on Basel III implementation, June 2012. – Access mode: http://www.bis.org/publ/bcbs234.pdf
14. BIS, 2012., Basel Committee. Bank for international Settlements. – Access mode: http://www.bis.org/publ/bcbs234.htm
15. Cochrane J. How did Paul Krugman get it so Wrong? // Modeled Behavior. – Access mode: http://modeledbehavior.com/2009/09/11/john-cochrane-responds-to-paul-krugman-full-text/#_ftn1_6657
16. Wessel D. In Fed We Trust: Ben Bernanke's War on the Great Panic. Three River Press, U.S.- NY, 2009, 341p.
17. Yellen J.L. Perspectives on Monetary Policy / Boston Economic Club Diner. Boston. Massachusetts: Federal Reserve Bank of Boston. June 6, 2012. – Access mode: :http://www.federalreserve.gov/newsevents/speech/yellen20120606a.htm

Надійшла до редакції 19.10.13

В. Осецький, д-р екон. наук, проф.,
І. Калінкова, асп.
КНУ імені Тараса Шевченка, Київ

ВПЛИВ ШОКІВ НА ЕКОНОМІЧНИЙ СПАД В УМОВАХ ПОШИРЕННЯ РИНКОВИХ СИГНАЛІВ ВІДНОВЛЕННЯ У РОЗВИНЕНИХ КРАЇНАХ

В даній статті представлені деякі із сигналів економічного відновлення в умовах стагнаційної фази бізнес циклу. Однак, більшість даних сигналів змодельовані при відсутності діючої макроекономічної політики. Також, призупинення економічного розвитку аналізується за умов формування тренду домінуючого росту зі сторони країн які розвиваються. Сукупність даних факторів обумовлює архітектоніку макроекономічної політики.

Ключові слова: сигнали економічного відновлення; шоки; монетарні шоки; тренд домінуючого темпу зростання країн які розвиваються; стагнаційний тренд; рецесія.

В. Осецкий, д-р экон. наук, проф.,
И. Калинкова, асп.
КНУ имени Тараса Шевченко, Киев

ВЛИЯНИЕ ШОКОВ НА ЭКОНОМИЧЕСКИЙ СПАД В УСЛОВИЯХ РАСПРОСТРАНЕНИЯ РЫНОЧНЫХ СИГНАЛОВ ВОССТАНОВЛЕНИЯ В РАЗВИТЫХ СТРАНАХ

В данной статье представлены некоторые из сигналов экономического восстановления в условиях стагнационной фазы бизнес цикла. Однако, большинство данных сигналов смоделированы в отсутствии действующей макроэкономической политики. Также, приостановление экономического развития анализируется при формировании тренда доминирующего роста со стороны развивающихся стран. Совокупность данных факторов предопределяет архитектонику макроэкономической политики.

Ключевые слова: сигналы экономического восстановления, шоки, монетарные шоки, тренда доминирующего темпа роста развивающихся стран, стагнационный тренд, рецессия.

UDC 339.18+338.45
JEL Q 32

S. Shakeev, PhD in Economics, Associate Professor
Kazakh Humanities and Law University, Republic of Kazakhstan

SUPPLY LOGISTICS FOR IMPROVEMENT OF IRON AND STEEL ENTERPRISES

This article describes the techniques that help to improve the material and technical supply management of allied industries. Resource endowment of Kazakhmys Corporation had been analyzed. To control physical resources effectively logistics center establishment for allied mining enterprises was offered.

Keywords: logistics; logistics management; material and technical supply; supply logistics; logistics center.

Problem statement. In the current context of increasingly competitive environment, where the strategy of business entities development are formed considering the changing market conditions, an important factor for improving the competitiveness of any company is the effective material and technical supply management. Analysis of existing management practice in enterprises of industrialized countries shows that a lot of attention is paid to the management of logistics, leading to faster turnover of own and borrowed funds, competitiveness, strengthening and expanding its role in the goods, works and services market.

Managing logistics is always a significant part of economic activity, but only recently this feature has become a critical issue for the competitiveness of a business entity. The main reason is the transition from a seller's market to a buyer's market, which makes it necessary to fit the capacity of producers to rapidly changing conditions of production and trading systems.

Analysis of latest discoveries and publications. Theoretical and practical aspects of effective supply logistics assessment, especially the necessity to improve the management system of logistics major enterprises and the development of logistics systems were considered in the

publications of Russian scientists as A.M. Gadzhinskiy [1], Y.M. Nerush [2], Kazakh scientists:O.S. Sabden, Raimbekov Z.S. Raimbekov Z.S. [3], A.N.Tulembaeva [4], R.K. Moldahmetov [5], but in spite of the existing material, some aspects of effective supply logistics assessment of metallurgical enterprises are not developed enough.

Extraction of the unsolved aspects of the problem. In the current context the management issues of supply logistics industry become highly relevant. The urgency is due to the need to improve the management of supply logistics for industrial competitiveness through the development of a flexible policy for proper ways of finding vendors and consumers of physical resources choice of logistics channels of choice of suppliers and consumers of material resources, and enhance innovative technology support of the material resources use.

The purpose of the study is that the evaluation of supply logistics effectiveness means to develop a science-based approach to organizing the logistics of product metallurgical enterprises distribution to identify ways of optimizing the organization and management of logistics flows.

The main results of the study. In a market economy, managing the logistics of production is determined by the ability to combine the activities of the various departments and services related to the distribution, material support of production. Material supply is one of the logistics elements.

In modern conditions, Western experts identify several types of logistics:

– Logistics related to material support of production (supply logistics);

– Production logistics;

– Sales (marketing, or distribution) logistics;

– Transport Logistics (which, in essence, is an integral part of each of the three types of logistics);

– Information logistics.

At the end of XX century instead of the known and the familiar concept "material and technical support" in the scientific revolution the term "supply logistics" derived. According to the Russian scholar V. Filonenko "there was not a simple replacement of terms, but the change in the process of material and technical supply". The fact that the enterprise performance started to depend on reliability of material and technical supply was significant.

A characteristic feature of the supply chain in steel companies is the availability of stable economic relations between vendors of basic technological raw materials, equipment and the enterprise.

The largest independent vendors of Kazakhmys Corporation are "Boliden Contek" (Sweden) and "Venmek Systems" (Finland). The company "Boliden Contek" deals with the reconstruction of ore-treatment furnaces (OTF), and the company "Venmek Systems" deals with the replacement of bridge cranes, reconstruction of casting wheels (CW) with the installation of weight measuring devices.

Among the suppliers such countries can also be distinguished: Turkey, Russia, Ukraine, which are involved in the supply of refractory bricks, and Kyrgyzstan, which supplies electricity to the amount of 48.09 mln. Tenge. In addition, a number of small nonproduction materials and equipment are supplied by private companies in Zhezkazgan.

The need of corporation in the materials essential for the production is fully covered by outside vendors.

The largest part of raw materials is supplied by the management of material and technical supply logistics (MTSL) of "Kazakhmys Corporation".

"Kazakhmys Corporation" LLP provides its own 50 structural units of material resources. Therefrom, 42 are provided centrally with help of the management of material and technical supply logistics (MTSL) corporation. The rest of them have own UMTS. These include the following divisions of "Kazakhmys" corporation: Balkhash mining-and-metallurgical integrated enterprise, "Borly" coal department, Department of Electric Power plant, Karaganda foundry and machine factors, "VostokKazmed", Karaganda foundry factory, Copper-Chemical Plant, Zhezkent Mining plant [8].

However, some purchases are made by corporate contracts and purchases are conducted centrally, such as fuel.

Table 1. **Logistical status during 2009-2011 years**

Material type	2009			2010			2011		
	Planned requirements	Came in from vendors, t	Use*. pract,%	Planned requirements	Came in from vendors, t	Use*. pract,%	Planned requirements	Came in from vendors, t	Use*. pract,%
1	2	3	4	5	6	7	8	9	10
Magnafloc									
Reimpositioned concrete	9032,00	7443,0	82,407	8599,15	6549,61	76,1658	8633,84	3982,00	46,12
Limestone	111480,2	77158	69,212	106138,08	75254,00	70,902	106566,19	71763,00	67,34
Anode paste	1032,23	874,42	84,7116	982,76	975,72	99,2837	986,72	858,32	86,99
Steel sheet	108,64	119,55	66,1825	171,98	100,33	58,3389	172,68	100,78	58,36
Gas pipes	167,74	48,20	28,7355	159,70	80,82	50,6079	160,34	127,46	79,49
Periclase chromite bricks	3019,27	3010,0	99,6931	2874,57	2800,00	97,4058	2886,17	2886,17	100
Refractory felt	12,90	11,20	86,8025	12,28	10,72	87,2644	12,33	7,38	59,83
Barium sulphate	503,98	11,20	86,8025	461,68	10,72	87,2644	463,98	216,50	46,66
Diesel fuel	2116,72	2000,0	94,4859	1939,04	1948,70	100,498	1948,70	1948,70	100,00
Sulphuric acid technical	2539,92	3441,0	135,477	3268,65	3039,00	92,9742	3278,08	3060,60	93,37
Retarded salty acid	81,28	79,01	97,2102	77,48	67,89	92,9742	77,70	37,47	48,22
Sulfourea	20,32	20,55	101,11	21,79	23,19	106,42	21,85	21,27	97,34
Gelatin	20,32	17,89	88,0589	19,37	19,11	98,6331	19,43	20,21	97,34
Polypropylene core	9,65	6,89	71,3605	10,17	6,94	68,1966	10,20	6,96	68,20
Contact mass	101,81	42,00	41,2522	107,31	55,60	51,8102	103,41	84,50	81,72
Air-slaked lime	127266	132115,5	103,811	134143,5	132115,5	98,4882	129260	129260	100,00
Fire-proofed argil	309,67	325,00	103,811	294,83	234,00	79,3683	296,02	275,35	93,02
Disc steel	64,51	62,17	96,3663	61,42	55,81	90,8641	61,67	42,22	68,20
Salamander wool	28,56	34,00	119,052	28,56	34,00	119,052	26,29	23,40	89,00
Stripe fagot	888,97	558,60	62,837	847,43	511,91	60,4076	849,87	503,68	59,27
Abstergent	6,38	6,42	100,75	6,08	3,06	50,3516	6,09	2,95	48,43
Note: [7]									

**Source:* Use estimates the ratio of suply package to supply.

Provision of material resources in LLP "Kazakhmys Corporation" can be seen in Table 1. Table 1 shows that during the period under review the supply of diesel fuel was timely and comprehensively. Moreover, in 2011 the planned delivery of gelatin has exceeded the demand on 4%, comparing with 2010 it is higher on 5%. Also it can be noticed the short-delivery of certain kinds of materials. For example, in 2011, lignosulfonate (CE) supply was only 46%, compared with 2010 when the delivery fell on 6%. However, the quality of the products is not affected because the purchased materials were of higher quality.

Erratic supply of material resources leads to idle time of equipment, loss of working time, the need for overtime. Payment delays are not the fault of the workers and overtime leads to an increase in the cost of production. To eliminate the above stated situation on the companies it is provided the necessary reserve materials.

To create a stock of materials and equipment on the corporation, there are three central warehouse for major technological equipment and materials:

1. warehouse refractory products
2. metal warehouse and equipment,
3. storage aids.

Capacity of these stores allows to ensure not declining three month supply of related materials. In addition, all the shops have intermediate warehouses, the purpose of which – providing three daily supply of necessary materials.

From the conducted analysis it can be concluded that, it is impractical to store reserves in an amount that would correspond to the optimal solution for each of the positions mentioned in the schedule items. Order department can be overloaded, storage tanks can be used to the limit, and the capital invested in stocks may exceed the amount which the enterprise has. These limitations make it necessary to modify the reserves policy.

The results of the material inventory management processes analysis do not let us confirm that using strategies of controlling inventory does not correspond to the market principles. There is no targeted approach to the formation and storage of inventory. Inventory management of material resources and financial management activities of the enterprise is carried out independently. Rationalization of stocks does not concern as a major reserve of economic upturn. Enterprises do not use this factor of increasing competitiveness, restricted only by the shortage or surplus stocks. No information is available to quantify the influence of inventory level to the final result of the enterprise performance.

Many managers recognize that their enterprise supply system is far from perfect, but at the same time they believe that it corresponds with current market conditions and can only be improved through evolution. Such underestimation of self-empowerment is costly to companies and they are losing money on almost all stages of the procurement process: planning requirements for materials and equipment for the procurement, inventory management and distribution of materials, their use in the production and the secondary circulation. Our experience in working with companies confirms that the losses caused by poor management in supply, separate categories may reach 30-40% of the total cost of the supply, and it goes on from year to year.

The economy of planning did not stimulate the rational use in the manufacture of materials and resources, so in Soviet enterprises supply system did not attach much importance. Unfortunately, this situation has survived to the present day. Executives of companies are looking at the existing supply system as something inaccessible, and believe that it is impossible to understand and change anything about itand ordinary workers in the absence of attention and monitoring by administration representatives often use existing situation in their own interests. As a result, uncontrollable costs appear in many companies and attempts to partial improvements are unlikely to change anything significantly. To achieve good results is possible only through an integrated supply chain.

Modernization of the supply system must pass at least three stages [9] (see Table 2).

Stage 1: Diagnostics. To determine the amount of necessary reforms,the nomenclature structure of the procurement and the internal processes of the supply chain are diagnosed carefully at the first stage. Predictability of consumption, importance of planning, procurement volume may serve the criteria for the classification of procurement processes. The classification process allows to set clear objectives to optimize each of them, set up an organizational structure in full compliance with the requirements of the process. The diagnostics helps to find main ways to reduce the cost of procurement of the major categories of resources.

Stage 2: Achieving the initial effects. In the next stage, the changes which give effect in the short term and create a foundation for the formation of long-term benefits, occur. Thus, in the above mentioned company procurement processes for the main categories of goods as a priority have been radically altered to reduce the unacceptably high purchase prices and improve the quality of purchased resources. Standardizing criteria for supplier selection, conducting a detailed comparative assessment of the quality of purchased resources and their indirect impact on the total cost of the company, the introduction of transparent procedures of tenders contributed to achieving this goal.

Table 2. **Modernization of the supply of "Kazakhmys Corporation"***

1 stage	2 stage	3 stage
diagnostics	The achievement of the initial effects.	Ensuring the long-term effect.
- 1.1 Estimate the savings on major purchases: - Raw material - Equipment - Spare parts	- 2.1. Applying a "Total Cost of Ownership" (TCO) in respect of the procurement of important articles: - The standardization requirement to MTP - The estimate of total costs over the service period - Quarterly procurement by tender	- 3.1. The widespread introduction of TCO approach to the most important categories of purchases: - Create cross-functional teams to implement the approach TCO - Expanding horizons of procurement - Standardization and tenders for the most part of procurement -Preparation of regulatory documentation to support the process
1.2. Assessment of the potential of the efficiency of the supply chain improvement: - Planning of demand - Making orders - Procurement - Warehouse management - Organization	2.2. Elimination of the main "bottleneck": - High discipline of orders - Reducing of the excessive orders - Increasing of secondary resources use through increased control - Education of key executives	3.2. Creating a more efficient supply chain management: - Cross-functional planning and analysis of needs - The transparency of execution of orders - Mechanism of suppliers control - Individual management of procurement - New IT – systems, organizational structures and system of result management

* *Source:* Compiled by the author.

Stage 3: Ensuring the long-term effect. Finally, the third phase of the work is focused on achieving long-term effect. One of the most important steps in the optimization of procurement in the final stage is usually the creation of cross-functional teams of employees from different departments, such as assistant managers of procurement, manufacturing, technology and financial structures of the company. Regularly interacting, teams exchange critical information and make the best decisions regarding purchases for the entire organization. In order to strengthen the staff of the supply chains in this phase it is necessary to introduce new mechanisms of selection, motivation, performance evaluation and career development of purchasing managers and owing to it improved supply system has gained new energy and its development fell into a self-supporting basis.

Analysis of the status of use of material resources of "Kazakhmys Corporation" shows that if the creation of an integrated information system of logistics flow for many businesses an urgent need to create a single logistics center has appeared. Moreover, measures for saving and rational use of material resources should not only be part of an integrated program to improve the supply chain, but also to make it a basis, to determine the value, priority and hence the sequence of the main events realization.

Solving the problem of improving the efficiency of inventory management in the current economics requires a shift from traditional management to logistics, where the inventory management allows including the main areas to actively implement the strategy of the enterprise market conduct.

In other words it may be said that for many companies urgent need to create a single logistics center escalated. Measures for saving and rational use of material resources should be not only the part of an integrated program to improve the supply chain, but also to make the basis, to determine the value and the priority, and hence, the ranking of the main events implementation.

It is linked mainly to such factors: the most important factor regarding the specifics of mining, it is the close proximity of some of the mines. Furthermore, one of the important factors – it is practically identical copper technology of copper production technology; it makes use of similar material resources from explosives to costly parts of the equipment. Stated differently, it indicates the possibility of a unified logistics center to have an only vendor of material resources that serve multiple customers. The analysis showed that the concentration of multi-billion mass inventory in the form of handicapped floating funds in operation negatively affects not only the performance of the enterprises-consumers (cost, revenue and profitability), but it is becoming increasingly a factor that affecting negatively the growth of production, reinforcing scarce situation in the supply, etc. Therefore, it is necessary to enhance the interest of enterprises in reducing inventories and offer formation of a unified logistics center in the management of material and technical supply.

At the heart of suggested unified logistics center one may notice the access to the logistics services not only from the material resources' vendors, but from the logistics center too. However, a large range of logistics services and supply a significant amount of material resources for large enterprises, or allied industries provides economic efficiency of the logistics center and, consequently, increasing the competitiveness of the enterprises themselves, through the reduction of material production.

According to experts in the logistical field, if to consider the costs as 100%, the relative density of the individual components is as follows [10]:

– transportation 28-48%;

– terminal, transshipment operations and storage of goods 25-40%;

– the cost of packaging and wrapping 5-18%

– management costs 4-15%, etc.

The mentioned input structure indicates the significance of transport, cargo handling and storage costs. To reduce these costs it is proposed to introduce the concept of "just-in-time" (JIT). The concept of JIT is the concept determined to organize the sales of material flows and that all materials, components and semi-manufactured goods will be received in the required quantity, at the right place and exactly the appointed time for the production of finished products with the purpose to reduce the costs associated with inventory.

Conclusions of this research and prospects for future developments in this area. In our opinion, the existing systems of material management on domestic enterprises are controlling logistics operations from procurement of raw materials to the final service of product consumers: delivery of raw materials to the plant, sales forecasting, production planning, production or purchasing of raw materials, inventory management of raw materials and unfinished production. I.e. underdeveloped market mechanism which is primarily expressed in unfair and insufficient competition, adversely affects the system of logistics.

And formation of a single logistics center using the concept of "just in time" for the enterprises of related industries who use the same material resources has many important advantages that allow improving of the system of material resources management, such as:

– A number of technological operations of the supply chain are excluded;

– The reserves are declining in a way, because it reduces the delivery time due to the use of suppliers located near or storage of these suppliers.

– The quality of the goods is improving, because they are certified by reliable vendors.

– The delivery reliability is becoming better, as there is a joint interest in "just in time" functioning.

– Labor productivity is improving by reducing the cost of doing warehousing. This allows reducing the cost per unit of stored or shipped cargo.

– A centralized purchasing system is introduced that would standardize the procurement process, eliminate duplication of functions (such as discussion of all delivery conditions, every time when you want to order), carry out effective monitoring of compliance with the logistics center obligations that will provide workflow improvement.

References:

1. Gadzhinskyi A.M., Logistics: textbook for higher educational institutions in the field of study "Economy". – Moscow: Dashkov and C°, 2011. – 481 p.

2. Logisrics: study guide / [Anikin B.A. and others]. – Moscow: Prospect, 2011. – 405 p.

3. Sabden O., Raimbekov Z.S. Logistics (economics and management). – Almaty: Institute of economics MES of RK, 2009. – 911 p.

4. Tulembayeva A.N. Logistics: textbook. – 3rd edition, revised and enlarged. – Almaty:Triumph "T", 2008. – 360 p.

5. Moldakhmetov R.K. Perfection of increasing effectiveness of physical resources use. // Strategy of a region sustainable development: References of international scientific and practical conference. – Karaganda: Kazporebsoyuz KEU Press, 2005. – 351 p. – P.266 – 268.

6. Philonenko V.G. Logistics supply system. Marketing. Logistics: Study guide. University textbook. – M.: UNITY-DANA, unity, 2003. – 62 p.

7. Explanatory note about TEP performance in Kazakhmys Corporation in 2009-2011.

8. Yun R. B., Nezametdinov M.K., Shaltykova R.M. Development Strategy of "Kazakhmys" Corporation for 2004-2025. //Mining magazine. – 2005. – №5. – P.6-11.

9. Integrated logistics delivery system resources (theory, methodology, organization) / Yelova I.A., Lebedev I.A. – Minsk: Law and Economics, 2011. – 460 p.

10. Nikolaichuk, V.E. Logistical management: a textbook. – Moscow: Dashkov and K °, 2012. – 978 p.

Надійшла до редакції 14.09.13

С. Шакеев, канд. екон. наук, доц.
Казахський Гуманітарно-Юридичний Університет, Республіка Казахстан

ШЛЯХИ ВДОСКОНАЛЕННЯ ПОСТАЧАЛЬНИЦЬКОЇ ЛОГІСТИКИ МЕТАЛУРГІЙНОГО ПІДПРИЄМСТВА

У статті розглянуто шляхи вдосконалення управління матеріально-технічним постачанням родинних підприємстві промисловості. Проаналізовано забезпеченість мареіальнимі ресурсами корпорації Казахмис. Запропоновано для оптимального управління матеріальними ресурсами створення логістичного центру для родинних гірничорудних підприємстві.

Ключові слова: логістика, матеріально-технічне постачання, постачальна логістика, лоістіческій центр.

С. Шакеев, канд. экон. наук, доц.
Казахский Гуманитарно-Юридический Университет, Республика Казахстан

ПУТИ СОВЕРШЕНСТВОВАНИЯ СНАБЖЕНЧЕСКОЙ ЛОГИСТИКИ МЕТАЛЛУРГИЧЕСКОГО ПРЕДПРИЯТИЯ

В статье рассмотрены пути совершенствование управление материально-техническим снабжением родственных предприятии промышленности. Проанализированы обеспеченность мареиальными ресурсами корпорации Казахмыс. Предложены для оптимального управления материальными ресурсами создание логистического центра для родственных горнорудных предприятии.

Ключевые слова: логистика, материально-техническое снабжение, снабженческая логистика, лоистический центр.

UDC 303.722: [364.2+365.2]
JEL I 310

E. Sojka, PhD in Economics, Professor
University of Economics in Katowice, Republic of Poland

MULTIDIMENSIONAL COMPARATIVE ANALYSIS OF LEVELS OF LIVING OF POPULATIONS IN EU MEMBER STATES

The major purpose of the article is the comparative analysis of levels of living of populations in EU member states, determination of features that differ studied populations and indication of groups of countries of similar levels of living of their inhabitants in the light of diagnostic features assumed for the study.

Keywords: European Union; taxonomy; synthetic variable.

Introduction. Level of living is a complex category, applied both in economic as well as in social sciences, that is defined in the literature of the subject in various ways. In order to understand the scope of this notion, we ought to pay attention to the definition formulated by UN Committee of Experts in 1954, according to which the level of living includes "totality of actual living conditions of people, and degree of material and cultural satisfaction of their needs through the stream of goods and services against payment and also those coming from social funds" [5, p.73]. This concept of level of living became the foundation for a lot of other definitions of this notion.

A. Luszniewicz defined the level of living as the "degree of satisfaction of material and cultural needs of population by a stream of goods and services against payment and by the fund of collective consumption in a particular unit of time and space" (2 p.12). According to the author, numerical ratings of the degree of satisfaction of seven fundamental types of needs, including food, housing, health, educational needs, recreation, social insurance and material management, are the measures of the level of living of populations.

The major purpose of the article is the comparative analysis of the level of living of populations of European Union member states, determination of features that differ studied populations most and indication of groups of countries of similar levels of living of their inhabitants in the light of diagnostic features assumed for the study. Thus, an attempt was made to answer the question of what the distance between Poland and new Community member states that entered the EU (in 2004, Cyprus, Czech Republic, Estonia, Lithuania, Latvia, Malta, Slovakia, Slovenia; in 2007 – Bulgaria and Romania) and the countries of old EU-15 is, and if a significant relationship between the level of life of inhabitants and economic development of the state finds confirmation in the results of the studies.

The analysed phenomenon of the level of living is not a phenomenon that is directly observed. Conclusions about its level can be made on the grounds of the analysis of the set of diagnostic variables that present its various aspects. And that is why the study was performed with the use of the method of multidimensional comparative analysis (Z Hellwig's taxonomic gauge of development and Ward's method), and the studied period of time was the year of 2010.

Research method. For the purpose of formation of the ranking of EU countries and ordering them from "the best" to "the worst" with respect to the level of living of their populations, a synthetic variable was constructed while basing it on the method suggested by Z. Hellwig [1, p. 307-327; 6, p. 129-130]. The stages of proceedings included:

1. On the basis of matrix of standardised *m* initial variables, a model object ("development model") of the "best" values for each variable was determined:

$$z_0 = [z_{01}, z_{02}, ..., z_{0j}, ..., z_{0m}] \qquad (1)$$

where:

$$z_{0j} = \begin{cases} \max\limits_i z_{ij}, & \text{if } Z_j \text{ is stimulant} \\ \min\limits_i z_{ij}, & \text{if } Z_j \text{ is de stimulant} \end{cases} \qquad i = 1,2,...,n \quad j = 1,2,...,m \qquad (2)$$

2. Similarity of objects to the "abstract" best object was analysed through calculation of the distance (most often Euclidean) of every object to the model of development:

$$d_{i0} = \sqrt{\sum_{j=1}^{m} w_j (z_{ij} - z_{0j})^2} \quad \text{i = 1, 2, …, n} \qquad (3)$$

where d_{i0} represents Euclidean distance *i*-of this object from the model of development, and w_j is the weight for this j-variable determined on the basis of statistical method, that is $w_j = V_j / \sum_j V_j$, where V_j is variability factor of this j variable.

The more the object is similar to the model, the higher the level of the phenomenon placed for this object.

3. Synthetic measure called the measure of development was determined for every object.

$$s_i = 1 - \frac{d_{i0}}{d_0} \quad (4)$$

where:

$$d_0 = \overline{d} + 2S(d_0) \quad (5)$$

$$\overline{d} = \frac{1}{n}\sum_{i=1}^{n} d_{i0}, \qquad S(d_0) = \sqrt{\frac{1}{n}\sum_{i=1}^{n}\left(d_{i0} - \overline{d}\right)^2} \quad (6)$$

The measure of development assumes the values from the range [0, 1] while the value of measure calculated for development model equals 1 and for the anti-model it is zero. The higher the development of a complex phenomenon, the higher the measure of development (a particular object is less distant from the model).

The methods of grouping (classification) allow for division of the collection of *n* objects into disjoint and non-empty sub-sets called classes in such a way that the objects included in the composition of the same categories would be more similar, and the objects belonging to different categories, would be the least similar with respect to the studied complex phenomenon. While grouping the objects organised in a linear way, we can perform a division of these objects with respect to the level of studied phenomenon into four typology groups. The limits of ranges of synthetic variable are determined on the basis of calculated values of arithmetic mean ($\overline{s}$) and standard deviation S (s) of synthetic measure. Such an approach is supported mainly by the fact that this way of division is very often applied in research practice. Compare: [3, p. 93], [9, p. 96]. Thus the collection of studied objects organised in a linear way according to the criterion of descending value of development measure, can be divided into four homogeneous groups (i.e. of similar level of living of populations) that include objects of the values of synthetic variable that belong to the following ranges [7]: Group I : $s_i \geq \overline{s} + S(s)$; Group II : $\overline{s} + S(s) > s_i \geq \overline{s}$; Group III $\overline{s} > s_i \geq \overline{s} - S(s)$; Group IV: $s_i < \overline{s} - S(s)$.

Ward's method, in turn, is one of the agglomeration ways for grouping, which is distinguished from others by application of the approach of variance analysis to assess the distance between agglomerations. While forming a tree diagram (the so-called dendrogram) two agglomerations are combined in one agglomeration to minimise the sum of squares of deviations of all objects from those two agglomerations from the centre of gravity of the new agglomeration that will occur as a result of connection of these two agglomerations. In this method, on every stage, a pair is selected out of all pairs of agglomerations that are possible to match, that as a result of matching gives an agglomeration of the minimum diversity with respect to variables that describe them.

Numerical data and results of research. There is no standard concept about what partial measures should cover the area of observation while defining the level of living of population. It is important that the set of measures should describe the analysed phenomenon in the most accurate way. A barrier of the access to source data often constitutes the criterion for selection.

In the study of the level of living of population, appropriate selection of diagnostic features that characterise the described phenomenon often has a significant impact on final results. Diagnostic variables that make foundations for construction of synthetic measure should have: a high substantive value, high capability of differentiating the analysed territorial units (threshold value of variability coefficient is most often established on the level of 10 %), unequivocal character of preferences (stimulant, de-stimulant and nominant) and ought to present the lack of mutual correlation for the purpose of eliminating the phenomenon of information repetition.

