ISSN 1684-906X

JOURNAL OF EUROPEAN ECONOMY

Published by Ternopil National Economic University

Vol. 13 (№ 4)
December 2014

JOURNAL OF EUROPEAN ECONOMY

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ISSN 1684-906X

The journal is listed in the Supreme Attestation Commission's register of specialized publications in economic sciences (Resolution №1-05/2 of 10.03.2010 of the SAC of Ukraine)

Vol. 13 (№ 4). December 2014

Publication of Ternopil National Economic University
Rector – Andriy Krysovatyi

Recommended for publication by the TNEU Research Council (Protocol № 5 of 26.11.2014)

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The journal is distributed on subscription, by post, retail, and e-mail.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

Economic Theory

Roman KORNYLIUK

EARLY WARNING INDICATORS OF DEFAULTS IN THE BANKING SYSTEM OF UKRAINE

Abstract

We construct and explore a new quarterly dataset of 12 traditional financial ratios for defaulted banks. The retrospective comparative analysis of bank-specific early-warning indicators' predictive power for 2 samples of problem banks over 2008–2012 and 2014 periods was conducted. The survey results reveal the most appropriate early-warning signals, which are useful for credit rating methodologies, and can improve the quality of systemic risk monitoring in the banking sector. The best predictors of defaults proved to be traditional indicators of profitability and liquidity, the share of retail deposits in the liabilities, and qualitative factor of the bank's ownership structure. Insufficiently indicative predictive ability was demonstrated by the simplified indicators of capital adequacy and assets quality.

Key words:

Banks, bank default, early-warning indicators, banking crises, systemic risk.

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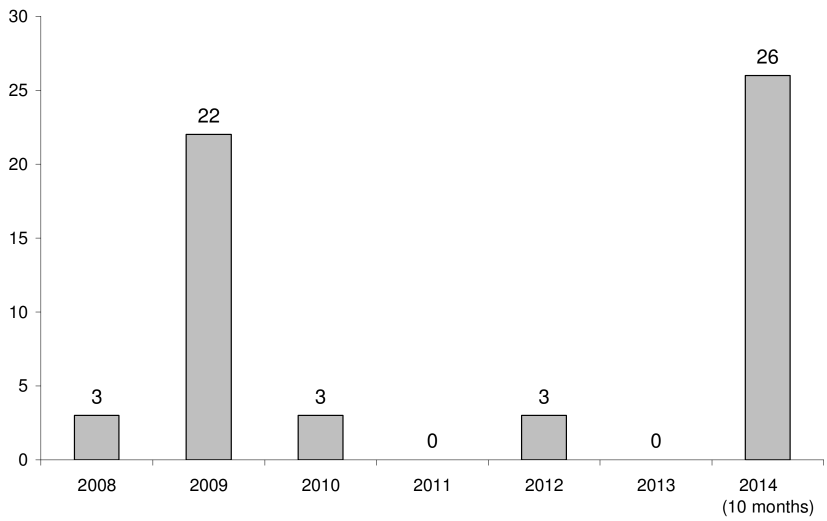
JEL: G21, G01, G28.

Problem Statement. Since the beginning of 2014, the banking system of Ukraine (BSU) entered a phase of financial instability, as indicated by unprecedented high default rate and the historical record for the annual number of introductions of temporary administration at insolvent banks (Fig. 1).

Figure 1

Number of introductions made by the temporary administration



Source: Individual Deposits Guarantee Fund, NBU

The greatest interest among investors and counterparties was caused by defaults of the banks with a substantial share in the deposit market, such as Brokbiznesbank, Forum and Pivdencombank. The growth of individual bankruptcies into the full blown systemic crisis in the first semester of the current year was stopped by the dynamic actions of the National Bank as the lender of last resort, which prevented the liquidation of some 'too big to fail' banks (UNIAN, 2014). On the other hand, the expansionary monetary policy and active financial support in the systemically major banks rehabilitation have caused the indirect consequences in the form of an additional contribution into the strengthening of inflationary and depreciation processes.

During the periods of banking crises deployment, the particularly acute necessity arises for the early warning system of bank defaults, potentially posing a threat of starting the scenario of systemic risks realization. Raising no objections to the importance of aggregate macroeconomic or financial indicators that are traditionally used for monitoring BSU's financial stability, it is recommended to strengthen the analysis of systemic risks by regular estimations of the bank's reliability indices at the individual bank level, tabulated into a single index or rating for regulatory purposes. Meanwhile, it is essential to improve the predictive ability of ratings and indices of reliability to perform a constant calibration of microeconomic models of defaults based on back-testing of the traditional indicators efficiency in the past bankruptcies predicting.

Research and publications analysis. The systems of bank defaults early warning have been used in the regulatory practices of leading countries for several decades. The greatest popularity among many methodologies of problem banks identifying was gained by the rating system CAMELS, which has been used in the US since 1978 and is based on a complex assessment of financial institutions stability according to 6 main groups of indicators: *Capital adequacy, Asset quality, Management administration, Earnings, Liquidity* and *Sensitivity to Market Risks* (FDIC, 1996). Methodology for calculating the bank credit ratings of international and national rating agencies (RA), numerous normative and legislative acts and internal bank documents on the risks management problems require calculation of the key financial stability indicators, which completely or partly coincide with the components of the CAMELS system.

Spreading of the Unified Financial Institutions Rating System (UFIRS, officially named CAMELS) resulted in the appearance of numerous scientific publications, which are not only using certain elements of CAMELS, but are also making attempts to verify the validity of the relevant indices in terms of predicting defaults and crises. Thus, in the articles of foreign scientists J. Babecký (Babecký et al., 2012), A. Evans (Evans et al., 2000), A. Demirguc-Kunt (Demirgüç-Kunt and Detragiache, 2005), A. Rose (Rose and Spiegel, 2009) attempts were made to choose the most significant early warning indicators of banking crises among the standard indicators of CAMELS. Methodologies and results of these studies differ, but their key difference from our research is focusing on the early warning of the system-wide instability, which allows authors to abstract from individual aspects and to aggregate the studied indices at the level of national banking systems. Among the analogous national works on financial soundness indicators, publications of the following scholars are worth noting: O. I. Baranovskyi (Baranovskyi, 2009), I. V. Belova (Belova and Bashlai, 2013), O. V. Dziubliuk (Dziubliuk and Mykhaylyuk, 2009), S. V. Mishchenko (Mishchenko, 2008), S. V. Naumenkova (Naumenkova and Mishchenko, 2009), V. I. Ohiyenko (Ohiyenko and Lunyakov, 2013), being characterized by theoretical and methodological orientation or based on the aggregate system-wide indices analysis. Instead, in present research we conducted a more detailed empirical analysis at the bank-specific level.

The second field of the early warning indicators research, made by such authors as R. Barro (Barro and Ursúa, 2012), G. Kaminsky (Kaminsky, Lizondo and Reinhart, 1997), P. Manasse (Manasse, Roubini and Schimmelpfennig, 2003) is also characterized by an emphasis on studying the macroeconomic disasters and financial crises signals. However, researchers do not pay attention to parameters specific to the banking system, because they are using stock and macroeconomic indicators. Meanwhile, the indicators of banking institutions' internal stress resistance, which is the main subject of the present study, remains beyond the above works.

The third group of the research works should include studies of the relationship between the individual bank indicators and the systemic risk, performed by D. Anginer (Anginer and Demirguc-Kunt, 2014), P. Diamond, R. Rajan (Diamond and Rajan, 2012), R. Engle, E. Zhondeau, M. Rockinger (Engle et al., 2014), V. Acharya, L. Pedersen (Acharya, Pedersen, Philippon and Richardson, 2010), D. Woo (Wu and Zhao, 2014) and others. These authors analyze much broader range of problems, examining, besides the bank reliability factor, the amplification mechanism of defaults cascade spreading.

The closest, as to their methodology and objectives, to our study are the research studies of such scholars as M. Arena (Arena, 2008), F. Betz (Betz et al., 2013), R. Cole (Cole and Gunther, 1998), A. Cullen (Cullen, 2010), W. Francis (Francis, 2014), who take into account the distribution of the indicative values of individual reliability indicators among problematic and stable banks. However, they relate to Latin America, Asia, the US and the EU, while with respect to Ukrainian empirical data, this problem remains understudied.

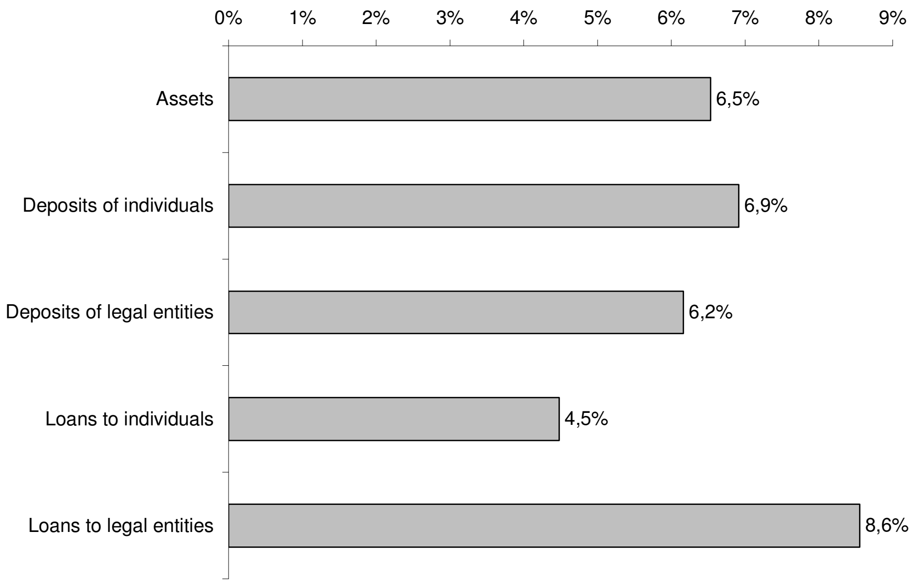
The purpose of the present paper is to determine the most accurate indicators of the banks reliability, and to compare the predictive ability of various traditional early warning indicators to improve the quality of rating methodologies and to establish a theoretical basis for monitoring systemic risks in the banking sector.

The methodology of this study is a retrospective empirical analysis of the financial data time series concerning the two insolvent banks groups: 1) banks with the introduced temporary administration during the first three quarters of 2014; 2) banks that have experienced default due to the global financial crisis in 2008–2012. The financial indicators distribution within the two samples, selected in the troubled banks, was compared with the system-wide statistical distribution of the relevant variables at the beginning of the quarter before the default declaration. The presence of significant differences between the values of the indicator in the «problem» samples and the parameters of their distribution within the system is considered by the author as the evidence of the respective indicator's signal ability.

Main material description. In general, all 23 troubled banks, officially declared insolvent during the year as of 03.10.2014, controlled 6.5% of all assets and 6.9% of all retail deposits in the banking system of Ukraine (Fig. 2).

Figure 2

The aggregate market share of banks with temporary administration introduced in 1–3 quarters of 2014*



Source: National Bank of Ukraine.

* Market shares are calculated for each bank based on the latest quarterly data for the moment of the temporary administration introduction.

Defaulted banks are causing the scientific interest in terms of the historical analysis of the liquidity indicators predictive accuracy, profitability, capital adequacy and other quantitative parameters obtained by means of CAMELS logic system. For the purpose of the signal ability back-testing, the author selected 12th simplified finance indices, this could be calculated on the basis of the banks' quarterly reports, published by the NBU (Table 1).

Table 1

Early warning indicators that were subject to testing

№ (*j*)	Indicator (I_j)	Indicator Group
1	Net interest margin	return
2	Interest income / Interest expenses	return
3	Return on average assets (ROAA)	return
4	Return on average equity (ROAE)	return
5	Statutory capital / Assets	capital adequacy
6	Equity / Assets	capital adequacy
7	Loans / Deposits	credit activity
8	Liquid assets / Resources, where Resources = deposits+due to other banks	liquidity
9	Liquid assets / Total assets	liquidity
10	Deposits by individuals / Liabilities	funding structure
11	Current deposits / Deposits	funding structure
12	Loan Loss Provisions / Loans	asset quality

The calculation of each indicator's predictive accuracy was made according to the single algorithm. Let's determine the indicator I_j (where $j = \overline{1,12}$) for each bank: $B_1, B_2, B_3, \ldots, B_n$ of Ukraine's banking system at the beginning of each quarter *t* for the studied period 1Q: 2008-3Q: 2014. Suppose, $I_{jt}(B_n)$ is the value of the *j*-th indicator for bank B_n as for the date *t*.

Let's calculated quartiles of statistical distribution I_j for each *t*:

$Q_{0.25\,jt}$ – the first (lower) quartile of statistical distribution I_{jt};

$Q_{0.5\,jt} = M_{jt}$ – second quartile (median) of statistical distribution I_{jt};

$Q_{0,75\,jt}$ – third (upper) quartile of statistical distribution I_{jt}.

Depending on the range, where $I_{jt}(B_n)$ fall into, let's define the value $f_t(B_n) = R$ for each bank of the system, where $R = 1$ for 25% of the banks with the studied ratio values below the lower quartile ($I_{jt} < Q_{0.25\,jt}$); $R = 2$, if $Q_{0.25\,jt} < I_{jt} < M_{jt}$; $R = 3$, if $M_{jt} < I_{jt} < Q_{0.75\,jt}$; $R = 4$ if $I_{jt} > Q_{0.75\,jt}$.

Let's explore the distribution of values for the banks that suffered a default, within the total distribution. Let $B_{n\text{-}def}$ be a bank that has been recognized as insolvent after the period ***t*** (Table 2).

Then $L_1 = \{B_n \,/\, B_{n\text{-}def} \sim (f(B_n) = 1)\}$ is the set, containing insolvent banks before the default, with values: $I_{jt} < Q_{\,0.25\,jt}$.

Thus, we can calculate:

$$w_1 = \frac{|L_1|}{N_{def}}, \tag{1}$$

where $/L_1/$ – number of elements in the set L_1,

N_{def} – the total number of insolvent banks during the analyzed period.

Thus, the predictive power of the indicator, in our understanding, depends on $w_{1:}$ shares of troubled banks with the values $I_j < Q_{0,25j}$ as at the beginning of the quarter, when the temporary administration was introduced. According to the suggested method, the more troubled banks demonstrate the extreme values of the indicator below the first (or, conversely, higher than the third) quartile, the more historically accurate is this indicator to assess the reliability of the bank and to perform early warning of a default. The significance of the results obtained was additionally tested by the similar calculations for a sample of troubled banks in 2008–2012.

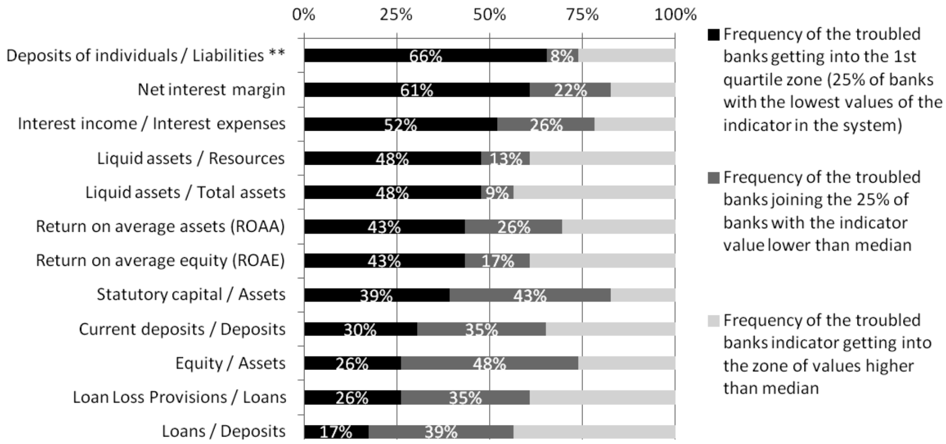
Accuracy of traditional financial indicators (w_1) in predicting defaults of 23 banks during 3 quarters of 2014, is calculated according to the results of the retrospective study, presented in Figure 3.

The result of the study is, that none of the financial indexes showed the ideal predictive accuracy ($w_1 \neq 1 \neq 100\%$), which partly confirms the popular skepticism about their use reasonability in the analysis of Ukrainian banks. It should be noted, that the low indicative ability of the parameters is partly explained by the fact, that most of the banks were officially recognized to be insolvent due to operating and non-financial risks, such as: violation of the law in the money laundering sphere, terrorism financing and performing the functions of conversion centers, formally remaining financially stable. However, even in crude sample like that, the frequency of troubled banks getting into the «red» zone below the first quartile as to certain indicators is too high to be ignored.

According to the control sample of 31 troubled bank in 2008–2012, predictive ability of the traditional financial indicators is shown in Figure 4.

Figure 3

Statistic distribution of the indicators for a sample of insolvent banks for the 9 months period of 2014 *



* Compiled by the author alone on the basis of the NBU data (NBU, 2014). Predictive accuracy of the financial indicators has been calculated on the basis of the banks' latest quarterly data before implementing the temporary administration in 2014.

** The indicator demonstrated the inverse correlation: in most of the troubled banks the share of deposits by individuals in their resources was very high; therefore, frequency of the troubled banks getting into the 25% group is indicated in the diagram with the highest (not the lowest) values of the indicator in the system.

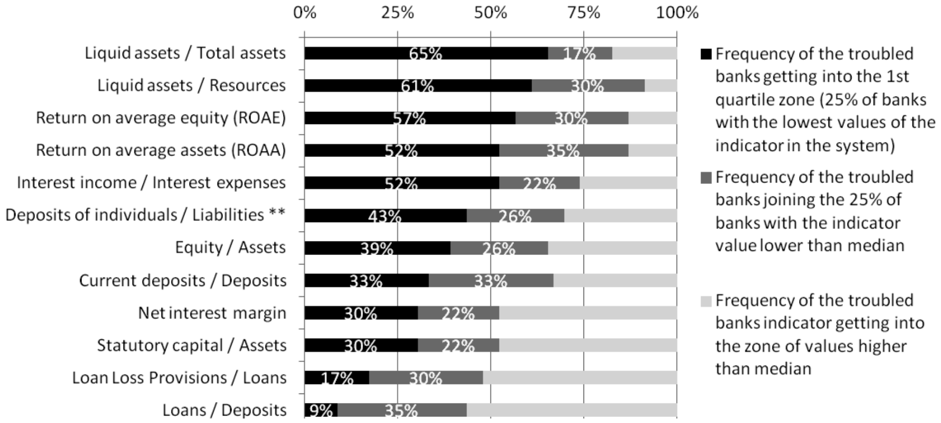
To compare the results of the indicative values statistic distribution for the both historical samples of troubled banks, we calculated an index of indicators predictive accuracy (*IPA*) according to the formula:

$$ПТІ = \frac{w_1}{0,25}, \qquad (2)$$

where w_1 – frequency of the indicator values getting into the group of insolvent banks in the range of the lower quartile (25% of the BSU banks with the lowest values of the indicator).