Research into the level of living of populations in European Union countries was characterised by the measures that describe various areas of social and economic life of member states. All statistical data come from 2010 and were taken from Internet database of Statistical Office of the European Union, EUROSTAT [10].

Table 1 shows a collection of 17 potential variables that describe the level of living of population that were divided into 8 groups. In order to obtain clarity of presented data, particular variables were given the X_{ij}, symbol, in which:

i – is the number of group in which the variable is located (i=1...8) and j- the number of variable in a particular group (j=1,2,3). Additionally, the collection of adopted diagnostic variables was divided into two subsets: stimulants (S) and de-stimulants (D).

Table 1. **Diagnostic variables describing the level of living of populations in European Union member states***

Symbol of variable	Group name	Variable name	Mean	Coefficient of variability in %
X_{11}	1. Labour market	Unemployment rate reported in % (D)	10.10	43
X_{12}		Number of unemployed people registered per 1000 people (D)	48.60	44
X_{13}		Employment rate in % (S)	68.48	8
X_{21}	2. Health protection	Life expectancy (in years) (S)	78.24	4
X_{22}		Infant mortality rate per 1000 live births (D)	4.20	43
X_{31}	3. Population incomes and poverty	Average monthly salary (Euro) (S)	1957.67	57
X_{32}		Rate of people at risk of poverty (D)	23.92	32
X_{41}	4. Housing conditions	Average number of rooms per 1 person (S)	1.53	26
X_{42}		House overcrowding rate in % (D)	21.84	85
X_{51}	5. Education	Rate of population at 30 to 34 years of age with university education (S)	34.57	29
X_{52}		Number of students per 1000 people (S)	42.44	25
X_{61}	6. Transport	Number of cars in use per 1000 people (S)	458.63	24
X_{62}		Number of passengers transported by air per 1000 people (S)	2537.01	79
X_{71}	7. Public safety	Road accident fatalities per 1000 people (D)	1277.48	113
X_{72}		Number of crimes reported by the police per 1000 people (D)	49.5	62
X_{81}	8. Natural environment	Gas pollution emission in t/km2 (D)	13370.3	116
X_{82}		Waste produced per year in t/km2 (D)	867.53	124

**Source*: own case study on the basis of Eurostat database.

Finally, on the basis of substantive and formal criteria, the following variables were considered in the study: X_{11}, X_{22}, X_{41}, X_{51}, X_{52}, X_{61}, X_{62}, X_{71}, X_{82}. An attempt was made to select the variables that would represent various areas of the level of living i.e. that would be representatives of particular groups of variables. Due to high values of correlation coefficient none of variables from the third group was qualified to final set of explanatory variables: Population income and poverty.

On the grounds of calculated descriptive characteristics of diagnostic variables (tab. 1) we can observe that there is significant spatial differentiation with respect to analysed features that in the further part will be the foundation for construction of synthetic measure.

Among all European Union member states the highest registered unemployment rate (X_{11}) was reported in Spain (21 %). Equally high level of the rate characterised Lithuania and Estonia. The lowest level of unemployment characterised Austria (4.4 %); Holland and Luxembourg reported similar results. The range of variability of this characteristic was in the studied year 15.7 %.

The states that reached the values above the EU mean, which was 10.1 %, were mostly the countries of the "new" Union. Bulgaria, Latvia, Slovakia and Hungary are for example among them. Also several countries of the "old" European Union were characterised by the level of unemployment that was higher than Union mean. They were Greece, Spain, Ireland and Portugal. Mostly, the countries of the former UE-15, including Belgium, Denmark, Holland and Luxembourg can pride themselves on unemployment rate below the mean value. However, also among the countries that joined the Union in 2004, the values below 10.1 % were reported. This was observed in Cyprus, Czech Republic, Slovenia and Romania, among others.

Infant mortality rate (X_{22}) is a measure that provides information about the level of social and economic development of the state and about the quality of mother and child health care. In social sciences, it is treated as a general measure of civilizational development. It results from the analysis of data that the highest value of infant mortality rate per 1000 live births was reported in the countries that are in the European Union for the shortest period of time, i.e. in Romania and Bulgaria (9.8 and 9.4 respectively). These are the results that are significantly higher than European Union mean. The lowest coefficient of infant mortality rate was reported in Finland (2.3). A similar level of this rate was also observed in Czech Republic, Portugal, Slovenia and Sweden. The difference between the maximum and the minimum value of the variable is 7.5 per mill.

The mean value of infant mortality coefficient for the whole Union was 4.2 per mill. The values above the mean were reported in nine countries, while eight of them are the countries that joined the Union in 2004. Apart from Bulgaria and Romania, they are Latvia, Malta and Slovakia. Beside Great Britain, each of the countries of the "old" Union was characterised by the rate below the Union mean. In Poland in 2010, 5 deaths at birth were reported per 1000 live births and it is the result that is worse than Union mean by 0.8 per mill.

The average number of rooms per 1 person (X_{41}) in the whole Community was 1.53. Only the states of the "old" Union were characterised by the values above the Union mean. The highest value of the rate was reported in Belgium and Ireland (2.1) and also in Holland and Malta (2.0), whereas the lowest rate was reported in Romania (0.9). The values in Latvia, Poland and in Hungary were on a similarly low level, where 1 room fell for 1 person.

The highest rate of population at the age from 30 to 34 years of age with university education (X_{51}) was reported in Ireland (almost 50 % in this age group). Among all the countries, Romania compared the least favourably, with the population rate that was slightly over 18 %. The results above the mean value for the EU-27, which is 34.57 %, were reported mostly in the countries of the "old" EU, in Belgium, Finland and in Sweden, among others. Majority of new Union member states had, in turn, the result below the mean. Here we can mention countries such as Czech Republic, Malta or Slovakia. Poland, as one of few states of the "new" Union can pride itself on the rate value that was higher than Union mean. In 2010, over 35 % of Polish people at the age between 30 to 34 years of age had university education. During the period of joining the Union structures by Poland, this rate was at the level of only 14.4 %.

With respect to the number of university students per 1000 people (X_{52}) Poland was located among the states with the highest value of this rate. In 2010 there were 56.3 people studying at university per 1000 people which located this country on the 4th position among all Union states. Majority of European Union states are placed close to the mean that was slightly over 42 people. In 12 countries, the results slightly over the mean value were reported, and among them as many as seven were the countries of the "new" Union, including Lithuania, Estonia, Romania and Slovenia. In the group of countries of the "old" Union, Finland and Greece proved to be the best, where the number of people studying for BA or MA degree or at uniform Master's studies (dependently on the educational system of the state) per 1000 people was higher than 56.

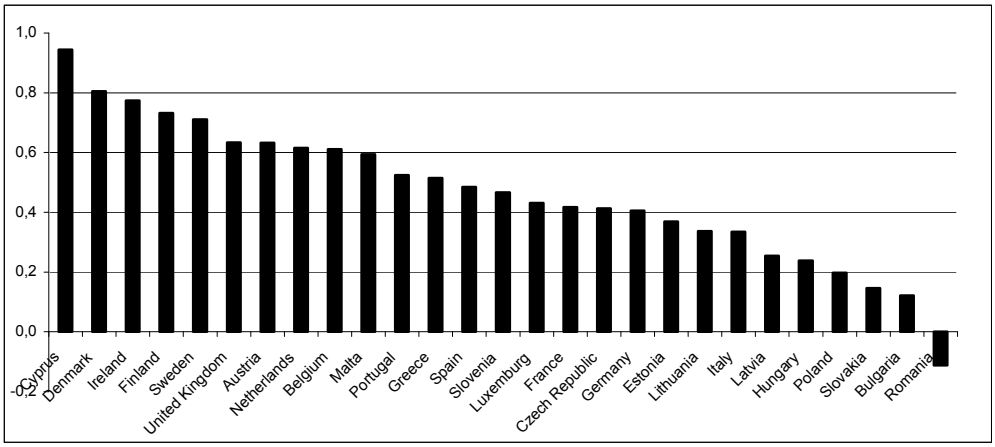
The mean number of passenger cars in use per 1000 people (X_{61}) in the whole Union was 459. In majority of countries the results close to Union mean were reported. Only in six of the countries the value of this rate was slightly lower than the mean for the union and except for Greece, they were the countries of the former eastern bloc, including Latvia, Slovakia and Hungary among others. It ought to be reported that in Romania the analysed variable X_{61} assumed the value that was three times lower than the respective rate for Luxembourg (Romania – 201; Luxembourg – 660).

The number of passengers transported by air per 1000 people (X_{62}) is the next variable that shows significant differentiation. There are two countries that are remarkably distinguished against the others. They are Cyprus and Malta. The value of the rate for these two countries was respectively 8481 and 7948 people. These are the values that significantly exceed the Union mean that is 2537 people. The results above the average can also be observed in 10 states of the "old" Union. They are Denmark, Spain and Ireland. On the other hand, the lowest values were reported in Slovakia (347) and also in Romania, Poland, Lithuania, Bulgaria, Slovenia and in Hungary. For these countries, the number of passengers was not higher than 1000 people, which proves that air transport is poorly developed there.

X_{71} variable that defines the number of road accident fatalities per 1000 people is the representative of group 8 – public safety. In Poland in 2010, 4572 road accident fatalities were reported and it was the worst result in the European Union. For the last eight years, the situation has improved, because as it results from EUROSTAT data, in 2002, the value of the rate was 5827, which means that it was over 1200 more fatalities than in 2010. Apart from Poland the highest values of this rate (almost four times higher than the Union mean) were reported in France, Germany and in Italy. On the other hand, in countries like

Malta, Luxembourg, Cyprus and Estonia, the number of fatalities was not higher than 100 per 1000 people.

In the next step of the analysis, the variables were brought to uniformity – all were transformed into stimulants through application of differential transformation method. Next, normalisation of features was performed, and thus all variables were standardised for the purpose of deprivation of variable name and standardisation of the order of their magnitude. Having the standardised values of variables, Hellwig's synthetic measure of development was calculated (fig. 1). The smaller the difference between the values of measure from one, the more a particular object (the country) is developed with respect to the level of multi-quality phenomenon, and so the closer it is to the model object.



Graph 1. Arrangement of EU-27 states according to Hellwig's taxonomic development measure in 2010*

* *Source:* own case study.

Cyprus proved to be the country of the highest value of Hellwig's development measure, where the level of living of the population showed the lowest deviation from development model. High locations in the ranking were also occupied by Denmark, Ireland, Finland and Sweden. Romania was located at the end of the list with the lowest values of the measure.

Distribution of the values of Hellwig measure is characterised by very small left-sided asymmetry which proves that in the studied period the values of s_i measure that were higher than the mean were predominant (i.e. prevailing number of countries was characterised by the level of living that is higher than the mean).

While applying fundamental descriptive characteristics of synthetic measure, which is an arithmetic mean ($\bar{s} = 0,4666$) and standard deviation (S(s)=0,2333), classification of countries was performed and they were divided into four typology groups that reflected the level of living of the population in the light of adopted feature:

Class I – of the highest level of living of the population, includes: Cyprus, Denmark, Ireland, Finland, and Sweden.

Class II – the class of moderate level of living of population includes eight states: Great Britain, Austria, Holland, Belgium, Malta, Portugal, Greece and Spain.

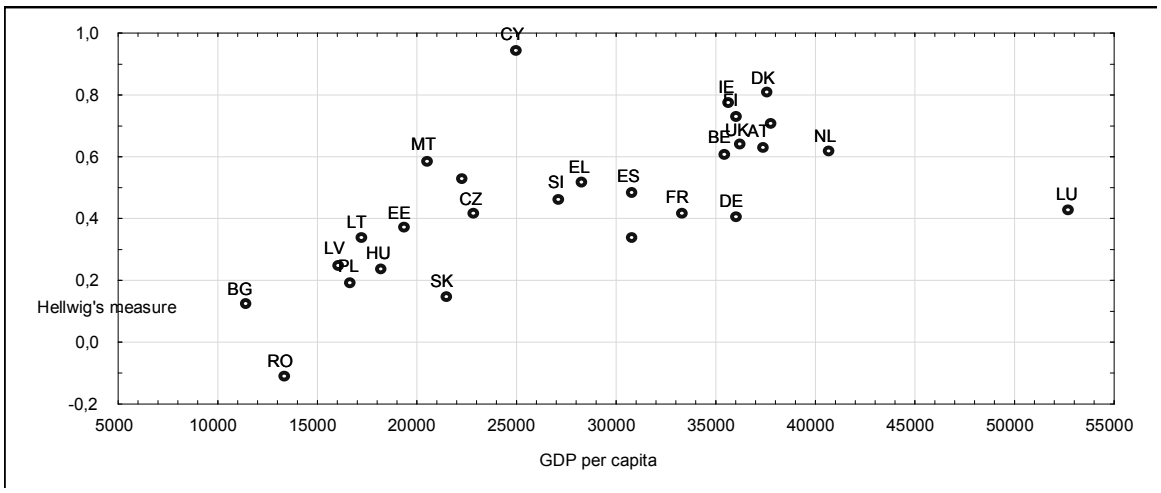
Class III – includes as many as ten countries of low level of analysed phenomenon. Four of them are the countries of "old" Union (France, Germany, Italy, Luxembourg) and the next six are "new" EU member states that joined the Community in 2004 (Slovenia, Lithuania, Latvia, Hungary, Estonia, Czech Republic).

The last class IV with the lowest level of living of population includes the countries of the former Eastern bloc: Poland, Slovakia, Bulgaria and Romania. The latter two countries joined the Community in 2007.

It is generally known that condition of the state economy is an important determinant of the level of living of the population. In comparative studies GDP per capita is the rate that is most frequently applied for the assessment of the level of economic development. The level of development of economies of particular Community countries (when considering GDP per capita as the basis) is clearly differentiated. This differentiation concerns both the relationships between the countries of the "old Union" (EU-15) and the new member states. This differentiation itself is nothing surprising; however its scale is important. It ought to be mentioned that in the whole Europe, as much as 88 % of GDP is created by economies that belong to EU while the area of the Community is inhabited by 67 % of the continent population [8. p. 166]. Diversity of the states with respect to GDP per capita calculated according to the purchasing-power parity (in international dollars) in 2010 shows that in 13 of them, GDP rate was lower than the mean level for the whole Union that amounted to around $ 31496 per 1 inhabitant.

New Union member states are significantly different from this mean and the largest distance can be reported for: Romania (of 55 %), Bulgaria (of 56 %) or Hungary (of 68 %). If we consider other European countries, this stratification of GDP per capita would be even larger. For example in Ukraine, GDP per one inhabitant is 4.5 times smaller than Union mean and almost 13 times smaller than in Luxembourg. In Turkey, Macedonia or Montenegro the analysed rate was in 2010 from 2 to 2.8 times lower than the mean for the Community. The Union mean was definitely influenced by accession of new members to EU which aggravated inequalities and sharpened the problems associated with coherence in European Union.

As the research shows, there exists a clear relationship between the level of economic development of the country and the level of living of its inhabitants. Fig. 2 shows relationship between the value of synthetic measure of the level of living and GDP per capita according to the purchasing-power parity (in $).



Graph. 2. The value of Hellwig's synthetic development measure in relation to GDP per capita (according to the purchasing-power parity in $) in 2010*

**Source:* own case study.

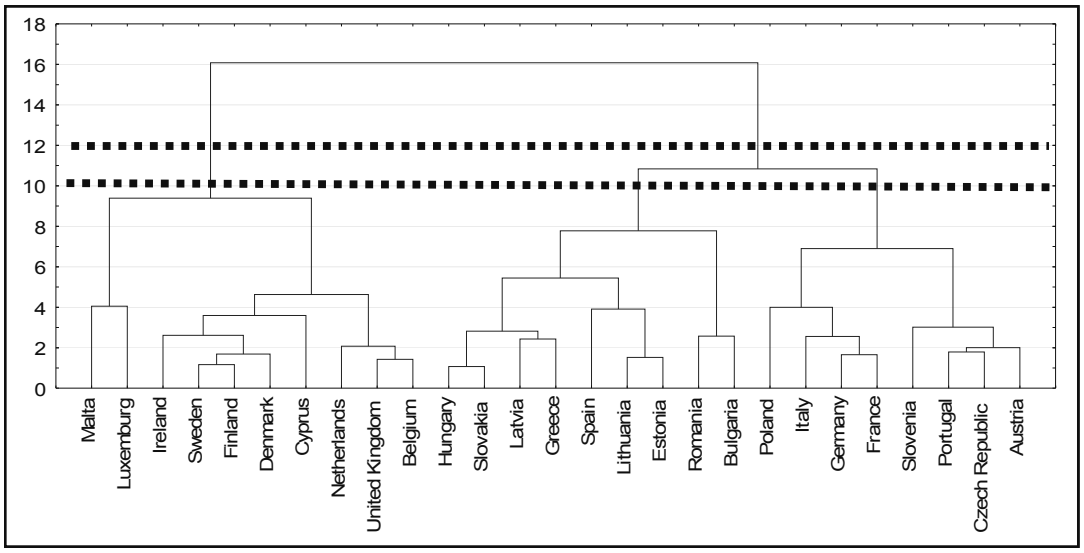
Analysing the aforementioned dispersion graph, we can state that there is a clear positive relationship between these values. The countries that were distinguished by high value of Hellwig's measure, including Denmark, Sweden, Ireland, Finland or Belgium and Holland (group I and II), are also characterised by high level of GDP per capita. On the other hand, low value of GDP per one inhabitant, in countries such as: Romania, Bulgaria is reflected in low value of synthetic measure that defines the level of living of inhabitants of the countries in this group (group IV). The occurrence of a clear relationship between analysed values is confirmed by calculated value of Pearson's linear correlation coefficient that is 0.7106. What is more, this coefficient proved to be statistically important, with the level of significance 0.05.

In the final stage of the analysis a classification of countries into homogenous groups was performed with the use of Ward's method of agglomeration. Euclidean distance was adopted as the measure of distance. As a result of hierarchical grouping a dendrogram was obtained. It is shown in Graph. 3. Division into two agglomerations is clearly outlined. However, it seems reasonable to also divide the right agglomeration into two smaller sub-groups which thus would give three agglomerations. Suggested divisions are marked in graph 3 with dotted lines.

The first agglomeration that is most numerous includes mostly the countries of former EU-15, that is Luxembourg, Ireland, Sweden, Finland, Denmark, Holland, Great Britain and Belgium, and among the group of new Union member states, it includes Cyprus and Malta. Variables that represent four groups of features, that are housing conditions – X_{41}, education- $X_{51,}$ transport -X_{62} and natural environment – $X_{82.}$ are predominant in this group.

The second agglomeration includes mostly the countries of the former Eastern bloc (Hungary, Slovakia, Latvia, Estonia, Romania, Bulgaria), but also Greece and Spain, the countries that recently have been struggling with economic crisis. High unemployment rate (X_{11}) and high level of infant mortality (X_{22}) are features that are characteristic of this group of states.

Poland and Czech Republic were found in the third agglomeration together with such states as: Italy, Germany, France, Slovenia, Portugal and Austria. X_{71} variable – the number of road accident fatalities per 1000 people, with relatively high values, proved to be the most important feature in this group.



Graph 3. Dendrogram of classification of EU member states with the use of Ward's method*

**Source:* own case study.

For the purpose of comparison, classification of EU-27 states within 3 groups was also performed with the method of k-means. Obtained composition of groups of states that occurred, was almost identical with results of classification with Ward's method. Hungary and Italy were the only exceptions here as they changed their positions. What is more, the variance analysis conducted during classification showed that all considered variables discriminate concentrations, because for each of the variables, F statistics was significant on the level of relevance of 0.05.

Conclusions. On the grounds of performed analyses we can make some fundamental observations:

- analysing the results of performed linear arrangement, we ought to remember that they are based on nine selected variables. And they, in turn, are resultants of somehow subjective choice of the author (starting with the choice of the type of measure, its model, through selection of diagnostic variables, their standardisation) and the access to data. Supposedly, while adding or removing some variable, we might obtain slightly different results. However, it certainly does not diminish the value of this study as the assessment of the level of living of populations in European Union member states;
- the leading group of countries that are the closest to development model and thus the countries that are characterised by the highest level of living of population in the light of adopted qualities include: Cyprus, Denmark, Ireland,Finland and Sweden;
- on the opposite side, we can find the countries of the former Eastern bloc, which are characterised by the lowest level of living of their populations and at the same time, they are distinguished by a low rate of GDP per capita. They include Hungary, Poland, Slovakia, Bulgaria and Romania.
- despite the fact that Poland has been the EU member state since 2004, the level of living of its inhabitants is still significantly different from the level of living of the populations of the so-called "old" Community member states.
- there occurs a clear, positive relationship between the level of economic development of the state (measured in GDP per capita) and the level of living of its inhabitants. The countries that were distinguished by high value of Hellwig's measure, including Denmark, Sweden, Ireland, Finland or Belgium and Holland are also characterised by high level of GDP per capita. On the other hand, low value of GDP per one inhabitant in countries including: Romania, Bulgaria is reflected in low value of synthetic value that describes the level of living of inhabitants of these states.

References

1. Khelvynh Z., Zastosovanye metody taksonomichney do typolohychnoho podzhyalu krayuv ze vzhlyendu na poz'om ikh rozvoyu oraz zasoby i strukturem vykvolifikovanykh kadr, Pshehlond Statystychny 1968, no 4. p. 307-327.

2. Lushnyevch A. Statystyka pozh'omu zhycha lyudnoshchi PWE Publishing House,Warsaw, 1972, p.12.

3. Novak E.,Metody taksonomichne v kvalifikatsiyi ob"yektuv spoluchno-hospodarchykh, PWE Publishing House, Warsaw,1990, p. 93.

4. Panek T., Statystychne metody vyelovymyarovey analizy poruvnavchey. SGH Publishing House, Warsaw, 2009, p. 95.

5. Pisany Y., Pozh'om i yakoshch' zhycha lyudnoshchchi oraz zrudla i myerniki ikh okryeshchlyanya, [in:] Rukh Pravnichy, Ekonomichny i Sotsyolohichny. Publishing House 1993, booklet p.73.

6. Soyka E., Bal'tserovich-Shkutnik M., Metody il'oshch'ove v finansakh i rakhunkovoshchi. Vybrane zahadnyenya. Publishing House of the University of Economicsin Katowice, 2011, p. 129-130.

7. Soyka E., Mihratsye lyudnoshchchi i rozvuy demohrafichny Shl'onska v okreshye transformatsiyi. Publishing House of the Universityof Economics in Katowice,Katowice, 2007.

8. Shukal'ski S. M. Hospodarka Evropy v perspyektyvye 2050 roku [Economy of Europe in the Prospect of 2050],In: Evropa v perspektyvye roku 2050, > PAN Publishing House, KomitetPrognoz 1. "Polska 2000 Plus", Warsaw 2007, p. 166.

9. Zelyash' A., (ed. by), Taksonomichna analizapshestzhenne hozruzhnitsovanya pozh'omu zhychya v Pol'stse v uyechu dynamichnym, Universityof Economics, Krakow, 2000, p. 96.

10. Eurostat. Statistics. Browse / Search [Elyektronichny zasub] // European Commission : [teren]. – Dostemp: database http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

Надійшла до редакції 15.10.13

Е. Сойка, д-р екон. наук, проф.
Економічний університет м. Катовіце, Республіка Польща

БАГАТОВИМІРНИЙ ПОРІВНЯЛЬНИЙ АНАЛІЗ РІВНІВ ЖИТТЯ НАСЕЛЕННЯ В КРАЇНАХ-ЧЛЕНАХ ЄС

В статті проведено порівняльний аналіз рівнів життя населення країн-членів ЄС, визначено їх відмінності та виявлено групи країн зі схожими характеристиками умовжиття населення.

Ключові слова: Європейській Союз; таксономії; синтетична змінна.

Э. Сойка, д-р экон. наук, проф.
Экономический университет г. Катовице, Республика Польша

МНОГОМЕРНЫЙ СРАВНИТЕЛЬНЫЙ АНАЛИЗ УРОВНЕЙ ЖИЗНИ НАСЕЛЕНИЯ СТРАН-ЧЛЕНОВ ЕС

В статье осуществлен сравнительный анализ уровней жизни населения стран-членов ЕС, определены их отличительные черты и выявлены группы стран с похожими характеристиками условий жизни населения

Ключевые слова: Европейский Союз; таксономия; синтетическая переменная.

UDC 338.242.2
JEL O 34

A. Vikulova, PhD student
Taras Shevchenko National University of Kyiv, Kyiv

STATE INCENTIVE OF COMMERCIALIZATION OF INTELLECTUAL PROPERTY

The article shows understanding of the essence of commercialization process and finds its characteristic features. It also defines the main directions of the state stimulation of commercialization of intellectual property. The mechanisms of the state regulation which can be expediently applied in the Ukrainian practice are presented in this article.

Keywords: commercialization, innovative activity, intellectual property, scientific and technical developments.

Problem statement. In a modern world innovative development of economy as the main macroeconomic task is possible only under the condition of successful realization of a huge number of specific innovative projects. Scientific and technical activity has become a day-to-day activity for millions of experts involved in it; its results versatility influences the activity of billions of people on the planet, the processes of its development are the subject to the state regulation in the developed countries and those countries which try to intensify their social and economic develop-

ment, no matter when they had their first traditions in this human activity found [1, page 5].

Commercialization of intellectual property is a key factor of economic growth and development in a mid-term and a long-term prospect. Well balanced, available and reliable system of the state incentive of commercialization of intellectual property plays an important role in this process. In the times of modern economic competition those countries win, which provide favorable conditions for the development of intellectual property, that is help in every possible way the scientists and inventors to commercialize the ideas and projects. Getting new knowledge and mastering new technologies as well as their effective use in social and economic development by a decisive measure defines the role and the place of a country in the world commonwealth, the level of national security and people's standards of living. In the industrially developed countries 80-90% of GDP gain comes to that new knowledge, realized in equipment and technologies. Despite the availability of considerable scientific developments and high education level of the research institutes staff, the scientific and technical sphere in Ukraine is not in its best situation. The sphere of scientific and technical activity in our country is one of the most complicated, in terms of providing legal regulation. Unfortunately, the state still has not taken any necessary steps to transform the scientific and technical activity into a fully-fledged branch of national economy.

In European countries such mechanisms that stimulate the transfer of technologies operate. There are different examples of programs which direct considerable financial resources at incentive of commercialization of intellectual property. These are the programs that work both nationwide and all over Europe (structural funds). For instance, the programs for joint financing of contract scientific researches, subsidizings of services in commercialization of technologies, granting the start capital for so-called "start-up" companies etc. Foundation of the "start-up" companies focused on commercializing of knowledge and skills of research, is one of the main instruments of commercialization in Europe, therefore, this economic sector is focused on application of different incentives (tax, financial, economic).

National industry is in a great need of production updating (first of all, updating of technologies), the scientific and technical sphere possesses considerable capital funds and intellectual resources for resolving this problem, but there is no system of commercialization of scientific development and technologies in Ukraine. Still no accurate mechanisms for attraction and use of the results of scientific and technical activity, that is intellectual property, are developed to apply them into economic turnover. After all, it is the state who has to pay special attention to scientific and technical activity and create the regulatory and legal framework, that will be capable to provide commercialization of the objects of intellectual property.

Analysis of the last researches and publications. Providing the innovative processes to a great extent depends on creation of the mechanism of management of practical implementation of difficult innovative projects. It should be mentioned that national and foreign economists and researchers of innovative processes pay considerable attention to the research of forming factors of scientific and technical potential. Thus, the essential contribution to the development of theoretical and practical aspects of economy and management of scientific and technical potential was made by scientists-economists D. M. Chervaniov, V. D. Bazylevych, O. I.Zhylinska, V. M.Geyets, L. K.Bezchasny, Y. M. Bazhal, G. I. Kalytych, A. Malytsky, V. P. Solovyov, S. Y. Glazyev, N. P. Goncharova, D. I. Kokurin. Among foreign researchers such names should be noted as J. Schumpeter, B. Santo, B. Twiss, R. Hoffmayer, B. Lundwall, S. Friman, G. Mensha, J. Kazmietsky, Y. N. Grik, I. A. Monastyrny. Scientists are unanimous in their conclusions that transformation of scientific and technical potential into the main driving force of economic growth of the state is possible only on the basis of formation of the effective organizational economic mechanism of scientific and technical development commercialization. Theoretical and methodological principles of resolution of this issue in Ukraine are one of the priority tasks of economy as well as scientific and technical potential management.

Aim of research. To reveal the essence of commercialization of intellectual property process and its characteristics. To define the main directions of the state incentive of commercialization of intellectual property.

Main results of research. Commercialization of the objects of intellectual property is a long and complicated process which is possible only on condition of close interaction of the state, science, industry and market, with informational support of all the stages of innovative cycle, taking into account the economic and social factors of emergence and use of intellectual property, as well as modern trends in business and economy, conducting effective market researches.

Commercialization of technologies is the most important element of innovative process as it is the process of transformation of the results of scientific and technical activity into goods and their further effective commercial realization [2]. As J. Kazmietsky says, "commercialization is the process by means of which the research and development results (RAD) are in due time transformed into the products and services in the market" [3]. According to Y.N. Grik and I.A.Monastyrny, commercialization of innovative idea is getting the profit from its sale and use in one's own production [4]. For instance, "Encyclopedian economic and law dictionary" gives several definitions of commercialization. 1. As a concept of the first steps of transition of CIS countries to the market relations. "Commercialization is the first step on the way to privatization when the enterprises are responsible for the results of their financial activity, and the state doesn't date their expenses any more".

2. "This is wide use of commercial beginnings in economy, expansion of number of commercial organizations." Without having explained specifically what commercialization is, this definition, explains it once again with commercialization itself. 3. "Activity subordination to the aim for gaining the profit" [5]. But activity subordination to the aim for gaining the profit is the whole business activity, which is far broader than just commercialization. The economic encyclopedia gives the following definition of commercialization: it is "1. Wide use of commercial principles in economy, expansion of number of commercial structures. 2. Activity subordination to the aim for getting the profit in the system of market relations [6]. According to Kendrick White, Director of Marchmont Capital Partners, commercialization is adaptation of fundamental science to business [7].

In our opinion, these definitions are insufficient. In particular, the definition by J. Kazmietsky points at possibility of division of innovative process into own innovations development and their transformation into market products, while the process of commercialization has to connect these stages indissolubly. Besides, it isn't specified, what terms of commercialization should be considered as "due" terms. In the definition of Y.N. Grik and E.A.Monastyrny some ambiguity is brought by the concept "innovative idea", since any stage of innovative process, in my opinion, represents a certain innovative idea, not necessarily the one that gives the chance for commercialization. At the same time, in the given definition one important detail is

emphasized: commercialization of innovations provides getting the profit from introduction or sale. Due to existence of specified inaccuracies I will give my own definition of the concept "commercialization". Thus, commercialization is a system of actions aimed at transformation of RAD results, which save their market relevance and demand, into products and services in the market which are aimed at reforming of economic activity of enterprises and their achievement of strategic development objectives by means of implementation the necessary structural transformations adapted for changes of environment functioning factors in order to get the maximum profit from their sale, licensing or independent use. Thus, the process of commercialization allows searching, evaluation (expertise) and selection of innovations for financing, legal claiming for rights on future intellectual property, introduction of innovation in production, as well as its further modification and support of intellectual product.

At the present stage of development, realization of innovations is a key task not only for the scientific and technical sphere of the country, but for the increase of domestic economic competitiveness within the national innovative system in overall. Final result of innovative activity is creation of innovation, but the process of commercialization not only has to be continuous, like innovative search itself, but it has to begin even before the end of research and development.

There is a great variety of mechanisms by means of which in the developed countries of the world the state takes part in creation of favorable innovative climate and promotes commercialization of the research activity results. In general, the applied tools can be divided into three big groups. Firstly, it is a direct financial involvement of the state in the form of financing of certain projects (for example, participation in venture financing) or organizations (for example, small innovative firms). Secondly, it is support of connections between the public and private sector in the scientific innovative sphere (joint state-private partnership). Thirdly, it is financing of creation of elements of production and technological infrastructure (science and technology parks, incubators, offices to promote the technologies etc.). Let's have a look at those mechanisms of state regulation which can be expediently applicable to Ukrainian practice and take a foreign experience as an example.

New tendencies are observed in the world that clearly appeared in the 1990-s in the market of intellectual property objects, where among its main players (multinational corporations) biger and biger role is being played by the research universities [8, page 176].

Table 1. **Stakes held by institutional sector R & D scope of the U.S. A. in activity consumption quantity,% ***

Sector and the nature of work	1999			2004			2009		
	Fundamental research	Applied research	Development	Fundamental research	Applied research	Development	Fundamental research	Applied research	Development
University & Colleges	54,0	11,1	0,9	57,0	13,0	1,2	53,4	16,7	0,8
Federal Government	8,6	10,6	6,0	8,4	10,8	7,2	7,2	11,2	6,9
Federally Funded Research & Development Centers	9,6	3,2	2,1	8,9	4,5	2,6	7,7	6,5	1,9
Industry	17,1	70,4	89,9	14,0	65,7	87,5	19,5	57,6	89,5
Non-Profit Organizations	10,8	4,7	1,0	11,8	6,1	1,5	12,2	8,0	1,0

*Compiled by the author based on [9].

Thus, as can be seen from table 1, in 2009 Universities and colleges completed (by value) 53.4% of all work in the segment of fundamental research (basic research), but only 16 7% in the segment of applied research (applied research) and very small fraction – 0.8% – in the segment D (development). It should be borne in mind that the overall structure of American research and development, general expressed in value terms which in 2009 amounted to approximately $ 400.5 billion, fundamental research covering 19.0% applied – 17.8%, and the development – 63.2%. The structure of the corporate sector is almost the opposite: American industry was performed 89.5% of all works in the segment D, 57.6% of works in the segment of applied research, and only 19.5% of jobs in the segment of basic science. Federal R & D sector is characterized, at first glance, more or less contiguous values of three key parameters (basic science – 14.9% Applied research –17.7% development – 8.8%). However, it should be borne in mind that the sector performed much especially sensitive and labor-intensive applied research and development that require significant resource investments, which makes them not always attractive activity for corporate industry and universities.

According to the expert evaluation, cumulative effect from the use of inventions made in university sector of science of American economy, makes 21 billion USD, which covers the cost of works on pre-commercial stage – carrying out the research and development work (4 billion USD) and output of new production on the licenses of universities (17 billion USD). In the mid 90-s in the USA the practice of evaluation of a certain university's contribution to a scientific, technical and economic development of the country became widespread: for example, the companies found by the alumni and professors of the Massachusetts Technological Institute (MTI) form the twenty-fourth "economy" in the world, taking into account their sizes. Tendency of the last years – changes in the board of founders of the companies: if 50 years ago over 60% of companies' founders were experts with engineering education, in the recent years their number decreased to 40%, and the number of experts in management and business has grown up to 43%, in this case high-tech companies are found not only in the territory of the USA [9, page 48]. About 200 American universities belong to Association of technological management which tracks the main tenedencies of patent and licensing activity; according to its data, ten leading research universities of the USA (California University, Stanford, Colombian, Michigan, Wisconsin Madison University, Chicago University, Florida University, MTI, Washington University and University of Washington D.C.), total income of universities from the sale of licenses for the year an average of 230 million dollars. while expenses – 34 463 million. So, during one year these universities got net profit

of 195,177 million dollars and more than a half of this money belonged to the first three universities, namely, Californian University got 45,232 million dollars of profit from license operations, Stanford got 41,446 million dollars, Colombian University got 37,724 million dollars, which respectively makes no less than ¼ of all the profits gained by these universities [9, page 49]. In 1998 additional profit from license activity of all the American universities made 725 million dollars, American economy gained 33,5 billion dollars profit and created 280 thousand workplaces from implementation of 7 469 new university licenses [10, p. 49].

Among the programs for innovative business support, which have more than a 20-year old history in the USA, there is one called SBIR (Small Business Innovation Research Program) launched after the acceptance of the Act of development of small innovative business (Small Business Innovation Research Act) in 1982. In 1992 the program was amended and prolonged till the year 2000. It is being realized now too. Within the framework of this Act another program called "Small Business Technologies Transfers" (STTR) was established. The SBIR program is urged to provide small business with the start capital and maintain participation in RAD, financed by the government. Besides that, within the recent years a great value is given to development of commercial addings of working results, that have been created due to SBIR financial support. In this program the state acts as kind of venture capitalist, investing in high-risk projects. Those state agencies whose budget expenditures on RAD exceed 100 million dollars per year have to bring financial contribution to the program. At the moment 11 federal agencies take part in the program. In 1992 agencies had to transfer 1.25% of their budget on RAD in support of small business within the framework of SBIR, in 1993-94-s this number made 1.5%, later in 1995-1996 – 2%; and in 2012 the percent of compulsory assignments reached 3.5%. Thus, each agency has its own scientific priorities and in accordance with them money is allocated within SBIR program. The program consists of three stages. On the first stage that lasts no more than half a year, small firms-applicants have to show the capability of the innovation offered to meet previously declared requirements of federal agency. Financing at this stage doesn't exceed 100 thousand US dollars. At the second stage that lasts 2-3 years a small enterprise has to create a product prototype. Financing allocated for these purposes equals 750 thousand US dollars. Third stage is a product commercialization. At this stage the state doesn't provide financing any more. As the program developed, its monitoring became stricter as well. Since 1996 all small firms that got support within SBIR framework have to report about their achievements (received both by means of this program, and at the expense of other sources), – such as the amount of sums for commercialization of scientific results, the profit from new production sales. Since 1997 one more criterion that allows evaluation of previous results even at the stage of project implementation has been introduced: firms which received financing at the second stage of the program, had to make the annual report on the other, except for SBIR, sources of financing and their profit from new product sales [11, p. 103].

Practice showed that the companies need 5-9 years on average to develop the project from the concept till it becomes a commercial product. In four years after the financing stops, at the second stage of the program about 12% of the supported firms are able to commercialize the results of RAD work. The SBIR program efficiency evaluation is quite inconsistent. Thus, it should be noted that no systematic evaluation of the results was carried out and all the conclusions are based on the analysis of data on rather casual circle of the companies-recipients of financial support. Therefore, the results of comparative research of 513 companies which got the SBIR grants were published and those of 185 companies, whose applications were declined and those of 79 companies, which meet the requirements of the program, but didn't submit their applications. Calculations showed that the more grants the company gets within the framework of this program, the less it spends by its own on RAD. So, the classical effect of replacement of private expenses by the state ones takes its place [11, p. 121]. The aim of the program was absolutely opposite – to support the small companies, so that they increased their own expenses on RAD.

At the same time data on 50 most commercially successful companies, supported within the program, testify that the state investments are completely paid off. Thus, total sales volume of these companies made 9.1 billion US dollars that is 30 times more than the amount of financing, allocated at that time within SBIR program. Private investments attracted by these companies at the third stage made 963 million US dollars that exceeded the program cost by three times. The amount of workplaces grew due to the activity development of these companies from 1254 up to 10287.

At present time the discussion around the program has risen on whether it is possible to evaluate the program results by the number of "brought-up" leading companies and volume of the initial expenses compensated by them later. The point of view that such evaluation is disoriented gets more and more popularity, since the assignment of such programs is to support not those projects and firms that would get financing from private sources as a result of commercial attractiveness of their projects, but those firms which couldn't present any interest for the private sector at the stage of their program appeal, due to a high risk put into their offered projects. Then the indicators of "success" will be much lower, but it will testify in favour of the fact that the most risky projects has been chosen for financing. Otherwise the financial burden is transferred from private into the state sector that, in fact, means inefficient use of public resources. The same argument is set upon the ANVAR program, one of the most known initiatives of the small business support realized in France.

ANVAR (ANVAR – Agence Nationale de Valorisation de la Recherche) – is a National agency on increasing the innovative attractiveness of scientific researches. It is a governmental agency with industrially commercial status which was found in 1979 for providing assistance for innovative activity in the industry of France, mainly in the sector of small and medium business. This status means that ANVAR acts as independent concern, but its mission is defined by the government and the government provides the main assets to the program funds. ANVAR acts under the auspices of several ministries which are responsible for industrial issues, scientific researches and those concerning the sector of small and medium-sized enterprises. The ANVAR's annual budget makes about 215 million euros. Within ANVAR framework several initiatives are developed. Thus, ANVAR gives financial support to the innovative enterprises and research laboratories, in two main ways. One way of support is the interest-free loan for the period of up to 5-6 years which is the subject to return in case of successful project implementation and which covers up to 50% of general expenses, connected with the innovative project implementation or the project on technology transfer. The second way is giving the grants for the sum of up to 38 000 euros. Financing can be used for preparation and finishing of innovative programs, founding the innovative companies, increasing the technological level of small and medium-sized enterprises (by involving the researchers, re-

ceiving and using the scientific and technical information etc.), as well as incentive for wider participation of small and medium-sized enterprises in the European projects of technological cooperation within the EUREKA organization or within other regional or international initiatives. ANVAR has 24 regional offices and the project selection for financing is made by their employees, taking into account economic, technical and financial indicators of the applications. According to the ANVAR agency data, within 10 years it gives support to, on average, 20 000 companies and laboratories, and also gives financing to 34 000 technology-based innovative projects of total cost of 3 130 000 000 euros. Thus, in accordance with the conducted in 2012 evaluation of ANVAR activity by foreign experts, from 40% to 50% of loans granted come back on average. It causes disturbance and compels to discuss the vectors of improvement of agency's activity now. In particular, the question about the effectiveness of requirement to return the money for only those organizations, whose projects were commercially successful is disputable, as well as whether it stimulates the dependant mood among the small enterprises, which can be engaged in "decumulation" of finances under such circumstances.

In Canada the program of assistance to industrial researches (Industrial Research Assistance Program – IRAP) was initiated by the government [13] within which the strategy concerning incentive of the Canadian small innovative enterprises is realized. The program provides 150 million US dollars a year and each project lasts 5 years on average. The program also provides strategic access of small enterprises to information, resources and financing, so that they could commercialize the results of their developments. In 2011-2012 the support was given to more than 5500 projects, connected with industrial development, and in overall the program helps 12,000 Canadian small firms to increase their innovative potential. Innovative risks for small enterprises decrease because the program network has more than 260 industrial and technology advisers, 140 partner organizations at a regional level, known as "members of the network" and more than 1,000 of participants inside the Canadian Technology Network. Small companies which took part in IRAP, have by 20% higher level of survival in comparison with those small enterprises which weren't given any support from the government.

In Sweden support of small technology-based companies is carried out through the Swedish Industrial Development Fund (IDF) [14]. The fund carries out crediting and directs investments in the small firms whose production belongs to priority branches of technologic development (information and communication technologies, natural sciences, industrial technologies), and has the number of employees up to 250 people and turnover up to 400 million SEK. (59 million US dollars). For getting the loan, the small firm needs to show that the project has good commercial prospect and high level of management. The overall cost of the project must be no less than 4 million SEK (590 thousand dollars). The IDF credit can cover up to 50% of overall cost of the project. The interest rate of the credit is evaluated on a market basis. IDF offers different schemes, including converting of the credit into the share of the company on condition of successful development of business. IDF can carry out the investment at different stages of project development (seed stage, initial, and at the stage of expansion of the company). For getting the seed capital, the company has to prove that the project contains unique idea which has obvious potential of commercialization. Very important aspect is demonstration of potential of a new business in terms of market expansion. Intellectual property rights on basic technologies have to belong to the company. By doing this, IDF doesn't provide grants (free financing). First of all IDF is interested in technology-based companies that came out of universities. The sum of initial investment request has to range from 250 thousand SEK (37 thousand dollars) up to 2 million SEK (293 thousand dollars). By today IDF has made investments into more than 300 companies; the Fund posseses shares for the sum of about €390 million and investments for the sum of €210 million.

In People's Republic of China till 1998 the service of technology transfer existed only in two universities (Tsinghua University and Beijing University). Today each big research university has its service of technology transfer. These structural divisions are financed by the government of China at the expense of general expenditures share, allocated to university. However, nowadays this organizational model is being changed. The majority of services on technology transfers act as associable private companies which belong to universities [15].

Besides, during the last years the tendency for creation of interstate networks of innovative activity is being observed. The most successful is activity of the European association of business-angels, whose structure includes over 200 organizations, including 150 business and innovative centers located in 27 countries. The innovative infrastructure functions in Russia too, where 70 technology parks already function and about 50 thousand small technology-based firms function in the sphere of science and technology; the system of venture investment is being created. In the Russian Federation the bill "On Commercialization of Technologies" is developed. Its main objective is stimulation of commercial use of technologies created in the state scientific organizations. Law scope is the results of scientific researches received at the expenses of (or due to using) budgetary funds, start-ups and mechanisms of joint state-private partnership in the scientific and technical sphere.

Assignment of the bill:

– to introduce the rules of law that are defined by commercialization tasks as one of the elements of the state scientific organizations activity and higher education institutions;

– to develop rules and participation ways of research and development organizations (RDO) in founding of small innovative enterprises;

– to allow to use the profit from commercialization of technologies for development of scientific researches in RDO;

– to develop the commercialization infrastructure in RDO and in higher education institutions, as well as in the ministries and agencies [16, p. 21].

In Ukraine the current system of innovative business operating is organizationally imperfect, complicated, confused, opaque and has all the characteristics of being under development. In the scientific sphere an integral research process is still artificially divided into 3 categories (sectors): fundamental, departmental and high school science. It generated overlapping and weakening of scientific researches. Shortage of financing both state and private is the main problem of commercialization of inventions which are potentially competitive. Unique results of national developments and researches go abroad, since the policy of our state is far from the desirable one in terms of giving support to the inventors and implementation of their achievements nowadays. In 2013 the budget allocated only 321452,2 thousand UAH on research, scientific and technical development, conducting of work on the state target programs and state order, implementation of international scientific and technical programs and projects by higher education institutions and scientific institutions, financial support of scientific infrastructure and scientific objects, that make national heritage as well as medical care of Cri-

mean astrophysical observatory employees, that is by 242927 thousand UAH less than in the previous year [17].

The issue state regulation by means of commercialization of intellectual property in Ukraine at the moment relates to the following: whether Ukraine exists as the country with its own full-fledged immaterial assets of the objects of intellectual property, which make a high value added and its share in the national gross product (as it successfully performed in the developed countries), which considerably increase its capitalization or its separate parts become the object of external management of those countries where the market economy is already functioning (as it happens in the poorest countries of Africa and Latin America). To avoid the last option, it is necessary to create from scratch the immaterial economy with the developed legal system and intellectual property, which would be connected with manufacturing the products of scientific and technical progress.

Therefore, the main ways of incentive of commercialization of intellectual property are:

– providing the priority of the state support of science and development of high technologies, making the expenses on scientific research and development reach the level of 1,8% of GDP (in 2013 in Ukraine they allocated 0,43% of GDP for scientific research and development, while in the countries of European union this figure made 3%) [18].

– improvement of founding and use of branch innovative funds in terms of carrying out and commercialization of innovations;

– formation of regulatory base of functioning of the system of innovative venture project financing;

– development of small innovative business by creating the favorable conditions for its establishment and functioning;

– providing financial support for patent and inventive activity, assistance in protection of intellectual property and support of the rights on it both in Ukraine and abroad;

– improvement of the system of incentive of the processes of creation and use of innovative products;

– involvement of the objects of intellectual property into economic turn, carrying out their inventory and providing their reliable protection from unauthorized use;

– acceleration of infrastructure development that provides commercialization of the results of innovative activity;

– development of information infrastructure, providing assistance to the research organizations in their access to information networks and databases.

For innovative business incentive it is necessary to introduce the new principles of organization the scientific activity. Such principles are:

– legal support of two forms of ownership on the scientific results: state and private. Results of the research have to be protected by patents or licenses with which would allow to enter the market of scientific production;

– functional union of scientific organizations and higher education institutions that will promote consolidation of scientific efforts as well as material and information base in the research structures;

– transformation of scientific schools headed by leading scientists into the main organizational form of science development. The principle of scientist's professionalism should prevail, as he is the generator of scientific ideas and deeply knows the theory and methods of research and also has a rich experience of management. It is the research supervisor only, but not the official-administrator, who should make the distribution of available resources, which will significantly reduce the official structure in the scientific sphere. New management organization of scientific activity has to provide: overlapping elimination in the state management of science by establishing a common all-Ukrainian body which has to direct scientific researches, developments and introduction of innovations, and innovative business in overall; formation of directions of scientific researches as the state programs, proceeding from requirements of national economy and considering the opportunities of national education and scientific institutions; formation of orders for preparation of scientific staff through postgraduate study and doctoral studies; formation of scientific coordination councils in the regions on the basis of leading scientific establishments of higher education institutions; formation of the relevant volume of financial resources necessary to perform the state programs of innovative development; carrying out the inventory of scientific and innovative potential of the country; formation of the new administrative organization unit – scientific and educational unions; establishing the centers for collective use of the scarce equipment and material base for experimental works; monitoring legislation implementation concerning the innovative business and preparation of necessary amendments to the current legislation. It is necessary to introduce the establishment of profile research structures, flexible systems of interaction of educational and research structures of several higher education institutions etc.

The abovementioned actions have to serve for the improvement of Ukrainian science, increase its productivity, and make the practical introduction of the received results more widespread.

Conclusions and prospects of further research on the problem. In the last decades while there was an establishing process of Ukraine as a country, some new tendencies appeared in the world; new relations between scientists and society were made. Earlier science was giving the answers to the question of how it is possible to resolve this or that problem, today society demands that science predict the problems to arise soon and find the solutions. Today in Ukraine there are no necessary conditions for commercialization of intellectual property, the mechanism of the state support of promotion national objects of intellectual property to foreign markets is almost absent, protection of the rights on these objects abroad is not legally regulated. Those inventions made within RAD framework are generally used only by one organization, as a rule, by the one to develop them. Technical universities lack the structures to provide commercialization of inventions. The reason is poor organization of scientific and technical sphere, its unability to function in market conditions, limitation of financing, low level of economic knowledge of the innovators. Commercialization of intellectual property is an important stage in the process of innovative activity. Due to commercialization, the results of research turn into goods and find their realization in the sphere of industry. This article covers the concept of process of commercialization of intellectual property, emphasizes the stages of commercialization and its characteristic features. It gives the definitions of this term by different authors; the author's own definition is offered as well. Both foreign and Ukraine market realization peculiarities of the results of scientific development are defined. Certain legislations in the sphere of industrial property and innovative activity are considered and some shortcomings that cause ambiguity and inconsistency of its separate provisions are found. On this basis certain conditions of establishing organizational economic mechanism of commercialization of scientific and technical development in Ukraine are detected.

Our government needs a systemical approach to resolving this problem and concentrate its attention on organization and financial issues of activity of scientific and technology complex of Ukraine, that are driving factor in the innovative development of the state economy. Thus, it is reasonable to direct further researches on resolution of the problem of improvement of organization of use and

commercialization of scientific achievements, increasing the efficiency of scientific and technical activity because they remain those of the most essential for economic and social development of the country.

References:

1. Zhylinska O.I. Scientific and technical activity in the context of self-organization: [monography] / Oksana Ivanivna Zhylinska. – K. : Parliamentary edition, 2010. – 520 p.
2. Dezhyna I. Incentive mechanisms of commercialization of research and development / I.Dezhina, B. Saltykov//Society and economy. – 2004. – No. 7/8. – P. 190.
3. Kazmietsky J. Challeng of technological innovations on a threshold of a new era of universal competition /J. Kazmietsky//Creative economy. – 2009. – No. 5. – P. 11.
4. Grik Y.N. Resource approach to the business process creation and commercialization of development / Y.N. Grik, E.A.Monastyrny//Innovations. – 2004. – No. 7. – P. 85-87.
5. Encyclopedic dictionary of economy and law [Web source]. – Link to the page access: http://dic.academic.ru/dic.nsf/dic_economic_law.
6. Mocherny S.V. Economic encyclopedia in 3 volumes. / S. V. Mocherny. – K. : Academia, 2000 – V. 1. – 672 pages.
7. Commercialization of innovations. [Web source]. – Link to the page access: http: //ukrsprava.com /index.php?newsid=6171
8. Zhylinska O.I. Commercialization of scientific and technical knowledge in the context of institutional approach / O.I.Zhylinska//Establishing of market economy in Ukraine. – 2010. – edition 21: Financial and economic prospects of Ukraine's development within globalization. – Page 167-178.
9. National Science Foundation. Science and Engineering Indicators 2012: http://www.nsf.gov/statistics/seind12/, Chapter 4. Research and Development: National Trends and International Comparisons: http://www.nsf.gov/statistics/seind12/pdf/c04.pdf/
10. Yegorov I.Y. Development of science in the USA in the 90-s: tendencies, achievements, problems / I.Y.Yegorov. – K. 2001
11. Acs Z.J. Public policies to support new technology-based firms / Z. J. Acs // Science and public policy. – Guildford, 1999. – vol. 26, №4. – p.252.
12. Ivanova N. Formation and evolution of national innovative systems/N. Ivanova. – M: IMEMO, 2001 – P. 71.
13. Industrial program of assistance to research in Canada. [Web source]. – Link to the page access: http://irap-pari.nrc-cnrc.gc.ca
14. Official website of Swedish investment fund "Industrifonden". [Web source]. – Link to the page access: http://www.industrifonden.se.
15. Pavlenko I.A. Organizational ways of cooperation between science and business / I. A. Pavlenko //Strategy of economic development of Ukraine. – 2009. – edition 24–25.
16. Gamidov G.S. Concept of the main coordinating regional center of innovations /G.S.Gamidov, V.G. Davydov //Innovations. – 2004. – № 4.
17. Activity of the enterprises that are subjects of entrepreneurial activity in 2011. Part 1/ Statistical yearbook. – K.: Derzhkomstat of Ukraine, 2008. – 245 p.
18. Structure of the state budget expenses on the main educational and scientific directions. [Web source]. – Link to the page access: http://futurecenter.in.ua/uncategorized/byudzhet-2013-nauka-ta-osvita-pid-tyskom/

Надійшла до редакції 13.09.13

А. Вікулова, асп.
КНУ імені Тараса Шевченка, Київ

ДЕРЖАВНЕ СТИМУЛЮВАННЯ КОМЕРЦІАЛІЗАЦІЇ ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ

У статті викладено розуміння суті процесу комерціалізації та виявлено її характерні риси. Визначено основні напрямки державного стимулювання комерціалізації інтелектуальної власності. Наведено механізми державного регулювання, застосування яких може бути доцільним в українській практиці.

Ключові слова: комерціалізація, інноваційна діяльність, інтелектуальна власність, науково-технічні розробки.

А. Викулова, асп.
КНУ имени Тараса Шевченко, Киев

ГОСУДАРСТВЕННОЕ СТИМУЛИРОВАНИЕ КОММЕРЦИАЛИЗАЦИИ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ

В статье изложено понимание сути процесса коммерциализации и выявлены ее характерные черты. Определены основные направления государственного стимулирования коммерциализации интеллектуальной собственности. Приведено механизмы государственного регулирования, применение которых может быть целесообразным в украинском практици.

Ключевые слова: коммерциализация, инновационная деятельность, интеллектуальная собственность, научно-технические разработки.

UDC 311.31:330.15;
JEL Q 560

G. Yeliseyeva, postgraduate student
Dnipropetrovsk National University named after Oles Gonchar, Dnipropetrovsk

STATISTICAL ESTIMATION OF THE GREEN GROWTH IN UKRAINE

A set of indicators proposed by the OECD that assesses economic opportunities arising from the green growth as well as helps policy-making concerning environmental issues, in particular indicators on technology and innovation, production and consumption of environmental goods and services, environmentally related prices and transfers as well as associated to green growth financial flows, have been studied in detail in this article. The results of the comparison analysis of the application of the abovementioned indicators by the Czech Republic, Denmark, Germany, the Netherlands and Korea are presented in the article. Based on the performed analysis possible application of the proposed by OECD set of indicators to the Ukraine's national context has been explored. Proposed set of green growth indicators can be applied in Ukraine, however further development is required to enhance the statistical data accounting and availability. Among the main challenges to the implementation of such system in Ukraine is the lack of data as well as medium compliance of the Ukraine's Environmental Accounts with the European regulation, which complicates the development of national policy towards green economy and the international comparison.

Keywords: green growth; green economy; indicator; economic opportunity; policy response.

Introduction. An extensive use of the environmental resources over the last few decades, the intention of the governments to reach the target of economic growth by no means has led to partial loss of biodiversity, climate change and deterioration of life conditions in certain areas. Years of academic research and political discussions resulted in the international agreement for an alternative path of development that is sustainable development. Establishing a clear system of environmental accounting has become a key for a transparent policy-making system. According to the final report of United Nations Economic Commission for Europe Ukraine's Environmental Accounts are partially compliant with the European regulations [1]. Therefore there is a need to reform the environmental accounts in order to provide a proper evaluation of the natural asset base and changes in it.

It is established that sustainable development cannot be achieved under the current pattern of consumption; therefore an alternative way of organising the economic activity, in particular green economy, has been proposed. Green economy aims for improved human well-being and social equity, while significantly reducing environmental

risks and ecological scarcities. The concept of green economy rests on the economy, the environment and the social pillars of sustainable development. In this framework, green production includes technologies, goods and services, which aim to enhance resource and energy efficiency, protect the environment and climate and reduce the use of non-renewable energy sources.

Green growth seeks to fuse sustainable development's economic and environmental pillars into a single intellectual and policy planning process, thereby recasting the very essence of the development model so that it is capable of producing strong, stable and sustainable growth simultaneously. It aims to foster economic growth and development, while ensuring that natural assets are used sustainably, and continue to provide the resources and environmental services on which the growth and well-being rely [2]. It promotes a cost-efficient and resource efficient way of guiding sustainable production and consumption choices and explicitly accounts for the environment and the value of natural assets [3].

Analysis of the latest scientific research and publications. Setting conditions that promote green growth requires a good understanding of its determinants as well as appropriate information to assess the environmental state, monitor its progress and support policy-making. Recently a lot of the scientific research has been focused on evaluating the impact of the economic activity on environment and its driving forces.