Figure 4

Statistic distribution of the indicators for a sample of insolvent banks for 2008–2012



* Compiled by the author alone on the basis of the NBU data (NBU, 2014). Predictive accuracy of the financial indicators has been calculated on the basis of the banks' latest quarterly data before implementing the temporary administration in 2008–2012.

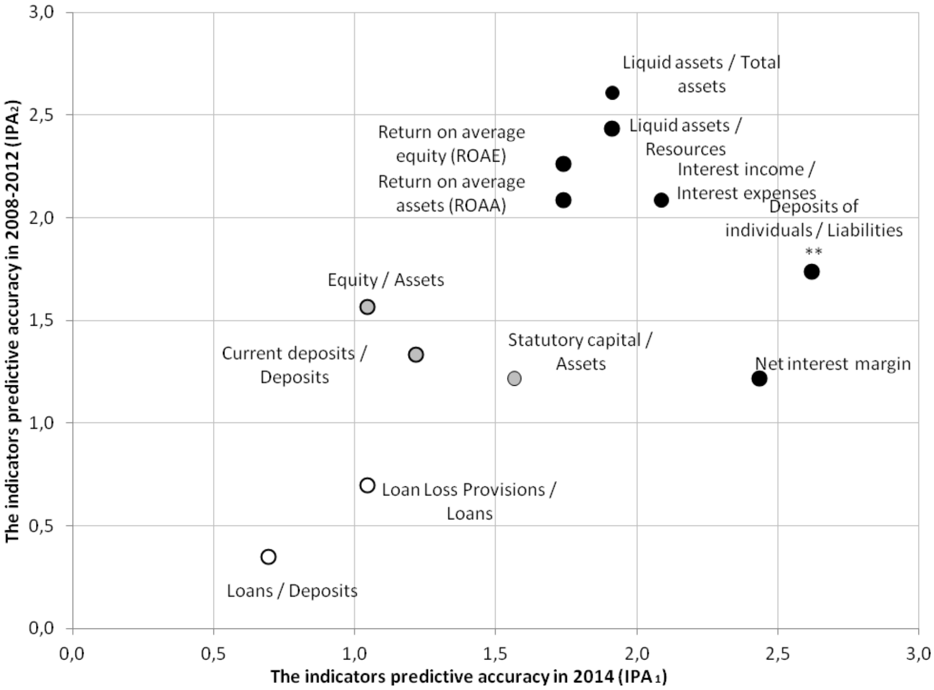
The *IPA* indices for each sample of insolvent banks are presented in Figure 5.

If most of the troubled banks, before introducing the temporary administration, demonstrated critically low values of this or that indicator compared to other banks, it may very likely testify to its use reasonability for further analysis of the banks reliability or in the rating process. *IPA* index enables to measure how many times higher the historic probability of troubled banks getting into the zone lower than the 1st quartile is, compared to the 25% system-wide probability for each indicator.

The results of the study, shown in Fig. 5, for a sample of troubled banks in 2014, demonstrate that only three indicators had *IPA* more than 2. Thus, the given indicators values were getting into the zone of extreme quartiles more than twice as frequently. The most accurate indicator of default was the *individuals' deposits / liabilities ratio* ($IPA_1 = 2.6$), because in 2014, 66% of insolvent banks were having in their funds more than half of the resources borrowed from individuals, although this was true for only one fourth of Ukrainian banks.

Figure 5

Indices of the indicators predictive accuracy (*IPA*)*



* Compiled by the author on the basis of the NBU data (NBU, 2014).

The high predictive accuracy for the given period has been demonstrated by such indicators of return as *net interest margin* (IPA_1 = 2.4) and the *interest income / interest expense ratio* (IPA_1 = 2.1). Significant deviations from the general distribution have been observed for the both *liquidity indicators* (IPA_1 = 1.9) and for *profitability ratios* (IPA_1 = 1.7). In troubled banks, in 2014, the above indicators were significantly lower than the average for the system.

When testing a control sample of insolvent banks of 2008–2012, only one of the mentioned indicators confirmed *IPA* > 2: the *interest income / interest expense ratio* (IPA_2 = 2.1). Meanwhile, high predictive ability was demonstrated by the both liquidity indicators: the *share of liquid assets in total assets* (IPA_2 = 2.6), the *liquid assets / bank resources ratio* (IPA_2 = 2.4); and returns rate: *ROAE* (IPA_2 = 2.3), *ROAA* (IPA_2 = 2.1). The *deposits of individuals / liabilities ratio* and the *equity / assets ratio* had $IPA_2 > 1.5$. The rest of the studied indicators showed a lower signal power.

Before interpreting the results of the retrospective study, it should be noted that their accuracy is adversely affected by a number of technical reasons: a) presence in the sample systemically major, but stable banks, that are difficult to identify, because of the lacking accessibility of regulators, in terms of disclosing the reasons for the temporary administration introduction; b) simplified calculation of the liquidity, assets quality and capital adequacy indicators due to the low specification of the published financial reports data of Ukrainian banks (NBU, 2014); c) the tendency of troubled banks to manipulate reporting documentation, especially when reserving. One should not forget that the conclusions of any historical analysis always require expert reviewing and confirmation by the further series of empiric data, since it is not always that the correlation between the early warning indicators and bank defaults is an evidence of the cause-and-effect relationship.

Interpretation of the study results. A back-testing of the 12 traditional financial indicators for the two samples made among the total of 54 insolvent banks in 2014 and 2008–2012 (table 2) allowed to select those of them, which most accurately testify to the default probability, and therefore appropriate for use in the rating methods.

Significant ability of default prediction was confirmed for the indicators that reflect the **interest** and **banks returns**. In most troubled banks, in 2014, the lower indicators values were recorded compared to the average values of the returns indicators in the system, thus confirming their importance for the bank reliability assessing. This is despite the fact that the accuracy of such early warning indicators as the interest income / interest expense ratio, net interest margin (the ratio of net interest income to average annual operating assets of the bank) and ROAA (annual average return on assets) and ROAE (return on average annual equity) is often violated by the declared expenses and net income accounting manipulations of the banks. The empiric study suggests that the assessment of profitability makes sense even in the conditions of abused reporting. The hypothesis that the ability to generate interest returns and income is an indicator of the bank's financial stability is confirmed by practice (Fig. 6).

Using **indicators of liquidity** for early warning of defaults is complicated by the fact that the bank's supply of liquid assets in cash and cash equivalents has the ability to rapidly change, especially under the banking panic conditions. Nevertheless, the retrospective study of the 2008-2012 sample showed the highest predictive accuracy of liquidity indicators, which were calculated on the basis of even quarterly data. Thus, in 65% of the banks, before introducing temporary administration, share of liquid assets in total assets was below the 1st quartile. For the sample of banks that were declared insolvent during the first three quarters of 2014, this figure was 48%.

Table 2

Insolvent banks in the research samples

No	Sample 1: banks recognized insolvent in 2014	Sample 2 (control sample): banks recognized insolvent during 2008–2012
1	Daniel Bank	European Bank for Development and Savings
2	Brokbiznesbank	Prominvestbank
3	Real Bank	National Credit
4	Mercury-bank	Ukrainsky Promyslovy Bank
5	Forum	Prichernomorie Bank
6	Interbank	Kyiv Bank
7	Promeconombank	Nadra Bank
8	Pivdencombank	Zakhidinkombank
9	Zakhidinkombank	Transbank
10	Avtokrazbank	BIG Energy
11	Starokievskiy Bank	Rodovid
12	Finrostbank	Regional Development Bank
13	Eurogazbank	Dnister
14	Zoloti Vorota Bank	Arma
15	UFS Bank	National Standard
16	Terra Bank	Ukrgazbank
17	Active Bank	Volodymyrsky
18	Aktabank	Bank Stolytsya
19	Expobank	Odessa-bank
20	GreenBank	Evropeyskiy
21	Porto-Franco	Ukrainian Financial Group
22	Demark	Innovational-Industrial Bank
23	Prime-Bank	Hypobank
24	–	Eastern European Bank
25	–	Dialogbank
26	–	Zemelniy Bank
27	–	Syntez
28	–	Soccombank
29	–	Basis
30	–	Erde Bank
31	–	Tavrika

We believe that the predictive accuracy in the second case was understated due to the structural features of the sample. Indeed, the results of similar calculations for the 1st half of 2014, the role of the liquidity lack in the declaration of defaults was higher. However, the introduction of the temporary administration in the 3d quarter into liquidity possessing scheme and captive banks has reduced the role of the liquidity factor in the total sample of troubled banks for 2014.

The most surprising result of the study was high predictive ability of the indicator «**share of household deposits in liabilities**», which is much seldom than the previous ones used to assess the reliability of banks. In the both samples the troubled banks tended to a sharp increase in the share of household deposits 1–2 quarters before the default. Successful attraction of the retail financial resources by such banks can be explained both by the reluctance of the better informed entities to send money in a dubious bank and by the high interest rates, which are traditionally offered by such institutions at the stage of *ponzi finance* in the terminology of H. Minsky. During crises, such banks, dependent on retail deposits, would feel more keenly the problem of the deposits outflow. Panic is especially amplified under the conditions of low customer loyalty. Inactive in the retail captive banks may account for the funds of their owners in the form of household deposits, which at transfer through covert insider crediting are one of the links in the gray financial schemes.

Indicators **of capital adequacy** used by regulators in most countries, turned to be less important in Ukraine for predicting defaults by means of the returns and liquidity indicators. However, the values of capital adequacy for insolvent banks were more often lower than medians of the respective system-wide statistic distributions. A certain shortage of equity and share capital in troubled banks can be explained on the one hand by inefficient and risky operations of management, and the other hand – by the inability of shareholders to make additional capital injections or by their unwillingness to save their non-core businesses.

The share of problem loans and loan loss provisions in the loan portfolio are considered to be traditional indicators of **assets quality**. Though the actual structure of loans as the main assets item of Ukrainian banks is a key indicator of the banks' reliability, but there are serious barriers to its definition. Thus, none of the indexes, reflecting the quality of loans on the basis of public reporting, has confirmed its predictive ability: banks under temporary administration, until the very moment of its introduction, reported in a different way about their assets toxicity level. This confirms the generally accepted view of the numerous accounting abuses aimed at distortion of the information about the real quality of bank loans. Indeed, fair estimation of the troubled assets amount binds the bank to form additional reserves that is not always in the interests of the owners. Determining the actual level of loans problematicity, based on public information, is quite a difficult task, as evidenced by the world experience of stress-testing, the main precondition for the accuracy of which is the procedure of the detailed assets quality review with the use of confidential data, as it is considered by the European and US financial regulators. Thus, in the Ukrainian context the loans quality assessment only makes sense if there is an access to confidential information or reliance to the bank's public reports.

Ownership structure factor. Studying the quantitative indicators of banks reliability, one should not forget about the existence of significant qualitative indicators affecting the probability of default. Since this subject requires otherwise methods of scientific research, let's analyze just one but telling example. Among the banks, where the temporary administration was introduced, most of them were owned by individuals or by limited liability companies registered in Ukraine. Among the banks that have experienced default there was none having majority foreign beneficiaries, which is explained by the significance of preserving the reputation for transnational financial holding companies present in Ukraine (Kornyliuk, 2014). The level of shareholders support is a key factor of the bank's reliability. History of Ukraine's banking sector once again confirms the advantage of banks with foreign owners over the national ones in terms of financial stability; institutional and public investors over private ones, banks participating in the financial holdings over financial industrial groups (FIG) with non-core banking business.

Conclusions. The periods of systemic bank turmoils in 2008–2009 and 2014, due to the high level of defaults, provided a rare opportunity to test the theory of financial stability in practice. Indicators, widely used in the credit ratings of banks and in the early warning systems displayed their predictive ability in different ways. The best predictors of defaults proved to be traditional indicators of profitability and liquidity, as well as the share of individuals' deposits in the liabilities. Insufficiently indicative predictive ability was demonstrated by the simplified indicators of capital adequacy and assets quality, because the statistic distribution of their values in the "problematic" samples slightly deviated from the system-wide one. Among the qualitative factors of the bank's reliability, historically significant is the real ownership structure, because most of insolvent banks were owned by private national investors and were not included into the financial holding groups.

The important scientific result of the retrospective study was substantiated reasonability of using the selected indicators within the banks credit rating of CAMELS type, and the systemic risks monitoring. The application of this methodology when testing the signaling ability of any other quantitative indicators will improve the rating methodology quality through the substantiation of reliability factors importance not only by means of the expert but also by the empirical studies.

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The article was received on October 24, 2014.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

International Economics

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THE CONTRIBUTION OF THE INTERNATIONAL TOURISM TO EMPLOYMENT GROWTH IN GREECE

Abstract

The article analyzes the direct impact of factors on employment in the context of the three sectors directly related to the tourism sector in Greece (air transport, hotels and restaurants, leisure sector) with the regression and correlation analysis. The regression models take into account the impact of the number of nights spent by non-residents in hotels, tourism export growth, GDP growth, inflation, the dynamics of the real effective exchange rate, the increase in expenditures on tourism by the EU citizens. Indirect impact of international tourism on employment in other sectors is estimated as well.

Key words:

International tourism, Greek tourism, development, employment, air transport, hotels and restaurants, leisure sector.

JEL: L830, O140, F430, F310, E240.

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In September 2014 unemployment rate in the EU-28 was 10.1% with the lowest rate in Germany (5%) and Austria (5.1%), and the highest level in Greece (26.4%) and Spain (24%). Increasing international tourism receipts in Greece could lead to job creation, thus tourism industry can be a leading sector in the fight against unemployment in the coming years. For the first time during the recent crisis unemployment in Greece decreased from 27.8% in September 2013 to 26.4% in July 2014, indicating a downward trend in unemployment and direct influence of tourism sector due to the increase in the inbound tourism to Greece in 2014. (Eurostat, 2000–2014). The European Commission in November 2014 forecasted growth of the GDP of Greece by 0.6% in 2014, 2.9% in 2015, and 3.7% in 2016 (European commission, 2014).

The following researchers were involved in the study of the role of the tourism industry in the growth economy and employment growth in Greece: Buhalis Dimitrios, Dritsakis Nikolaos, Chaido Dritsaki, Stanislav Ivanov, Leontidou L., Riley Michael, Szivas Edith, Craig Webster (Dritsakis, 2004; Dritsaki, 2009; Ivanov and Webster, 2007; Leontidou et al., 1991; Szivas and Riley, 1999)

In the article's aim is to estimate direct and indirect effect of tourism sector and macroeconomic indicators on employment in Greece.

Next we consider the contribution of international tourism to employment growth in Greece. Table 1 shows the dynamics of employment in the tourism sector in Greece (direct contribution) and indirect contribution to employment as employment in other sectors existing due to the tourism industry creating additional demand for goods and services in these other sectors (with direct contribution it makes full payment) – in 2000–2012.

Since for sufficiently reliable results of regression and correlation analysis of factors of employment we need a longer period of time, we use other source of data on employment (Eurostat with another classification by sector). The annex table A1 (Table A1 Sources and description of dependent and independent variables) describes employment indicators (dependent variables) and other indicators (independent variables) and data sources for them. All indicators except real effective exchange rate are considered as growth over the previous year. Unless otherwise stated, all indicators are taken for Greece.

We consider employment in the following industries as employment in the international tourism sector:

- air transportation (the vast majority of international tourists arrive in Greece by air);
- hotels and restaurants;

- leisure sector (including travel agencies and operators; creative, artistic and entertainment activities; libraries, museums and other cultural institutions; gambling establishments; sports and other establishments for leisure).

Table 1

The role of the tourism sector in providing employment in Greece

Year	Direct contribution		Full contribution	
	Thousand persons	% growth	Thousand persons	% growth
2000	347,6		788,3	
2001	341,7	–1,70	796,6	1,05
2002	340,9	–0,23	796,2	–0,05
2003	327,6	–3,90	776,3	–2,50
2004	325,8	–0,55	785,3	1,16
2005	360,9	10,77	855,1	8,89
2006	371	2,80	885,6	3,57
2007	365,4	–1,51	878,2	–0,84
2008	361,5	–1,07	854,4	–2,71
2009	331,9	–8,19	798,6	–6,53
2010	345,3	4,04	786	–1,58
2011	329	–4,72	720,6	–8,32
2012	330,6	0,49	688,8	–4,41

Source: data of SETE , UNWTO (Travel & tourism employment 2000–2012).

We also consider indirect contribution of tourism sector to employment in other sectors:

- agriculture; production of food products and beverages (besides residents it also provides food for tourists – supplies for restaurants, etc.);
- production of clothing (including those made of fur, purchase of which is an important factor of demand for travel services in Greece);
- energy and water supply (including for hotels);
- construction (including hotels and infrastructure);
- wholesale and retail trade (except vehicles);

- water and overland transport (which is involved in transporting foreign tourists less than air transport).

Of course, not all the employed in the above sectors serve international tourists.

We consider other indicators of tourism sector and some macroeconomic indicators of Greece, as well as the EU, and the world as potential factors of employment in tourism industry.

We consider indicators of tourism sector of Greece, as well as the EU, as potential factors of employment in other industries servicing tourism sector.

First we calculate the correlation coefficients between the dependent variables and potential factors (for the period 1990-2013 or shorter period in case of missing data) with:

- 0 years lag (dependent variable and potential factor of the same year);
- 1 year lag (dependent variable of a certain year and a potential factor in the preceding year).

Employment rates themselves in international tourism are weakly correlated with each other. The only exception is the correlation between employment growth in hotels and restaurants, and employment growth in the leisure sector (0.52%).

As you can see from the correlation coefficients in tables 2 and 3, we may do preliminary conclusions about the influence of independent variables on the employment in international tourism.

Table 2

Correlation between employment in the Greek tourism sector and potential factors (lag – 0 years)

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Exports of travel services	0.27	0.13	0.03
Imports of travel services	0.13	0.16	–0.04
Increase in number of hotels	–0.12	0.10	–0.09
Increase in rooms in hotels	–0.30	0.04	–0.02
Increase in beds in hotels	–0.29	0.03	–0.03

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Increase in the number of nights spent in hotels by non-residents	0.52**	–0.07	–0.10
Increase in arrivals of foreign tourists	0.43*	0.40	0.09
Growth of share of foreign tourists arrivals relative to the entire Europe	0.70**	0.55*	0.02
Growth of share of foreign tourists arrivals relative to the entire world	0.75**	0.62**	–0.01
Growth of tourism expenditures of the EU citizens	–0.13	0.20	0.49**
Growth of the public deficit	0.17	0.15	0.01
Growth of foreign direct investment	0.14	–0.34	–0.22
GDP growth	–0.19	0.34	0.31
Growth of government consumption	–0.24	0.33	0.19
Growth of gross capital formation	0.06	0.30	0.32
Inflation	0.36	0.52**	0.23
Growth of inflation	–0.07	–0.08	0.08
Growth of current transfers from abroad	0.06	0.16	0.27
Real effective exchange rate	–0.03	–0.56**	–0.22
Growth of budget revenues other than grants	0.15	0.04	0.02
Growth of subsidies and other transfers from the budget	0.25	0.36	0.13
Growth of tax revenues	0.05	0.11	–0.01
Growth of share of tax revenues in the budget	–0.02	–0.09	–0.13
Growth of share of direct taxes in government revenue	–0.33	0.28	0.04
GDP growth of the world	–0.09	–0.11	–0.01
EU GDP growth	–0.16	0.14	0.19

Note: hereinafter * marks correlation coefficients with significance level <0.1; ** – <0.05.

Table 3

Correlation between employment in the Greek tourism sector and potential factors (lag – 1 year)

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Exports of travel services	–0.08	0.59**	0.08
Imports of travel services	–0.04	0.21	–0.22
Increase in number of hotels	–0.09	–0.29	–0.51**
Increase in rooms in hotels	–0.16	–0.14	–0.26
Increase in beds in hotels	–0.16	–0.16	–0.26
Increase in the number of nights spent in hotels by non-residents	–0.06	0.11	–0.11
Increase in arrivals of foreign tourists	–0.16	0.33	0.17
Growth of share of foreign tourists arrivals relative to the entire Europe	–0.08	0.13	0.23
Growth of share of foreign tourists arrivals relative to the entire world	–0.19	–0.12	0.13
Growth of tourism expenditures of the EU citizens	–0.04	–0.14	–0.15
Growth of the public deficit	0.23	0.00	0.14
Growth of foreign direct investment	–0.26	0.04	–0.07
GDP growth	–0.10	0.48**	0.27
Growth of government consumption	0.03	0.24	0.06
Growth of gross capital formation	–0.19	0.15	0.22
Inflation	0.34	0.49**	0.10
Growth of inflation	–0.02	–0.39*	–0.14
Growth of current transfers from abroad	0.04	–0.01	0.33
Real effective exchange rate	–0.06	–0.58**	–0.30
Growth of budget revenues other than grants	0.29	–0.05	0.01
Growth of subsidies and other transfers from the budget	0.15	–0.29	0.02
Growth of tax revenues	0.38	0.09	–0.05
Growth of share of tax revenues in the budget	0.19	0.13	0.22

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Growth of share of direct taxes in government revenue	0.22	0.16	–0.11
GDP growth of the world	–0.03	0.15	0.19
EU GDP growth	–0.05	0.33	0.29

Employment growth in air transport is positively affected by:

- increase in the number of nights spent in hotels by non-residents;
- increase the share of foreign tourists arrivals relative to the entire Europe;
- increase the share of foreign tourists arrivals relative to the world;
- increase in number of arrivals of foreign tourists.

All the factors influence without time lag. Evidently, the employment in air transport is affected by physical indicators of tourism sector and not by value indicators. Despite bigger correlation, we will exclude growth of share of foreign tourists' arrivals in Greece relative to the entire Europe and the world from our further analysis. The reason is high correlation between them and increase in arrivals of foreign tourists and the missing data before 2001.

Employment growth in hotels and restaurants is positively affected by:

- growth of share of foreign tourists arrivals relative to the entire world;
- inflation (without time lag and with 1 year lag) – possibly deflationary trends and monetary contraction have a negative impact;
- reduction of the real effective exchange rate (without time lag and with 1 year lag) – the euro exchange rate dynamics is likely to have a significant impact on employment – expensive euro hinders employment;
- increase in exports of travel services (with 1 year lag);
- GDP growth (with 1 year lag);
- increase in the share of foreign tourists arrivals relative to the entire Europe;
- decrease in inflation (with 1 year lag) – the effect is contrary to the impact of price changes.

Employment growth in the leisure sector is positively affected by:

- growth of tourism expenditures of the EU citizens (foreign tourists come to Greece's mainly from the EU);
- decrease in the number of hotels (with 1 year lag), which is controversial from a theoretical point of view.

Apparently, employment in the tourism sector is not affected by the size of hotel (rooms, beds), indicators of the state budget, dynamics of general and foreign investment in the economy (the whole economy, not specific investments in the tourism sector), current transfers from abroad, and economic growth in the EU or the world.

We use the results of the correlation analysis to construct regression models to estimate influence of selected factors on the growth of employment in the Greek tourism sector. We show t-statistics below coefficient in regression formulas (* – indicates that the coefficient is significant with p-level < 0.10; ** – with p-level < 0.05, *** – with p-level < 0.01).

Model for employment in air transport (coefficient of determination $R^2 = 0.56$, input data for the period 1995–2012 years):

$$\underset{(-0{,}03)}{ATE_t = -0{,}1436} + \underset{(-3{,}29)^{***}}{1{,}964N} - \underset{(3{,}11)^{***}}{0{,}536ATE_{t-1}}\,, \tag{1}$$

where ATE – employment growth in air transport in year t,%;

N – increase in the number of nights spent in hotels by non-residents, %.

Thus, increasing the number of nights spent in hotels by non-residents by 1% leads to an increase in employment in the air transport by almost 2%. We included employment growth in air transport in the preceding year as a factor in the regression, given that otherwise residuals are not independent of each other. Figure 1 shows a scatterplot that shows the effect of increase in the number of nights spent in hotels by non-residents.

The first model for employment in hotels and restaurants ($R^2 = 0.68$, input data for the period 1993–2012 years):

$$\underset{(-2{,}77)^{**}}{HRE_t = -3{,}863} + \underset{(3{,}17)^{***}}{0{,}137TE_{t-1}} + \underset{(2{,}40)^{**}}{0{,}528GDP_{t-1}} + \underset{(3{,}57)^{***}}{0{,}806P_t}\,, \tag{2}$$

where HRE – growth of employment in hotels and restaurants in year t, %;

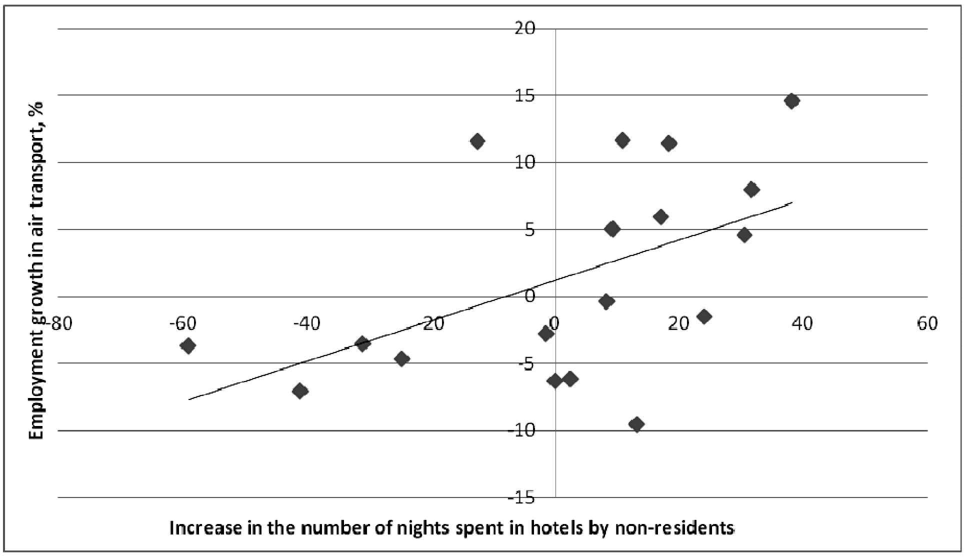
$TE_{t\text{-}1}$ – the growth of tourism services exports in the preceding year, %;

$GDP_{t\text{-}1}$ – GDP growth in the preceding year, %;

P_t – inflation in year t, %.

Figure 1

Relationship between the increases in the number of nights spent in hotels by non-residents and employment growth in air transport



Thus growth of tourism services export by 1% leads to growth of employment in hotels and restaurants in the succeeding year by nearly 0.14%. Increase in GDP by 1% leads to growth of employment in hotels and restaurants in the succeeding year by almost 0.5%. Increase in prices by 1% leads to increase in employment in hotels and restaurants in the same year by almost 0.8%. The influence of the factors is shown in the figures 2, 3, 4.

The second model for employment in hotels and restaurants (R^2 = 0.31, input data for the period 1993–2012 years):

$$\underset{(2,99)\ ***}{HRE = 48,166} - \underset{(-2,86)**}{0,469REER}, \qquad (3)$$

where *HRE* – growth of employment in hotels and restaurants, %;

REER – real effective exchange rate (compared to 2005), %.

Thus, increase in real effective exchange rate of the euro by 1% leads to a decrease in employment in hotels and restaurants by nearly 0.5%. The relationship is also shown in figure 5.

Figure 2

Relationship between tourism export growth and growth of employment growth in hotels and restaurants.

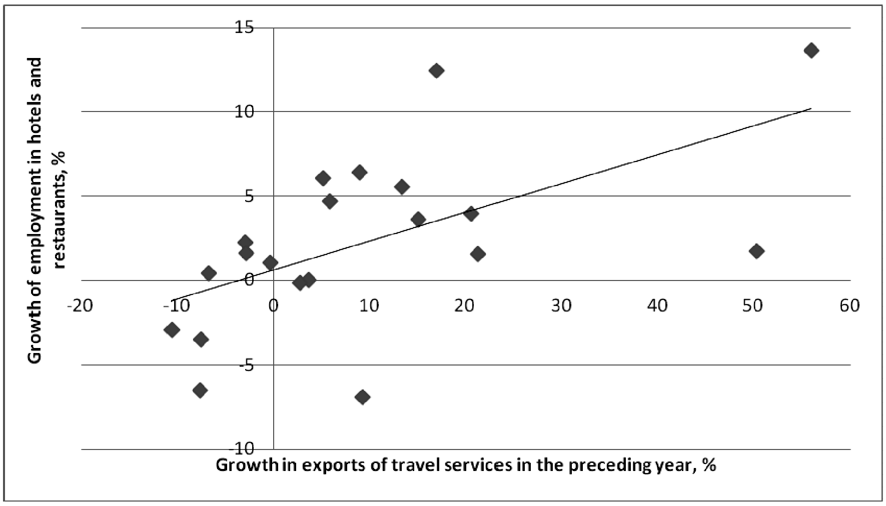


Figure 3

Relationship between GDP growth and employment growth in hotels and restaurants

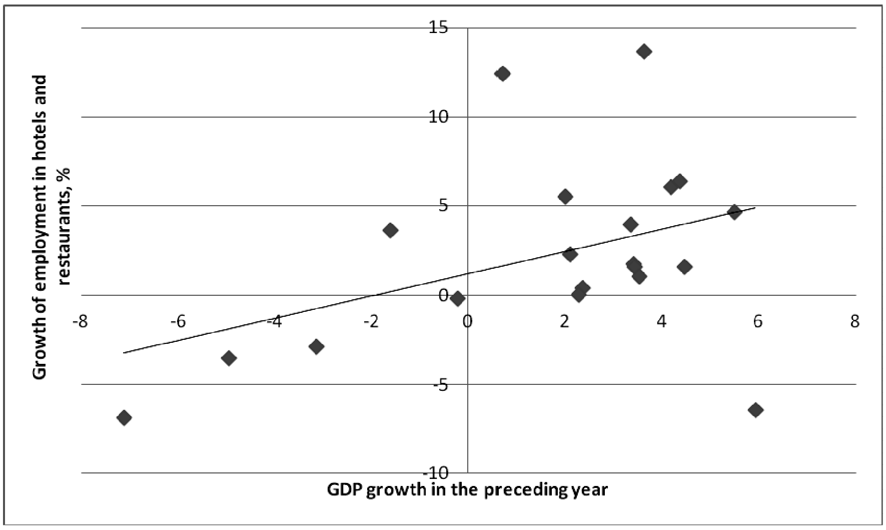


Figure 4

The relationship between rising prices and rising employment in hotels and restaurants

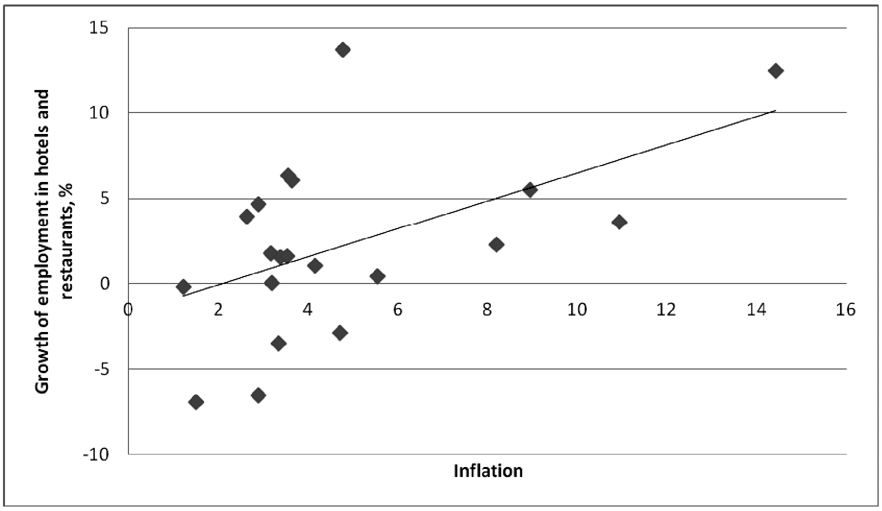
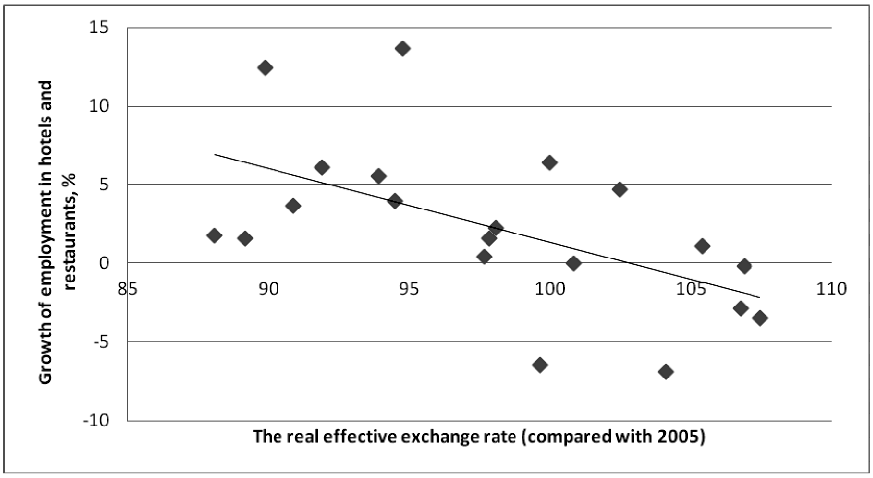


Figure 5

Relationship between the growth of the real effective exchange rate and the growth of employment in hotels and restaurants



Model for employment in the leisure sector (R^2 = 0.24, input data for the period 1996–2012 years):

$$RE_t = -2{,}710 + 0{,}527TEEU, \quad (4)$$
$$(-1{,}25) \qquad (2{,}15)^{**}$$

where *RE* – employment growth in the leisure sector of the year *t*, %;

TEEU – growth of tourism expenditures of the EU citizens, %.

Thus, growth of tourism expenditures of the EU citizens (in all countries) by 1% leads to increase in employment in the leisure sector of Greece by 0.5%. The relationship is also shown in figure.

Further we use correlation analysis to determine factors of employment in sectors indirectly related to tourism industry in Greece (see tables 4 and 5).