Among the Ukrainian scientists who have been studying this subject are S. Gerasymenko and O. Chupryna, who have performed a multivariate statistical analysis of economic development trend and standard of living [4], N.Kovtun, who analysed investment process in Ukraine from a statistical point of view [5], E. Libanova, who researched human development in Ukraine [6], I. Mantsurov, who focused on focused his research in the area of statistics of economic growth and competitiveness [7], as well as N. Parfentseva with the analysis of the development and implementation of International statistical classifications in Ukraine [8].

Current research in Ukraine covers different aspects of the statistical estimation of the impact of the economy on the environment, as well as its role in the human development and quality of life, however further research is needed in order to implement a multidimensional statistical framework for evaluation of the impact of green economy, as well as its state and development.

Organisation for Economic Co-operation and Development (OECD) has performed a research on the statistical data development required to assess the impact of green economy development on countries' social, economic and ecological state. OECD research has provided a set of green growth indicators as a starting point for measuring green economy, which could be adapted according to country's specific context [9].

OECD framework for Green Growth indicators includes four main groups of indicators that monitor environmental and resource productivity and environmental quality of life, describe the natural asset base as well as policy responses and economic opportunities.

The aim of this article is to focus on the fourth group of green growth indicators proposed by the OECD that assesses economic opportunities and aims to help policy-making.

With this aim the following objectives have been formulated and accomplished:

– to study the relevance the green growth indicators proposed by OECD to the Ukrainian national context;

– to evaluate the application of relevant green growth indicators in the Czech Republic, Denmark, Germany, the Netherlands and Korea;

– to estimate the relevant green growth indicators for Ukraine subject to data availability.

Main results of the research. The set of indicators on economic opportunities and policy response proposed by the OECD includes indicators that evaluate opportunities arising from greening growth, estimate the role of R&D and innovation, training and skills development, international trade and international financial flows in shaping the green economy, as well as help the policy-makers to address market failures through economic instruments and regulations. We will compare the application of the proposed indicators to the national context of Czech Republic, Denmark, Germany, the Netherlands and Korea and present our estimation of the relevant indicators for Ukraine.

Eurostat has developed guidelines on how to examine the Environmental Goods and Services Sector in 2010. Under these guidelines green entrepreneurship is both a source of innovation and a source of opportunities for economic growth. Green growth relies on innovation, which drives multifactor productivity change and helps decoupling process. Thus, it's important to construct proper indicators, which highlight its role in green economy, focusing in particular on green innovation. The latter relates to environmentally-related research and development and technologies.

Governments have an important role in fostering green growth by setting framework conditions that stimulate greener production and consumption through economic and other instruments; by encouraging cooperation and sharing of good practices among enterprises; by developing and promoting the use of new technologies and innovations; and by increasing coherence among policies. The main challenge is to harness environmental protection as a source of growth and as a source of international competitiveness, trade and employment.

Clear and stable market signals are key to affecting the behaviour of producers and consumers. In presence of negative externalities of the economic activities it's very important to set proper incentives to eliminate them while ensuring a fair price is paid for conducted economic activity. Possible political response to such negative externalities is an introduction of a tax on harmful economic activity and abolishing of existing subsidies to it, or introduction of a subsidy to an environmental-friendly technology. Regulatory instruments or environmental quality certificates also play an important role in minimising the negative externalities.

OECD system of indicators has been built holding a balance between being exhaustive and understandable. The report notes that not all issues of importance to green growth can be measured in quantitative terms.

Businesses have an important role in adopting "greener" management approaches; developing and using new technologies; carrying out R&D and spur innovation. Business, governments and civil society also play an important role in providing consumers with the information needed to make purchasing choices that reduce the environmental impact of consumption. Education, training and skills development are closely linked to the capacity to innovate.

Public policy plays a role by institutionalising environmentally-related lines of education in particular in higher education. Vocational Education and Training is equally important in raising awareness about environmental issues, in fostering innovation on the workplace and in facilitating the transition and development of firms and the workforce into a low-carbon economy [10]. These areas have often

been under-represented in scoreboards of indicators, one reason being the difficulty of compiling the relevant data in particular for international comparisons.

The main issues of importance to green growth addressed by OECD while assessing the economic opportunities and policy response are:

- Technology development and innovation that are important for growth and productivity in general and for green growth in particular. They are important for managing natural resources and to minimise the pollution burden. Innovation also contributes to the establishment of new markets and leads to the creation of new jobs;
- Production of environmental goods and services that reflect an important, albeit partial aspect of the economic opportunities that arise in a greener economy;
- International financial flows that are key to the uptake and dissemination of technology and knowledge, foster the cross-country exchange of knowledge and are one important aspect in combining development and environmental objectives;
- Prices and financial transfers that provide important signals to producers and consumers and, along with regulations, are tools to internalise externalities and to influence behaviour of market participants towards more environmentally-friendly patterns.

Ideally, indicators on economic instruments should be complemented by indicators on regulations. However, data availability and comparability of regulations across countries hamper the construction of such indicators.

These indicators can also be complemented with indicators on international trade as a source of economic opportunities, including green growth opportunities. Since trade in "green" products provides a very partial picture of this role, no specific trade-related indicator has been put forward in this section. General indicators on international trade and competitiveness can be found in the section on the socio-economic context.

Indicators on technology and innovation. The first subset of indicators proposed in this group by OECD describes technology developments and innovation, which are important drivers for growth and productivity in an economy. While assessing the impact of innovation one has to take into account that new technologies can also generate additional environmental pressures or strain material availability.

Table 1 provides an overview of the indicators that have been chosen by Czech Republic, Denmark, Germany, the Netherlands and Korea from the proposed by OECD indicators.

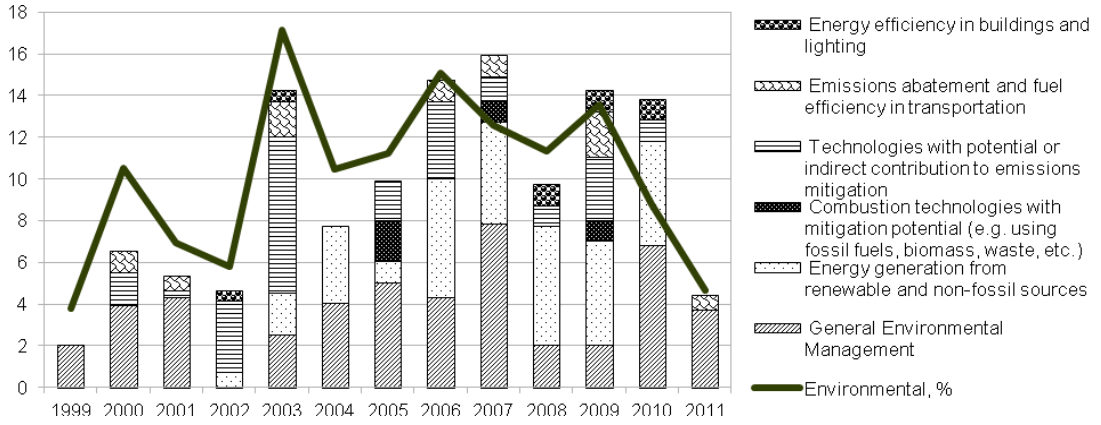
Each country has made its selection of indicators proposed by OECD taking into account it's characteristics and data availability as well as complemented the selection with other indicators specific to its national situation. Currently Denmark has one of the most developed systems of statistical indicators, which describe the development of green economy. 9,2 % of Danish turnover and 10,4% of Danish export derive from green technologies, goods and services. Therefore Denmark complements the OECD set of indicators with more detailed ones, which reflect the main characteristics of the innovative enterprises, in order to further understand the driving force of green innovation and green growth.

Table 1. **Comparison of the proposed by OECD and applied by selected countries indicators on technology and innovation***

OECD	Czech Republic	Denmark	Germany	Netherlands	Korea
Public spending in energy- and environment-related R&D, as a % of GDP			+	+	
Structure of patents, as % of total applications for patents under the Patent Cooperation Treaty (PCT)	+				
Number of patent applications under PCT, index 1990 = 100		+			
Number of applications for patents of importance to green growth under PCT (electric and hybrid vehicles, energy efficiency in buildings and lightning, pollution abatement and waste management, renewable energy)			+	+	
Government R&D budget related to the environment, as a % of total government R&D budget					+
Business R&D investment (environment and all-purpose), as a % of total (incl. business, government and other)		+			
		Number of employees in R&D per 1000 employees in all and green enterprises			
		Share of enterprises interacting regarding R&D and innovation			
		Number of innovative enterprises by type, in %			

**Source:* 11-14.

In this article we would like to analyse the dynamics of the proposed indicators for Ukraine subject to the data availability. Based on the data provided by OECD we have analysed the dynamics of Ukraine's patent applications for the period 1999-2011 (graph 1).



Graph 1. Dynamics of Ukraine's patent applications in environment-related technologies under PCT for 1999-2011*

**Source:* 15.

During these years a positive trend has been observed in Ukraine's total patent activity, it has reached its peak in 2010 with 157 patent applications. From 1999 to 2011 Ukraine's total patent activity has almost doubled, from 53 applications in 1999 to 94,4 applications in 2011. The share of environment-related technologies' patent applications in the total patent applications has varied from 3,77% in 1999 to 15,9% in 2011. Among the applications for environment-related patents a major part belongs to patents in the area of material recycling, incineration, energy recovery, storage and generation from renewable sources.

Currently there is no statistical data available for Ukraine that allows estimating share of energy- and environmentally-related R&D expenditures done by government, private and public sector in the total R&D expenditures.

Indicators environmental goods and services sector. The second subset of indicators proposed by OECD in this group assesses production of environmental goods and services. The most important indicator here is the share of the environmental goods and services sector in the economy in terms of employment and value-added, along with the framework conditions in place for doing business and accessing financing. Progress towards the green growth can also be assessed against transformations in the economic sector from traditional business activities to greener activities. Table 2 provides an overview of the indicators proposed by the OECD and applied by selected countries for evaluating production of environmental goods and services (EGS).

Table 2. **Comparison of the proposed by OECD and applied by selected countries indicators on EGS sector production***

OECD	Czech Republic	Denmark	Germany	Netherlands	Korea
Gross value added in the EGS sector (in % of GDP)		+	+		
Employment in the EGS sector (in % of total employment)	+	+	+	+	+
Share of "green" enterprises in the economy (as a % of the total number of enterprises)		+			
		Export of green products and its share in total export, by industry			

**Source:* 11-14.

The main problem that arises while constructing these indicators is to identify the technologies, goods and services, which are part of the EGS sector. Statistisches Bundesamt Deutschland (SBD) following the Eurostat's guidelines has developed a list of detailed green product codes based on a German classification system, which includes 252 green product codes. Danish socioeconomic and policy consultancy DAMVAD has coordinated the research, which based on the list established by SBD has identified 4063 green product codes. In addition, Danish experts have identified green products which were not part of SBD list, thus a total of 528 green product codes has been identified for assessing the green economy development in Denmark.

It's important to note that while assessing the EGS sector, one has to take into account the adapted green products, which are defined by Eurostat as goods, technologies and services, which offer a green alternative to products which do not have environmental and climate protection as their primary purpose, but which have been adapted to this end.

In order to assess green growth potential in Ukraine the environmental goods and services sector has to be identified following the Eurostat guidelines, example of Germany and Denmark, based on its classification of types of economic activities.

Indicators on the international financial flows. Another subset of indicators proposed by the OECD to assess the economic opportunities and policy responses is focused on the international financial flows that drive technology dissemination, contribute to cross-country exchange of knowledge and stimulate entrepreneurship, fostering resource-efficient progress.

The OECD proposes to estimate international public financing of importance to green growth with the amount of the official development aid (ODA) targeting the issues of biodiversity, climate change, desertification, renewable

energy, etc. Carbon market's indicators are proposed to evaluate international private financing.

Table 3 provides a comparison of the indicators proposed by OECD and those applied by the selected countries with an aim to estimate the role of the international financial flows in the green growth.

Limited use of these indicators can be explained by the lack of data, by absence of internationally agreed methodology for tracking the exact share of aid activity expenditure related to each objective and by lack of standard methodologies, which provide a comprehensive measurable indicator to assess annual investment flows into the CDM.

In case of Ukraine relevant indicators would be indicators concerning carbon market financing as well as foreign direct investment. Currently Ukraine has 184 registered JI projects and a total of 130 million issued Emissions Reduction Units (ERUs). Ukraine is also the third largest Assigned Amount Unit (AAU) seller, with 47 million AAUs contracted to date. The Ukrainian Green Investment Scheme became operational in 2010, with the first batch of projects approved in November 2010. Introduction of an emissions trading scheme (ETS) is a next step in facilitating low carbon investment in the country [16].

Table 3. **Comparison of the proposed by OECD and applied by selected countries indicators on the international financial flows**

OECD	Czech Republic	Denmark	Germany	Netherlands	Korea
ODA and it share relevant for environment and renewable energy					+
Carbon market financing: the structure of supply and demand of certified emissions reductions (CER) credits issued by Kyoto protocol's Clean Development Mechanism (CDM)			Emission trading budget and actual CO2 emissions of plants liable to emission trading	Emission allowances and actual CO2 emissions	
Foreign Direct Investment					
		Export to global emerging market			
		Number of foreign-owned enterprises			

**Source:* 11-14.

Indicators on environmentally related prices and transfers. The last subset of the indicators proposed by the OECD to estimate the economic opportunities and policy response consists of indicators describing environmentally related taxation and transfers, energy and water prices and cost recovery. A table providing a summary of the indicators proposed by OECD and those applied by the selected countries is presented below.

Environmentally-related taxes are an important instrument for governments to shape relative prices for environmental externalities of economic activity. Providing clear, stable and transparent market signals requires appropriate policies to incentivise innovation and new technology adoption by firms and to facilitate environmentally efficient consumption patterns, while demonstrating a clear policy commitment of governments to move towards greener growth.

The OECD report notes that in order to judge the "environmental friendliness" of the tax system one should consider general economic and taxation structure of the country alongside with the figures on environmental taxation. The indicators reflecting economic policy instruments should be complemented with indicators reflecting regulatory measures by government. The construction of such indicators is however constrained by data gaps and conceptual issues.

Table 4. **Comparison of the proposed by OECD and applied by selected countries indicators on environmentally related prices and transfers***

OECD	Czech Republic	Denmark	Germany	Netherlands	Korea
Level of environmentally related tax revenues (in % of total tax revenues, in relation to labour related taxes)					
Structure of environmentally related taxes (by type of tax base)	+		+	+	+
Energy pricing	Energy prices (heat and electricity)		Petrol price and taxation	Energy price (excl. taxes) and tax rate for business	
Water pricing and cost recovery (to be developed)			Drinking water charges and costs for private households		
Environmentally related subsidies					
Environmental expenditure: level and structure	+		+		+
Regulations and management approaches Indicators (to be developed)					
Training and skill development Indicators (to be developed)	Structure of educational attainment				

**Source*: 11-14.

In 2011 Ukraine has introduced a tax on CO2 emissions from stationary sources. The tax was initially set at UAH 0.22 per tonne of CO_2, and increased to UAH 0.24 per tonne of CO_2 in 2012 [16]. However, the current tax rate does not provide an incentive for GHG emissions reductions and Ukraine is planning to raise the current tax rate and introduce more stringent monitoring, reporting and verification requirements in connection with it.

Conclusions. Green growth indicators have to combine both economic and environmental information, which is often difficult due to differences in classifications, terminology or timeliness. Therefore, it's crucial to develop a

consistent environment-economy accounting framework in order to fill in the existing information gaps.

The proposed by OECD framework for developing the system of green growth indicators to evaluate the economic opportunities of the green growth and possible policy responses by the government can be applied to Ukrainian National context. The main challenges to establishing such system in Ukraine are the lack of data as well as medium compliance of the Ukraine's Environmental Accounts with the European regulation, which complicates the international comparison.

Implementation of such system of indicators in Ukraine would help to properly evaluate the green growth perspectives, create the framework conditions through economic policy measures as well as regulatory measures, which help to foster innovation and the use of new technologies in production, and to encourage the creation of markets and the uptake of these technologies by consumers. This requires using an appropriate mix of policy tools and instruments, such as procurement, financing incentives, economic instruments and voluntary initiatives. Support from government R&D budgets is needed for reducing the costs of new technologies, helping to bring them to market competitiveness.

References:

1. Byfuglien, J., Gamez, G., Hackl, P., Junker, C., Kaminskiene, B., Szczerbinska, J., and Wass, K., 2012. Adapted Global Assessment of the National Statistical System of Ukraine. Final report. [pdf] UNECE. Available at: http://www.unece.org/fileadmin/DAM/stats/publications/Ukraine_global_Eng.pdf [Accessed 10 September 2013].

2. Green Growth Knowledge Platform, 2013. Moving towards a Common Approach on Green Growth Indicators. A Green Growth Knowledge Platform Scoping paper. [pdf] Green Growth Knowledge Platform. Available at: <http://www.unep.org/greeneconomy/Portals/88/documents/partnerships/GGKP%20Moving%20towards%20a%20Common%20Approach%20on%20Green%20Growth%20Indicators.pdf> [Accessed 10 September 2013].

3. OECD, 2013. Putting Green Growth at the heart of Development: Summary for policy makers. [pdf] OECD. Available at: <http://www.oecd.org/dac/environmentdevelopment/Putting%20Green%20Growth%20at%20the%20Heart%20of%20Development_Summary%20For%20Policymakers.pdf> [Accessed 10 September 2013].

4. Gerasymenko S.S., Chupryna O.A., Chupryna O.O. Multivariate statistical analysis of the trends of economic development and population standard of living. [Bagatovymirnyi statystychnyi analiz tendentsii economichnogo rozvytku ta rivnya zhyttya naselennya.] Kyiv: Visnyk KNU im.T.Shevchenko. №129. – 2011. – p.8-11.

5. Kovtun N.V. Statistical characteristics of the innovation process development in Ukraine. [Statystychna kharakterystyka rozvytku investytsiinogo protsessu v Ukrayini.] Visnyk KNU im.T.Shevchenko. Ecomomika. – Kyiv: VPTS "Kyivs'kyi Universytet". № 93. – 2007. – p. 23-26.

6. Human development in Ukraine: innovative dimension. [Lyuds'kyi rozvytok v Ukrayini: innovatsiinyi vymir] / [monografiya] za red. E.M. Libanovoi, Institut demografii ta sotsial'nykh doslidzhen. Kyiv. – Natsional'na akademiya nauk Ukrayiny; Institut demografii ta sotsial'nykh doslidzhen; Programma rozvytku OON v Ukrayini. – 2008. – 316 p.

7. Mantsurov I.G. Statistics of economic growth and competitiveness of the country. [Statystyka ekonomichnogo zrostannya ta konkurentospromojnosti krayiny.] [monografiya] Kyiv: KNEU, 2006. – 388 p.

8. Parfentseva N.O. International statistical classifications in Ukraine: development and implementation. [Mizhnarodni statystychni klassyfikatsii v Ukrayini: rozvytok i vprovadzhennya.] [monografiya] Kyiv : VPD "Format", 2009. – 600 p.

9. OECD, 2011. Towards green growth – Monitoring progress, OECD indicators. [pdf] OECD Publishing. Available at: <http://www.oecd.org/greengrowth/48224574.pdf> [Accessed 10 September 2013].

10. OECD, 2011. OECD green Growth Studies. Fostering Innovation for Green Growth. [pdf] OECD Publishing. Available at: http://www.oecd.org/sti/inno/48663228.pdf [Accessed 10 September 2013].

11. Federal Statistical Office of Germany, 2012. Test of the OECD set of green growth indicators in Germany. [pdf] Wiesbaden: Federal Statistical Office of Germany. Available at: <https://www.destatis.de/EN/Publications/Specialized/EnvironmentalEconomicAccounting/TestOECDGreenGrowth5850016129004.pdf?__blob=publicationFile> [Accessed 10 September 2013].

12. Statistics Netherlands, 2011. Green Growth in the Netherlands. [pdf] The Hague: Statistics Netherlands. Available at: <http://www.cbs.nl/NR/rdonlyres/65FA4466-853C-4223-8B69-7C7872E37DC3/0/2011p44pub.pdf> [Accessed 10 September 2013].

13. Doležalová, V., Hák, T., Havránek, M., Horáčková, S., Janoušková, S., Koštáková, T., Kovanda, J., Kožoušková, E., Lorencová, E., Šimonová, L., Vačkář, D., Veselá, M., 2011. Green Growth in the Czech Republic: Selected indicators. [pdf] Prague: Czech Statistical Office. Available at: <http://www.czp.cuni.cz/knihovna/GreenGrowthweb.pdf> [Accessed 10 September 2013].

14. Danish Energy Agency. Ministry of Climate, Energy and Building. Danish Business Authority. Ministry of Business and Growth. Danish EPA. Ministry of Environment, 2012. Green production in Denmark – and its significance for the Danish economy. [pdf] Danish Energy Agency. Available at: <http://www.ens.dk/sites/ens.dk/files/policy/green-production-denmark-contributes-significantly-danish-economy/Green%20production%20in%20Denmark%20-%20web%20111212.pdf> [Accessed 10 September 2013].

15. Organisation for Economic Co-operation and Development. [Science, Technology and Patents > Patents by technology > Patents in environment-related technologies: Ukraine] StatExtracts [online] Available at: <http://stats.oecd.org/Index.aspx?DatasetCode=PATS_IPC#> [Accessed 10 September 2013].

16. Point Carbon, 2013. Status of the domestic emissions trading scheme in Ukraine. A discussion document in the 'Preparedness for emission trading in the EBRD region' project. [pdf] Thomson Reuters Point Carbon. Available at: <http://www.ebrdpeter.info/Reports/20130308%20EBRD%20PETER%20Project%20-%20Ukraine%20ETS%20status.pdf> [Accessed 10 September 2013].

Надійшла до редакції 16.09.13

Г. Єлісєєва, асп.
Дніпропетровський національний університет імені Олеся Гончара, Дніпропетровськ

СТАТИСТИЧНА ОЦІНКА ЗЕЛЕНОГО ЗРОСТАННЯ В УКРАЇНІ

В статті було досліджено набір показників, запропонованих ОЕСР, що призначений для оцінки економічних можливостей, що виникають із розвитком зеленої економіки, а також для підтримки прийняття політичних рішень щодо екологічних питань. Наведено порівняння показників, що були обрані та застосовані для оцінки зеленого зростання статистичними службами Чеської Республіки, Данії, Німеччині, Нідерландів та Кореї. Також проаналізована можливість застосування запропонованого ОЕСР набору показників для України.

Ключові слова: зелене економічне зростання, зелена економіка; індикатор; економічні можливості; прийняття політичних рішень.

А. Елисеева, асп.
Днепропетровский национальный университет имени Олеся Гончара, Днепропетровск

СТАТИСТИЧЕСКАЯ ОЦЕНКА ЗЕЛЕНОГО РОСТА В УКРАИНЕ

В статье был исследован набор показателей, предложенный ОЭСР, который предназначен для оценки экономических возможностей, возникающих с развитием зеленой экономики, а также для поддержки принятия политических решений по экологическим вопросам. Приведено сравнение показателей, которые были выбраны и использованы для оценки зеленого роста статистическими службами Чешской Республики, Дании, Германии, Нидерландов и Кореи. Также проанализирована возможность применения предложенного ОЭСР набора показателей для Украины.

Ключевые слова: зелёный экономический рост, зелёная экономика; индикатор; экономические возможности, принятие политических решений.

UDC 336.02
JEL E 62

T. Zatonatska, PhD in Physical and Mathematical Sciences, Associate Professor
Taras Shevchenko National University of Kyiv, Kyiv

THE ROLE OF FISCAL POLICY IN THE SYSTEM OF GOVERNMENT REGULATION OF INVESTING ACTIVITY IN UKRAINE

This paper highlights the evolution of approaches to fiscal policy formulation and suggests the appropriate measures on how to provide qualitative changes in the fiscal management of investment activities in Ukraine. The author provides practical proposals on how to create the fiscal space for investments in Ukraine which is aimed to restore the innovation investment model of national economy and to increase the efficiency of budget expenditures.

Keywords: fiscal policy, government regulation of investment, fiscal space for investment.

The increase in investing activity is one of the current restoration processes that determines the pace and quality of economic growth, as well as country's competitiveness in the global market. Investing processes are more and more influencing the technological modernization of enterprises, priority industries development, and the national economy as a whole. J. Stiglitz's, who is the Nobel prize winner, correctly argues that "if a country stimulates its economy through investments, the production volume will increase in future... investments not only raise the current standard and quality of life, but also contribute to raising the living standards for the next generation" [1].

It is commonly known that fiscal policy can stimulate both domestic and foreign investments. The purpose of the paper is to describe how to provide qualitative changes in the investment management in Ukraine through the creation of fiscal space for investments in certain industries.

Economic changes make the ideas in the paper even more important because of the need to reconsider the approaches to the fiscal policy tools selecting and defining the relationship between investment and government regulatory mechanism**.** The government investment policy is aimed to enhance and intensify investing process. So, fiscal policy is a strong instrument that influences investment policy.

In certain periods of economic growth fiscal and monetary macroeconomic tools played different roles. The most important tools of economy regulation were the tax system, government spending, and budget deficit. The usage of various tools was determined either by the economic doctrine which was followed by the leaders in political power, or by the economic trends and schools which prevailed in each period of history [2].

John Keynes' theory highlights core principles and peculiarities of investment fiscal regulation. These issues are also described in the research works of his followers (N. Kaldor, R. Harrod, E. Domar, E. Hansen) and representatives of the neo-liberal doctrine (L. Erhard, M. Friedman, FA Hayek).

Modern approaches to fiscal policy are described in works of such researches and experts as A. Danilenko, T. Yefymenko, A. Sokolovskaya, S. Gray, P. Heller and others.

Fiscal policy determines the main trends in government spending, expenditure funding and accumulating budget revenues. Fiscal policy differs from tax and budgetary policy as in fiscal policy tax and budget tools are considered in their relationships. In other words, two main instruments of fiscal policy are changes in the level and composition of taxation, and government spending in various sectors.

The main features of fiscal policy depend greatly on the methods applied by the government to regulate the economy. Fiscal policy also depends on government functions and their scope, scale and the structure of the public sector. So, the expansionary fiscal policy involves government spending exceeding tax revenue, and is usually undertaken during recessions. The contractionary fiscal policy occurs when government spending is lower than tax revenue, and is usually undertaken to pay down the government debt.

To summarise, it should be noted that the creation of fiscal policy is influenced by tax policy tools, revenue accumulation at all budget levels, public spending, the structure of public debt, and budget deficit. The formation of fiscal policy aimed to achieve economic development involves the optimisation of public spending through tax and budgetary policy measures.

The relationship between tax and budgetary policy reflected in the concept of fiscal policy led to the formulation of the tax expenditures concept that is based on the integration of such fiscal tools as tax preferences and government spending, and is considered as the logical extension of the fiscal policy concept. The tax expenditures concept focuses on the necessity of accounting tax preferences along with direct expenditures. Accounting will allow to estimate the total amount of government spending (government subsidies) provided directly and indirectly, as well as the total amount of government support for certain activities and groups of taxpayers.

According to D. Goldberg [3], the theoretical basis of the tax expenditures concept is that tax preferences of any type have one thing in common – they are implemented to stimulate the capital or labor flows in certain areas. Tax preferences are effective only if they cause reduction in the taxpayer's expenses. Therefore, certain provisions of the tax legislation can be considered as a part of government spending program implemented through the provisions of tax legislation. So, revenue decrease as a result of tax preferences should be considered as subsidy for certain activities supported by tax policy. S. Surrey determines this type of "lost" government revenue as "tax expenditures" [4].

Another logical development of the fiscal policy concept is the concept of fiscal space.

The World Bank and the International Monetary Fund researched the creation of fiscal space in order to increase the efficiency of budget expenditures. In 2005 P. Heller formulated the definition of fiscal space. According to P. Heller, fiscal space is "a room in a government's budget that allows to provide resources for a desired purpose without jeopardising the sustainability of its financial position or the stability of the economy". [5]. Fiscal space can be created in several ways, such as raising certain taxes, involving foreign grants, reducing the expenditures of secondary importance, borrowing money (from citizens or foreign creditors), or borrowing from the bank system (which at the same time can increase the money supply) [6].

Another follower of the fiscal space concept is Sh. Gray. He considers the creation of fiscal space through government expenditures. So, according to Sh. Gray, fiscal space can be created through spending shift form programs of secondary importance to programs that perform a significant impact on economic growth. Another way of creating fiscal space is through public spending efficiency increase which also would help to achieve higher socio-

economic returns on certain programs [7]. This concept involves fundamentally new approaches to fiscal impact on economic activity based exactly on budget expenditures.

Research into the creation of fiscal space in Ukraine has become significantly important because fiscal space ensures the economic development and successful implementation of economic reforms and innovation capacity [8].

Fiscal space is usually discussed within the context of financial resources reserves as a financial foundation for economic growth. They refer to budget revenue, as well as to budget expenditure and the increase in efficiency. According to T. Yefymenko, depending on the purpose of the overall economic and fiscal policy, the government can create the necessary fiscal space in the following ways:

a) increasing the revenue (legitimizing revenues, improving tax and fees administration, raising tax rates, eliminating tax preferences);

b) new targeting internal and external loans with better service;

c) involving external grants;

d) restructuring public spending and increasing their efficiency [9].