Figure 6

Relationship between growth of tourism expenditures of the EU citizens and employment growth in the leisure sector

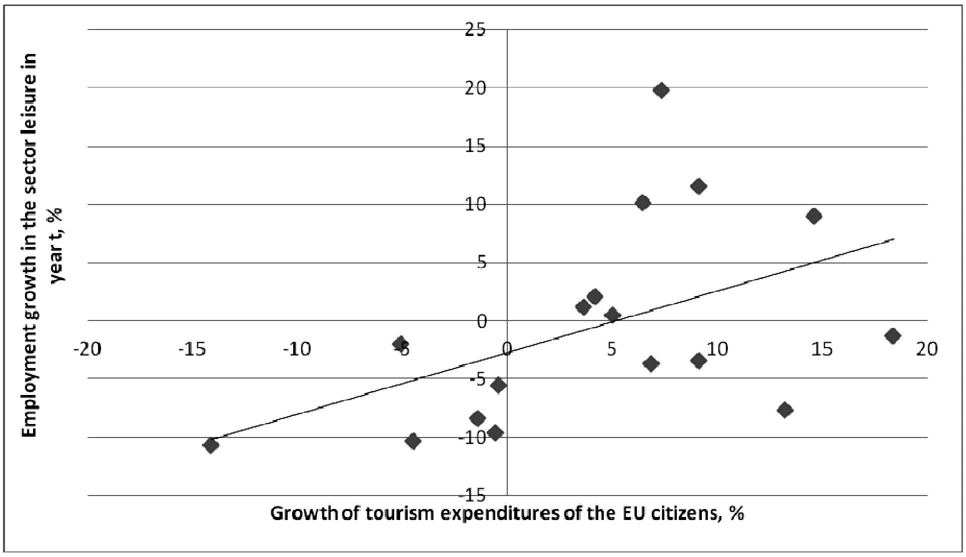


Table 4

Correlation between employment in the Greek sectors indirectly related to tourism and potential factors (lag – 0 years)

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in air transport	0.27	0.12	0.13	0.43*	–0.15	0.04	–0.13	–0.06	–0.05	0.30
Employment growth in hotels and restaurants	0.15	0.27	0.53**	0.06	–0.05	0.75**	0.42*	0.49**	–0.08	0.05
Employment growth in the leisure sector	0.03	0.11	0.08	0.23	0.11	0.33	0.24	0.39*	–0.09	0.26
Exports of travel services	–0.14	0.28	0.12	0.13	0.20	0.09	0.19	0.32	0.07	–0.11
Imports of travel services	–0.08	0.42*	0.12	0.12	0.34	0.11	0.36	0.30	0.42*	0.04
Increase in number of hotels	0.26	0.24	0.16	0.28	0.41*	0.32	0.30	0.20	0.54**	0.32
Increase in rooms in hotels	0.17	–0.06	0.02	0.20	0.29	0.06	0.35	0.06	0.27	–0.14
Increase in beds in hotels	0.19	–0.07	0.01	0.20	0.27	0.03	0.35	0.03	0.25	–0.14
Increase in the number of nights spent in hotels by non-residents	0.12	0.14	–0.04	0.24	–0.24	–0.14	0.14	0.02	–0.07	–0.00
Increase in arrivals of foreign tourists	–0.13	0.22	0.30	0.13	–0.18	0.16	0.44*	0.16	0.15	–0.31

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Growth of share of foreign tourists arrivals relative to the entire Europe	0.05	0.33	0.50*	–0.01	–0.15	0.19	0.47	0.11	0.37	–0.11
Growth of share of foreign tourists arrivals relative to the entire world	0.23	0.38	0.49	0.02	–0.35	0.16	0.23	–0.01	0.35	–0.25
Growth of tourism expenditures of the EU citizens	–0.41*	–0.31	–0.07	0.36	0.24	0.38	0.28	0.25	0.11	0.28

Table 5

Correlation between employment in the Greek sectors indirectly related to tourism and potential factors (lag – 1 year)

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in air transport	–0.11	–0.25	0.07	–0.03	–0.26	0.01	–0.17	0.13	–0.33	0.10
Employment growth in hotels and restaurants	0.05	0.25	0.40*	0.33	0.21	0.34	0.12	0.62**	0.53**	0.25

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in the leisure sector	0.35	0.08	0.41*	0.33	0.23	0.33	0.02	0.36	0.46**	0.39*
Exports of travel services	0.07	0.17	0.55**	0.01	–0.24	0.52**	0.18	0.14	–0.04	–0.01
Imports of travel services	0.14	0.29	0.52**	–0.02	–0.32	0.19	0.16	0.07	0.00	0.08
Increase in number of hotels	–0.40	0.14	0.04	–0.44*	0.23	–0.03	0.40*	0.28	0.19	–0.13
Increase in rooms in hotels	–0.36	0.12	–0.11	–0.49**	0.40*	–0.02	0.21	0.06	0.17	–0.22
Increase in beds in hotels	–0.36	0.12	–0.12	–0.49**	0.39	–0.05	0.19	0.04	0.16	–0.22
Increase in the number of nights spent in hotels by non-residents	–0.16	–0.54**	0.27	–0.02	–0.33	0.12	0.03	–0.20	–0.30	0.26
Increase in arrivals of foreign tourists	–0.12	–0.01	0.38	0.30	–0.29	0.36	–0.12	0.01	0.07	0.23
Growth of share of foreign tourists arrivals relative to the entire Europe	–0.06	–0.04	0.23	0.13	–0.24	0.19	–0.07	0.08	–0.11	0.09
Growth of share of foreign tourists arrivals relative to the entire world	–0.16	–0.19	0.05	0.21	–0.09	0.10	–0.08	0.02	–0.09	0.09
Growth of tourism expenditures of the EU citizens	–0.24	–0.12	0.29	0.07	0.51**	0.18	0.25	0.22	0.19	0.34

We have not found a significant effect of tourism indicators on employment in agriculture Greece.

Employment growth in the food industry is stimulated by growth of imports of travel services, and with a 1 year by decrease in the number of nights spent in hotels by non-residents. But it is difficult to explain it from a theoretical point of view.

Employment growth in the production of clothing correlates with growth of employment in hotels and restaurants, growth of share of foreign tourists arrivals relative to the entire Europe, and with 1 year lag with growth of employment in hotels, restaurants, and leisure sector, exports and imports of travel services. Thus, production of clothes is closely linked to the tourism sector, which seems to confirm the thesis that buying clothes made of fur is also an important motivating factor for arrivals in Greece.

Employment growth in energy supply is stimulated by employment growth in air transport and with 1 year lag by reducing the number of hotels, number of rooms in hotels, and bed capacity in hotels. But it is also difficult to explain it from a theoretical point of view.

Employment growth in water supply is correlates with increase in number of hotels with a lag of 0 and 1 year, and growth of tourism expenditures of the EU citizens with 1 year lag.

Employment growth in construction correlates with the growth of employment in hotels and restaurants, and with 1 year lag with exports of travel services.

Employment growth in wholesale trade is positively affected by growth of employment in hotels and restaurants, increase in number of foreign tourists arrivals, and with 1 year lag by increase in number of hotels.

Employment growth in retail trade correlates with growth of employment in hotels, restaurants (with 0 and 1 year lag), and leisure sector.

Employment growth in land transport is positively affected by increase in imports of travel services, increase in number of hotels, and with 1 year lag by employment growth in hotels and restaurants, and leisure sector.

Employment growth in water transport is stimulated by employment growth in the leisure sector with 1 year lag.

Conclusions. Our analysis has proven a direct effect of international tourism performance on employment in air transport, hotels and restaurants, and leisure sector. Among the studied factors, employment in the air transport and leisure sector depends only on performance of the tourism sector. But employment in hotels and restaurants depends on both indicators of tourism sector and some general economic indicators (GDP dynamics, inflation and exchange rate). These general economic indicators are largely beyond the control of the Greek government. In particular, monetary policy has been transferred to the Eurosystem, Drachma has been replaced by the euro, the GDP of Greece as open economy largely depends on external conditions.

While employment in air transport is affected by physical indicators (arrivals, nights spent) and not by value indicators, employment in hotels and restaurants much more depends on value indicators (e.g. tourism exports, GDP, euro exchange rate). Employment in the leisure sector appeared to be more weakly associated with the trends in international tourism or its relationship is controversial from the theoretical point of view (only affect aggregate spending on tourism EU residents).

The tourism industry of Greece, depending on market conditions, directly provides employment for 380 thousand people in this area. Almost as many more jobs provided in related sectors. In particular we have proved indirect influence of the indicators of international tourism in Greece on employment in production of clothing and furs, construction, retail trade, land transport, and to a lesser extent in the public utilities, wholesale trade and water transport. At the same time, the impact on employment in agriculture and food industry is negligible.

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Appendix

Table A1

Sources and description of dependent and independent variables

Indicator	Source	Description
Indicators of employment in international tourism sector (growth in % relative to the previous year)		
Employment growth in air transport	Eurostat	Employment (Air transport – until 2008; Air transport – after 2008)
Employment growth in hotels and restaurants	Eurostat	Employment (Hotels and restaurants – until 2008; Accommodation + Food and beverage service activities + Travel agency, tour operator reservation service and related activities – after 2008)
Employment growth in the leisure sector	Eurostat	Employment (Recreational, cultural and sporting activities – until 2008; Travel agency, tour operator reservation service and related activities + Creative, arts and entertainment activities + Libraries, archives, museums and other cultural activities +Gambling and betting activities +Sports activities and amusement and recreation activities – after 2008)
Indicators of employment in sectors indirectly related international tourism (growth in % relative to the previous year)		
Employment growth in agriculture	Eurostat	Employment (Agriculture, hunting and related service activities – until 2008; Crop and animal production, hunting and related service activities – after 2008)
Employment growth in the food industry	Eurostat	Employment (Manufacture of food products and beverages– until 2008; Manufacture of food products + Manufacture of beverages – after 2008)

Indicator	Source	Description
Employment growth in the production of clothing	Eurostat	Employment (Manufacture of wearing apparel; dressing; dyeing of fur – until 2008; Manufacture of wearing apparel – after 2008)
Employment growth in energy supply	Eurostat	Employment (Electricity, gas, steam and hot water supply – until 2008; Electricity, gas, steam and air conditioning supply – after 2008)
Employment growth in water supply	Eurostat	Employment (Collection, purification and distribution of water – until 2008; Water collection, treatment and supply – after 2008)
Employment growth in construction	Eurostat	Employment (Construction – until 2008; Construction of buildings + Civil engineering + Specialised construction activities – after 2008)
Employment growth in wholesale trade	Eurostat	Employment (Wholesale trade and commission trade, except of motor vehicles and motorcycles – until 2008; Wholesale trade, except of motor vehicles and motorcycles – after 2008)
Employment growth in retail trade	Eurostat	Employment (Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods – until 2008; Retail trade, except of motor vehicles and motorcycles – after 2008)
Employment growth in land transport	Eurostat	Employment (Land transport; transport via pipelines – until 2008; Land transport and transport via pipelines – after 2008)
Employment growth in water transport	Eurostat	Employment (Water transport – until 2008; Water transport – after 2008)

Indicator	Source	Description
Other indicators of tourism sector (growth in % relative to the previous year or percentage points in the case of market shares)		
Exports of travel services	Eurostat	Services exports travel
Imports of travel services	Eurostat	Services import travel
Increase in number of hotels	Eurostat	Hotels and similar accomoda-tions (number of establishments)
Increase in rooms in ho-tels	Eurostat	Hotels and similar accomoda-tions (bedrooms)
Increase in beds in hotels	Eurostat	Hotels and similar accomoda-tions (bed-places)
Increase in the number of nights spent in hotels by non-residents	Eurostat	Nights spent at tourist accom-modation establishments (non-residents in Hotels and similar accomodations)
Increase in arrivals of foreign tourists	WDI (World De-velopment Indi-cators)	International tourism, number of arrivals
Growth of share of for-eign tourists arrivals rela-tive to the entire Europe	Market share of Greek tourism 2000-2012 SETE, Hellenic Statistical Au-thority, UNWTO 2013	Market Share of Greece in Europe (Arrivals)
Growth of share of for-eign tourists arrivals rela-tive to the entire world	Market share of Greek tourism 2000-2012 SETE, Hellenic Statistical Au-thority, UNWTO 2013	Share of Greece in World Market (Arrivals)
Growth of tourism ex-penditures of the EU citi-zens	WDI	International tourism, expendi-tures (current US$) – European Union
Other indicators (growth in % relative to the previous year or percentage points when measured as % of GDP, or other value)		
Growth of the public defi-cit	WDI	Cash surplus/deficit (% of GDP)
Growth of foreign direct investment	WDI	Foreign direct investment, net in-flows (% of GDP)
GDP growth	WDI	GDP growth (annual %)

Indicator	Source	Description
Growth of government consumption	WDI	General government final consumption expenditure (annual % growth)
Growth of gross capital formation	WDI	Gross capital formation (% of GDP)
Inflation	WDI	Inflation, consumer prices (annual %)
Growth of inflation	WDI	Inflation, consumer prices (annual %)
Growth of current transfers from abroad	WDI	Net current transfers from abroad (current US$)
Real effective exchange rate	WDI	Real effective exchange rate index (2005 = 100)
Growth of budget revenues other than grants	WDI	Revenue, excluding grants (% of GDP)
Growth of subsidies and other transfers from the budget	WDI	Subsidies and other transfers (% of expense)
Growth of tax revenues	WDI	Tax revenue (% of GDP)
Growth of share of tax revenues in the budget	WDI	Taxes on goods and services (% of revenue)
Growth of share of direct taxes in government revenue	WDI	Taxes on income, profits and capital gains (% of revenue)
GDP growth of the world	WDI	GDP growth (annual %) – World
EU GDP growth	WDI	GDP growth (annual %) – European Union

The article was received on November 3, 2014.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

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BRICS NEW DEVELOPMENT BANK: TECHNOGRAPHY OF DEVELOPMENT

Abstract

The Fortaleza Declaration and the environment of the global financial and credit institutions, including the BRICS of New Development Bank are analyzed. The theoretical and practical aspects of overcoming the economic imbalances and political risks of BRICS countries in making appropriate decisions in global finance are accumulated.

Key words:

BRICS, Fortaleza Declaration, New Development Bank, the pool of foreign exchange reserves, beneficiary countries, donor countries.

JEL: G15, G21.

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Introduction

Creation of BRICS was one of the most significant geopolitical events of the beginning of the XXI century. BRICS countries (Brazil, Russia, India, China, and South Africa) play a significant and growing role in world politics and international relations. Since the establishment of association was called BRIC. First time the term «BRIC» used in the report of the investment bank «Goldman Sachs» in November 2001, dedicated to global economic outlook in the middle of the XXI century. Author of the term is an American economist John O'Neill, who used it for the group of developing countries – Brazil, Russia, India and China – considering the group as a new investment proposal. The current name of the association used in international practice since 2011 – after the accession of South Africa (December 2010). In a short period the «emerging economies» – China, Russia, Brazil and India – have become regional leaders. They stated that the modern international relations mechanism does not meet the realities of the XXI century and offered to build a new world order based on international law and cooperation.

Theoretical aspects concerning the formation, operation and development of BRICS in the world economy has long story of research by such famous foreign and domestic researchers and economists as: A. Bykov, A. Bobrovnikov, M. Bousler, R. Greenberg, S. Johnson, S. Ivanovsky, L. Kadyshev, L. Mahalhes, A. Marchenko, T. Moy, Y. Moseykin, K. Mortishd, J. O'Neill, M. Pasmor, N. Reznikova, S. Ryazancev, D. Sinkavash, H. Tabuchi, M. Titarenko, T. Uschapovskyy, N. Firzli, M. Hara, T. Halpin, K. Haub, P. Yakovlev and others.

Actuality of this problem is caused by financial imbalances of the global economic system and its role in regulation by global financial institutions, the practical importance of which defines the main goal – to research the particularities of BRICS «New Development Bank». As a part of this goal we can identify the following objectives of this article, in particular, to outline background of the BRICS «New Development Bank», its financial options and advantages, goals of functioning and weaknesses in the context of economic imbalances of BRICS countries and their development prospects.

Results and discussion

Background of the BRICS «New Development Bank»

In August 2014, Russia started talking about creating a new financial structure without developed countries – Bank of Shanghai Cooperation Organization, which also includes China, Kazakhstan, Tajikistan, Kyrgyzstan and Uzbekistan. Meanwhile, before the conference in Brazil just after the World Cup clarified outlines of a similar bank – based on semi-virtual association BRICS (Brazil, Russia, India, China, South Africa). The most famous example of global financial institutions is the World Bank (WB) and International Monetary Fund (IMF), created by developed countries after World War II. The main objective of the WB is poverty, and the IMF is mitigating economic crises. There are also various regional banks: Asian Development Bank, the Andean Development Corporation, the European Bank for Reconstruction and Development, the Eurasian Development Bank, Inter-American Development Bank and others. Some of them are more successful than the global counterparts. Thus, the Andean Development Corporation (CAF) as of 2012 loaned to its members (mostly in Latin America) more loans than the World Bank and Inter-American Development Bank taken together (Neyaskin, 2014).

Declaration on creation of BRICS Development Bank was signed by member-countries as the results of the summit in Fortaleza, held from 15 to 17 July, 2014. The Bank will mainly specialize in infrastructure projects in areas of BRICS member-countries. Also a pool of foreign exchange reserves (as IMF competitor) was created. In the first phase, capital of BRICS development Bank will be $ 10 billion. Headquarters planned to be organized in Shanghai, and the first president of the bank will be the citizen of India (BBC, 2014). The organization could become a competitor the World Bank and similar regional funds. Thus, the «BRICS Development Bank» or «New Development Bank» (NBI) – an international financial institution, development bank, which was created and will be managed by BRICS member-states (Brazil, Russia, India, China and South Africa), the beginning of its work is planned for the 2015-2016.

Taking into account the prehistory of researched financial institution, we should note that the creation of bank was agreed by leaders at the V Summit of BRICS, held in Durban, March 27, 2013 (Powell, 2013). One of the reason for the creation of researched financial institution was criticism of the World Bank and the IMF by BRICS members, because in making the of most important decisions in these organizations BRICS member-countries do not have adequate, in their opinion, number of votes. In this case, possibility to influence on decisions of NDB for BRICS countries is multiple higher than in the ADB or WB, because the number of votes of the member-countries will be at least three times more than the number of votes in the World Bank and ADB. In addition, developed countries have no representation in BRICS bank, which greatly reduces the political risks during the financial decision making.

The document on the establishment of the Development Bank was signed in July 15, 2014, the first day of VI Summit of BRICS in the Brazilian city – Fortaleza. BRICS countries agreed that the "paid-in capital" of the bank will be $ 10 billion and can be distribute proportionally between the members. Countries also agreed that the amount of Bank authorized capital will $ 100 billion, and initial capital – $ 50 billion. (Kliment'ev, 2014). In particular, Russia expressed their intention to contribute in the bank $ 2 billion during seven years. It decided to place the headquarters in Shanghai city as result of competition between New Delhi, Johannesburg and Shanghai. The first president of the financial institution will be the citizen of India, Chairman of the Board of Directors will be from Brazil, and the first Chairman of the Board of Governors will be a representative of Russia. Country-coordinator in the pool will state that the Presidency of the BRICS.

Financial options and advantages of NDB

So New Development Bank (NDB) – analogue of the World Bank. Its initial capital will be $ 50 billion, and gradually will be increased to $ 100 billion. The NDB will finance infrastructure projects and projects of «sustainable development». In such settings bank will annually make loans of $ 3 billion and include the loan portfolio of $ 16 billion (estimation of Russian CMASTF). It is several times less than the World Bank or the Asian Development Bank. The bank’s capital will be formed by 2020 (see. Table. 1). The amount of loan that can annually provide the NDB is three times less than for ADB. In particular, limiting funding of NDB per «equally to all» is several times less than the amount the World Bank for all BRICS countries except China ($ 31.9 bln.) and India ($ 51.7 bln.). In addition, a key point is urgency of provided funds – priority opportunity of funding NDB for periods more than 10 years, which in turn will greatly depend on access to international financial markets (and funds of investors in developed countries).

Table 1

NDB compared with other development banks, $ billion (Neyaskin, 2014**)**

	World Bank	Asian Development Bank	New Development Bank (estimate)
Assets	328,8	115,9	35,6
Volume of loans, per year	10,5	10,2	3,1
Loan portfolio	151,3	53,1	16,3
Capital on balance	40,2	17,1	5,3
Paid-in capital	13,8	8,2	2,5
Initial capital	228,5	162,8	50,0
Authorized capital	278,4	163,8	100,0

As for the Pool of conventional foreign exchange reserves, the so-called «mini-IMF», with a fund of $ 100 billion, of which the BRICS countries will be able to get help when needed. In crisis time, participants will be able to claim a portion of the fund, but now their credit limits (lending limits) lower than limits in IMF (see. Table 2). So creating the Pool of conventional currency liabilities can be called as agreement on mutual lending of the central banks of BRICS countries. In this case, in the state of a threat to stability of the balance of payments its central bank will be able to access foreign currency financing other CB BRICS. In addition, Pool of contingent liabilities increases the stability of the balance of payments. The Pool of contingent liabilities will considered as part of exchange reserves of all member-countries, as well as short-term stability the balance of payments will increase and will increase short-term stability foreign exchange markets in the BRICS (stability criterion «Reddy» – by 0.1–0.2). The basic advantage will be a significant mitigation of the financing conditions compared with the IMF program «stand-by». The decision on funding will take Standing Committee of the Pool, which will include representatives of all five countries; any conditions for economic reform for this type of loan is not expected (like mechanism for the IMF – Flexible Credit Line (FCL)); access to finance will not be given the government but to the central bank directly; countries outside the Poole, have no effect on lending decisions.

Table 2

Credit limits and share capital BRICS countries in the IMF and NDB, $ bln.
(Neyaskin, 2014)

	Pool SFER	IMF	Shareholder Pool SFER	Shareholder IMF
China	20,5	71,9	41,0	12,0
India	18	44,2	18,0	7,4
Russia	18	45,1	18,0	7,5
Brazil	18	32,4	18,0	5,4
SAR	10	14,6	5,0	2,4

For the participating countries it will be easier to get help and loans from the NDB than the IMF and World Bank where the developed countries have the majority of votes. The South Africa, which has the least stable balance of payments, will benefit the most from the participation in the Pool of conventional foreign exchange reserves. While for Brazil, India and South Africa it is particularly difficult to attract long-term investment in infrastructure, China, by contrast, is ready to invest money for this projects (Chinese construction companies are interested in participating in these projects). Overall, priority-lending of NDB will be the infrastructure. This vector is very promising, because according to the World Bank the potential of such investments is high. Thus, 1) volume of underinvestment in infrastructure for low and middle-income countries, according to the World Bank, is $ 1 trillion. 2) increase infrastructure investment by 10% points corresponds to additional GDP growth by 1% point. 3) every dollar of infrastructure investment in developing countries increases exports from developed countries on 35 cents. 4) it is an opportunity for construction companies (in particular – Chinese) get more international orders. 5) will be created in the future «Infrastructure Investment Fund» of BRICS that will make procedure of access to private and sovereign capital investment in infrastructure more simple.

Along with its headquarters, in South Africa will be established African Regional Centre of New Development Bank. A Memorandum of Understanding on cooperation between institutions BRICS due to lending export and insurance of lending export, which will help to create more favorable conditions for expansion of trade between countries is also signed. Within the framework of Fortaleza Declaration signed Agreement on cooperation in innovation of inter-bank cooperation mechanism of BRICS countries and held first negotiations about a possible merger market of insurance and reinsurance BRICS countries (The Sixth BRICS Summit, 2014). In Fortaleza there were also signed documents on cooperation between the export credit agencies of the BRICS and cooperation agreement in the field of innovation.

Goals of functioning and weaknesses of NDB

As for the main goals of functioning, the bank will specialize in infrastructure projects in BRICS member countries. However, as was stated by Minister of Finance of Russia – A. Siluanov, the bank is open to new members from the UN countries. However, there is an agreement between countries that share of the BRICS members in authorized capital will not decrease below 55% (Powell, 2013). Also among goals of the bank is to mobilize resources to finance infrastructure projects to support sustainable development in the BRICS and other emerging economies. Created Pool of conventional foreign exchange reserves, the initial volume of which will be $ 100 billion (China will contribute $ 41 billion, Brazil, Russia and India – $ 18 billion each one, South Africa will contribute $ 5 billion. (OECD, National Bureau of Statistics of China, 2014)), formed with purpose to protect the national currencies of the volatility of the financial markets (Neyaskin, 2014). The Bank will also provide assistance to other countries affected by economic instability as the result of expansionary monetary policy of the US (BRICS bank to benefit developing countries: Brazilian president, 2014).

However there are some weaknesses. Thus, according to L. Carroll (Neyaskin, 2014) BRICS has no global idea, except dissatisfaction with the existing rules of the game. World Bank and IMF were created to prevent World War and the Great Depression. In addition, the BRICS countries are very different (in terms of GDP per capita, growth rate of economy, infant mortality rate) as developed countries, which founded the IMF and the World Bank. However, fans of BRICS bank appeal that institution created with the aim of not repetition of «horrors» like the Great Recession and crisis in Argentina caused by the implementation of the recommendations of the IMF. Functions of BRICS bank are largely duplicated from functions of the IMF and World Bank, and the functions of private multinational companies. The new bank will not be able to compete with the World Bank and the IMF, because it will have less access to «long money» than the institutions that exist for a long time and have formed a reputation (such as the Asian Development Bank established fifty years ago). For the same reason the BRICS bank will have lower financial lever and lower access to expertise. Therefore, a more realistic scenario is cooperation with other similar organizations.

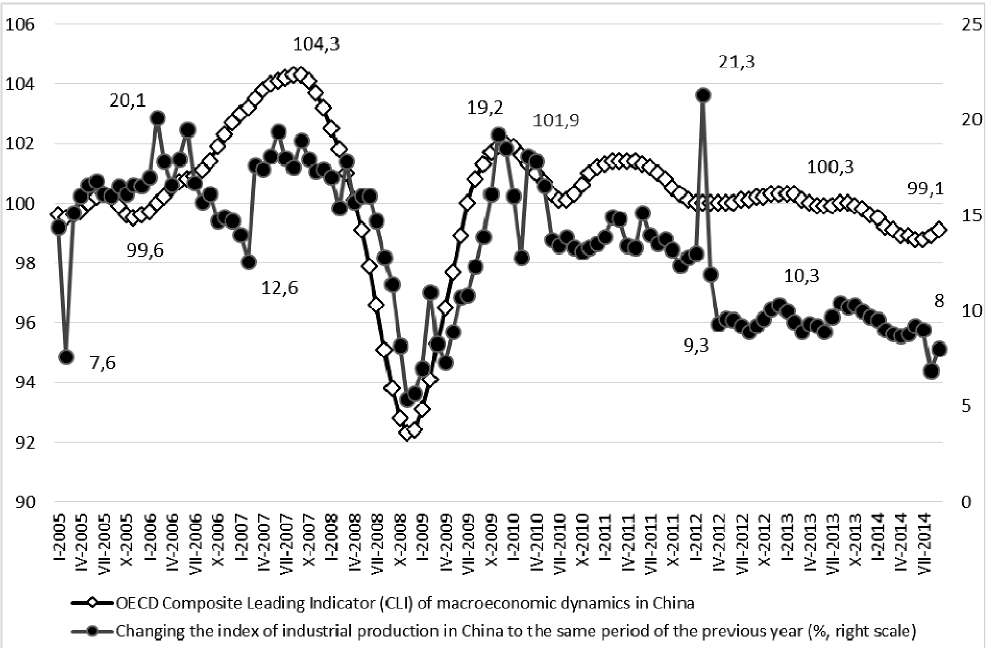
Economic imbalance of BRICS countries

Observers point out that currently a certain economic imbalance exists within the BRICS. Thus, for China has more than half of total GDP BRICS, i. e. more than the total GDP of the four other countries-members. However the first half of 2014 shows the trend of slowing of Chinese economy this year. Thus, the

IMF announced a reduction in forecast of growth of the Chinese economy in 2014 to 7.4% versus 7.5% (according to the forecast from April 2014). In particular, GDP growth in the II quarter 2014 was 7.5%. These GDP growth rate (7,4–7,5%) is a record low for the Chinese economy from the crisis in I quarter 2009. In the first half of 2014 the lowest growth rates were observed in the sectors of mining industry (3.9%) and real estate (2.5%). Also there is continuing decline in consumer activity. The growth rate of retail trade turnover in the first half of 2014 was 0.5% lower than in the first half of 2013 (12.1% vs. 12.6%), the rate of growth in car sales – 3.9% (8.4% versus 12.3%). Also there is a trend to reducing activity in the housing market. Housing prices are moving to decline – in June 2014 house prices fall relative to May which was noted in 56 of the 70 largest cities in China (May to April – 35 of 70). Activity in the construction sector also reduced – growth rate of cement production in the first half of 2014 fell to 4.5% against 9.1% in the first half of 2013. As well as OECD Composite Leading Indicator (CLI) of macroeconomic dynamics of China reduced from March 2013.

Figure 1

Main indicators of economic growth in China
(OECD, National Bureau of Statistics of China, 2014)



Russia's GDP in volume is slightly behind the Brazil, but slightly ahead of India. The five BRICS countries also agreed to intensify cooperation in the energy sector – in particular by creating in the future of special energy bank. Russia has offered to create an energy association of BRICS countries and to create a Reserve Bank of Fuel and Energy Policy Institute. According to Russian experts, these steps will strengthen energy security of member-countries. The Russian government insists that one of the leitmotifs BRICS existence is the desire to prevent a unipolar world, by which we mean the geopolitical and economic dominance of the United States. However, in the world there are several poles – the European Union, BRICS. But, as analysts note, global modern world is not only rivalry and confrontation, but rather the world of cooperation and mutual consideration of interests. At the same time, sanctions against Russia in 2014 dramatically worsened its financial position. Devaluation of the ruble during the year was 30%, which is for the country that has reserves of $ 500 billion, is too much. Moreover, for Russia the access to international capital at a time when the banking system needs to spend $ 150 million only to support balance of its largest state banks is blocked.

Conclusions

Thus, the existence of the New Development Bank will largely depend on which projects it will finance. The success of the CAF is mainly because of it gives money not only on roads and dams, but also on short-term and profitable projects. Therefore, BRICS bank for the gradual development needs to attract new members for the capital increase; likely candidates are Argentina and Indonesia. As for the competition between NDB and other institutions of development, it is unlikely, because the existing institutions of development have procedures and expertise of project evaluation and technical assistance. In addition, the need for long-term investments is so high that competition of lenders in this market is virtually impossible, and risk of sharing in joint projects is profitable for all development institutions. Meanwhile, Pool of contingent liabilities will allow slightly increasing the short-term stability of the balance of payments. Funds are likely to become an alternative to the IMF loans to member-countries (the funds of Pool get for participants cheaper and simpler than funds of IMF), although cooperation is possible because the largest beneficiary of Pool is South Africa, where the balance of payments among all of the BRICS countries is the least stable, and to a lesser extent, India will be a beneficiary.

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The article was received on October 20, 2014.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

Ukrainian Economy

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REFORMING OF UKRAINIAN ECONOMY: THE URGENCY AND THE PRIORITIES

Abstract

Approaches to economic reforms in Ukraine since independence are considered. It is shown that they were half and created the conditions for oligarchic economy. Two trends which were of pro-Western or pro-Russian orientation had dominated in the reformist movement. The idea of systematic changes in the economy, which also must cover all political, legal, social and economic institutions, pre-reform of which should be a court reform is developing. Qualities that should be inherent by reformers are forming. Reforms should bring down oligarchic system and provide change in the direction of the country of export orientation from the Russian market to the Europe, Asia and America one. The idea according to which the center of reform initiatives should be a system of Education, which should encourage the inclusion of Ukraine in scientific leadership especially in the military-industrial complex, the achievement of which are able to create a chain reaction effect and spread to other industries is substantiated.

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Key words:

Reforms of Ukraine, sectoral reforms, reform concepts, innovative economy.

JEL: P21, L50.

1. Economic reforms in Ukraine: Retro

De jure every new Ukrainian president or government was reformative. They declared themselves as such, but their legacies suggest otherwise. De facto their endeavors were mostly about changing the Constitution and legislation to better suit their self-interests. The most significant accomplished changes related to the executive branch of government, in particular the extent of the presidential influence.

In the days of the first President of Ukraine Leonid Kravchuk (1991–1994) there was a tendency of administrative regulation of the economy. Ukraine failed to adopt a constitution that would ensure the creation of the legal framework of the state apparatus in the larger perspective. Not daring to reform the economy radically, Kravchuk handed over the power along with the economy, which remained among world's «leaders» in the state budget deficit and inflation to Leonid Kuchma. In 1993 and 1994 the money supply in circulation increased by 18 times (Korotkova).

More than ten years of presidency of Leonid Kuchma (1994–2005) receive various assessments in terms of the need to create a new national economic order that would ensure the establishment and development of Ukrainian state. We are talking about the substitution of the Soviet system for the mechanism of social market economy. The heritage of Kuchma's decade as president in its main features has not changed still, so the Ukrainian crisis is largely a consequence of the initial constitutional process. Political forces that dominated the figurative arena during the time of Yushchenko's presidency (2005–2010) and that of Viktor Yanukovych (2010–2014) did not bother to transform the system towards the development of an innovative economy. Moreover, Yanukovych's team, in which all senior positions in the Administration of the President, the Cabinet of Ministers, the Verkhovna Rada and the majority of regional administrations were given to the representatives of the Donetsk region, not only failed to eliminate existing, but created new «stoppages» in the economic system of Ukraine.

The most problematic part of the new economic order in Ukraine has been the transformation of the socialist economic system into the oligarchic one. In the Ukrainian version of the transition, the national wealth was divided primarily among a small number of families who unnaturally quickly got rich. It has been estimated that 200 families have appropriated 60% of the national wealth of Ukraine; the oligarchs have gotten their hands on about 75% of the assets, but the government revenue from them accounted for only 30% (Nechyporuk). From an outsider perspective it looked as though the formation of the oligarch stratum was caused by their superior competitiveness in the art of doing business during the transitional period. In reality, they have become the most influential part of the society due to their connection to the corrupt (though democratically elected) government, as well as through the creation and maintenance of «pet» political parties.

Given that the foundation of the Ukrainian economy, created during the presidency of Leonid Kuchma, has not undergone any significant changes to date, it can be argued that the majority of Ukrainian problems sprouted and rooted in during the «Kuchma» decade. Afterwards they just grew and multiplied. Among them the main one is the transformation of the socialist economic system into the oligarchic one. At the same time the privatization turned into a system of «social standing for misappropriation of assets for personal purposes, which is not regulated by the system of existing formal rules» (Pustoviyt). The most large-scale was the so-called «voucher privatization» of 1995–1998. However, during its course more than 19 million shareholders have not become real owners, as despite having participated in the certificate auction and having received an extract from the minutes of its results, they have not even legally drawn out the ownership of the shares in the aftermath. According to V. Kulyk, «the majority of those who have received shares and are formally owners often do not have access to any constituent documents, nor to reliable information about who the real owner of the business is» (Kulyk). In fact, the corruption became the mechanism of selection of private capital, which led to the formation of financial industrial groups. They consolidated around the regional authority centers and were later referred to as «oligarchic groups» and «regional clans».

In times of Yushchenko's presidency (2004–2010) of the reformist changes in full could not be implemented, although a program with the motto «Ukrainian Breakthrough» was declared. This period went down in history as noteworthy only for the aspirations to revive the national ideological values and the strengthening of the state identification of the Ukrainian nation; however, this did not reach a logical conclusion due to the economic crisis of 2008 and various conflicts among the representatives of the «orange revolution» in the authority positions. The authorities achieved greater success on the international level.

Ukraine received the status of a country with market economy, achieved the disaffirmation of the Jackson-Vanik amendment, and joined the World Trade Organization. Meanwhile, the lack of reforms within the country has led to a weakening of state and political institutions, which oligarchy took advantage of. It became a system of interconnected clans and formed a state-oligarchic model of political and economic system of the country.

Presidency of Yanukovych, who replaced Viktor Yushchenko in 2010 and fled the country in February of 2014, had started with the unveiling of the program by the name of «Rich society, competitive economy, and effective state» (Economic Reform Program for 2010–2014). However, it did not give a clear answer to the issue of the Ukrainian model of a prosperous society. Now we can already assert without doubts that the program could not give it, because the president and the team that brought him to power almost did not care about such a task to begin with. Along with the coming to power, Viktor Yanukovych changed the Constitution, usurped power, developed authoritarian tendencies and began forming familial and clan structures (primarily inclined toward the family's benefits), which ultimately led to the emergence and strengthening of state-oligarchic capitalism. Only the big business and the higher echelons of bureaucracy had interest in such modernization. This could not, nor did it, give any progressive impulses to the reforms and the situation came to a boiling point, resulting in a second «Maidan» or as it's also known «revolution of dignity».