At the same time the fiscal space concept includes searching for budgetary resources to stimulate investments. The fiscal regulation of investment and the investment market of Ukraine are characterised by low investing activity, the wide range of tax preferences and the implementation of public investment programs (projects). It evidences for the absence of the effective fiscal regulation that could attract investors. In order to ensure the synergetic effect from the tax and budget tools of fiscal policy, it is proposed to focus policy decisions on the creation of fiscal space.

Investment fiscal space must be considered as an integral concept that reflects the relations between tax and budget tools of investment resources accumulation. These tools include income tax rates, investment-related income tax privileges, investment-related VAT privileges on transactions connected with machinery and equipment import, investment tax credit, special tax regimes, public investment, government loan and guarantee, public procurement. Some of these tools (so-called tax expenditures) stimulate private investments, while others refer to investment-related expenditure. Defining investment fiscal space can help to improve the governance of investing process.

The conducted study proves that public expenditure is an effective tool for enhancing the private sector activities. Public expenditures stimulate the economy because the indicators of economic activity are directly connected with budget expenses.

Public investment stimulates private investment through the development of infrastructure and transport connections, and technology funding. Moreover, the government can boost private investment through tax preferences. However, the effectiveness of the latter depends on the transparency of the tax preferences' allowance and monitoring mechanism.

Theoretically, the tax preferences system creates favourable prerequisites to accelerate business growth. The types, forms and value of tax preferences are determined by the key characteristics of the subject and object of taxation, and their economic importance.

Tax preferences, in theoretical terms, are important for the socio-economic stabilization. They are commonly used to save jobs, especially in single-industry regions. However, in practice, tax preferences lead to the economic distortion because some people take an advantage of tax benefits for which they want others to pay.

Tax preferences have a direct, as well as an indirect effect on the economic grows. The direct effect results in the revenue reduction, while the indirect one often leads to welfare losses. Tax preferences considerably complicate tax administration and compliance. The existence of tax preferences creates incentives for the abuse of benefits. So, tax preferences may cause tax evasion in case an enterprise carries on fake innovation activity. Sometimes tax preferences are directed only to the limited range of enterprises reserves, the investment activities of which are not of great importance for economic growth.

The taxpayers who want to benefit from the preferences have to submit to the appropriate government entity the documentary evidence of eligibility for a certain type of preference. As a result, the complicated verification process leads to higher administration costs.

It is important to say about the cross-industry distribution of tax preferences. For example, it is preferable that metal manufacture, mining industry and machinery are developed through public-private partnership (concession agreements). Tax preferences in this case may lead to budget losses and low capital returns. At the same time, tax preferences are considered as a key factor of agriculture development. Today the preferences in this area include fixed agricultural tax, VAT, corporate income tax for agriculture. According to the Ministry of Finance of Ukraine, 16,000 agricultural companies got tax preferences in 2012; the total agricultural tax preferences amounted to 14.7 billion USD in 2012. Thus, agricultural tax preferences play a crucial role in creating investment fiscal space.

As mentioned earlier, the main purpose of creating investment fiscal space is the accumulation of investment resources in selected priority areas. The priorities are identified by the Law of Ukraine "On stimulation of investing activity in priority sectors of the economy to create new jobs" that came into force on 1 January 2013 [10], and "The budgetary policy guidelines for 2013" [11].

According to the Law of Ukraine "On stimulation of investing activity in priority sectors of the economy to create new jobs", the priority economy areas are those which meet such important society's needs as the competitive high-tech environmentally friendly products, quality services that implement the state policy on the development of industrial and export potential, creating new jobs. The priority areas list of economic activities is to be determined by the Cabinet of Ministers of Ukraine.

It is important to discuss in more details the components of investment fiscal space and how to apply them to specific priority area of the economy. Today, the Tax Code of Ukraine provides the following tax tools to stimulate investment: lower income tax rates, investment income tax breaks, special VAT rates for equipment and machinery import. At the same time, the experience of developed countries evidences that fiscal stimulus can strengthen research and development potential. So, the Tax Code of Ukraine provides tax incentives for the following R & D areas:

- when determining the income tax object, taking into account such types of R & D expenses as research and technical support, the invention and rationalization of business processes, experimental and development activities etc;
- tax exempt status for non-profit research and development organisations;
- encouraging charity towards a taxpayer who carries out research and development;
- VAT exempt status for the following transactions:
  a) payment for basic research and development activities;
  b) donating instruments, equipment and materials;
- landing tax exempt status for research farms, agricultural research and educational institutions;
- water tax exempt status for research institutions that take water for research in the field of rice cultivation and production of the elite seeds of rice.

Also, the Tax Code of Ukraine provides considerable incentives for the implementation of energy saving technologies, ensuring energy security through environmentally friendly energy sources, energy development etc. In particular, the Tax Code introduces 5-year income tax preferences for the implementation of energy saving technologies. The Tax Code of Ukraine specifies tax preferences for technoparks that develop technological innovations:

- the implementation of energy saving technologies;
- using energy – efficient equipment;
- alternative energy production.

In order to expand fiscal space for investment in Ukraine it is proposed to increase public investment efficiency through the following tax incentives:

- investment tax credit for research and development activities in the field of technological innovation;
- investment tax credits for companies which implement technological innovations and have innovation centres to conduct fundamental research.

Taking into account the different impact of taxes on investment and innovation, it is important to take the following facts into consideration:

- income tax preferences should be applied to companies that implement innovations;
- shifting tax burden from income to consumption will enhance innovation and the rational use of labour, capital and natural resources;
- changing tax rates and structure, it is necessary to determine the impact of the current tax burden on industry development (constraining, neutral and stimulating), sources of added value, the perspective of innovation development and competitiveness on the domestic and foreign markets.

Increasing the efficiency and development of investment fiscal space through institutional mechanism requires constant monitoring of current legislation. Investment legislation has an active role to play in the development of the public policy that stimulates investment and regulates public investment projects. In this context, main issues to solve have been identified:

- improving the methodology of development, evaluation and selection of investment projects;
- defining the principles and mechanisms of public investment for projects that require government financial support;
- developing selection criteria for the investment projects that require public investment or government financial support, taking into account sectoral distinctive features;
- ensuring the development of direct public investment, particularly in terms of co-financing;
- ensuring the transparency of public financial support for the investment projects that address the priority of the social and economic policy;
- implementing the public investment evaluation mechanism;
- improving the efficiency and increasing the transparency of public-private partnerships.

In order to improve the public investment management, the Decree of the Cabinet of Ministers of Ukraine of 18.07.2012 *№*650 was adopted. The Decree "On Approval of the State Register of Investment Projects and Project (Investment) Proposals" enables the government to accumulate pending investment proposals and determine the optimal sources of funding. The register is an integrated public information system for investment projects and project (investment) proposals.

Considering the above-mentioned issues, it is necessary to create investment fiscal space by combining public investment and private sector investment resources in the framework of public-private partnerships. In order to effectively implement public-private partnership the following conditions should be met:

- develop appropriate policies;
- set up the list of public-private partnerships that should be included to the state register;
- simplify and clarify public procurement process;
- provide government guarantee on the investment risk of the private partner;
- ensure the coordination between government agencies for investment attraction;
- implement modern evaluation and monitoring methods for public-private partnerships;
- develop new forms of public-private partnerships and promote interindustrial cooperation.

The main objectives to be realised when creating fiscal space are:

- favourable investment climate through the implementation of effective measures of tax and fiscal policies;
- equal conditions for all domestic investors through gradual elimination of tax preferences and the implementation of investment tax credit. These measures will reduce the budget loss and ensure the targeted use of tax preferences limited to the priority sectors;
- special tax regimes for the implementation of the strategic investment projects that meet certain government priorities;
- clear procedure for defining the eligibility of the project to receive government assistance (government loans, share of budget investment in a PPP, government guarantee).

Suggested proposals for the creation of investment fiscal space are aimed to restore the innovation investment model of national economy, and increase the efficiency of public expenditures. In the long-term perspective, it is necessary to conduct financial forecasting and planning of investment fiscal space. The above-mentioned measures should be based on the public revenue analysis and certain priorities of social and economic development.

References:

1. Stiglic Dzh. Krutoe pike: Amerika i novyj jekonomicheskij porjadok posle global'nogo krizisa / Dzhozef Stiglic; [per. s angl. V. Lopatka]. – M.: Jeksmo, 2011 – 512 s.

2. Vdoskonalennja koordynacii' groshovo-kredytnoi' ta fiskal'noi' polityky: informacijno-analitychni materialy / [Bulavka O. M. [ta in.]; za red.: V. I. Mishhenka, O. I. Kirjejeva, M. M. Shapovalovoi'. – K.: Centr naukovyh doslidzhen' NBU, 2005. – 96 c.

3. Goldberg D. Tax Subsidies: One Time vs. Periodic. An Economic Analysis of the Tax Policy Alternatives / D. Goldberg // 49 Tax Law Review, 1994. – P. 305–347.

4. Surrey S. Pathways to tax reform: the concept of tax expenditures / Stanley Surrey. – Harvard University Press, 1973. – 418 p.

5. Heller P. Back to Basics – Fiscal Space: What It Is and How to Get It / Peter Heller // Finance and Development. – 2005. – Vol.42. – №2. – P. 2-5 [Електронний ресурс]. – Режим доступу : http://www.imf.org/external/pubs/ft/fandd/2005/06/basics.htm

6. Heller P. Understanding fiscal space / Peter Heller // IMF Policy Discussion Paper. – 2005. – № 05/4. – 19 p.

7. Grej Sh. Nalogovo-bjudzhetnaja politika i jekonomicheskij rost: Uroki dlja Vostochnoj Evropy i Central'noj Azii / Sh. Grej, T. Lejn, A. Varudakis. – Washington: The World Bank, 2007. – 413 s. [Elektronnij resurs]. – Rezhim dostupu: http://siteresources.worldbank.org/ECAEXT/ Resources/258598-1182779443519/Fiscal_Policy_and_Economic_Growth_rus_ 090507.pdf

8. Mitra P. Burja v kinci drugogo desjatylittja perehidnogo periodu / P.Mitra, M. Celovs'kyj, H. Sal'duento // Publikacija svitovogo banku. – 2009. – Grud

9. Єфименко Т.І. Фіскальний простір антикризового регулювання: [моногр.] / Тетяна Іванівна Єфименко. – К.: ДННУ "Акад. фін. управління", 2012. – 226 с.

10. Pro stymuljuvannja investycijnoi' dijal'nosti u priorytetnyh galuzjah ekonomiky z metoju stvorennja novyh robochyh misc' : zakon Ukrai'ny vid 06.09.2012 № 5205-VI [Elektronnyj resurs]. – Rezhym dostupu : http://zakon0.rada.gov.ua/laws/show/5205-17

11. Pro Osnovni naprjamy bjudzhetnoi' polityky na 2013 rik : postanova Verhovnoi' Rady Ukrai'ny vid 22.05.2012 № 4824- VI [Elektronnyj resurs]. – Rezhym dostupu : http://zakon1.rada.gov.ua/laws/show/4824-17

Надійшла до редакції 11.10.13

Т. Затонацька, канд. фіз.-мат. наук, доц.
КНУ імені Тараса Шевченка, Київ

РОЛЬ ФІСКАЛЬНОЇ ПОЛІТИКИ В СИСТЕМІ ДЕРЖАВНОГО РЕГУЛЮВАННЯ ІНВЕСТИЦІЙНОЇ ДІЯЛЬНОСТІ В УКРАЇНІ

У статті висвітлено еволюцію підходів до розробки фіскальної політики, а також запропоновано відповідні заходи щодо забезпечення якісних змін у системі управління інвестиційною діяльністю в Україні. Автором запропоновано практичні рекомендації щодо створення фіскального простору інвестиційної для діяльності в Україні. Подано пропозиції щодо формування фіскального простору інвестиційної діяльності, спрямованого на відновлення інноваційно-інвестиційної моделі розвитку національної економіки, а також підвищення ефективності бюджетних витрат.

Ключові слова: фіскальні політика, державне герулювання інвестиційної діяльності, фіскальний простір інвестиційної діяльності.

Т. Затонацкая, канд. физ.-мат. наук, доц.
КНУ имени Тараса Шевченко, Киев

РОЛЬ ФИСКАЛЬНОЙ ПОЛИТИКИ В СИСТЕМЕ ГОСУДАРСТВЕННОГО РЕГУЛИРОВАНИЯ ИНВЕСТИЦИОННОЙ ДЕЯТЕЛЬНОСТИ В УКРАИНЕ

В статье раскрыта эволюция подходов к разработке фискальной политики, а также предложены соответствующие меры по обеспечению качественных изменений в системе управления инвестиционной деятельностью в Украине. Автором предложены практические рекомендации по созданию фискального пространства инвестиционной для деятельности в Украине. Внесены предложения касательно формирования фискального пространства инвестиционной деятельности, направленного на восстановление инновационно-инвестиционной модели развития национальной экономики, а также повышения эффективности бюджетных расходов.

Ключевые слова: фискальная политика, государственное регулирования инвестиционной деятельности, фискальное пространство инвестиционной деятельности.

UDC 338.436.33
JEL Q 18

B. Zhumanova, PhD in Economics, Associate Professor
Kazakh University of Technology and Business, Republic of Kazakhstan

FINANCING OF THE INNOVATIVE PROJECTS IN THE AGRO-INDUSTRIAL COMPLEX OF KAZAKHSTAN

In the article are considered theoretical and practical issues of financial support of innovative development of agriculture in Kazakhstan. Defined system-wide problems that impede the full development of innovative agro-industrial complex of Kazakhstan. It is established that a promising start innovative development of agriculture of Kazakhstan are the reproduction of agricultural innovation and development in the mass practice of improved methods of agricultural production.

Keywords: innovation project in agriculture, agricultural science funding in Kazakhstan, financing innovation in agriculture.

Statement of the problem. On the modern stage, in the agro-industrial complex (AIC) of the Republic of Kazakhstan, there are system-wide problems, among which we can mention:

- the backwardness of agricultural technologies, physical and moral depreciation of the means of production;
- excessive loss of irrigation water, undeveloped commercial fish farming, as well as inefficient use of other natural resources;
- small commercial farming;
- low levels of genetic potential of the seed used, and cattle;
- lack of quality raw materials for industrial processing and the low share of domestic value-added products in the domestic food market;
- the availability of essential food products, which have not met the domestic needs;
- low level of attracting investments in the agricultural sector;
- insufficient development of rural cooperation [1, 2].

In addition, financial, and then the food crisis revealed additional problems that affected the investment activities of the industry, and now, when the financial sector problems are at the stage of remission, agriculture in Kazakhstan is one of the most promising sectors of the economy.

Analysis of recent research and publications. Theoretical and practical issues of innovative development of agriculture as a whole, and in particular the agricultural sector, as well as the problems of the financial and investment support were the subject of separate publication of L.Abalkin [3], E. Yasin [4], B. Bautin [5], M. Konkov [6], M. Bunin [7], O.Sabden [1] A. Taubayev [8]. But despite the presence of a significant amount of research and publications in the given direction, some issues of the development of financial and investment maintenance of the national system of agriculture through the use of a specially created state development institutions not adequately addressed in the modern economic science. Especially the unique experience of Kazakhstan in the establishment and operation of similar organizations are just beginning to yield its first results.

The purpose of the study of the system of financing of innovative projects in the agro-industrial complex of Kazakhstan is to identify the existing problems in the financial and investment support for promising innovative projects in the field of agriculture and to offer recommendations for improving the of an existing financial mechanism for the implementation of innovation projects through the development of specialized of state development institutions.

Selection of the unsolved aspects of the problem. In addition to system-wide problems, noted the existence of problems hindering the pace of innovation development of agro-industrial complex:

- insecurity of modern scientific research organizations material and technical infrastructure. For today most of the buildings and facilities (71.1%) has been in operation for over 30 years and 22.1% – more than 20 years, to be written off 71.4% of all available agricultural machinery [9, 10];
- limited financial resources to carry out research and development work (grant size does not exceed 0.2% of the gross output of agriculture (2009), while in countries with developed agriculture, the figure is between 1% and 4%);
- low level of entrepreneurial culture based on the use of new technology and innovation, low innovation activity of subjects of agriculture;
- low competitiveness of scientific products and technologies on the international scientific market. Due to the

lack of financial resources been poorly implemented training of young professionals in leading international research centers are not held a joint international research, are not implemented measures to attract leading foreign scientists;

• lack of an effective mechanism for securing, motivation, and social support for young scientists in national agricultural science has led to a deterioration of the social status (decrease credibility of scientists in society) scientist and break the continuity of generations of scientists;

• low level of wages in agriculture;

• skills shortages due to lack of effective tools for forecasting staffing, inadequate allocation of government contracts to train agricultural training and employment of low-level agricultural and veterinary professions (16-30% of the number of the graduates of higher education). There is also a shortage of personnel in areas where there are no schools for technical and vocational education;

• lack of social support for young professionals to promote their consolidation in rural areas;

• lack of development of social and physical infrastructure of the village as a whole, including the organization of cultural activities;

• weak interaction of agricultural enterprises and universities and colleges, as well as lack of awareness of the graduates of universities and colleges on the availability of vacancies in the enterprises.

The main results of the study. Innovative development of agriculture is its qualitative transformation, achieved through the growth of the productive forces while improving organizational and economic mechanism of Agriculture, interacting with them and agribusiness sectors in general. It is provided by the ever-increasing use of more advanced technologies of production and processing of agricultural products, improved crop varieties and animal breeds, new machines, progressive organizational and economic models of modern information technologies and other innovations.

The amount of applied research funding in the field of agro-industrial complex is more than 3.3 billion per year. In industrial Holding JSC "KazAgroInnovation" (KAI) work more than 1.3 thousand people, including researchers with advanced degrees 60%, which average age, is 46.7 years. There is considerable material and technical base – more than 280 thousand hectares of land, buildings *и* facilities over an area of 900 thousand square meters, nearly 3 thousands units of agricultural machinery and other assets [11].

However, the existing scientific and innovative potential of agricultural science of Kazakhstan does not meet international requirements, and does not have enough influence on the sustainable development of the national agricultural production. Current state of the industry of agricultural science of Kazakhstan is characterized by inadequate funding, lack of motivation to improvement the effectiveness of scientists work, difficulties in implementing the scientific development, insufficient development of the dissemination of knowledge system, outdated scientific and technical infrastructure, the aging of scientific personnel, undeveloped level of transfer of advanced foreign technologies, lack of available financing in the early stages of implementation innovation, undeveloped demand of innovation development, etc. In this regard, it is necessary to reform the agrarian science in order for increasing the availability of educational and consulting services for agricultural producers.

In the agro-industrial complex of Kazakhstan includes about 65 sectors and sub-sectors for a concrete definition measures to the most promising areas and strengthen in regional specialization the basis of a detailed analysis of these sectors and sub-sectors of agro-industrial complex were selected15 promising, competitive sectors (manufacturing, exporting grain and its deep processing, production and export of meat and meat products, poultry farming, production and processing of oilseeds, production and processing of fruits and vegetables, milk and dairy products, white sugar production from sugar beet production and export of wool and its products deep processing, aquaculture and fish processing, production and processing of pork, the development of horse breeding beef and dairy with the continued production of finished products, the development of camel and refined products, the development of deer breeding to meet the needs of pharmacy, to meet the development of beekeeping domestic needs of the population and pharmacy, production and processing of cotton).

A key element for the realization of projects of the Industrialization Map, as well as the development agro-industrial complex in the future will be determined JSC "National Holding" KazAgro" which created by 100 percent state ownership, which includes a number of subsidiaries - "National Company "Food Contract Corporation"; "Agrarian credit corporation","KazAgroFinance", "Fund for Financial Support of Agriculture", "Corporation of raising animals", "KazAgroGarant", "KazAgroMarketing", "KazAgroInnovation", each of which had its own functions and identified development priorities.

Detailing the investment activities of the holding company "Kazagro" in case of investment holding guided by the following terms and conditions:

• in the sphere of investment intentions of the Holding should be absent or poorly represented in competitive environment;

• as a result of the implementation of investment projects should be incorporate modern technologies that have a significant multiplier effect on the economy of Kazakhstan;

• investment projects must be implemented within the framework set for the subsidiaries of the Holding "KazAgro" statutory goals and objectives on a public-private partnership;

• the organization of new jobs and economic recovery and economic life in the countryside.

Holding work is carried out in two major directions: the first- is to ensure import substitution for certain types of agricultural products, under-represented in the food market of the country, the second – the development of export potential of agriculture.

From these direction 8 high-priority sectors of agro-industrial complex of Kazakhstan developed detailed master plans that set clear benchmarks and indicators for enterprises, financial institutions, government agencies and socio-entrepreneurial corporations for investment projects.

Annually growing volume of budget funds allocated for the development of agriculture, only in 2009 from the national budget allocated more than 96 billion tenge, including 41.3 billion subsidizing production (2008 subsidies amounted to-40.2 billiontenge,in2007-21.5billion).In2010, the financing of investment projects of JSC "National Holding KazAgro" the National Fund allocated 120 billion tenge.

Thanks to the investment policy of the state projects are implemented food provision and increase export capacity, particularly at the expense of the institutions of "National Holding "KazAgro".

Thus on the basis of 2008-2010, commissioned 124 projects worth $35.2 billion, including 62 projects in 2008 to 5.9 bnin2009to29.3 billion tenge.

Among them are the following large-scale projects which are break through innovative sphere.

Building the factory Tomato processing is the first project worth 2.3 billion tenge for the construction of a processing plant Tomato and development of production of fruit and vegetables with the use of drip irrigation technology in South Kazakhstan, including the first phase in 2008. On 141 hectares of production of 8.4 million tons of fruits and vegetables, in the second step in 2009, the production of 32.5 thousand tons of fruits and vegetables on 650 acres. It is expected to produce about 4.4 tons of tomato paste "Cold Break", and "Hot Break" with a solids content of 28-30% and 36-38%, respectively.

Development of Kazakhstan's grain export infrastructure-operate in grain term in a lat the port of Amirabad (Republic of Iran) with transfer of up to 700thousandtonsof grain per year, one-time deposit- 53 thousand tons of grain, the stabilization of export of grain to Iran.

Construction of the plant of processing sunflower plant is oilseed process in capacity of 7,400 tons of oil in a year, the project cost 2.4billion tenge100% coverage of the domestic shortage of the West Kazakhstan region. The equipment supplier is SINEKO International, as (Brno, Czech Republic). During the implementation it will create148 permanent jobs. Sunflower oil production will reduce import dependence of West region of the country.

Construction large-commercial dairy farms are commissioned by 7dairy commodity farms using advanced technology. The total financing cost 7 – milk commodity farms was 6.0 billion. In most of the projects has been carried out the selection and purchase of breeding heifers Holstein-Friesian breed, with an annual productivity of 7.5 tone of milk. The implementation of projects aimed the saturation of the domestic market of food and food price stabilization, food security, development, and enhance of the competitiveness of agricultural processing industry.

Construction and modernization of poultry farms of an egg direction – total commissioned five projects for a total amount – 460.6 mln. The implementation of projects aimed at the creation of modern industries with the latest technological equipment. In the projects of acquisition and delivery of cages for rearing and laying hens, chickens and livestock, other than good immunity and the ability to provide a stable output of egg seven in the periodic change in the living conditions and diet.

According to the data to 01.09.10.byJSC National Holding "KazAgro" were funded the implementation of 79 major projects with a total cost of 87.4 billion tenge, including amount of funding from the Kazagro of 70.0 billion tenge:

Create livestock feeding systems are implemented 12 investment projects worth 24.5 billion tenge for the construction of high-tech feeding platformson42090head of cattle and 70thousandheads of small cattle. It Is expected to produce up to 9,230 tons of beef per year, and, 500 tons of pork per year. It is planning of creation of 933 permanent jobs.

Developing a network of dairy farms are 8 projects amounting 8.0 billion. It will be upgraded and built large dairy farms in the 4660 head of dairy cattle mainly Holstein-Friesian breed, using advanced technologies of cattle breeding.

Construction of meat plants are 3 projects worth 3.4 billion tenge for the production of meat products meeting international standards, with the organization of 229 new jobs. Capacity of these enterprises amounted to 10.7 thousand tons of meat and meat products per year.

Develop a network of greenhouses are 6 projects worth 8.8 billion tenge in the square of 21.66 hectares of production capacity to11,500 tons of fruits and vegetables a year, which will allow a 10% reduction in the demand of the republic in the areas covered ground(202hectares).

Development of infrastructure for the export of grain and its deep processing – in this direction is implemented 17 projects with a total cost of19.1 billion tenge, including:

– The construction of the elevator with a mill plant and feed mill in the countryside Beineu (Mangistau region).The planned capacity of grain storages 100 tons, which will provide handling up to1.5 million tons of grain for export to the direction of the Caspian, Central Asia and the Middle East,

– The organization of the production of deep process in grain, in Karaganda. The planned capacity of processing 37,500 tons of flour per year, producing up to 4,400 tons of gluten, syrups – 23,800 tons, feed additives - 18,000 tons per year,

– Expansion of pasta factory in Kostanai city. It is planned to increase production to 36,600 tons of pasta a year (the project capacity to 24000 tons).

Creating a network of poultry farms – 7 projects for the production of eggs and poultry meat worth 14.2 billion. Create 6 poultry farms meat production will enable the production of poultry meat about 42 700 tons, poultry of an egg direction project will produce up to 50 million eggs per year.

Develop a network of vegetable stores – 10 projects in order to create a warehouse for storage of vegetables, fruit, meat and other food products, the value of 2.0 billion. Storage capacity of 32.9 million tons and creation of 168 permanent work places.

Manufacture of bakery products – 1 project worth 1.1 billion tenge comprising the purchase of manufacturing equipment kit – line baking muffins and bread (supplier company "System Trade GmbH", Salzburg, Austria). Line baking muffins and bread rolls capacity of 7884 thousand a year, and 31.0 million loaves of bread a year. It is organized of 160 jobs during the commissioning.

Implementation of the project will ensure the people of Ekibastuz city bakery products of own production.

Creation of a production assembly of agricultural machinery is 1project worth 1.4 billion tenge with the creation of 52 new jobs in the period of operation. Expected to release (a thousand tractors named "Belarusian" in the year) national assembly at affordable agricultural products by manufacturer prices. At present, the production of the Republic of Belarus tractors are the most popular subjects in agriculture (good quality feature sat a lower price compared to other foreign manufacturers), and make up about 91% of all agricultural machinery. Production of tractors directly in the Republic of Kazakhstan up to1000 units per year initially, with a further increase to 3,000 units., reduce import dependence of the Kazakhstan market of agricultural machinery.

Production of high-quality seed cotton plants building on manufacture of seed cotton with part-time job to 5,000tons of seeds per year, $ 1.7 billion. Current products luxury cotton seeds, the seeds first and second reproduction.

Implementation of these projects will create 5,103 permanent and 3,503 temporary construction period jobs.

Along with this, a group of subsidiaries national holding "KazAgro" implemented 67 investment projects amounting 35.9 billion.

Since 2009 JSC "KazAgro Innovation" as the main coordinator of the innovation in the agricultural sector of Kazakhstan began implementing the budget program "Applied Research in the field of agriculture" in 2009-2011.

In 2009, the following results were achieved: in the region of the gene pool of agricultural crops, inventoried

7029s examples, it was studies 71166 examples, 10326 documented examples, transferred to the state variety testing 35 new varieties, characterized by increased yield, quality and resistance to environmental factors, in agriculture developed 12 recommendations for resource-saving technologies and cultivation of staple crops that are adapted to the different climatic conditions of the country.

In these sectors of animal husbandry, fish industry scientists continue work on the creation of new high-lines (types) breeds of farm animals, fish, and others started a project in the field of large-scale breeding cattle (beef and dairy), which aims to increase the breeding of cattle in lives tock farms of the republic.

By scientific research has covered development priorities and sectors of the food processing industry, the mechanization of agriculture, economics, agriculture and rural development.

Intensified work on implementation of scientific development in agricultural production. In Akmola region the share of Kazakhstan's wheat breeding for the last 4 years has increased to 70%. Baraeva cultivated in 2009 on an area of about 3 million hectares. Cotton varieties selection of the Kazakh Institute of Cotton took 75% of the cultivated area.

Particularly in demand in the production of new varieties and hybrids: for winter wheat and barley – up to 90% and soybean varieties – 100% (selection achievements of scientists of the Kazakh Research Institute of Agriculture and Plant), spring wheat – 40% (Karaganda and the Institute of Plant Breeding), safflower – 100% (Krasnovodopadsk agricultural Experiment Station), cotton – 75% (of the Kazakh Research Institute of cotton); rice – more than 50% (the Kazakh Institute of rice), potatoes – up to 40% (the Kazakh Institute of potato and vegetable), etc.

Varieties of spring wheat and barley on Karabalyk agricultural experimental station cultivated on an area of 1.5 million hectares in Kostanai, North Kazakhstan, Akmola regions.

In general, the area under the domestic varieties of crops in 2009 totaled about 7.1million hectares, and the use of minimum and zero-saving technologies of cultivation of grain crops increased to 10.3 million hectares. These results were made possible by the system of states up port for agricultural research and introduction into production.