Oligarchization of Ukrainian economy delayed the development and the implementation of reforms. Separate attempts to continue were indecisive and did not lead to the proclaimed results. This manifested in the fact that the country has not yet reached the level of GDP of 1990, which is a base year for the statistical comparisons since the proclaiming of independence (Table 1). At the same time as the president Poroshenko said in a speech at a press conference «Strategy 2020»: «…only reforms can meet revolutionary expectations of Ukrainian citizens – the driving, active part of our society – with powerful wave of protests being the only available alternative. Only reforms can be the answer to our potential international investors and the only available alternative to that is staying one-on-one with Russia. Reforms are not only a way to sustainable development. Our very existence depends on them. That is why at the beginning I said that right now the question we face is of «to be or not to be» capacity in regards to Ukraine. And I am sure: to be, of course. And to be, we need to break our neo-feudalistic political model, dismantle the mechanism that enabled a small circle of oligarchs and corrupt bureaucrats to make a fortune from privatizing the entire country, gutting it and tossing it to bleed» (Poroshenko).

Table 1

Indices of physical volume of the gross domestic product of Ukraine in percentages compared to 1990

Year	Index	Year	Index
1990	100	2005	62,7
1995	47,8	2006	67,5
2000	43,2	2007	72,6
2001	47,2	2008	74,2
2002	48,7	2009	63,3
2003	54,4	2010	65,8
2004	61,0	2011	69,3

2. Post-revolutionary concepts of reforms

After the revolution of dignity, that is, after the escape of the ex-president Viktor Yanukovych from Ukraine, the need for the reforms in the country has increased. While before the foreign policy of the reformers was premeditated by two alternative directions that linked the future of Ukraine with either the Western or the Eastern values, at present time the orientation vectors representing the countries of the Eurasian Customs Union are not being discussed. Especially since the trade with them in the important aspects of Ukraine's exports is blocked by Russia. Moreover, the practice does not confirm the pessimistic forecasts of Russian politicians and economists about the adverse effects on the Ukrainian economy the further development of European integration supposedly would have caused. Suffice it to say that in May-June of 2014 the export of Ukrainian goods to the EU grew by 25% compared to the same period of the previous year (A press conference of Poroshenko, Yatseniuk). Systematic strategy of Ukrainian reforms, as defined by the President of Ukraine Poroshenko, comes down to «achieving European standards of living and making preparations to ensure that in 2020 Ukraine is ready to apply for membership in the European Union» (Poroshenko).

The idea of reforming the economy of Ukraine proposed by the President can be summed up as following: reforms must be systemic and simultaneously affect all political, economic and social institutions. Accordingly currently over 60 reforms and special programs are being prepared, to be launched almost simultaneously. There are eight main aspects pertaining to them: anti-corruption reform that should provide the lustration of authority and bureaucracy representatives; judicial reform and the reform of law enforcement agencies; decentralization and public administration reform; tax reform; deregulation and further development of entrepreneurship; reform of national security and defense. They are supplemented by special programs of immediate importance: reduction of energy dependence of the country and further popularization of Ukraine in the world. However, despite systematic and simultaneous mode of the reforms, the judicial reform is considered the most important and somewhat «pre-reformative». After all, the essence of all the changes in society is that instead of the bad, unfair and unequal rules of the game, good, honest and fair ones are to be created. For this purpose an impartial organization of dispassionate supervision of their execution is needed.

The announcement of the reforms' plan, despite its restrictions, gives grounds for optimism as well as for the pessimistic assessment. In fact, Ukraine is in a situation of systemic crisis, which can be overcome only through implementation of systematic changes. This can happen only if a systemic reform is done, in which there is no place for half measures. On the other hand, the question arises on whether the authorities have enough resources in the circumstances of ongoing (even if it's somewhat hybrid) war to radically change the whole basis of the country – political, economic and social. Moreover, the difficulty increases even more when you consider that most of the areas of long-term development must be turned by 180 degrees. Here are some of them: multi-vector policy; policy of neutrality and the exchange of nuclear status under conditions of Budapest Memorandum on Security Assurances; long-term negligence of the development of the armed forces and the orientation of the military-industrial complex just on the world market; management of the state and municipal budgets outside the control of Ukrainian communities; political structuring based on the financing by oligarchs; granting state preferences to oligarchs; lack of information sovereignty; lack of social welfare policy; the brainwashing by Russian media of the population of certain areas of Ukraine; negligence of forming a political nation policy (Datsyuk).

For the systematic, immediate and simultaneous reforms a number of conditions are needed. The experience of post-socialist countries allows formulating some of them. They are connected, first of all, to the human factor. One can agree with Bendukidze that «for reform implementation three people are enough: one must be ready to put everyone who steals behind bars, the second must be ready to destroy all regulation and barriers for business operating successfully, without thinking about the consequences for his career, and the third – to act as a political shield for the other two. If you know who these three people are, you're good; if not – you're doomed. It is also very important that these people understand that they are leading only temporarily, and they will be hated» (Zanuda).

Close to this point of view are the tips by the former Minister of Finance and Deputy Prime Minister of Slovakia Ivan Miklos. He notes that «for the rapid growth you need vision, will and courage, as well as leaders who possess these qualities. Because only these type of leaders, could implement reforms despite the fact that they are complex, and despite the resistance to these reforms. But right now you have yet another window of opportunity when the reforms can be done a little less painfully and with a greater support from the population. In addition, for us the prospect of joining the EU was a certain anchor. That is my recipe – reforms and integration, and the technical side of such things is well known. And more – never trust populists on this path. Remember that the recent events in Ukraine have shown all European states, that you have the will and the desire to become a part of Europe. Of course, there are certain conditions for that, but their implementation is necessary for your own sake first and foremost»(Zanuda).

Leaders with the qualities mentioned by Ivan Miklos are in short supply always and everywhere. Usually, there are many people of high moral character who lack professionalism, and vice versa. It is even more difficult to find politicians who are willing to commit political suicide and conduct reforms aimed at achieving economic miracles without regard to the continuation of their term at the stern. Yet such leaders exist in the Ukrainian society, they only need to be call upon with a set of premeditated conditions.

3. The reforms as a part of the «win-it-all recipe»

The elections to the Verkhovna Rada of Ukraine on October 26, 2014 resulted in the emergence of many new politicians willing to selflessly lead the movement of reformers (Savchenko). They often lack the in-depth knowledge of economics and foreign experience of radical reforms, especially in the newly industrialized countries, the understanding of Ukrainian peculiarities inherited from the past and formed by current conditions. It is possible that new leaders also lack motivation and time to fully self-educate.

The political leaders of the Revolution of Dignity understand that among the main obstacles to reforming the economy is the oligarchic system. Despite the abundance of both launched and planned reforms, the overthrow of the oligarchic system is only scheduled. Nevertheless, the essentials are already determined, such as how to prevail over it when it does not lead to development or how to force it to merge into a new model when destroying it completely is impractical (Kotz). The «taming» of the oligarchic system, disintegrating it and slowing it down requires consistent use of anti-corruption laws and the abolishment of the practice of subsidizing unprofitable operations. At the same time the mechanisms that ensure social protection of employees of large companies going bankrupt must be found and developed. It should also be noted that the oligarchs, as the owners of mainstream media outlets will be able to keep information populist propaganda against the reformers, which will delay the process of modernization of the economic system. To anticipate these trends a modern, independent national information system needs to be created.

Radical and comprehensive reforms in Ukraine are not only a way of accelerating socio-economic development; they are the best way to win the war with Russia by peaceful means. After all, the hybrid war is based on not military, and information tools. The Army uses the hybrid war to fix by force the achievements made in the economic, information and cyber wars. Not by chance, according to Putin's plan, by creating a situation of chaos account deficit should be raised to $100 billion in Ukraine in 2015, which is equivalent to a default. Such calculations and messages cast doubt on the adequacy of the IMF estimates that 18 to 20 billion US dollars should be enough to exit from the crisis in Ukraine and are sent to the Western public in order to undermine support for the aspirations of Ukraine to European integration. In reality, conducting hybrid war and encouraging conflict in Donbas has led to an increased need for financial aid. As Minister of Foreign Affairs of Ukraine D. Klimkin said in an interview with a German newspaper *Wirtschaftswoche*, it significantly exceeds the amount of 30 billion US dollars (Klimkin).

When developing and implementing the reforms in Ukraine a special role should be given to the influence of external factors on the economy, and especially the Russian influence. Russia has long since started taking measures aimed at weakening the Ukrainian economy as part of its foreign policy. This anti-Ukrainian code of conduct expands as the magnitude of Ukrainian modernization increases. There is very little doubt as to the fact that Putin will be doing everything in his power, including measures not allowed by international law to ensure the bankruptcy of Ukraine. Given this, the pessimistic scenario should be built with the assumption that the foreign trade turnover with the Russian Federation will be close to zero, especially in terms of exports.

The arsenal of methods to undermine the Ukrainian economy of its northern neighbor is already well developed and is still improving. It includes the destruction of infrastructure and enterprises of Donbass; the energy sources blackmail and trade wars (regarding dairy products, meat, sugar, pipes and so on). For its part, Ukraine is forced to impose sanctions, especially pertaining to the export of military-industrial complex and dual-use products. Therefore, a new economic policy of the country will have to refocus on the Euro-Atlantic, Asian and African markets. Such an orientation should be used even assuming the export of certain goods and services from Ukraine to Russia remains. The latter should be regarded as temporary and new target markets for those products should still be considered. Under these circumstances, the main statement on Ukraine's agenda is to accelerate the transition to European technical regulations and then enter the markets of developed countries.

«The stoppage» in the Ukrainian reform movement is the «fixation» on superficial issues. Thus, the initiative of public organizations, experts and journalists «Resuscitation reform package» in the economic sphere is limited by laws on local government and the state purchases. Among other requirements to the Verkhovna Rada appear the adoption of laws on the judiciary, law enforcement, administration, anti-corruption and electoral reforms. Also discussed is the need for recognition of the Rome Statute and the jurisdiction of the international criminal law, the introduction of the European system of food safety, protection of personal data, etc.

It is impossible to disagree that all of these laws are essential for state-building in Ukraine as a newly independent country. And yet all the ambitions of reformers can be wasted if one does not define major reforms, which all other modernization activities should «work for». At the same time, methodologically it is advisable to proceed taking into account the fact that the main direction of development of a modern economy is its transformation into an innovative one or (practically the same) into the knowledge economy. From this perspective, a national strategy should be developed, because long-term growth is impossible without fundamentally new ideas and technologies, and without them – the formation of a highly competitive state.

Consequently, in the concept of reforms of the electoral bloc of Poroshenko the thesis that judicial reform is the main requires discussion and clarification (Poroshenko). In Ukrainian conditions, it really is crucial in all areas and at all levels to nation-building. Until affordable, transparent and fair justice is provided, it is impossible for the economic system to reliably operate as well. Symbolic in this regard is a welcoming statement of the president at the presentation of the new Attorney General in the Verkhovna Rada on June 19, 2014: «The Role of the Attorney General's Office in the fight against corruption is defining. We took the obligation to immediately begin the fight against corruption. As a greeting and symbolic wishes I want to use my favorite quote of the Singapore miracle author Lee Kuan Yew: «How to fight corruption? Start with convicting your three friends. You know exactly for what, they know for what, and people will believe you»« (The Verkhovna Rada appointed as Prosecutor General Yarema).

For anyone who is familiar with the Ukrainian justice system there is no doubt that judicial reform should start and be completed as soon as possible. It is this context that is laid in the draft of reforms, because the president believes that «judicial reform can be considered «pre-reformative», as well as changes in the sphere of state administration» (Poroshenko). To some extent the changes to the judicial system are made with some of the new laws. Among them – The Lustration Act of 25 September 2014, under which the members of the High Council of Justice, members of the Higher Qualification Commission of Judges are to be lustrated. Yet the legislation on systemic reform of the judicial system still needs to be developed and adopted in the near future. Currently an advisory body to the President has been set up, called the *Council on the judicial reform* (Presidential Decree № 812/2014 on the Council of the Judicial Reform on October 16, 2014). The main task of this body is working out coordinated proposals for the development and implementation of the reform strategy of Ukrainian judicial system and legal proceedings, and other related legal institutions. The Decree set the deadline for submitting the strategy for approval as three months after the formation of the personnel of the Council.

As for the economic sphere, the reform process should correspond to the task of forming an innovative economy. In this area, the main priority should be the modernization of the system of education and science. On this basis, the result of all economic reforms must be the emergence of competitive sectors of the economy and assertion of modern civilization society in Ukraine.

The system of education and science is an area where the reforms cannot be postponed, despite the systemic crisis in which the Ukrainian state dwells. After all the peculiarity of the current Ukrainian situation is that it's educational and especially scientific potential is, figuratively speaking, on the brink of extinction. The positioning of Ukraine as one of the former republics of the Soviet Union with a sufficiently high intellectual level and traditions in the field of applied sciences and industry is already becoming an outdated notion, even though they are still preserved. According to available estimates, the scientific potential formed in Ukraine will remain relevant for another 7 to 10 years (Heyets). This means that the suspension of the development of national science threatens to turn the country into a scientific wilderness, in which it is impossible to create competitive products for mass production via the industry and service sectors.

It is noteworthy that the reforms in the system of education and science have already begun with the adoption of Law on Higher Education by the Verkhovna Rada of Ukraine on June 1, 2014. The new laws that will regulate other areas of educational and scientific activities are being prepared. Nevertheless, the legislative developments are focused mainly on the internal organization of these institutions. However, they do not provide a mechanism that ensures the supremacy of scientific and educational sectors in the economy and society as a whole. The authors of reform projects operated under the assumption that the convergence of Ukrainian legislation with the European one in itself should ensure the levelling of scientific and technological potential of Ukraine and the EU leaders. And yet, it should be borne in mind that progressive laws are an important, but not sufficient condition for progress.

For reformative laws to succeed, it is necessary to integrate the system of education and science into the economic mechanism. Science, education and manufacturing should become an integral whole, in which the priority is given to the first two components. In this regard, the reforms must begin with the rejection of the established practice of funding the science and education as a residual sphere. All graduates of secondary schools should be given the right to enter higher education institutions, and the screenings should be done based on the results of regional or inter-regional examinations on normative disciplines of the first two semesters, the organization of which can be assigned to a new National Accreditation Agency for the quality of education. It is advisable to divide the legislative functions of the entrepreneur and executive director, setting as the condition for the eligibility for the latter position the requirement of special education. It is also necessary to develop at the state level the programs of global scientific and technical leadership with adequate financing and tenders for their implementation.

Recognizing the science and education fields as the starting point of reforming the economy does not mean that Ukraine should join the competition for scientific leadership in all areas of expertise. The monitoring of scientific schools and a certain structural policy in the economic sphere should be organized. Additionally, in the conditions of Russia conducting a hybrid war against Ukraine, the military-industrial complex should be included among the priorities. The first tangible results of the application of the new economic policy are expected from this sector. This application will be expressed through the formation of modern armed forces, which will have competitive military equipment and heavy weapons at their disposal in the confrontation with Russian.

The development of military-industrial complex will not only be limited to the enhancement of combat readiness of the Ukrainian army. It will launch the domino effect. The management of Zaporozhye Machine-Building Plant *Motor Sich* estimates that investments into the defense industry will bring enormous dividends (Does Ukraine need military-industrial complex?). To do this, simultaneously with the introduction of scientific and technical developments in the MIC or immediately thereafter it is vital to adapt them to the needs of production of personal and mass consumption goods.

The development of the MIC in Ukraine opens up new opportunities to increase exports of military equipment and heavy weapons, which will make it possible to compensate for the curtailment of trade with Russia in this area. In 2013, Ukraine according to the Stockholm International Peace Research Institute ranked tenth in the list of the largest exporters of arms and military equipment. Export of military equipment amounted to 589 million USD, which is much less than the Russian counterpart of 8.3 billion dollars. Nonetheless it should be noted that a significant portion of Russian weapons sold on the world market is equipped with Ukrainian components, which can become the basis for manufacturing of final products in Ukraine (Ukraine disclosed data on arms exports). This is indicative of the reserves that Ukraine should use to increase the export potential of the domestic defense industry. And they are considerable. After all, on the list of buyers of Ukrainian weapons with large and well-equipped armies are the US, Russia, China, Germany, UK, Austria, Poland, Canada, Czech Republic, Italy, Nigeria, Chad, Turkey and others.

The range of products, which are sold on the foreign market, shows the export opportunities of military-industrial complex of Ukraine as well. In 2013, it exported the missile launchers and missiles to them; battle tanks T-72; armored personnel carriers BTR-3E1/M2/RK/BR, 34 BRT-4/K; MI-8T helicopters; Su-25 attack planes; howitzers 2S1 *Carnation* and D30; infantry fighting vehicles BMP-1; small landing hovercrafts 958 *Bison*; and small arms (Ukraine disclosed data on arms exports). According to the *Washington Post*, Ukrainian companies supply gearboxes for ship engines, and Ukrainian systems keep Russian satellites on orbit. The design work for the most powerful Russian intercontinental ballistic missile SS-18 *Satan* was carried out in Ukraine (Khotyn). Scientific and technical potential of Ukraine allows to make high-precision missile systems of medium and short range that use the latest non-nuclear military components, in particular thermobaric (vacuum) ammunition. Their capacity is equivalent to mini-nuclear weapons, and the use is not in violation of international agreements.

It should be noted that the military-industrial complex of Ukraine has advantageous traditions of the production of equipment that can successfully compete with its counterparts on the global market. At the time of the collapse of the Soviet Union, it consisted of 750 enterprises with a total workforce of 1.5 million. Military orders were carried out by 140 scientific, technical, scientific and industrial organizations. Currently, the concern *Ukroboronprom* alone (a conglomerate union of enterprises of various branches of Ukrainian defense industry) includes 134 companies (Wikipedia). They provide design, manufacture, sale, repair, modernization and utilization of military equipment and ammunition, as well as take part in military-technical cooperation with foreign countries.

Developing a program of radical economic reforms, one should assume that through all the years of independence Ukraine has been, and still remains, a country whose economy is export-oriented. Business strategy for augmenting income through the channels of political rent by influencing government institutions and merging with them, realized by oligarchs, led to a decline in the competitiveness of some industry sectors. This is especially true for the metallurgical industry, whose share in exports of Ukraine was 41.4% in 2008 and decreased to 27.7% in 2013 (Foreign Trade of Ukraine. Statistical digest.). Under the new conditions it is advisable to form a strategy to increase exports in the industries in which Ukraine has competitive advantages and sufficient opportunities to increase sales volumes on the world market.