Currently, are created and transferred to the state variety testing 16 new varieties and hybrids of agricultural and other crops, increase acreage under crop varieties of domestic breed in 2%. It created 7 technologies in the agriculture, fisheries and livestock. Six recommendations and proposals for the development of agriculture forecast for 2010-2012, the development of food industry, the system of state support, structure and trends of agricultural labor in Kazakhstan and other countries. Also, 3 of the recommendations developed in the fishing industry. In 2009, the domestic breeding cotton varieties have occupied 75% of the planted area. Similar results are available for other types of crops.

On the whole, we have positive lye valuating public policies on innovation and the development of agribusiness sales promotion of agricultural products, in the industry there are a number of problems which solution requires further efforts JSC "National Holding" KazAgro "and subjects of agriculture.

It should be noted, a very small percentage of innovation in the mass production process. For example, in the agricultural sector only for the years 2006-2008 were created and passed the state varietal testing more than 200 new high yielding varieties and hybrids of agricultural crops, has developed more than 70 vaccines, drugs, and more. But many other developments are still represented only in scientific reports.

In addition, the low level of effective demand for scientific and technical production from the agricultural sector is a major barrier to innovation. Calculations show remains unclaimed each year in agricultural production and 80% of completed scientific research. Another problem is the lack of development of innovative conductive network of science to production. Only about 40% of all enterprises and about 35% (peasant) farms of solvency, credit worth incessant are financially stable formation, the formation of other livestock are simple reproduction, and most of the mare bankrupt (26% of agricultural enterprises and about 60% of the country (farms)).

Modern agriculture is in a difficult financial and economic situation: in the industry acting unprofitable agricultural enterprises, the cost of production remains high not reduced accounts payable. In addition, it is extremely worn out basic production assets, an acute shortage of working capital, lack the necessary methods of technological modernization of production capacities are not sufficiently effective mechanisms of economic activity of agricultural enterprises with the use of modern production technologies, management and organization [12].

For agribusiness ensuring by modern effective developments and technologies should be conducted scientific research and implemented international scientific programs (including with the participation of foreign scientists) and training of scientific personnel in the world's leading research centers.

Significant assistance in this regard will be given by the UN Food and Agriculture Organization (FAO), which assists member countries of FAO in providing of advisory services in the development of agricultural policy, technical assistance, information and consultancy services in agricultural production.

In present time FAO has policy for decentralization of organization structure in order to FAO experts work directly in the member countries themselves, that allow quickly respond to occurring changes in agricultural policy together with countries governments develop recommendations and identify priority directions of agricultural development, taking into account region specificity. It is therefore necessary to ensure the opening of the FAO representation office in Kazakhstan, which will provide an opportunity promptly receive counseling from highly qualified professionals in the agricultural policy development, technical and consulting assistance in the priority areas of agro-industrial complex.

From the state side in order to improve the efficiency, effectiveness and competitiveness of scientific research results necessary modernization and development of scientific research infrastructure, as well as the current provision of scientific infrastructure and property, remuneration of labor of the administrative and support staff, as well as information support of scientific and technical activity of research organizations under the Ministry of Agriculture.

Along with this, it is necessary to improve the transfer and commercialization system of agricultural technologies for activation of innovation activity in agro-industrial complex through by increasing investment opportunities of agro-industrial complex subjects of agriculture, expand the coverage of agro-industrial complex subjects by system of knowledge transfer.

In order to develop public-private partnerships should be increased share of private investment in scientific research through contract research realization.

For the formation of a new research and innovation system on the generation and transfer implementation of knowledge in the field of agro-industrial complex with the results, corresponding with the best world standards,

should be continued work for creation inter-disciplinary research and education complexes of international level.

In order to maintain an effective feedback between the subjects of agro-industrial complex and state agencies, agricultural science and vocational education system will continue providing free advice to farmers through government support.

System-start innovative agricultural development in the Republic of Kazakhstan there is production of agricultural innovation and development in them as practice of improved methods of agricultural production, in determining the aggregate innovative development of agriculture. Providing innovative development of agro-industrial complex consists of two units-the resource and institutional. The resource block includes financial, personnel, logistics, and information technology. An institution unit includes organizational, economic, infrastructural, regulatory support; the same group adjoins mastering innovation-driven forms of management.

Increase importance of innovation development and the associated expectations at the appropriate time to get the desired results do not only rely on the existing system of agricultural innovation, not only capable in its present form, expanding the scale and pace sufficient to apply innovations to mass practice of agricultural production. The basis of the mechanism of the crisis in the agricultural sector of the economy was in a period of reform and defines the currently destructive policies provide measures of innovation development of agribusiness.

In order to corresponded to innovative development of the agro-industrial complex to its purpose and met in the foreseeable future, its expectations, requires the full and comprehensive support of this process, which allows overcoming the inertia of their features, and often stagnant or even regressing character. This applies to all areas of innovation development of agro-industrial complex.

Immediate task of improving the innovation system of agriculture is to increase agricultural innovation capacity. It is based on research and development for the agricultural industry as a constantly replenished and renewable source of continuously increasing capabilities of innovative renewal of agriculture. Scientific and technological advances often determine the possibility of transition to sustainable agriculture development, while ensuring the implementation of the measures of the innovation system depends on how fast this transition happens.

Actually we always have a lag the actual results of agricultural production on the capabilities of their receipt with the full and proper use of scientific and technological achievements. This is true for the present. For example, the productive potential of plants and animals is realized at a level not exceeding 35-40% genetically determined. At the same level used opportunities to improve soil fertility. These requires, along with the development of scientific research to increase the innovative potential in all other areas, to increase the possibility of more extensive and effective use of existing and anticipated future scientific and technological developments.

There are conclusions of this study and the prospects for future developments in this area. Consequently, one of the main tasks of providing innovative system blocks agricultural is to create favorable conditions for the formation of the fund innovation and development in the production of while smooth in differences between the results obtained in the production and the potential of research and development, keeping in mind both available and afford able to consumers quantitative set of innovations and opportunities to improve their production, the economic and other indicators of agro-industrial activities.

References:

1. Problems of sustainable development of the agrarian sector of the Republic of Kazakhstan in conditions of accession to the WTO/Ed. by O. Sabden; – Almaty: Institute of Economics of MES RK, 2006. – 38 p.

2. Yespolov T.I., Ahmetova G.K. Development of the agricultural farms of the Republic of Kazakhstan and ways of improving their efficiency. – Almaty. – 2005.

3. Abalkin L. Agrarian tragedy of Russia. – Economic issues. – 2009. – №9. – P. 4-15.

4. Yasin E.M. Snegovaya. Role of innovation in the development of the world economy. – Economic issues. – 2009. – № 9. – C. 15-32.

5. Bautin. Century innovation activity in agriculture. – // AIC – Economics and management. – 2005. – № 8. – C. 17-22.

6. Konkova M.A. Problems and methods of innovation development of regional agro-industrial complex // the all-Russian scientific-practical conference "Modern Russia: the economy and the state". M., GASIS, 2006.

7. Bunin Meters of Innovative technologies in agriculture of Russia. – // Economics of agriculture of Russia. -2004. №7. S.7.

8. Taubaev A.A. Measures to improve the regional innovation infrastructure. – // AI Paris. – №3-4. – 2006.

9. The annual report of JSC "national holding "KazAgro" for 2010. – Astana, 2011.

10. Agriculture, forestry and fisheries of Kazakhstan 2007-2011. / Statistical collection. – Astana, 2012 11. Development of a strategy CTCA. Report on the first stage of the project "Selection of priority technological areas" // www.strategi.ru

Надійшла до редакції 14.09.13

Б. Жуманова, канд. екон. наук, доц.
Казахський університет технології та бізнесу, Республіка Казахстан

ФІНАНСУВАННЯ ІННОВАЦІЙНИХ ПРОЕКТІВ В АГРОПРОМИСЛОВОМУ КОМПЛЕКСІ КАЗАХСТАНУ

Розглянуто теоретичні та практичні питання фінансового забезпечення інноваційного розвитку агропромислового комплексу Казахстану. Визначено загальносистемні проблеми, які перешкоджають повноцінному інноваційному розвитку агропромислового комплексу Казахстану. Встановлено, що перспективним початком інноваційного розвитку агропромислового комплексу в Республіці Казахстан є відтворення сільськогосподарських інновацій та освоєння у масовій практиці більш досконалих методів ведення сільськогосподарськоговиробництва.

Ключові слова: інноваційний проект у сільському господарстві, фінансування сільськогосподарської науки в Казахстані, фінансування інновації в агропромисловому комплексі.

Б. Жуманова, канд. экон. наук, доц.
Казахский университет технологии и бизнеса, Республика Казахстан

ФИНАНСИРОВАНИЕ ИННОВАЦИОННЫХ ПРОЕКТОВ В АГРОПРОМЫШЛЕННОМ КОМПЛЕКСЕ КАЗАХСТАНА

Рассмотрены теоретические и практические вопросы финансового обеспечения инновационного развития агропромышленного комплекса Казахстана. Определены общесистемные проблемы, которые препятствуют полноценному инновационному развитию агропромышленного комплекса Казахстана. Установлено, что перспективным началом инновационного развития агропромышленного комплексав Республике Казахстан являются воспроизводство сельскохозяйственных инноваций и освоение в массовой практике более совершенных методов ведения сельскохозяйственного производства.

Ключевые слова: инновационный проект в сельском хозяйстве, финансирование сельскохозяйственной науки в Казахстане, финансирование инновации в агропромышленном комплексе.

Appendix 1

ANNOTATION AND REFERENCES (IN LATIN): TRANSLATION / TRANSLITERATION / TRANSCRIPTION

V. Bazylevych, Doctor of Sciences (Economics), Professor,
G. Kupalova, Doctor of Economics, Professor
Taras Shevchenko National University of Kyiv, Kyiv

CLIMATE CHANGE IN KYIV: WAYS TO COUNTERACT AND MINIMIZE NEGATIVE EFFECTS

Current issues of climate change in Kyiv were investigated, as a result of combination of factors, mainly anthropogenic types and emissions of air pollutants from mobile and stationary sources, accumulation of unprocessed waste products on landfills and unauthorized dumps. To prevent the climate change and adaptation to it, it is proposed to develop strategy, taking into account experience of foreign countries and cities, and in the future – the program of preventing and adaptation to climate changes in Kyiv. Proposals were formulated to prevent and eliminate negative effects of climate change in terms of: modernization of buildings and constructions, improving planning of construction taking into account environmental factors, organization of effective transport and logistics systems, landscaping of areas and buildings, implementation of effective environmentally friendly resources and energy-efficient technologies, using of renewable energy resources, improving processing of industrial and domestic waste products, ensuring effective system of its management, improving environmental education, culture and consciousness of citizens.

1. Review of Nikolas Stern's report: "Ekonomika izmenenija klimata" Izdanie 2-oe, dopolnennoe i pererabotannoe /Kokorin A. O., Kuraev S. N., Julkin M. A. WWF, Strategic Programme Fund (SPF). – M.: WWF Rossii, 2009. – 60 s.

2. Scho take zmini klimatu?: //http://wwf.panda.org/uk/campaigns/ climate_change_camp_ukr/what_is_climate_changes_ukr/

3. Global'noe izmenenie klimata i jekonomicheskoe razvitie. Uchebnoe posobie dlja kursa jekonomiki prirodopol'zovanija vysshih special'nyh uchebnyh zavedenij /Bobylev S.N., Gricevich I.G. – M.: JuNEP, WWF (Rossija), 2005. – 64 s.

4. Formuvannja ta realizacija nacional'noi ekologichnoi politiki Ukraïni /[Veklich O.O., Voloshin S.M., Zharova L.V. ta in.]. – Sumi: Universitets'ka kniga, 2012. – 336 s.

5. Potapenko V.G. Strategichni prioriteti bezpechnogo rozvitku na zasadah "zelenoi ekonomiki". – K.: NISD, 2012. – 360 s.

6. Snizhko S.I., Shevchenko O.G. Urbometeorologichni aspekti zabrudnennja atmosfernogo povitrja velikogo mista. – K.: Vidavnictvo geografichnoï literaturi "Obrіï", 2011. – 297 s.

7. Statistichnij shhorichnik m. Kiєva. – K.: Derzhavna sluzhba statistiki Ukraïni, 2012. – 467 s.

8. Osnovni pokazniki ohoroni navkolishn'ogo prirodnogo seredovishha m. Kiєva. Statistichnij zbirnik. – K.: Derzhavna sluzhba statistiki Ukraïni, 2012. – 123 s.

9. Izmenenie klimata v Vostochnoj Evrope, Belarus', Moldova, Ukraina. – Bresson: GRAPHI 4, 2011. – 59 s.

10. Klimat Kieva: http://www.meteoprog.ua/ru/climate/Kyiv/.

11. My zhivem na pike ocherednogo pod#ema letnih temperatur. Jekskljuzivnoe interv'ju s chlenom-korrespondentom NAN Ukrainy Vladimirom Osadchim: http://www.from-ua.com/technology/f64307de6c611.html).

12. Shhodo vikidiv zabrudnjujuchih rechovin na TEC-5: //http://kyivenergo.ua/ua/news/company/4-news-company/8363-2009-09-18.

13. Kiivenergo zaproshue meshkanciv stolici vidvidati z ekskursijami energetichni ob'ekti!: //http://kyivenergo.ua/ua/news/company/4-news-company/9225-2011-11-24.

14. Strategija derzhavnoi ekologichnoi politiki Ukraïni na period do 2020 roku.: http://www.menr.gov.ua/content/article/8328.

15. Nartova O. Markirovka tovarov po uglerodnoj sostavljajushhej v mirovoj torgovle: jeticheskie, jekonomicheskie i juridicheskie aspekty //Mosty mezhdu torgovlej i ustojchivym razvitiem. – S.12-14.

V. Babirad-Lazunin, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

DEVELOPMENT OF THE CUSTOMS STATISTICS IN UKRAINE: HISTORICAL ASPECTS

Statistics has a long history going back to ancient times. With the formation of the first powerful states the need for statistical practice appeared, i.e. in the accumulation of information on the availability of land, the amount of projected and actual harvest, population, its property situation – the system of public and administrative records has developed. At the first stage of customs' statistics existing the main task was fiscal control for customs revenue. Then, through ages, Ukrainian lands were under control of invaders. That's why customs policy of Ukraine evolved and absorbed features of customs policies of these states. In the early nineteenth century international trade was regulated through customs taxation, which in turn required to classify customs statements. Thus the preparation and publication of annual statistical compilations of international trade of the Russian Empire had begun. The article also conducted studies of the bodies responsible for the implementation and realization of customs statistics and determined the role and place of customs statistics in the state regulation of the Ukrainian economy and making of managerial decisions.

1. Abstracts of lectures and assignments for the professional development of employees, accepted to the Customs Service for the first time, prepared by the Khmelnytsky center for the professional development and retraining of the SCSU employees: Compiled by Voytseschuk A.D. (supervisor), Korniichuk O.T., Ovcharuk I.G., Babenko B.I., Shershun A.A. – [Electronic resource]. – Access mode: http://www.center.km.ua/old_version/library/tezy_lekciy/tezy_np/rozd4/1.7.1.html.

2. Markov L. Essays on the history of the customs service. – Irkutsk: Izd. Irkutsk University. – 1987. – p. 27.

3. Pavlov A. Ukrainian customs on the way to recovery and development: legal and historical aspects. – K.: Accent, 2002. – 417 p. 24-26.

4. P.A. Kravchenko – Legal survey of the formation and development of customs statistics – Customs no. 4 (70) – 2010 – p. 16.

5. Akt unii Polski z Litwa, 1385-1791. – Krakow. – 1932. – L. 86-87.

6. Central State Historical Archives of Ukraine in Kiev. – Fund 28, description, case 2, ff. 201 BC. – 202.
7. Rysich. J. Trade and customs relations in the history of the Dnieper / / Bulletin of the Academy of Customs Service of Ukraine. – 2001. – № 2. – p. 89.
8. Yavornytsky D. History of Zaporizhzhya Cossacks. Volume II – Kyiv: "Scientific Thought." – 1990. – p. 428-429.
9. Lodyzhenskyy K. History of the Russian customs tariff. – Moscow: Sotsyum, 2005. – p. 68-69.
10. Morozov O.V. Customs component in the structure of public revenues of the Russian Empire in the first half of the XVII century. / O. Morozov // Grani. – 2008. – № 1, p.16-18.
11. Morozov O V. Customs statistics as an important element in the study of customs policy XIX-early XX century. / Morozov AV / / Customs. – 1999. – № 6. – p. 20-23. – p. 23.
12. Central State Historical Archive in Kyiv. – F. 1153, Op. 1 cpr. 198, ff. 31 (cited in: A. Morozov Customs statistics of XIX-early XX century.. as a source of study of the Customs Policy / Morozov A.V. / / Grani. – 2009. – № 5 (67.) – p. 30 – 33.
13. The higher and central state institutions of Russia. 1801-1917, Vol.2: The central state institutions. Ministry of Internal Affairs. Ministry of Justice. Ministry of Finance. Ministry of Trade and Industry. State control. St. Petersburg. : Nauka, 2001. – p. 122.
14. The Customs Code of Ukraine of 13.03.2012 № 4495–VI. 15. Customs. In 3 volumes. Volume 1: Teach. handbook. – Lectures / Ed. Voytseschuk A.D. – K.: Izd of "ID" Manufacture "2006. – 412 p. (303-304).

M. Balcerowicz-Szkutnik, Doctor of Sciences (Economics), Professor
University of Economics in Katowice, Poland

THE COMPARATIVE ANALYSIS OF THE LABOR MARKET INDICATORS IN A SELECTED GROUP OF EU COUNTRIES

The paper presents, in a synthetic way, the problems of dynamics of labour market of "ten new member states" that joined EU in 2004, focusing mainly on the level of employment and taking into account the lines of business and age employees. The time range from 2000 to 2011, selected for the purpose of the analysis, includes the years that directly preceded and directly followed the accession to the EU and aims at determining possible changes in parameters that characterise the labour market in selected states. Specific analysis were preceded by presentation of population age structure in EU states which joined the Union in 2004; it is due to high influence of this factor on labor market model. Attention was paid to growing problem of sectoral changes in labor market structure, so systematic extension of so called 'third sphere' – services, and to changing proportions of employment in industry, services and vanishing sphere of agriculture. Other analysis were made for structure of employment with division to three groups- highschool and college graduates, employees in mobile age, and employees in pre-retirement age. Each part of analysis has appropriate conclusion.

1. Population on 1 January by age and sex [Dostemp] // Eurostat [plakat]. – E-mail. dane. – Dostemp: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en.
2. Europe 2020 strategy [Elyektronichny zasub] // European Commission [plakat]. – E-mail. dane. – Dostemp: http://ec.europa.eu/europe2020/europe-2020-in-your-country/index_pl.htm.
3. Diahnoza spolechna 2009: varunki i yakoshchch zhycha polyakuv" [Elyektronichny zasub] // Varshava: Rada monitorynhu Spolechnoho, Vyshcha Shkola Finansuv i Zazhondzhanya v Varshavye [plakat]. – E-mail.. dane. – Dostemp: www.diagnoza.com/pliki/raporty/diagnoza_raport_2009.pdf.
4. Rynki pratsy novykh pan'stv shlonkovskikh UE [Elyektronichny zasub] // rynekpracy.pl [plakat]. – E-mail. dane. – Dostemp: http://www.rynekpracy.pl/raporty_1.php/wpis.38.
5. Eurostat. Statistics. Browse / Search [Dostemp] // European Commission: [teren]. – Dostemp: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.

N. Butenko, PhD in Economics, Associate Professor,
L. Paschuk, PhD in Economics, Assistant
Taras Shevchenko National University of Kyiv, Kyiv

SYNERGIC EFFECTS OF THE PARTNERSHIP NETWORKS FORMATION AT THE INDUSTRIAL MARKET

The recent trends of the global and local economies demonstrated the need to define the new opportunities of strengthening the competitive positions and gaining competitive advantages. In this connection the role of partnership networks is rapidly growing. Partnership relations are playing a crucially important role at the variety of the markets especially at the industrial or business-to-business markets. Effective partnerships of the customers, distributors and suppliers ensure the formation of synergic effects improving the operational results of each member of the network. In current paper theoretical and methodic bases of the formation of synergic effects of partners' network development to improve the positions of the enterprises at the industrial market were studied and summarized. The specific features of the industrial markets, which influence the processes of the partnership networks' forming, where defined and described. Based on the results achieved the major statements of the concept of partnership relations at industrial market were formulated. Authors defined the process of synergic effects development within the partnership networks and suggested the criteria of the partnership networks' evaluation.

1. Bulah I.V. Strategija promislovogo marketingu – pidhid do viznachennja / I.V. Bulah // Suchasni problemi upravlinnja virobnictvom: tezi dopovideї V Mizhnar. n.-pr. konf. – Donec'k: DVNZ "DonNTU", 2010. – 227 s. (posilannja st. 14-15).
2. Dem'janenko P. Rinkova transformacija ekonomiki: stan, problemi, perspektivi / P.V. Dem'janenko // Aktual'ni problemi ekonomiki. – 2008. – №7 (85). – S. 241 – 249.
3. Krivoruchko Ja. Metodichnij pidhid do ocinjuvannja ta rozvitku vidnosin mizh pidpriємstvami / Ja.Ju. Krivoruchko // Visnik Hmel'nic'kogo nacional'nogo universitetu. – 2007. – №6: Ekonomichni nauki, Tom 3. – S. 249–254.
4. Krivoruchko Ja.Ju. Formuvannja i rozvitok vzaєmovidnosin mashinobudivnogo pidpriємstva z biznes-partnerami : avtoreferat disertaciї na zdobuttja naukovogo stupenja kandidata ekonomichnih nauk / Ja.Ju. Krivoruchko. – L'viv, 2009.

5. Bivainis J. A six-phase model of business partners selection // Економічний вісник Національного технічного університету "Київський політехнічний інститут". – 2006. – №3. – С. 351 – 357.
6. Johnston J. International Industrial Marketing Interactions: Dyadic and Network Perspectives / J. Johnston, J.E. Lewin, R.E. Spekman // Journal of Business Research. – 1999. – № 46. – P. 259–271.
7. Haldane, G. (2009) Professional Diploma in Marketing. Study Text. Project Management in Marketing. /– London : BPP Learning Media, Aldine Place.

A. Dligach, PhD in Economics, Associate Professor
Taras Shevchenko National University of Kyiv, Kyiv

SYSTEM REFLEXIVE STRATEGIC MARKETING MANAGEMENT

This article reviews the System Reflexive paradigm of strategic marketing management, being based on the alignment of strategic economic interests of stakeholders, specifically, enterprise owners and hired managers, and consumers. The essence of marketing concept of management comes under review, along with the strategic management approaches to business, buildup and alignment of economic interests of business stakeholders.

Summarizing the problem of aligning the business interests of a specific group of persons, we could contend that a business can be revealed, at the same time, as an object or as an instrument in a single or multiple management systems, which may draw on different management paradigms. Depending on the nature of subjects, whom we consider stakeholders, different models of management can be segregated, defining the form of object management.

A roadmap for resolving the problems of modern marketing is proposed in the article through the adoption of System Reflexive marketing theory. System Reflexive Marketing (SRM) is defined as a theory and practice of management, carried out through the system-level distribution of economic agents' interests, and the alignment of their interests from the perspective of reflexive marketing manager.

System Reflexive Marketing introduces the new marketing and strategic management paradigm, and consolidates its evolution stages of development. Adopting the System Reflexive Marketing enables the enterprise to resolve internal and external conflicts, elaborate strategic vision–together with corporate strategy, facilitates realization of interests by the subjects of management towards the management object, as well as improves the overall efficiency of business operation.

1. Ansoff, I.H. Strategic Management: Classic Edition. Hampshire, UK: Palgrave Macmillan, 2007. – 272 p.
2. Dligach, A.A. Strategic Marketing Management. – Kyiv, 2012.
3. Fathutdinov, R. A. Strategic Marketing. – St. Petersburg: Piter, 2002. – 448 p.
4. Hamel, G. – Prahalad, C.K. Competing for the future. – Boston, MA: Harvard Business School Press, 1996. – 384 p.
5. Kahneman, D. – Tversky, A. Choices, values and frames. – New York: Cambridge University Press, 2000. – 860 p.
6. Kim, W. Chan. – Mauborgne, R. Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant. – Boston, MA: Harvard Business Review Press, 2005. – 256 p.
7. Lefebvre, V. A. Elements of logic in reflective games. Problems of engineering psychology. 1966 (4): 273–299.
8. Mintzberg H. – Ahlstrand, B. – Lampel, J. B. Strategy Safari: The Complete Guide Through the Wilds of Strategic Management. – London, UK: FT Prentice Hall, 2008. – 464 p.
9. Pankrukhin, A.P. Marketing. – Moscow: Omega-L, 2005. – 656 p.
10. Thomas, L. T. Russia's Reflexive Control: Theory and the Military. Journal of Slavic Military Studies. 2004, 17 (2): 237–256.
11. Vesnin, V.R. Strategic Management. – Moscow: Velbi, Prospekt, 2006. – 328 p.

N. Grazhevska, Doctor of Sciences (Economics), Professor
Taras Shevchenko National University of Kyiv, Kyiv,
Y. Petrushenko, PhD in Economics,
N. Kostyuchenko, PhD in Economics
Sumy State University, Sumy

IMPACT OF SOCIAL CAPITAL CHARACTERISTICS ON THE EFFECTIVENESS OF COMMUNITY-BASED APPROACH TO LOCAL DEVELOPMENT

The article examines the impact of social capital characteristics of local communities on the effectiveness of the community-based approach to economic development.

Over the years of independence of Ukraine, the state economic and social policy in agricultural sphere has not established the prerequisites for enabling rural communities to solve the local level development problems on their own. The level of paternalism of rural communities is extremely high. The rural residents who live within a single area do not constitute the community in fact as they have no common goals and values. In such conditions non-government development programs which presume economic cooperation and social mobilization of the community members are the mechanisms to solve the problem.

The conclusion that such social capital characteristics as (anti)paternalism, solidarity and cooperation have the greatest importance for the economic development is made based on the analysis of UNDP and the European Union project "Community-based approach to local development". The level of the accumulated social capital affects the rates of economic development of the rural communities. Employment indicators are the most sensitive to the program participation.

Estimation of social capital characteristics is made on the data obtained as a result of the survey process. The questionnaire was designed based on the Integrated Questionnaire for the Measurement of Social Capital worked out by the World Bank, The World Values Survey, The European Social Survey, and The Social Capital Question Bank.

The conclusion is made that social capital is a resource for economic development in the presence of an effective institutional mechanism for joint collective actions. The hypothesis is justified that the creation of community organization can be an effective mechanism to actualize the existing social capital of rural communities in Ukraine.

1. A review of community-driven development and its application to the Asian development bank [Електронний ресурс] / Tanaka S., Singh J., Songco D., Maclean J. – 2006. – Режим доступу: http://www.adb.org/Documents/Participation/Review-CDD-Application-ADB.pdf.

2. Can development aid contribute to social cohesion after civil war? Evidence from a field experiment in post-conflict Liberia. / Fearon J.D., Humphreys M., Weinstein J.M. // American Economic Review: Papers & Proceedings, 2009. – 99:2, 287–291.

3. Chase R. Community Driven Development and Social Capital: Impact Designing a Baseline Survey in the Philippines [Електронний ресурс] / Chase R., Holmemo C. – Social Development Department, 2005. – Report No: 32405-PH, 1-108. – Режим доступу: http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/EXTEAPREGTOPSOCDEV/0,,contentMDK:20589113~pagePK:34004173~piPK:34003707~theSitePK:502940,00.html.

4. Community-driven development / Dongier P., Domelen J. V., Ostrom E., Ryan A., Wakeman W., Bebbington A., Polski M. – In World Bank, Poverty Reduction Strategy Paper Sourcebook, 2001. – 1. Washington, D.C., 1-32.

5. Ex-Post Evaluation of the Honduran Social Investment Fund (FHIS 2) / Walker I., Cid R., Ordonez F., Rodriguez F. – Produced by ESA Consultants, Honduras, for the World Bank, Latin American and Caribbean Region (LCSHD), 1999.

6. Hardin G. The Tragedy of the Commons / G. Hardin // Science. New Series, 1968. – 162(3859), 1243-1248.

7. Harrison L. E. Culture matters: How values shape human progress / Harrison L. E., Huntington S. P. – New York, NY: Published by Basic books, 2000.

8. Mansuri G. Community based and driven development: a critical review / Mansuri G., Rao V. // The World Bank Research Observer, 2004. – 19(1), 1-39.

9. Marcus A. Institutionalizing cooperation: Public goods experiments in the aftermath of civil war / Marcus A., Fotini C. – Published by the Weatherhead Center for International Affairs, Harvard University, 2009. – Paper No. 2009-0005, 1-43.

10. Measuring social capital: An integrated questionnaire / Grootaert C., Narayan D., Jones V. N., Woolcock M. – World Bank working paper; 2004. – no. 18, 1-53.

11. Olson M. The logic of collective action: public goods and the theory of groups / Olson M. – Cambridge, Mass.: Harvard University Press, 1965.

12. Online Data Analysis in the World Values Survey [Електронний ресурс]. – Режим доступу: http://www.wvsevsdb.com/wvs/WVSAnalizeStudy.jsp.

13. Ostrom E. Governing the Commons: The Evolution of Institutions for Collective Action / Ostrom E. – Cambridge, UK: Cambridge University Press, 1990.

14. Ruston D. Social Capital Question Bank [Електронний ресурс] / Ruston D., Akinrodoye L. – Social Analysis and Reporting Division, 2002. – Режим доступу: http://www.google.cz/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CEkQFjAB&url=http%3A%2F%2Fwww.ons.gov.uk%2Fons%2Fguide-method%2Fuser-guidance%2Fsocial-capital-guide%2Fthe-question-bank%2Fsocial-capital-question-bank--pdf-document.pdf&ei=VE3wT9uvKu3P4QSa7LD8DQ&usg=AFQjCNHbvHSJDrxMkrqhbduicg0mAYgZRQ&sig2=ZXDqZjtwabyrAsyAuKUXFg.

15. The European Social Survey. SOURCE QUESTIONNAIRE (Round 1, 2002/3). [Електронний ресурс]. – Режим доступу: http://www.europeansocialsurvey.org/index.php?option=com_content&view=article&id=63&Itemid=98.

16. The official site of the United Nations Development Program "Community-based Approach to Local Development" [Електронний ресурс]. – Режим доступу: http://cba.org.ua/en/about/about-cba.

17. Паспортизація сільських населених пунктів [Електронний ресурс]. – Режим доступу: http://www.sau.sumy.ua/index.php?option=com_content&view=article&id=1664&catid=194&Itemid=239&lang=uk.

18. Чисельність сільського населення скоротилась на 2,5 млн. осіб [Електронний ресурс]. – Режим доступу: http://health.unian.net/ukr/detail/224241.

O. Kanishchenko, PhD in Economics, Professor,
N. Kuznetsova, PhD in Economics, Assistant,
M. Ustimenko, postgraduate student
Taras Shevchenko National University of Kiev, Kiev

INTERNATIONALIZATION OF INDUSTRIAL CLUSTERS: OBJECTIVES AND PERSPECTIVES

Nowadays the actual issue is to explore the ways of international competitiveness strengthening in order to be able to compete effectively in the global market. Clusters are considered as one of the most effective ways for competitiveness enhancement, production effectiveness and companies' market performance improvement, due to synergy effects of interaction among its agents, reducing costs, cooperative decision making and ability to implement innovations productively.

Authors explore peculiarities of international clusters distinguishing such formations on the basis of relationship structure among the cluster members, their economic motives for association. The impact of the globalization, multilateral development of economic international relationship development, attraction of FDI and outsourcing on the cluster initiation and functioning was investigated. The model of cluster internationalization in accordance to the cluster members initiatives from countries with different level of economic development were proposed.

Investigation of positive and negative cluster effects, transition economies cluster initiation peculiarities exploration enabled authors to come to conclusion outlined perspective way of Ukrainians international competitiveness improvement on the basis of cluster approach. The Ukrainian cluster formation mechanism was proposed and prerequisites for international cluster initiation involving Ukrainian members were identified.

1. Sokolenko S.I. Klastery u hlobalnii ekonomitsi. – K.: Logos, 2004. – 848 s.

2. Yasheva G.A. Formirovanie mezhdunarodnykh klasterov kak factor povysheniia konkurentospoobnosti economic Rosii, Belarusii I Ukrainy [http://www.gosbook.ru.] Yasheva G.

3. Vnukova N. Transkordonni klastery: zakordonnyi ta vitchiznianyi dosvid [http://www.inno.kharkov.ua/wp-content/uploads/2009/10/transkordonnd196-klasteri1.pdf.] / Vnukova N. Ketels, Christian, Göran Lindqvist, and Örjan Sölvell. 2006. Cluster initiatives in developing countries and transition economies. Stockholm: Center for Strategy and Competitiveness.

4. OECD (2009), Clusters, Innovation and Entrepreneurship, Local Economic and Employment Development (LEED), OECD Publishing.

5. Klastery v razvitykh stranakh / / Ofitsiinyi web-portal Stanislava Sokolenko ta organizatsii Mizhdnarodna fundatsiia spryiannia Rynku (MFCR): [http://ucluster.org.] / Sokolenko S.

6. Kanishchenko O.L. Mizhnarodnyi marketynh u diialnosti ukrainskikh pidpryiemstv: Monographiia. – K.: Znannia – Pres, 2007. – 448 s: il.
7. Dubnytskyy V.I. Teoretyko-metodolohichne j,gruntuvannia systemy ekonomichnyh klasteriv v ymovakh spivrobitnitstva rehioniv/ V.I. Dubnytskyi / / Ekonomichni nauky. Seriia "Ekonomichna teoriia ta ekonomichna istoriia". Zbirnyk naukovih prats. LNTU. – Vypusk 6 (23). – CH.1. – Lutsk, 2009.
8. National Research Council, Growing Innovation Clusters for American Prosperity, Charles W. Wessner, Rapporteur, Washington, DC: The National Academies Press, 2011.
9. Clusters Models, Factors and Characteristics. International Journal of Economic Practices and Theories, Vol. 1, No. 1, 2011 (July).
10. Global Cluster Initiative Survey 2012. Survey Summary Report. European Commission, European Cluster Observatory, Stockholm, 2012.
11. Industrialnyie klastery kak factor economicheskoho chuda Kitaia: [http://www.ageoint.com.]

O. Komendant, PhD in Economics, Assistant
Taras Shevchenko National University of Kyiv, Kyiv

THE MECHANISM OF TRANSFORMATION OF THE LABOR MARKET OF UKRAINE TO THE NEW ECONOMY UNDER POST-CRISIS PERIOD

Major components of a mechanism of transformation of the Ukrainian labor market under new economy or knowledge-based economy are identified. The interaction between global financial crisis and national labor market of Ukraine by means of "new economy" is studied. Using the logic of the transformation process in live nature the author proposed specific mechanism of transformation of the Ukrainian labor market, which consists of eight interrelated phases such as: "object of transformation", "transformetr", "instrument of transformation", "time", "psithenemos", "environment", "transistor" and "transformation link". Modern period of the offered mechanism of transformation is considered together with current post-crisis level of implementation of the mechanism of transformation of the Ukrainian labor market under new economy.

1. Asheim B. Constructing knowledge-based regional advantage: implications for regional innovation policy / B. Asheim, L. Coenen, J. Moodysson, J.Vang. [Electronic source]. – Access at: http://inderscience.metapress.com/content/cm9akx5l873xdvr0/.
2. Boyarunets A. Labor market of Ukraine: Revival despite crisis. / A. Boyarunets. [Electronic source]. – Access at: http://en.for-ua.com/analytics/2013/02/26/113435.html.
3. Krugman, P. The Return of the Depression. Economy and the Crisis of 2008. / P.Krugman. – Sofia, East-West, 2009;
4. Magomed-Yevminov. M. Transformation of personality. / M. Magomed-Yevminov. – M.: Psycho Association, 1998. – 496 c.
5. Official site of Ankor agency. [On-line]: [web-page]. – Access at: http://www.ancor.ru/.
6. Official site of European Business Assosiation. Forecasts for the labor market of Ukraine in 2013. [[On-line]: [web-page]. – Access at: http://www.eba.com.ua/en/information-support/news-from-members/item/6591-2013-2-4-1634.
7. Official site of European Central Bank. [On-line]: [web-page]. – Access at: http://sdw.ecb.europa.eu.
8. Official site of Internet World Stats. Usage and population statistics. [On-line]: [web-page]. – Access at: http://www.internetworldstats.com/europa2.htm#ua.
9. Official site of State Statistics Service of Ukraine. [On-line]: [web-page]. – Access at: www.ukrstat.gov.ua/.
10. Official site of World Bank. Projects and Operation in Ukraine. [On-line]: [web-page]. – Access at: http://www.worldbank.org/projects.
11. Rating of the most expensive Ukrainian brands // Yellow page. [Electronic source]. – Access at: http://yellowpage.in.ua/en/archives/49176.
12. Reinhar C. The aftermath of financial crises / C. Reinhar, K. Rogoff. [Electronic source] // National Bureau of Economic Research. Working Paper 14656 – Access at: http://www.nber.org/papers/w14656.
13. Stiglitz, J. Free Falling. / J. Stiglitz. – Sofia, DAR, 2010.
14. World Bank database of indicators. [On-line]: [web-page]. – Access at: http://data.worldbank.org/indicator.
15. Yurchishin V. World economy and Ukraine / V.Yurchishin. [Electronic source]. – Access at: http://www.razumkov.org.ua/upload/yurchyshyn_global_ecnomy_2012.pdf.

Zh. Konurbaeva, PhD in Economics, Associate Professor,
A. Zakimova, PhD in Economics, Associate Professor
D. Serikbayev East Kazakhstan State Technical University, Republic of Kazakhstan
M. Rahkimberdinova, Doctoral student
Turar Ryskulov Kazakh Economic University, Republic of Kazakhstan

DEVELOPMENT OF ANIMAL SECONDARY RAW MATERIAL MARKET AS A FACTOR OF DIVERSIFICATION OF KAZAKHSTAN'S EXPORT POTENTIAL

Products of the recycling of livestock should become the most important part of the Kazakhstani export potential. Using recycled materials in the finished production cycle would significantly diversify the export component of national agro-industrial sector of the Republic.The article proposes an approach to the placement of industries, processing secondary raw materials in order to obtain market product with high added value, which will result in implementing the existing potential of the agricultural sector of the state.

1. E-resource: http://www.shygys.stat.kz/.
2. M.S. Kulazhanov. Development of import substitution and export focus on light industry production in Kazakhstan: Abstract of a thesis for the degree of Candidate of Economic sciences : 08.00.05-Almaty, 2005. – 25 pp.
3. D.M.Madiyarova. World Product Markets: textbook-Almaty: Economy, 2005. – 400 pp.

4. A.B.Temirova. Building and Development of Region Export Potential (Kyzylorda region), 2006. – 29 pp.
5. G.N.Dobrohotov. Zootechnician reference book/4th Edition – Moscow: Kolos. – 767 pp.
6. A.M.Zakimova. –Export Potential Priorities in Agricultural Sector in Kazakhstan(East Kazakhstan Region) Abstract of a thesis for the degree of Candidate of Economic Sciences. Printed by Әрекет – Print, Almaty.

O. Kuzioma, PhD Economics, Associate Professor
Taras Shevchenko National University of Kyiv, Kyiv

IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES AS A FACTOR OF COMPETITIVENESS' GROWTH BY THE SMALL ENTERPRISES IN CIS STATES

The article shows that the international network of electronic communication helps the various economic agents in finding new partners, responding to the changing conditions quicker, facilitates the greater interaction of the economic partners and establishment of the trusting and long-term relationships, reduces the transaction costs and the distance between the partners, while simultaneously increasing the economic benefits of their relationship. It justifies the fact that the widespread implementation of information and communication technologies in the CIS countries might contribute to increasing the number of small businesses and private business organizations, as well as strengthen their competitive positions in the domestic and foreign markets. This article proves that the use of ICTs can enhance the effectiveness of the production and companies' management system by increasing their access to the information, knowledge, financial services and other resources. As explained in this work, due to the use of ICTs new opportunities are created for the small private enterprises to develop the existing and discover the new types and directions of activity, which will contribute to the improvement of the population well-being. It also rationalizes that the expansion of the ICTs' use by the government and other public bodies may support the increase of the business environment transparency and simplify procedures for starting and running a business. It determines why the spread of information technology, especially in the CIS countries, requires governmental support primarily in the development of information infrastructure and adaptation of the legislation to the conditions of the information economy.

1. Information Economy Report 2011. ICTs as an Enabler for Private Sector Development / UNCTAD. [On-line] – Access at: http://www.unctad.org/ en/docs/ier2011_en.pdf/
2. Infrastructure / Data of the World Bank. [On-line] – Access at: http://data.worldbank.org/topic/infrastructure/
3. Information and communication technology / Data of the UNCTAD. [On-line] – Access at: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx/
4. IDC: in 2010 the Ukrainian IT services market rose only by 2.4%. /04.08.2011. [On-line] – Access at: http://www.pcweek.ua/themes/detail.php?ID=133897/

O. Liubkina, PhD in Economics, Associate Professor,
M. Borovikova, PhD in Economics, Assistant
Taras Shevchenko National University of Kyiv, Kyiv

IMBALANCES IN THE FINANCIAL SYSTEM OF UKRAINE AND THEIR TRANSMISSION TO THE SYSTEMATIC RISKS IN THE MONETARY STABILITY

The article examines the current state and major imbalances in the financial market of Ukraine, which are the source of risk to the national economy and can significantly affect the monetary stability during the post-crisis period and the period of recession. Threats that are associated with peculiarities of the institutional structure of the financial market of Ukraine are analyzed, namely, on the one hand, the importance of banking institutions, and on the other – functional inadequacy of the banking systems in ensuring monetary and financial stability. The analysis shows that the weaknesses of the banking system have led to the accumulation of risks and structural misbalances in the Ukrainian economy which pose a danger to stability in the financial sector. Conclusions and measures are substantiated for the use of tools of monetary policy in order to strengthen monetary and financial stability. Among them are: the necessity of changes in the methodological tools of assessment of the financial stability and accumulation of systemic risk in the economy, measures to manage the inflation risk as the main internal risk for Ukraine, ways of enhancement of interaction between the banking system and the national economy through the interest rate benchmark.

1. Batkovskyi V. (2009). Restructuring of the banking system of Ukraine in the context of the strategy to overcome the consequences of global financial crisis. Journal of Taras Shevchenko National University of Kyiv,112: 39–43.
2. Batkovskyi V. (2009).The safety of monetary system and the mechanism to overcome threats for its development. Journal of Taras Shevchenko National University of Kyiv, 111: 37–41.
3. IMF. (2005). Ukraine: Selected Issues. IMF Country Report, 05/20.
4. International Monetary Fund. (2012). Financial Soudness Indicator (FSIs). Available from the Internet: http://fsi.imf.org.
5. Liubkina O., Borovikova M. (2012). Problems and prospects of the development of Ukraine stock market in the context of financial liberalization and integration process. International Scientific Conference "Whither Our Economies". October 15-16, 2012. Proceedings:111-118.Available from the Internet: http://woe.mruni.eu/wp-content/uploads/2012/06/Conference-Proceedings1.pdf.
6. Liutyi I. (2011) Banking Institutions in the Conditions of Globalization of Financial Services Market. 357 p.
7. Masashi Saito. (2010).Financial Integration and Economic Growth: An Empirical Analysis Using International Panel Data from 1974-2007.Available from the Internet:http://www.bis.org/repofficepubl/arpresearch201003.13.pdf.
8. Ministry of Economic Development and Trade of Ukraine. (2012). Basic Indicators of Economic and Social Development of Ukraine. Available from the Internet:http://www.me.gov.ua/control/uk/publish/printable_article?art_id=38501.
9. Ministry of Economic Development and Trade of Ukraine. Available from the Internet: http://www.me.gov.ua.
10. National Bank of Ukraine. (2011). Bulleting of the National Bank of Ukraine, №01/2011: 56-59.
11. National Bank of Ukraine. (2012). Balance of Payments and External Debt of Ukraine. Available from the Internet:http://www.bank.gov.ua/doccatalog/document?id=118305.
12. National Bank of Ukraine. (2012). Bulleting of the National Bank of Ukraine. Available from the Internet: http://www.bank.gov.ua/control/uk/publish/category?cat_id=58127.

13. NationalInstituteof StrategicResearch. (2011). Post-crisis Development ofUkrainian Economy: Modernization Strategy. Available from the Internet:http://www.niss.gov.ua/public/File/2012_nauk_an_rozrobku/postkryz_moder_new.pdf.

14. Prasad E., Rogoff K., Wei S, Kose A. (2003). Effects of Financial Globalization on Developing Countries: Some Empirical Evidence. International Monetary Fund, March.Available from the Internet:http://www.imf.org/external/np/apd/seminars/2003/newdelhi/prasad.pdf.

15. Sebnem Kalemli-Ozcan, Bent E. Sorensen, Vadym Volosovych. (2010). Deep Financial Integration and Volatility. Available from the Internet: http://siteresources.worldbank.org/INTMACRO/Resources/Volatility_jan18_10.pdf.

16. World Bank and International Financial Corporation. (2012). Ease of Doing Business in Ukraine. Available from the Internet:http://www.doingbusiness.org/data/exploreeconomies/ukraine.

17. World Bank Group. World Economic Outlook Database. Available from the Internet: http://data.worldbank.org/about/country-classifications. 18.

18. World Bank. (2011). Is Small Beautiful? Financial Structure, Size and Access to Finance. Available from the Internet:http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2011/09/22/000158349_20110922133048/Rendered/PDF/WPS5806.pdf

V. Osetskyi, Doctor of Sciences (Economics), Professor,
I. Kalinkova, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

DISCOURAGING SHOCKWAVES UNDER SIMULATED GREEN SHOOTS AMONG DEVELOPED COUNTRIES

Presented research focuses on the macroeconomic policy analysis regarding simulated nature of numerous recovery impulses among stagnation global trend, namely green shoots. Their overall impact is much overestimated especially considering imbalances aggravation through developed countries. However, an author remarked a new recovering trend among developing countries that finally reached highest Gross Domestic Product (GDP) growing results as of developed community. A GDP share of Developing countries will reach about 55 percent till the end of 2018 that might crucially displaces global forces. What is more, monetary shocks diffusion has subtly placed emphasis upon global economic system immobility especially in consequence of public-sector debt assessment ("This Time is Different. Eight Centuries of Financial Folly", Reinhart C.M. and Rogoff K.S. work trouble), interest rate targeting and money supply policy (Quantity Easing Policy). Considering further shockwaves diffusion the Euro zone was under the threat of contraction in 2013 above all other regions, with -0.1% real GDP growth forecast. Moreover, many issues of 2012 will become the same challenges in 2013 while another green shoots emerge. A new multi-factor diagram, where developing countries domination correlate with other macroeconomic trends is presented by the author of the current paper. Thus, an aggregated value of developing economies contribution disclosed this business environment as one of the greatest drivers till 2018 at least. Meanwhile, as a world mainstream trends should be mentioned the U.S. protectionism policy (long term strategy), interest rate and inflation targeting (short term strategy) as well as the unemployment rate targeting (referent value is 6.5% that is pre-crisis level.

1. Walsh H. Global Economy in 2013: Shockwaves from 2012 will Shake the Foundations of Recovery in 2013 // Global Economic Prospects for 2013, Euromonitor International (January 2, 2013). – Access mode: http://blog.euromonitor.com/2013/01/global-economy-in-2013-shockwaves-from-2012-will-shake-the-foundations-of-recovery-in-2013.html.

2. Kravchenko E., Averchenko M. A New World Economy Driver // Vedomosti, 06.06.2013, 98 (3360). – Access mode: http://www.vedomosti.ru/newspaper/article/464841/novyj_dvigatel_mirovoj_ekonomiki.

3. Kohl D. Green Shoots in the U.S. Economy. – Access mode: http://m.cornandsoybeandigest.com/blog/green-shoots-us-economy.

4. G20, 2012., "Communiqué of the Ministers of Finance and Central Bank Governors of the G20, Mexico City", Mexico City, 4-5 November 2012.- Access mode: http://www.g20mexico.org/index.php/en/press-releases/537-final-communique.

5. Blanchard O., Dell'Ariccia G., Mauro P. "Rethinking Macroeconomic Policy", IMF Staff Position Note, February 2010, SPN/10/03, pp. 2-19. – Access mode: http://www.imf.org/external/pubs/ft/spn/2010/spn1003.pdf.

6. Romer C.D. Spurious Volatility in Historical Unemployment Data // Journal of Political Economy 94 (February 1986), pp. 1-37.

7. Romer C.D. Is the Stabilization of the Postwar Economy a Figment of the Data? // American Economic Review 76 (June 1986), pp. 314-334.

8. Dr Spratt St. A Sterling Solution. Implementing a stamp duty on sterling to finance international development // A report for Stamp Out Poverty by Dr Stephen Spratt of Intelligence Capital Limited, Second edition. Stamp Out Poverty, September 2006. – Access mode: http://www.stampoutpoverty.org/?lid=9889.

9. "GLOBAL FINANCIAL STABILITY REPORT: Restoring Confidence and progressing on Reforms (October 2012)" – Washington, DC: International Monetary Fund, 2012, 188 p. – Access mode: http://www.imf.org/external/pubs/ft/gfsr/2012/02/pdf/text.pdf.

10. Krugman P. How Did Economists Get It So Wrong? // The New York Times, September 2, 2009. P.7 – Access mode: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=0.

11. Kenny T. What is the Fiscal Cliff? // About.com Guide. – Access mode:http://bonds.about.com/od/Issues-in-the-News/a/What-Is-The-Fiscal-Cliff.htm.

12. World economic outlook October 2012: Coping with high debt and sluggish growth. – Washington, DC : International Monetary Fund, 2012, 250p. – Access mode: http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf.

13. Report to G20 Finance Ministers and Central Bank Governors on Basel III implementation, June 2012. – Access mode: http://www.bis.org/publ/bcbs234.pdf.

14.BIS, 2012., Basel Committee. Bank for international Settlements. – Access mode: http://www.bis.org/publ/bcbs234.htm.

15. Cochrane J. How did Paul Krugman get it so Wrong? // Modeled Behavior. – Access mode: http://modeledbehavior.com/2009/09/11/john-cochrane-responds-to-paul-krugman-full-text/#_ftn1_6657.

16. Wessel D. In Fed We Trust: Ben Bernanke's War on the Great Panic. Three River Press, U.S. – NY, 2009, 341p.

17. Yellen J.L. Perspectives on Monetary Policy / Boston Economic Club Diner. Boston. Massachusetts: Federal Reserve Bank of Boston. June 6, 2012. – Access mode: http://www.federalreserve.gov/newsevents/speech/yellen20120606a.htm

S. Shakeev, PhD in Economics, Associate Professor
Kazakh Humanities and Law University, Republic of Kazakhstan

SUPPLY LOGISTICS FOR IMPROVEMENT OF IRON AND STEEL ENTERPRISES

In the article the techniques that help to improve the material and technical supply management of allied industries are defined. Prime vendors of physical resources are examined. Material resource endowment of Kazakhmys Corporation was analyzed. The forecast requirements of physical resources and purchase returns are displayed. The main difficulties of supply logistics were found, and solutions were given. To solve these problems it was proposed to establish logistics center for allied mining enterprises. The basic input patterns in case of logistics center use are shown. To reduce these costs it is presented by the author to introduce the concept "just in time". Moreover, key benefits of the united logistics center establishment using the concept "just in time" for the enterprises of related industries and implementing the same physical resources.

1. Gadzhinskyi A.M., Logistics: textbook for higher educational institutions in the field of study "Economy". – Moscow: Dashkov and C°, 2011. – 481 p.
2. Logisrics: study guide / [Anikin B.A. and others]. – Moscow: Prospect, 2011. – 405 p.
3. Sabden O., Raimbekov Z.S. Logistics (economics and management). – Almaty: Institute of economics MES of RK, 2009. – 911 p.
4. Tulembayeva A.N. Logistics: textbook. – 3rd edition, revised and enlarged. – Almaty:Triumph "T", 2008. – 360 p.
5. Moldakhmetov R.K. Perfection of increasing effectiveness of physical resources use. // Strategy of a region sustainable development: References of international scientific and practical conference. – Karaganda: Kazporebsoyuz KEU Press, 2005. – 351 p. – P.266 – 268.
6. Philonenko V.G. Logistics supply system. Marketing. Logistics: Study guide. University textbook. – M.:UNITY-DANA, unity, 2003. – 62 p.
7. Explanatory note about TEP performance in Kazakhmys Corporation in 2009-2011.
8. Yun R. B., Nezametdinov M.K., Shaltykova R.M. Development Strategy of "Kazakhmys" Corporation for 2004-2025. //Mining magazine. – 2005. – №5. – P.6-11.
9. Integrated logistics delivery system resources (theory, methodology, organization) / Yelova I.A., Lebedev I.A. – Minsk: Law and Economics, 2011. – 460 p.
10. Nikolaichuk, VE Logistical management: a textbook. – Moscow: Dashkov and K º, 2012. – 978 p.

E. Sojka, Doctor of Sciences (Economics), Professor
University of Economics in Katowice, Republic of Poland

MULTIDIMENSIONAL COMPARATIVE ANALYSIS OF LEVELS OF LIVING OF POPULATIONS IN EU MEMBER STATES

The major purpose of the article is the comparative analysis of levels of living of populations in EU member states, determination of features that differ studied populations and indication of groups of countries of similar levels of living of their inhabitants in the light of diagnostic features assumed for the study.

The level of living of populations in European Union member states was characterised by the rates that describe eight various areas of social and economic life of member states, including labour market, health protection, population incomes and poverty, housing conditions, education, transport, public safety and natural environment. Calculated values of Hellwig's taxonomic measure allowed for linear ordering of the states. The highest positions in the ranking were held by Cyprus, Finland, Denmark, Sweden and Ireland. The countries of the former Eastern bloc, Hungary, Latvia, Slovakia, Bulgaria and Romania, that were distinguished by the lowest level of living of the populations and at the same time they were characterised by low GDP rate per capita were found at the end of the list with the lowest values of the rate.

In the final stage of the analysis a classification of countries into three homogenous groups was performed with the use of Ward's method of agglomeration.

1. Khelvynh Z., Zastosovanye metody taksonomichney do typolohychnoho podzhyalu krayuv ze vzhlyendu na poz'om ikh rozvoyu oraz zasoby i strukturem vykvolifikovanykh kadr, Pshehlond Statystychny 1968, no 4. p. 307-327.
2. Lushnyevch A. Statystyka pozh'omu zhycha lyudnoshchi PWE Publishing House,Warsaw, 1972, p.12.
3. Novak E.,Metody taksonomichne v kvalifikatsiyi ob"yektuv spoluchno-hospodarchykh, PWE Publishing House, Warsaw,1990, p. 93.
4. Panek T., Statystychne metody vyelovymyarovey analizy poruvnavchey. SGH Publishing House, Warsaw, 2009, p. 95.
5. Pisany Y., Pozh'om i yakoshch' zhycha lyudnoshchchi oraz zrudla i myerniki ikh okryeshchlyanya, [in:] Rukh Pravnichy, Ekonomichny i Sotsyolohichny. Publishing House 1993, booklet p.73.
6. Soyka E., Bal'tserovich-Shkutnik M., Metody il'oshch'ove v finansakh i rakhunkovoshchi. Vybrane zahadnyenya. Publishing House of the University of Economicsin Katowice, 2011, p. 129-130.
7. Soyka E., Mihratsye lyudnoshchchi i rozvuy demohrafichny Shl'onska v okreshye transformatsiyi. Publishing House of the Universityof Economics in Katowice,Katowice, 2007.
8. Shukal'ski S.M. Hospodarka Evropy v perspyektyvye 2050 roku [Economy of Europe in the Prospect of 2050], In: Evropa v perspektyvye roku 2050, > PAN Publishing House, KomitetPrognoz 1. "Polska 2000 Plus", Warsaw 2007, p. 166.
9. Zelyash' A., (ed. by), Taksonomichna analizapshestzhenne hozruzhnitsovanya pozh'omu zhychya v Pol'stse v uyechu dynamichnym, Universityof Economics, Krakow, 2000, p. 96.
10. Eurostat. Statistics. Browse / Search [Elyektronichny zasub] // European Commission : [teren]. – Dostemp: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

A. Vikulova, postgraduate student
Taras Shevchenko National University of Kyiv, Kyiv

STATE INCENTIVE OF COMMERCIALIZATION OF INTELLECTUAL PROPERTY

In the article has shown the role of new technologies in modern world society. It has analyzed mechanisms, which stimulating circulation of technologies in the Europeans countries. Opened the meaning of commercializing process of intellectual property and its characteristic traits. Brought out the necessity of creating normative-legal area, which could able supply commercialization intellectual property. Identified the basic directions of government encouragement of commercialization of intellection property in Ukraine, among of which are: supplying priority of government supporting science and development science intensive technologies; – improvement forming and utilization trade innovation assets in supplying of carrying out of realizing innovations; – forming regulatory base of functionality the venture system of financing innovation projects; – development small innovation enterprise by forming favorable conditions for its creating and function; – assignment financial supporting of patent and inventing activity, supporting in protection rights on intellectual property in Ukraine and out of border; – improvement encouragement system of creation and utilization innovation productions; – involving in economics the objects of intellectual properties; development information infrastructure, assistance scientific research organizations in access to information networks and data bases.