The world conjuncture is favorable for enhancing the role of the agricultural sector in the structural policy of Ukraine. By 2030, the demand for food will increase by 30-40% (Kozyuk et al., 2014, p.411). To increase its share on the world agricultural market Ukraine has one of the largest areas under cultivation after Argentina, Mexico, China, the USA, Canada and Russia. In 2012, it ranked fifth in the world in the production of grain and leguminous crops after the US, China, Canada and Russia. Ukraine is ahead of all countries in the world in the cultivation of potatoes (Agriculture of Ukraine. Statistic digest.). Strengthening the position of Ukrainian exporters of agro products on the market requires the development of appropriate economic instruments to promote and motivate the increase of both volumes of growing crops and production of finished food.

Consequently, the reform of Ukraine's economy as export-oriented involves the allocation of priority sectors. Their development should be promoted using the ideas of innovative economy. In the geopolitical and geo-economic conditions it makes sense to focus on sectors such as education and science, military industry and agriculture for the current economy.

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The article was received on October 20, 2014.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

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INNOVATION-CLUSTER APPROACH TO DEVELOPMENT OF TOURISM UKRAINE UNDER CONDITIONS OF GLOBALIZATION

Abstract

This work reveals the essence of tourism as a component of the economy as a whole, and as a specific means of spiritual self-enrichment of the individual. Here is going to characterize tourism potential of Ukraine, allocate objects included in the UNESCO World Heritage List, as well as those that are attractive to tourists.

Special attention is paid to the historical and cultural heritage and museums. This article will substantiate causes of inefficient usage and possible solutions. Among the last ones stands out innovative cluster approach to the development of tourism. Nature tourism cluster and its components are covered quite extensively. Particular attention is paid to the role of this cluster in generating innovative environment area.

Intended ways to accelerate the development of tourism cluster on the basis of innovation. It is emphasized that to achieve this it is important to ensure innovation, new technologies in each of the components of the tourism cluster.

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Key words:

Innovation, innovative environment, tourism cluster, globalization, tourism market, management, marketing.

JEL: O31, L83, M31.

The relevance and research of theme. One of important activities in the world is a tourist activity that in many countries the researchers consider as a tool to achieve sustainable development and economic diversification. Tourism is a large sector of the last one. Professionals associate GDP growth with the development of tourism, to meet the needs of the population. However, in the world it is considered as a specific means of spiritual self-enrichment of the individual, aesthetic pleasure, environmental education, and patriotic education of generations.

In fact tourism has become the norm of modern life. The tourism provides up to 8% of GDP in the world. It annually creates 2500 new jobs. To provide the necessary services at an appropriate level only for one tourist, requires the creation about 6–9 new working places.

The introduction of new technology in tourist services is without prejudice to staff reductions. The invested funds in tourism quickly paid off.

So it is not strange that a lot of world countries especially in crisis situations tie the improvement of social economic situation to activation of development the tourism industry at innovative cluster basis. And great deal of scientists dedicated their researches to problems of this area of economics.

Works of J. Harrison, R. Sabella, M. Porter, M. Gryazev, M. Rasin, A. Shahov, Y. Sidelnikova and others are merited for attention in this field.

However, published studies have paid insufficient attention to tourism development in cluster-based innovation, the formation of the tourist market in the context of sustainable development. The purpose of our research is finding ways of forming the cluster approach to tourism development based on innovation in the context of sustainable development.

The main material. Ukraine is known, has significant tourism potential. In particular, it is one of the leading countries in Europe for a number of historical and cultural heritage. We should say that on state supports 150 thousand immovable monuments of history and culture, including 57206 archaeological sites, 51364 historical monuments, 16800 architectural buildings and urban planning (Titova, 2009, p. 5).

The list of World Heritage Sites includes:

- The Saint Sophia cathedral with complex of monastic buildings (Kyiv);
- Lavra (Kyiv) ;
- Historical architectural complex of the central part of the city with hill the High Castle and St. Yuriy Cathedral ensemble;
- -Residence of Bukovynian Metropolitans. Now it is a main building of the Chernivtsi National University named after Y. Fedkovych (Chernivtsi city).

There are other objects which are attractive for tourist and our country proposed to expand the list of cultural and natural heritage.

Among them:

- The Bakhchisaray palace;
- Reserves «Ascania Nova» and «Khersones»;
- Cultural landscape and canyon in Kamyanets-Podilsky;
- Historical center of the Chernihiv city;
- Park «Sofiyivka» (Uman city);
- Kaniv nature reserve «Taras Shevchenko's grave»;
- National historical and cultural reserve «Stone Tomb» which is one of the oldest archaeological sites not only in Europe but also in the world. After all, there were found rock paintings depicting humans, wild and domestic animals, dating from the beginning with the Stone Age (22–14 millennium BC).

However, not all objects of historical and cultural heritage are in good condition for their use in tourism activities. For example, from the whole number of castles that can be used for tourism is only 75 are in the public account. About 200 fortifications or their ruins are taken under state protection but not surveyed, (except mentioned above). They are an important factor for the development of castle tourism in Ukraine.

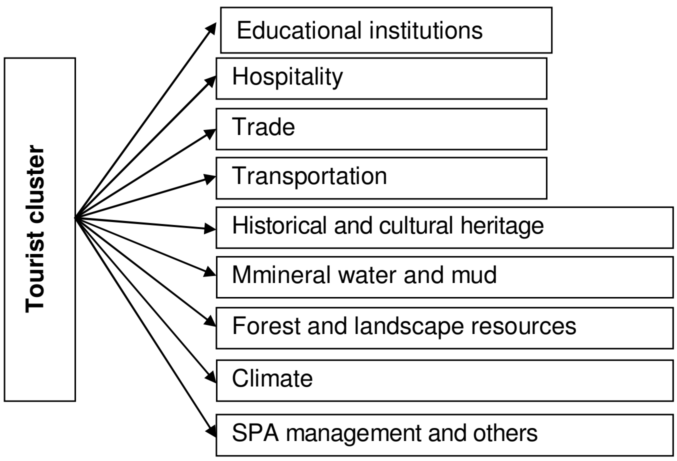
This situation is not unique for this part of historical and cultural heritage, but also, for example, museums. Recently, together with castles not only the preservation the historical and cultural heritage is provided, but a historical memory is bringing to the public knowledge about the past.

In Ukraine there are about 5 thousand museums. But only 570 of these museums are of the state and communal ownership. We may compare, for example, Poland has 1075 such museums, Austria – 1600, UK – 1811 and Canada cares about 2500 museums. Negative impact on tourism activities has a fact that due to lack of display space there are only a small portion of funds which can be seen.

Among the reasons for the last one is the chronic underfunding of museums. After a total of 85% of funding goes for salaries, 15 percent are utilities, while in the civilized countries of labor takes only 5–10% of the total budget. Such financial support doesn't allow updating the material and technical basis of museums over the years, there is no possibility to implement their activities in modern technology, which affects the level of service to visitors and the number of the last ones. As world experience shows to solve these and other problems it is necessary to create tourist clusters (fig. 1)

Figure 1

Main parts of tourist cluster



International experience confirms that the company (organization) which have joined the cluster, and are able for more adequate and quick responding to the needs of consumers of tourism services, tourism product[*] produce better quality. Indeed, in a cluster, the conditions for better joint marketing are easier to access to specialized inputs (equipment, personnel, and services).

Kyfyak V., V. Kiptynko, V. Kravtsiv, I. Shkola, G. Bondarenko, A. Kurek, A. Panasyuk, D. Sergeyev, A. Ilyashenko and others made an important contribution to the development of tourism clusters. In the works of these authors clearly visible regional approach to the formation of clusters, the link between the ability of one sector to develop and to progress in other areas including economic.

This is confirmed by the fact that all existing UN regional economic commissions paid considerable attention to issues related to the development of tourism. Statistics show that for every dollar paid by tourist to the company, is $ 7 he (tourist) spends additionally in the temporary residing place (for purchase of souvenirs, books, etc.). This is achieved thanks to the cluster approach in tourism development. M. Porter examines cluster as concentrated geographical group of interconnected companies, specialized suppliers and service providers; firms' relevant industries and their related activities of organizations (universities, standardization agencies and trade associations) in particular fields that compete but also are working together.

There are many definitions of the cluster today. For example, D. Yadov considers a cluster as a supply chain, manufacturing, consumer, industrial infrastructure elements, research institutes, interconnected in the creation of added value; A. Mihranyan thinks that cluster is a concentration of the most effective and complementary products through joint efforts; T. Tcihan considers cluster as a set of companies, closely related industries, promoting the growth of mutually competitive with each other; A. Yakovleva-Chernysheva believes that cluster is a set of geographically localized relations of competitive organizations that interact with each other and also with the governments, educational and scientific institutions in providing recreational services based on the effective use of the recreational potential of others.

Almost all the authors agree that the cluster approach allows, for the first, to identify potential of participants of the economic clusters, and secondly, is the most appropriate form of their relationship. Thus clustering forms not spontaneous concentration of various scientific and technological inventions, and a system

[*] The tourist product is a set of products and services that meet the specific needs of tourists during the journey and are paid by tourists (hotels, transportation, tours, domestic, municipal, and other intermediary). The tourist product is characterized by the usual value, i. e. the useful ability to meet the specific needs of tourists in recreation, leisure, entertainment.

of dissemination of new knowledge and technologies. An important condition for the formation of clusters is to ensure stable relations between all parties cluster.

Cluster approach to tourism development allows you to:

- Identify new opportunities for increasing the volume of services and increase their quality and productivity;
- Provide a flexible combination of manufacturing services with a high level of specialization;
- To respond to changing consumer demands;
- To promote coordination of joint actions on the emergence of positive externalities near accommodation facilities that provide related services in the tourism sector, including through the integration of cultural institutions, science, travel industry;
- To reduce the cost of providing services and businesses adequately and quickly respond to the needs of consumers of travel services (Gryazev, 2012, pp. 35–40; Gryazev, 2012, pp. 9–13).

Actually a tourist cluster has to combine the elements of the economy, ensuring the effectiveness of forms such as integration, industry, financial and intellectual capital. Availability of cluster shows that it creates the conditions for innovation and industrial growth, to improve the quality of tourism services, and hence their competitiveness; to achieve synergy in which revenues from resource sharing is growing more rapidly than the sum of individual.

Therefore, it is important to create favorable conditions for further development of tourism clusters. This should facilitate the further activation of small and medium-sized businesses in the tourism sector, diversification of the economy through stimulating the development of sector clusters. In other words, the formation of the tourism cluster to create a supportive environment for innovative development of tourism activities, accelerate the diffusion of innovations.

Among the factors that accelerate the formation of innovative tourism clusters should include the following:

- Active interaction within the cluster of tourist types of services and other segments of the national economy that promotes basic indicators of the sphere;
- Access to new technologies used in different areas included in the tourism cluster;
- Participation in the innovation process as the manufacturer of the goods and services and their consumers.

That cluster approach in the development of tourism is a kind of new management technology that allows significantly increasing the efficiency of not only the tourism industry, but all industries that are part of the cluster, as well as the economy as a whole. Today, unfortunately, Ukraine, even in the post has a low rating on competitiveness (table 1).

Table 1

Ratings of the international competitiveness of the post-Soviet space*

Country	2005	2009	2013	2005–2013, +,–
Azerbaijan	69	39	46	– 20
Armenia	79	97	82	+ 13
Kazakhstan	61	66	51	– 10
Kirgizia	116	127	127	+ 11
Moldova	82	95	97	+ 15
Russia	75	51	67	– 8
Tajikistan	104	116	100	– 4
Ukraine	84	72	73	– 11
Latvia	44	54	55	+ 11
Lithuania	43	44	45	+ 2
Estonia	-	32	34	–

*Rating is done without Belarus Turkmenistan and Uzbekistan.

Source: (The Global Competitiveness Report).

The main purpose of tourism cluster is the efficient use of recreational resources. Because cluster approach allows participants to use the same transport, municipal engineering, market infrastructure (consulting, logistics, etc.), infrastructure support business (industrial parks, business incubators, technology transfer centers, venture funds). Participation in the cluster provides the benefits of coordination in the creation of added value, which allows us to offer one another the most optimal model (for example, the specification for release of goods, convenient logistics). In other words, tourist clusters create innovative environment territory in the long run; determine the prospects for the economy and specialization area.

It is necessary to use wider the experience of the other countries for better development of tourist cluster. As after getting acquainted with best practice and international standards will let in future to form a layer of specialists who are able to create in the tourist area of new product with high added value. Partnership with foreign companies gives impetus to the development of small innovative businesses in the tourism sector to higher productivity, reduction of services to improve their accessibility to the public.

The world experience proves that existence of good competition that is a stimulus for development of any economical activities and also helps to activate the tourist cluster. The Competition at the market of tourist services will stimulate enterprises, which are parts of tourist cluster, to create better conditions for specialists, increase salary. Focus on cheap labor doesn't give positive effect. The high price of labor encourages employees to actively introduce new technologies to improve services. So the constant upgrading of tourist industry is one of the ways attracting in this sphere of highly skilled professionals capable of converting scientific ideas to the product available to consumers on the market. This means that the integration of science, education and travel industry can most effectively be implemented in a cluster (Table 2).

At the time when the current legislation are not set requirements for tour operators, cluster and innovative approaches to tourism development will improve the quality of the service, to bring them into compliance with current applicable standards.

As table 2 shows, the operation of the cluster affects all aspects of social, economic and ecological state of the territory, which features a cluster. Cluster approach has positive impact on the level of use of tourism infrastructure available in a particular area. However, according to official statistics, most hotels and accommodation facilities takes place in the Crimea, which concentrates the largest number of hotel rooms, they have jobs. However, the region can't boast by the highest number of visitors, who are served by them. The last figure in the region in 2011 was 2.7 times lower than, for example, in Kiev. In Crimea capacity rate of usage of hotels and similar accommodation by visitors is low (more than the Ukrainian average one). Overcoming of these problems would contribute not only to the activation of the development of tourism and other economic sectors, including hotel management, catering, transport systems, handicrafts, trade, cultural institutions, museums and revival of investment activity.

In today's globalized world the internal and external environment has a direct impact on the development of a tourist complex. Among the first we can name: implementation of the Concept of state programs for the preservation and usage of castles for 2006–2011, which was approved by the Cabinet of Ministers of Ukraine in 2005; the welfare of the population; development of the media, including the Internet.

Our researches show a direct relationship between the increase in advertising costs and future revenues from tourism. American researchers have found that increased spending on advertising on $ 1 provides plus to the country state budget of $ 493 from spending foreign tourists and about 74 dollars received from tax revenues; expansion of foreign economic and trade relations between countries and continents. Search for new sales markets leads to increased international contacts (tourism every year is becoming more widespread); well-developed network of routes and convenient transport links of Ukraine with other countries; developed recreational structure, a high level of fund allocation tourists and others.

Table 2

Influence of the tourist cluster into the regional development

Subjects	Influence on the area of economic development		
	Economic	Social and cultural	Environmental and natural
Region and enterprises	Diversification of enterprises activity of the region expansion for local goods and services	Warning of migration, especially in remote rural areas	Making the preconditions for sustainable development of the region on the basis of environmental management
Economics and social structure	Infrastructure development of the regional economics: insurance, banking sector, transport and service	Cultural development of (concert and theater), exhibition and sports field region	Development of environmentally-friendly forms of agriculture producers and processors
Science and culture	Increasing of innovational activity of enterprises; development of science and education	Contribution to the national culture and local traditions, preserving cultural monuments	Preservation of natural monuments and unique natural features
Specialization, crafts and alternative medicine	Expanding participation in inter-regional and international division of labor	Support for traditional forms of management and folk crafts	The development of traditional medicine, herbal medicine, aqua therapy and others
Budget, nature conservation	Employment growth of the local population and revenue to the budgets of all levels	Environmental development of the region	Support research on nature protection

Source: (Pecherytsa , 2013, p. 15).

The impact of these factors increases significantly. A lot of segments of the population started joining tourism increasingly, especially now there is a big demand for economical travel with full service organized by special travel companies. Travel becomes a necessity much of the population, and for some people it is a norm of their life. In fact socio-economic factors determine the formation of public demand for tourist services.

The last one contributes to the implementation of new technologies in servicing tourists. This confirms the results of tourist flows visiting museums:

National Art Museum, Museum of Art named after Bogdan and Varvara Khanenko, which use widely modern technology services are virtual tours. However, it is still a single event. For increasing the level of innovation in the museum field, it is necessary:

- to create the mechanisms to optimize financing primarily museums and monument areas;
- to form in Ukraine Institute of charity, actively involving the funds patrons and sponsors. For sponsorship and patronage weakly manifested even in the development of tourism, which is almost done through government regulation that provides for accessibility of tourism in the country. Social tours for orphans and children from poor families, the disabled and veterans made in Ukraine, usually under the budget expenses;
- to accelerate the modernization of the tourism industry;
- to provide a prestige of museum professionals, including by raising wages.

Equally important, in our view, is the active development and promotional activities aimed at showing the most attractive places for tourism in Ukraine.

By the way, under the recommendations of the World Tourism Organization and the International Bureau of Tourism for a national interest it should maintain an optimal ratio of 4 : 1. That is on one traveler abroad must be 4 travelers who use domestic tourist routes. This ratio promotes the flow of foreign currency earnings. This ratio promotes the flow of foreign currency earnings. According to the results of our research in Ukraine the ratio of «inbound – outbound» tourism had not the benefit of our country. All this suggests that the current tourism market needs to be improved. So main role can play an improvement of public management, including the protection and preservation of cultural heritage (70% historical and cultural heritage needs to be repaired or restored), and it will help to expand the range of services and improve living standards.

Recently innovative elements are included in each part of tourism cluster. So it is not surprise that the cluster can develop by upgrading each part of this cluster. As a result, tourism cluster is formed on the basis of innovation and is a network of complementary business entities combined participation of each entity in the chain of creation of value. Thanks to the wider spread of specific technologies there is an increasing of volume of tourism services and improvement of their quality. However, the result of networking components of the cluster is to accelerate innovation. To achieve this you need to create a mechanism that will ensure cooperation between the state and private business, contribute to the development of competitive service standards, development of new niche in the domestic tourism market, the formation of the tourism product that would be valuable to maximize majority of the population, as well as a mechanism that can attract this mass market, including in the context of this kind of tourism as ecotourism associated with the development of environmental ethics, protection of natural and cultural resources and humanistic (environmental nature and soul in tune), oriented to internal values.