1. Zhylinska O.I. Scientific and technical activity in the context of self-organization: [monography] / Oksana Ivanivna Zhylinska. – K.: Parliamentary edition, 2010. – 520 p.
2. Dezhyna I. Incentive mechanisms of commercialization of research and development / I.Dezhina, B. Saltykov//Society and economy. – 2004. – No. 7/8. – P. 190.
3. Kazmietsky J. Challeng of technological innovations on a threshold of a new era of universal competition /J. Kazmietsky //Creative economy. – 2009. – No. 5. – P. 11.
4. Grik Y.N. Resource approach to the business process creation and commercialization of development / Y.N. Grik, E.A.Monastyrny//Innovations. – 2004. – No. 7. – P. 85-87.
5. Encyclopedic dictionary of economy and law [Web source]. – Link to the page access: http://dic.academic.ru/dic.nsf/dic_economic_law.
6. Mocherny S.V. Economic encyclopedia in 3 volumes. / S. V. Mocherny. – K. : Academia, 2000 – V. 1. – 672 pages.
7. Commercialization of innovations. [Web source]. – Link to the page access: http: //ukrsprava.com /index.php?newsid=6171.
8. Zhylinska O.I. Commercialization of scientific and technical knowledge in the context of institutional approach / O.I.Zhylinska//Establishing of market economy in Ukraine. – 2010. – edition 21: Financial and economic prospects of Ukraine's development within globalization. – Page 167-178.
9. National Science Foundation. Science and Engineering Indicators 2012: http://www.nsf.gov/statistics/seind12/, Chapter 4. Research and Development: National Trends and International Comparisons: http://www.nsf.gov/statistics/seind12/pdf/c04.pdf/
10. Yegorov I.Y. Development of science in the USA in the 90-s: tendencies, achievements, problems / I.Y.Yegorov. – K., 2001.
11. Acs Z.J. Public policies to support new technology-based firms / Z. J. Acs // Science and public policy. – Guildford, 1999. – vol. 26, №4. – p.252.
12. Ivanova N. Formation and evolution of national innovative systems/N. Ivanova. – M: IMEMO, 2001 – P. 71.
13. Industrial program of assistance to research in Canada. [Web source]. – Link to the page access: http://irap-pari.nrc-cnrc.gc.ca.
14. Official website of Swedish investment fund "Industrifonden". [Wb source]. – Link to the page access: http://www.industrifonden.se.
15. Pavlenko I.A. Organizational ways of cooperation between science and business / I.A. Pavlenko //Strategy of economic development of Ukraine. – 2009. – edition 24–25.
16. Gamidov G.S. Concept of the main coordinating regional center of innovations /G.S.Gamidov, V.G. Davydov //Innovations. – 2004. – № 4.
17. Activity of the enterprises that are subjects of entrepreneurial activity in 2011. Part 1/ Statistical yearbook. – K.: Derzhkomstat of Ukraine, 2008. – 245 p.
18. Structure of the state budget expenses on the main educational and scientific directions. [Web source]. – Link to the page access: http://futurecenter.in.ua/uncategorized/byudzhet-2013-nauka-ta-osvita-pid-tyskom/

G. Yeliseyeva, postgraduate student
Dnipropetrovsk National University named after Oles Gonchar, Dnipropetrovsk

STATISTICAL ESTIMATION OF THE GREEN GROWTH IN UKRAINE

A set of indicators proposed by the OECD that assesses economic opportunities arising from the green growth as well as helps policy-making concerning environmental issues, in particular indicators on technology and innovation, production and consumption of environmental goods and services, environmentally related prices and transfers as well as associated to green growth financial flows, have been studied in detail in this article.

The results of the comparison analysis of the application of the abovementioned indicators by the Czech Republic, Denmark, Germany, the Netherlands and Korea are presented in the article. Based on the performed analysis possible application of the proposed by OECD set of indicators to the Ukraine's national context has been explored. Proposed set of green growth indicators can be applied in Ukraine, however further development is required to enhance the statistical data accounting and availability. Among the main challenges to the implementation of such system in Ukraine is the lack of data as well as medium compliance of the Ukraine's Environmental Accounts with the European regulation, which complicates the development of national policy towards green economy and the international comparison.

1. Byfuglien, J., Gamez, G., Hackl, P., Junker, C., Kaminskiene, B., Szczerbinska, J., and Wass, K., 2012. Adapted Global Assessment of the National Statistical System of Ukraine. Final report. [pdf] UNECE. Available at: http://www.unece.org/fileadmin/DAM/stats/publications/Ukraine_global_Eng.pdf [Accessed 10 September 2013].

2. Green Growth Knowledge Platform, 2013. Moving towards a Common Approach on Green Growth Indicators. A Green Growth Knowledge Platform Scoping paper. [pdf] Green Growth Knowledge Platform. Available at: <http://www.unep.org/greeneconomy/Portals/88/documents/partnerships/GGKP%20Moving%20towards%20a%20Common%20Approach%20on%20Green%20Growth%20Indicators.pdf> [Accessed 10 September 2013].

3. OECD, 2013. Putting Green Growth at the heart of Development: Summary for policy makers. [pdf] OECD. Available at: <http://www.oecd.org/dac/environment-development/Putting%20Green%20Growth%20at%20the%20Heart%20of%20Development_Summary%20For%20Policymakers.pdf> [Accessed 10 September 2013].

4. Gerasymenko S.S., Chupryna O.A., Chupryna O.O. Multivariate statistical analysis of the trends of economic development and population standard of living. [Bagatovymirnyi statystychnyi analiz tendentsii economichnogo rozvytku ta rivnya zhyttya naselennya.] Kyiv: Visnyk KNU im.T.Shevchenko. №129. – 2011. – p.8-11.

5. Kovtun N.V. Statistical characteristics of the innovation process development in Ukraine. [Statystychna kharakterystyka rozvytku investytsiinogo protsessu v Ukrayini.] Visnyk KNU im.T.Shevchenko. Ecomomika. – Kyiv: VPTS "Kyivs'kyi Universytet". № 93. – 2007. – p. 23-26.

6. Human development in Ukraine: innovative dimension. [Lyuds'kyi rozvytok v Ukrayini: innovatsiinyi vymir] / [monografiya] za red. E.M. Libanovoi, Institut demografii ta sotsial'nykh doslidzhen. Kyiv. – Natsional'na akademiya nauk Ukrayiny; Institut demografii ta sotsial'nykh doslidzhen; Programma rozvytku OON v Ukrayini. – 2008. – 316 p.

7. Mantsurov I.G. Statistics of economic growth and competitiveness of the country. [Statystyka ekonomichnogo zrostannya ta konkurentospromojnosti krayiny.] [monografiya] Kyiv: KNEU, 2006. – 388 p.

8. Parfentseva N.O. International statistical classifications in Ukraine: development and implementation. [Mizhnarodni statystychni klassyfikatsii v Ukrayini: rozvytok i vprovadzhennya.] [monografiya] Kyiv : VPD "Format", 2009. – 600 p.

9. OECD, 2011. Towards green growth – Monitoring progress, OECD indicators. [pdf] OECD Publishing. Available at: <http://www.oecd.org/greengrowth/48224574.pdf> [Accessed 10 September 2013].

10. OECD, 2011. OECD green Growth Studies. Fostering Innovation for Green Growth. [pdf] OECD Publishing. Available at: http://www.oecd.org/sti/inno/48663228.pdf [Accessed 10 September 2013].

11. Federal Statistical Office of Germany, 2012. Test of the OECD set of green growth indicators in Germany. [pdf] Wiesbaden: Federal Statistical Office of Germany. Available at: <https://www.destatis.de/EN/Publications/Specialized/EnvironmentalEconomicAccounting/TestOECDGreenGrowth5850016129004.pdf?__blob=publicationFile> [Accessed 10 September 2013].

12. Statistics Netherlands, 2011. Green Growth in the Netherlands. [pdf] The Hague: Statistics Netherlands. Available at: <http://www.cbs.nl/NR/rdonlyres/65FA4466-853C-4223-8B69-7C7872E37DC3/0/2011p44pub.pdf> [Accessed 10 September 2013].

13. Doležalová, V., Hák, T., Havránek, M., Horáčková, S., Janoušková, S., Koštáková, T., Kovanda, J., Kožoušková, E., Lorencová, E., Šimonová, L., Vačkář, D., Veselá, M., 2011. Green Growth in the Czech Republic: Selected indicators. [pdf] Prague: Czech Statistical Office. Available at: <http://www.czp.cuni.cz/knihovna/GreenGrowthweb.pdf> [Accessed 10 September 2013]. 1

4. Danish Energy Agency. Ministry of Climate, Energy and Building. Danish Business Authority. Ministry of Business and Growth. Danish EPA. Ministry of Environment, 2012. Green production in Denmark – and its significance for the Danish economy. [pdf] Danish Energy Agency. Available at: <http://www.ens.dk/sites/ens.dk/files/policy/green-production-denmark-contributes-significantly-danish-economy/Green%20production%20in%20Denmark%20-%20web%20111212.pdf> [Accessed 10 September 2013].

15. Organisation for Economic Co-operation and Development. [Science, Technology and Patents > Patents by technology > Patents in environment-related technologies: Ukraine] StatExtracts [online] Available at: <http://stats.oecd.org/Index.aspx?DatasetCode=PATS_IPC#> [Accessed 10 September 2013].

16. Point Carbon, 2013. Status of the domestic emissions trading scheme in Ukraine. A discussion document in the 'Preparedness for emission trading in the EBRD region' project. [pdf] Thomson Reuters Point Carbon. Available at: <http://www.ebrdpeter.info/Reports/20130308%20EBRD%20PETER%20Project%20-%20Ukraine%20ETS%20status.pdf> [Accessed 10 September 2013].

T. Zatonatska, Doctor of Sciences (Economics), Associate Professor
Taras Shevchenko National University of Kyiv, Kyiv

THE ROLE OF FISCAL POLICY IN THE SYSTEM OF GOVERNMENT REGULATION OF INVESTING ACTIVITY IN UKRAINE

This paper highlights the evolution of approaches to fiscal policy formulation that determines the main trends in government spending, expenditure funding and accumulating budget revenues. Fiscal policy is different from tax and budgetary policy as in fiscal policy tax and budget tools are considered in their relationships. In other words, the two main instruments of fiscal policy are the changes in the level and composition of taxation and government spending in various sectors. The logical development of the fiscal policy concept is the concept of fiscal space. Fiscal space is usually discussed within the context of financial resources reserves as the financial foundation for economic growth. These reserves refer to budget revenue, as well as to budget expenditure and increase in efficiency. The paper suggests the practical proposals on how to provide qualitative changes in the fiscal management of investment activities in Ukraine. The author provides practical proposals on how to create the fiscal space for investments in Ukraine which is aimed to restore the innovation investment model of national economy, and increase the efficiency of budget expenditures.

1. Stiglic Dzh. Krutoe pike: Amerika i novyj jekonomicheskij porjadok posle global'nogo krizisa / Dzhozef Stiglic; [per. s angl. V. Lopatka]. – M.: Jeksmo, 2011 – 512 s.

2. Vdoskonalennja koordinaciї groshovo-kreditnoї ta fiskal'noї politiki: informacijno-analitichni materiali / [Bulavka O. M. [ta in.]; za red.: V. I. Mishhenka, O. I. Kireєva, M. M. Shapovalovoї. – K.: Centr naukovih doslidzhen' NBU, 2005. – 96 c.

3. Goldberg D. Tax Subsidies: One Time vs. Periodic. An Economic Analysis of the Tax Policy Alternatives / D. Goldberg // 49 Tax Law Review, 1994. – P. 305–347.

4. Surrey S. Pathways to tax reform: the concept of tax expenditures / Stanley Surrey. – Harvard University Press, 1973. – 418 r.

5. Heller P. Back to Basics – Fiscal Space: What It Is and How to Get It / Peter Heller // Finance and Development. – 2005. – Vol.42. – №2. – P. 2-5 [Elektronnij resurs]. – Rezhim dostupu : http://www.imf.org/external/pubs/ft/fandd/2005/06/basics.htm.

6. Heller P. Understanding fiscal space / Peter Heller // IMF Policy Discussion Paper. – 2005. – № 05/4. – 19 p.

7. Grej Sh. Nalogovo-bjudzhetnaja politika i jekonomicheskij rost: Uroki dlja Vostochnoj Evropy i Central'noj Azii / Sh. Grej, T. Lejn, A. Varudakis. – Washington: The World Bank, 2007. – 413 s. [Elektronnij resurs]. – Rezhim dostupu: http://siteresources.worldbank.org/ECAEXT/ Resources/258598-1182779443519/Fiscal_Policy_and_Economic_Growth_rus_090507.pdf.

8. Mitra P. Burja v kinci drugogo desjatilittja perehidnogo periodu / P.Mitra, M. Celovs'kij, H. Sal'duento // Publikacija svitovogo banku. – 2009. – Grud.

9. Єfimenko T. I. Fiskal'nij prostir antikrizovogo reguljuvannja: [monogr.] / Tetjana Ivanivna Єfimenko. – K.: DNNU "Akad. fin. upravlinnja", 2012. – 226 s.

10. Pro stimuljuvannja investicijnoї dijal'nosti u prioritetnih galuzjah ekonomiki z metoju stvorennja novih robochih misc': zakon Ukraïni vid 06.09.2012 № 5205-VI [Elektronnij resurs]. – Rezhim dostupu : http://zakon0.rada.gov.ua/laws/show/5205-17.

11. Pro Osnovni naprjami bjudzhetnoї politiki na 2013 rik : postanova Verhovnoї Radi Ukraïni vid 22.05.2012 № 4824-VI [Elektronnij resurs]. – Rezhim dostupu : http://zakon1.rada.gov.ua/laws/show/4824-17.

B. Zhumanova, PhD in Economics, Associate Professor
Kazakh University of Technology and Business, Republic of Kazakhstan

FINANCING OF THE INNOVATIVE PROJECTS IN THE AGRO-INDUSTRIAL COMPLEX OF KAZAKHSTAN

The article identifies key challenges and prospects for financial support of innovative development of agro-industrial complex of Kazakhstan at the present stage.Defined system-wide problems that impede the full development of innovative agro-industrial complex of Kazakhstan. There are Examined the role of national institutions in the investment security of Agriculture through the initiation and financing of promising innovative projects. But despite a strong investment activities of the national operator problems of innovative development of agriculture in Kazakhstan still did not find the effective solutions. It is established that a promising start innovative development of agriculture complex of the Republic of Kazakhstan are the reproduction of agricultural innovation and development in the mass practice of improved methods of agricultural production. This requires the development of the financial mechanism, which should be aimed at attracting investment funds from various sources, i.e. do not rely solely on the state budget, which is now observed in Kazakhstan.

1. Problems of sustainable development of the agrarian sector of the Republic of Kazakhstan in conditions of accession to the WTO/Ed. by O. Sabden; – Almaty: Institute of Economics of MES RK, 2006. – 38 p.

2. Yespolov T.I., Ahmetova G.K. Development of the agricultural farms of the Republic of Kazakhstan and ways of improving their efficiency. – Almaty. – 2005.

3. Abalkin L. Agrarian tragedy of Russia. – Economic issues. – 2009. – №9. – P. 4-15.

4. Yasin E.M. Snegovaya. Role of innovation in the development of the world economy. – Economic issues. – 2009. – № 9. – C. 15-32.

5. Bautin. Century innovation activity in agriculture. – // AIC – Economics and management. – 2005. – № 8. – C. 17-22.

6. Konkova M.A. Problems and methods of innovation development of regional agro-industrial complex // the all-Russian scientific-practical conference "Modern Russia: the economy and the state". – M., GASIS, 2006.

7. Bunin Meters of Innovative technologies in agriculture of Russia. – // Economics of agriculture of Russia. – 2004. №7. S.7.

8. Taubaev A.A. Measures to improve the regional innovation infrastructure. – // Al Paris. – №3-4. – 2006

9. The annual report of JSC "national holding "KazAgro" for 2010. – Astana, 2011.

10. Agriculture, forestry and fisheries of Kazakhstan 2007-2011. / Statistical collection. – Astana, 2012.

11. Development of a strategy CTCA. Report on the first stage of the project "Selection of priority technological areas"- // www.strategi.ru

Appendix 2

INFORMATION ABOUT AUTHORS (META-DATA)

Базилевич Віктор Дмитрович – декан економічного факультету, доктор економічних наук, професор, Київський національний університет імені Тараса Шевченка

Контактна інформація: (044)521-35-78, v_bazil@ukr.net

Купалова Галина Іванівна – доктор економічних наук, професор, завідувач кафедри екологічного менеджменту та підприємництва, Київський національний університет імені Тараса Шевченка

Контактна інформація: (044)521-33-29

Базилевич Виктор Дмитриевич – декан экономического факультета, доктор экономических наук, профессор, Киевский национальный университет имени Тараса Шевченко

Купалова Галина Ивановна – доктор экономических наук, профессор, заведующий кафедрой экологического менеджмента и предпринимательства, Киевский национальный университет имени Тараса Шевченко

Bazylevych Victor – Dean of the Faculty of Economics, Doctor of Science (Economics), Professor, Taras Shevchenko National University of Kyiv

Kupalova Galina – Doctor of Science (Economics), Professor, Head of Depertmetn of Environmental Management and Entrepreneurship, Kyiv National Taras Shevchenko University

---

Бабірад-Лазунін Володимир Олегович – аспірант кафедри статистики та демографії, Київський національний університет імені Тараса Шевченка

Контактна інформація: 093-240-23-40; v.babirad.lazunin@gmail.com

Бабирад-Лазунин Владимир Олегович – аспирант кафедры статистики и демографии, Киевский национальный университет имени Тараса Шевченко

Babirad-Lazunin Vladimir – postgraduate student at the Department of Statistics and Demography, Taras Shevchenko National University of Kyiv

---

Бальцеровіч-Шкутнік Марія – доктор економічних наук, професор, завідувач кафедри ринка праці, факультет економіки, Економічний університет м. Катовіце

Бальцерович-Шкутник Мария – доктор экономических наук, профессор, заведующий кафедрой рынка труда, факультет экономики, Экономический университет г. Катовице

Контактная информация: (+48 32) 257 75 65 (secretariat), maria.balcerowicz-szkutnik@ue.katowice.pl

Balcerowicz-Szkutnik Maria – Doctor of Sciences (Economics), Professor, University of Economics in Katowice, Faculty of Economics, Head of Labour Market Department

---

Бутенко Наталя Василівна – кандидат економічних наук, доцент кафедри міжнародної економіки та маркетингу, Київський національний університет імені Тараса Шевченка

Пащук Лідія Віталіївна – кандидат економічних наук, асистент кафедри міжнародної економіки та маркетингу, Київський національний університет імені Тараса Шевченка

Контактна інформація: 067 2161514, lidia_paschuk@yahoo.com

Бутенко Наталья Васильевна – кандидат экономических наук, доцент кафедры международной экономики и маркетинга, Киевский национальный университет имени Тараса Шевченко

Пащук Лидия Витальевна – кандидат экономических наук, ассистент кафедры международной экономики и маркетинга, Киевский национальный университет имени Тараса Шевченко

Butenko Natalia – PhD in Economics, Associate Professor of the department of international economy and marketing, Taras Shevchenko National University of Kiev

Paschuk Lidiia – PhD in Economics, Assistant of the department of international economy and marketing, Taras Shevchenko National University of Kiev

---

Длігач Андрій Олександрович – кандидат економічних наук, доцент кафедри міжнародної економіки і маркетингу, Київський національний університет імені Тараса Шевченка

Контактна інформація: 050-330-47-64, ad@advanter.ua

Длигач Андрей Александрович – кандидат экономических наук, доцент кафедры международной экономики и маркетинга, Киевский национальный университет имени Тараса Шевченко

Dligach Andrii – PhD in Economics, Associate Professor, Department of International Economy and Marketing, Taras Shevchenko National University of Kyiv

---

Гражевська Надія Іванівна – доктор економічних наук, професор кафедри економічної теорії, Київський національний університет імені Тараса Шевченка

Контактна інформація: 066-432-23-12, grazevskaya@ukr.net

Петрушенко Юрий Миколайович – кандидат економічних наук, доцент, Сумський державний університет

Контактна інформація: 050-973-65-25, yuriy_petrushenko@gmail.com

Костюченко Надия Миколаївна - кандидат економічних наук, доцент кафедри економічної теорії, Сумський державний університет

Контактна інформація: kostyuchenko.nadiya@gmail.com

Гражевская Надежда Ивановна – доктор экономических наук, профессор кафедры экономической теории, Киевский национальный университет имени Тараса Шевченко

Петрушенко Юрий Николаевич – кандидат экономических наук, доцент, Сумской государственный университет

Костюченко Надежда Никлаевна - кандидат экономических наук, доцент, Сумской государственный университет

Grazhevska Nadia – Doctor of Sciences (Economics), Professor, Taras Shevchenko National University of Kyiv

Petrushenko Yuri – PhD in Economics, Associate Professor, Sumy State University
Kostyuchenko Nadia – PhD in Economics, Associate Professor, Sumy State University

---

Каніщенко Олена Леонідівна – доктор економічних наук, професор, Київський національний університет імені Тараса Шевченка
Кузнєцова Наталія Генадіївна – кандидат економічних наук, асистент, Київський національний університет імені Тараса Шевченка
Контактна інформація: kuznetsova@i.ua
Устименко Марія Вікторівна – аспірантка, Київський національний університет імені Тараса Шевченка
Контактна інформація: 063-407-08-08
Канищенко Елена Леонидовна - доктор экономических наук, профессор, Киевский национальный университет имени Тараса Шевченко
Кузнецова Наталья Генадьевна - кандидат экономических наук, ассистент, Киевский национальный университет имени Тараса Шевченко
Устименко Мария Викторовна - аспирантка, Киевский национальный университет имени Тараса Шевченко
Kanishchenko Olena - Doctor of Sciences (Economics), Professor, Taras Shevchenko National University of Kyiv
Kuznetsova Natalia – PhD in Economics, Assistant, Taras Shevchenko National University of Kyiv
Ustimenko Maria – PhD student, Taras Shevchenko National University of Kyiv

---

Комендант Олена Володимирівна – кандидат економічних наук, асистент кафедри міжнародної економіки та маркетингу, Київський національний університет імені Тараса Шевченка
Контактна інформація: 050-833-33-38; komendant@ukr.net
Комендант Елена Владимировна – кандидат экономических наук, ассистент кафедры международной экономики и маркетинга, Киевский национальный университет имени Тараса Шевченко
Komendant Olena – PhD in Economics, Assistant at International Economics and Marketing department, Taras Shevchenko National University of Kyiv

---

Конурбаева Жадіра Тусупкановна – кандидат еконономічних наук, доцент, Східно-Казахський державний технічний університет ім. Д. Серикбаєва
Контактна інформація: +77771827250, kzhadyra@yandex.kz
Закімова Альфия Манарбековна – кандидат еконономічних наук, доцент, Східно-Казахський державний технічний університет ім. Д. Серикбаєва
Рахімбердінова Мадіна Умаргаліевна – докторант, Казахський економічний університет ім. Т. Рискулова
Konurbaeva Zhadira – PhD in Economics, Associate Professor, East-Kazakhstan State Technical University D. Serykbayeva
Zakimova Alfiya – PhD in Economics, Associate Professor, East-Kazakhstan State Technical University D. Serykbayeva
Rahimberdinova Madina – Doctoral student, Kazakh Economic University T. Ryskulova

---

Кузьома Олена Юріївна – кандидат економічних наук, доцент кафедри міжнародної економіки та маркетингу, Київський національний університет імені Тараса Шевченка
Контактна інформація: 099-260-20-16, (044)257-08-41, kuzioma@gmail.com
Кузёма Елена Юрьевна – кандидат экономических наук, доцент кафедры международной экономики и маркетинга, Киевский национальный университет имени Тараса Шевченко
Kuzioma Olena – PhD Economics, Associate Professor; Department of International Economics and Marketing, Taras Shevchenko National University of Kyiv

---

Любкіна Олена Вікторівна – кандидат економічних наук, доцент, Київський національний університет імені Тараса Шевченка
Контактна інформація: lev2373@ukr.net
Боровікова Марія Олександрівна – кандидат економічних наук, асистент, Київський національний університет імені Тараса Шевченка
Контактна інформація: marbor24@yandex.ru
Любкина Елена Викторовна – кандидат экономических наук, доцент, Киевский национальный университет имени Тараса Шевченко
Боровикова Мария Александровна – кандидат экономических наук, ассистент, Киевский национальный университет имени Тараса Шевченко
Liubkina Olena – PhD in Economics, Associate Professor, Taras Shevchenko National University of Kyiv
Borovikova Mariya – PhD in Economics, Assistant Professor, Taras Shevchenko National University of Kyiv

---

Осецький Валерій Леонідович – доктор економічних наук, професор кафедри економічної теорії, Київський нацональний університет імені Тараса Шевченка
Контактна інформація: 050-357-21-53, val_osetski@ukr.net
Калінкова Ірина Юріївна – аспірантка кафедри економічної теорії, Київський нацональний університет імені Тараса Шевченка
Осецкий Валерий Леонидович – доктор экономических наук, профессор кафедры экономической теории, Киевский Нацонального университет имени Тараса Шевченко
Калинкова Ирина Юриевна – аспирантка кафедры экономической теории, Киевский нацональный университет имени Тараса Шевченко
Osetskyi Valerii – Doctor of Sciences (Economics), Professor of Economic Theory Department, Taras Shevchenko National University of Kyiv
Kalinkova Irina – postgraduate student of Economic Theory Department, Taras Shevchenko National University of Kyiv

---

Шакеев Саян Саятович – кандидат економічних наук, доцент кафедри фінансів та обліку, Казахський Гуманітарно-Юридичний Університет
Контактна інформація: +77017292851, sayan.79@mail.ru
Шакеев Саян Саятович – кандидат экономических наук, доцент кафедры финансов и учета, Казахский Гуманитарно-Юридический Университет
Shakeev Sayan Sayatovich – PhD in Economics, Associate Professor of "Finance and Accounting", Kazakh Humanities and Law University

---

Сойка Ельзбета – доктор економічних наук, професор кафедри статистично–математичних методів в економіці, факультет економіки, Економічний університет м. Катовіце

Сойка Эльзбэта – доктор экономических наук, профессор кафедры статистическо–математических методов в экономике, факультет экономики, Экономический университет г. Катовице
Контактная информация: (+48 32)257-74-82, elzbieta.sojka@ue.katowice.pl
Sojka Elzbieta – Doctor of Sciences (Economics), Professor**,** University of Economics in Katowice, Faculty of Economics, Department of Statistical and Mathematical Methods in Economics

---

Вікулова Альона Олегівна – аспірантка кафедри менеджменту інноваційної та інвестиційної діяльності, економічного факультету, Київського національного університету імені Тараса Шевченка
Контактна інформація: 093-739-39-43, vikulova.alyona@gmail.com
Викулова Алёна Олеговна – аспирантка кафедры менеджмента инновационной и инвестиционной деятельности, Киевский нацональный университет имени Тараса Шевченко
Vikulova Alona – postgraduate student of the department management innovation and investment activity, The Faculty of Economics, Taras Shevchenko National University of Kyiv

---

Єлісєєва Ганна Юріївна – аспірант кафедри статистики, обліку та економічної інформатики, Дніпропетровський національний університет імені Олеся Гончара
Контактна інформація: (095)-497-92-64, anna.yeliseyeva@gmail.com
Елисеева Анна Юрьевна – аспирант кафедры статистики, учета и экономической информатики, Днепропетровский национальный университет имени Олеся Гончара
Yeliseyeva Ganna – postgraduate student of Department of statistics, accounting and economic informatics, Dnipropetrovsk National University named after Oles Gonchar

---

Затонацька Тетяна Георгіївна – кандидат фізико-математичних наук, доцент, Київський національний університет імені Тараса Шевченка
Контактна інформація: (050)311-63-86, tzatonat@ukr.net
Затонацкая Татьяна Георгиевна – кандидат физико-математических наук, доцент, Киевский национальный университет имени Тараса Шевченко
Zatonatska Tetyana – PhD in Economics, Associate Professor, Taras Shevchenko National University of Kyiv

---

Жуманова Бекаршин Кімашовна – кандидат економічних наук, доцент кафедри Бізнес технології, Казахський університет технології та бізнесу
Контактна інформація: +77021949973, bk_zhumanova06@mail.ru
Жуманова Бекаршын Кимашовна, кандидат экономических наук, доцент кафедры Бизнес технологии, Казахский университет технологии и бизнеса
Zhumanova Bekarshyn – PhD in Economics, Associate Professor of Business Technology, Kazakh University of Technology and Business

---

Наукове видання

ВІСНИК

КИЇВСЬКОГО НАЦІОНАЛЬНОГО УНІВЕРСИТЕТУ ІМЕНІ ТАРАСА ШЕВЧЕНКА

ЕКОНОМІКА

Випуск 11(152)

Друкується за авторською редакцією

Оригінал-макет виготовлено Видавничо-поліграфічним центром "Київський університет"

Формат 60x84$^{1/8}$. Ум. друк. арк. 12,9. Наклад 300. Зам. № 213-6894.
Гарнітура Arial. Папір офсетний. Друк офсетний. Вид. № 11.
Підписано до друку 20.03.14

Видавець і виготовлювач
Видавничо-поліграфічний центр "Київський університет"
01601, Київ, б-р Т. Шевченка, 14, кімн. 43
☎ (38044) 239 3222; (38044) 239 3172; тел./факс (38044) 239 3128
e-mail: vpc@univ.kiev.ua
http: vpc.univ.kiev.ua
Свідоцтво суб'єкта видавничої справи ДК № 1103 від 31.10.02