Today it is essential to create innovative tourism cluster in the countryside, in the center of which is rural (green) tourism. The development of rural tourism is changing the way of life in rural areas accelerates the formation of private interests and market competition, the overcoming disparities in living conditions between rural and urban areas, that nowadays is accompanied by deepening social, demographic degradation of rural areas, deterioration of human capital, the aggravation of social problems of rural inhabitants and more.

Tourist village cluster includes trade, construction, agribusiness, involves the development of civil society, local government, the activity of which depends on primarily provided tourist information, refer to tourist sites, routes, tourism facilitates collaboration with other entities (water supply and sanitation), which should play the primary role in enhanced teaching, educational and cultural work with rural youth. This should speed up the establishment of rural business incubators, technology parks, and creation of socially oriented agricultural production. However, this positive impact on the sustainable use of natural resources, maintaining tourist values and customs of indigenous people, their identity, hospitality, reducing migration of rural population to the cities; let revive the sectors that recently in rural areas are almost lost, including the scope of consumer services. «The rules of consumer services» are approved by the Cabinet of Ministers of Ukraine; they provide an equal opportunity to meet the necessary requirements for residents of all units of Ukraine (Decree of the Cabinet of Ministers of Ukraine from May 16th 1994 «About approval of rules of consumer services. № 313). The development of rural tourism will result in the discovery of objects of consumer services, and in considerably improve the health care of residents of rural areas.

As we know Ukraine has a decree issued by Cabinet of Ministers of Ukraine «On Approval of the program of citizens guaranteed by the state free medical care» all citizens of Ukraine regardless of their place of residence are entitled to receive medical care in all health care institutions. However, villagers are unable to take advantage of this right that is why we have low health status of rural areas and a high mortality rate. According to experts, 65% of deaths in rural areas could be avoided only through timely and qualified service provided to the population (Medical care in rural areas is undergoing a reform process.). Therefore, accelerating the temps of rural tourism clusters development is directly dependent on the provision of social conditions of life of rural residents. We have to understand that tourists (with all other equal factors) will go to the places where they will be comfortable.

Conclusion. So we can say that Ukraine has all the prerequisites for forming of tourism clusters on the innovation basis (healing mineral waters, beautiful beaches and mountain areas for winter sports organization, favorable climate, beautiful landscapes, wide network of academic and research institutions). However, its development requires further intensification, particularly innovative component, including through more active development of educational and scientific tourism. Recently, it has increased primarily due to the Bologna Process, transnationalization of Education, which contributes to the acceleration of information technology and computer science, the expansion of the individual to access the latest information.

European countries are very attractive for multinational science, including the tourism sector. There is a growing need for knowledge which meets recognized quality standards internationally. It will guarantee further development of youth tourism. In this context, noteworthy is the experience in Germany, where there are great opportunities for travel around the Europe. International students during these journeys have multilinguistic education; get acquainted not only with rich culture, but also science and technology to other countries.

As you know, now in many countries (especially in Australia, Asia, Latin America) it is a popular health services such as plastic surgery, heart surgery, organ transplants, dental, diagnostic, etc. Today Ukraine also offers medical services of high quality at low prices. Particularly, in the world of high demand of dental service, treatment with stem cells, and the services provided in reproductive clinics in Ukraine. These medical tourism organizers provide a variety of programs, providing comfortable accommodation, healthy food, sports recreation, entertainment and so on.

Activation of inbound medical tourism in Ukraine should lead to improving of the environment. It is well known that only one car annually consumes 4000 liters of oxygen, emits 800 kg of carbon monoxide, oxides of nitrogen 40 kg, 200 kg of hydrocarbons. In addition, the noise pollution has negative impact on our environmental.

Adapting to noise pollution, the human body loses a lot of energy, causing nervous and mental disorders. All this affects the development of medical tourism, including inbound. By the way, the whole Ukraine is an important area of international tourism. 21.4 million of foreign citizens visit our country every year that is 0.5 of foreign tourists per one Ukrainian man. About 20% of foreign tourists visit our country for the first time. Therefore, to accelerate development in Ukraine this type of tourism should follow the recommendations that were made in the report of the Secretary General's session of the Commission on Sustainable Development (New York, 1999) «Tourism and Constant Development». One of the main ideas of the report is that the main task of any national government is paying special attention to the negative environmental impacts of road and air traffic and to take measures to ensure that tourism development was based on the use of environmentally sustainable modes of transport.

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The article was received on October 20, 2014.

JOURNAL
OF EUROPEAN ECONOMY
Vol. 13 (№ 4). December 2014
Publication of Ternopil National Economic University

Ukrainian Economy

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MARKETING OF NON-PROFITS OF EDUCATION AND RESEARCH SECTOR OF UKRAINE: CONCEPTUAL PECULIARITIES AND VECTORS OF DEVELOPMENT

Abstract

The problem of marketization of education and research NPOs in the context of Ukrainian financial paradigm has been elucidated in the article. It has been proved that the following areas of marketing activity are relevant for the domestic business education and research: increased market orientation of non-profit education and research, as market orientation is applicable for Ukrainian universities though it is not always carried out properly; development of markets (one of the directions of the educational markets both in Ukraine and Europe is lifelong learning and adult education, the latter, however, is not wide spread in Ukraine, the development of distance learning, attracting foreign students from less developed countries); organization of effective marketing in order to improve the quality of education and reduce the gap between the supply of educational services market and demand in the labor market. The analysis of definitions of «marketing of educational organizations» has revealed some similarities as well as own definition has been suggested. A number of peculiar features of the elements of the complex of marketing of educational organizations have been presented.

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Key words:

Marketing, non-profit organization, education and research, educational service, distance learning, labor market.

JEL: M31, I23, J40.

Introduction. Prospects for Ukraine's integration into the European Higher Education Area require an upgrading network of educational institutions towards transnationalization, network self-organization and marketing in order to enhance competitiveness in the national and international markets. All international systems on evaluating the quality of living consider education to be of a priority value. The condition of providing educational services in Ukraine states a high level of literacy and education among the population of the country. As to Ukraine Human Development Report 2013 (UNDP, 2013, p. 171) provides the following data: according to the level of education Ukraine is among the countries with a high level of development, occupying the 78 place out of 186 countries, 99.7% of adult population (older than 15) are literate, 93.5% of population (aged from 25) has got at least secondary education. Gross enrolment ratio is the following: 99% for primary, 96% for secondary, 79.5% for higher education. Satisfaction with education quality is average: 50.1% of respondents are satisfied with the quality of educational services in Ukraine. Such a situation speaks both for the high quality of educational services provided for the population of the country and for the drawbacks in the sphere of quality services in the educational system of Ukraine. From this perspective, the marketing process of education and research serves as an important tool for improving educational alternatives for target customers (through improving the quality and diversity of services), liberalization of the education market, strengthening of the financial capacity of educational institutions.

The idea of the evolution of marketing towards its implementation in the activities of education and research is associated with the names of scholars such as P. Kotler, K. Fox, T. Schultz, H. Becker and others. Marketing aspects of education and research adequately are covered in the works of local economists, namely, L. Volokytina, M. Matviyiv, T. Obolens'ka, V. Salohubova, N. Chukhray,

R. Patora, A. Lyalyuk and others. Empirical studies of the dynamics of domestic institutions of education and research of Eastern Europe were conducted by the international organizations in formulating various ratings. It should be noted that despite the importance of this issue in the national literature on areas of marketing of non-commercial sector not all the questions are fully reflected. There are two reasons for this. Firstly, all these issues concern organizational aspects of marketing mainly in higher educational establishments. Secondly, ways of improving areas of non-commercial research and education do not take into account all current challenges and rapidly changing environment.

The **purpose** of the article was to determine conceptual peculiarities and directions of marketing activities of non-profits of education and research sector. The **research objectives** are formulated as follows: to analyze definitions and to suggest own definition of non-profit marketing in the fields of education and research; to investigate peculiarities of non-profit marketing in the fields of education and research according to conceptual elements of process of marketing; to determine perspective directions of marketization of NPOs of the fields of education and research of Ukraine.

Results. Educational marketing emerged in the 80–90-s of the last century as a logical continuation of the formation of a competitive environment in education. Now commercial and non-profit educational institutions of the developed countries of the world successfully use the non-profit marketing in order to achieve their goals. Marketing of educational organizations is closely associated with such categories as «marketing of services», «marketing of ideas» and «social marketing», though it has acquired some resistant special features. Analysis of scientific papers has found common definitions of marketing in education. Marketing in education is the one that forms a special relationship with the target consumer, i.e. a person actively involved in providing educational services based on the transformation of the individual. According to T. Obolens'ka, marketing enhances the quality of education through the use of the benefits of market forms of educational services and reduces the negative effects of the market in this area, focusing on personal development and socialization of relationship between a producer and a consumer of these services (Obolens'ka, 2002). L. Volokytina believes that the marketing of educational services is the work aimed at achieving the necessary relationship between a subject and an object of both internal and external marketing of educational services in order to provide targeted planning with the view of the demands and requirements of the identified target groups of consumers, development and production of educational programs and services, as well as continuous monitoring of timely and adequate measures of changes during the life cycle of educational services and products to achieve and implement marketing purposes of higher educational establishments (Volokytina, 2009, p. 17).

Marketing of educational services is a discipline, which studies and forms philosophy, strategy and tactic, technology of social market thinking and actions, mutual relations of higher educational establishments, students, organizations-users, and also state and local administrations and intermediary structures (Matviyiv, 2005, p.308). A more general definition of marketing educational services has been proposed by western scholars (Kotler and Fox, 2011), who consider this concept as the analysis, planning, implementation and management of carefully formed programs, which are designed to exchange values in the target markets in order to achieve the goals and objectives of the educational institutions.

According to scientists (Pashkus, Pashkus, Soloveykina and Chebykina, 2007), marketing of educational services is a socio-economic process of implementation of service, pricing and communication policies of educational institutions in a competitive education market. We believe that the subject matter of marketing educational institutions in this definition is incomplete because it does not take into account other equally important aspects of marketing such as a distribution and product policy. V. Salohubova believes that by marketing of educational services one should mean the activity of the university, aimed at changing the educational level of consumer education services and meet their needs in acquiring specific knowledge, skills and abilities for their further use in professional work (Salohubova, 2011).

Somewhat controversial is the view of I. Zakharova, who examines the marketing of educational services from a position of a «subject-object» and no exchanges (Zakharova, 2008). According to this author, marketing of educational services is an organizational system of educational institution through which a demand for various social groups in educational services is projected, implemented and expended. This is an economic process of the implementation of service, pricing and communication policies of educational institutions in the competition in the education market. According to (Zakharova, 2008), non-profit marketing does not involve exchanges; its goal is to spread ideas and promote values and goals. We agree with the view of the scientist in terms of the importance of the performance of NGOs when it comes to responding to these ideas and making these beliefs and values applicable to people. However, we believe that the historical paradigm shift in marketing from «I-object» to «I-subject» led to the need of exchanges but not one-sided effects of target consumer groups and other stakeholders.

The existing system of definitions for the term «marketing of educational services» has revealed that all these definitions emphasize the complexity of the nature of educational services and explains different aspects of their research: the economic, sociological, marketing, philosophical, etc. Since the main purpose of education and research institutions, including non-profit, is to provide the conditions for raising educational standards, skills, lifelong learning throughout life we suggest to view marketing of non-profit education and research as a social and managerial process by which non-profit entities for education and research through the creation and exchange of value vested benefits to individuals, social groups, society, government and commercial entities provide meeting the needs and requests of participants in this exchange. The proposed definition allows distinguishing the main aspects that should be considered in the formation of marketing strategies of NPOs. They are the participants, the objects of exchanges and the target component. The subjects of marketing relations act as NGOs, individuals, targeted social and other stakeholders, society and the state. The thing of exchange is the benefits (educational goods and services), costs, and other material goods, time, change behavioural patterns and values in the direction of raising the educational level, skills, lifelong learning throughout life and so on. Target component thus defined as meeting the needs and concerns of the participants in this exchange.

Conceptual components of the process of non-commercial marketing of educational organizations match the marketing process model which has been offered by renowned scientist in marketing field P. Kotler and G. Armstrong: understand the marketplace and customer needs and wants, design a customer-driven marketing strategy, construct an integrated marketing program that delivers superior value, build profitable relationships and create customer delight, capture value from customers to create profits and customer equity (Kotler and Armstrong, 2012). The model is applicable and can be implemented for the analysis of specificity of marketing of non-profit subjects of education and research spheres.

1. Understand the marketplace and customer needs and wants. Consumers of educational services are different entities, so their needs are different too. Thus, the education market has differentiated demands. In general, scientists distinguish the following types of customers of educational services and their needs: the needs of students and their parents (need for self-development and self-actualization, to meet the needs of belonging to the reference group, the need for continuous improvement by obtaining knowledge and skills that meet the current level of science and technology, the psychological comfort of the learning process), need for employment services, labor exchanges, licensing and accreditation of educational institutions and others (in the growth of human capacity), the needs of society (in the expanded reproduction of human capital in addressing employment, preventing antisocial behaviour of people engaged in training, in the transmission of culture in society) (Obolens'ka, 2002; Volokytina, 2009). However, the non-profit nature of the relationship between the parties of the education market orientation requires educational institutions to achieve priority of non-commercial purposes, providing, under the conditions of irrational market demand, affect and adjust this demand in order to achieve social impact. In most countries of the world the public sector provides services in primary and secondary education, and the dominant role of the public sector in the market reflects the importance of education for the state of teaching in educational institutions and especially the formation of financial relations and coordination between different levels of government (Mel'nyk and Dluhopol's'kyy, 2008). Thus, there is a conflict in the interests of service providers of educational services: on the one hand, their goal is satisfying customers, on the other hand, non-profit organizations must also adequately respond to externalities, taking into account the social mission and provide the value of education. Under these conditions, one is tempted to award educational qualifications to students who do not deserve them, because such loyalty attracts students, increase profit providers of educational services, and improve the financial position of the organization in the short term. However, in the long run it will affect the reputation of the institution as a provider of low-quality educational services, and will reduce demand and may lead to the loss of accreditation. This is a problem typical not only for Ukraine, but also actively debated in developed countries and it has been covered by the surveys (European Commission, 2014; towards greater education and training for social Europe: ETUC Action Programme on lifelong learning and VET, 2012).

2. Design a customer-driven marketing strategy. Academic researcher in the sphere of marketing P. Kotler, while being interviewed by P. Drucker, mentioned: «The most important task in marketing refers to market research, its segmentation, identification of target groups, and positioning your organization in the market and organizing those activities that would meet the needs of the market» (Drucker, 2007). The experience of effective marketing of successful non-profit organizations confirmed that the formation of targeted proposals have the greatest effect. Classically students are priority group customers and their segmentation criteria in the scientific literature are in good shape. Segmentation of students is mainly done on the economic, geographic and psychographic criteria, namely, by the way of response to the proposal of the institution, the method of choosing institution, predisposition to action, and others. In order to achieve the objectives of marketing it is important to do segmentation of other interested groups. From this perspective, the ideas of T. Obolens'ka for productive methodological aspect fall into three types of segmentation of education market: the consumer groups (consumers, individual consumers, employers, state and local government education), the parameters of educational services and the competition (Obolens'ka, 2002).

Positioning in the market of educational services is an important aspect of marketing activities and provides visualization of organization competitive advantage in a concept «image» with the purpose of easement of its identification by users. In the survey (Kedem, 2011) a differentiated position in the market of educational institutions by the following factors has been offered: reputation in the educational market, the scale of popularity among pupils or students, pricing, philanthropic support. Taking into account the fact that domestic education market is heterogeneous, it has a lot of that can position itself as an academic or research, focused on scientific, artistic or sports activities of institution with a standard level or higher level teaching. This approach is effective not only in higher education, but also for primary and secondary schools; successful marketing activities are largely determined by the choice and development of successful niche.

3. Construct an integrated marketing program that delivers superior value. According to service enterprises scientists B. Booms and M. Bitner offered the extended marketing-mix («7P»), adding to classic «4P» (product, price, promotion, place) three elements – «people», «process» and «physical evidence» (Booms and Bitner, 1981). Based on the study of theoretical and empirical sources we have identified some elements of marketing organizations for education and research.

Product. Non-profit educational and research establishments offer products and services for the market. Here are some definitions of educational goods and educational services. According to V. Salohubova, the product for the education market is the knowledge and skills offered by the subjects of the market (Salohubova, 2011, p. 27). The Law of Ukraine «On Consumer Rights Protection» speaks, that service shall mean a contractor's activity toward provision (transfer) to a consumer of a certain material or non-material benefit, which is carried out to the consumer's individual order to meet his/her personal needs (Verkhovna Rada of Ukraine, 1991). Educational services are specific products that mould the outlook while providing training in philosophy and teaching human values. Different educational services meet the students' needs in acquiring specific knowledge and skills for their future implementation in the profession. Various educational services have a number of specific features associated mainly with high costs, the duration of their provision; long-distance perspectives; dependence on the conditions of future graduates' work and life; the need for follow-up services; dependability on the place of residence of those who consume these services (Obolens'ka, 2002).

Guidelines for dominance of non-commercial purposes of institutions for education and research determine a relevant review of the concept of «non-profit product» in the educational market. According to I. Zakharova, the product of non-profit educational institution is the socialization of children and young people and the level of acquired knowledge of those who consume the services (Zakharova, 2008). However, in our opinion the definition of the concept requires a broader framework. It is connected with the fact that apart from children and the young, promising market segment consumers of educational services is the adult population and lifelong learning. The latter is seen as one of the strategic directions of education in developed countries. Market of educational services for adults in Ukraine is in the process of formation and development. Promising aspects are believed to be the following market segments: continuous education, personnel retraining, corporate learning, that is, held for employees within the company; the system of vocational training for the unemployed; more informal adult education comprising informal and spontaneous adult education (Lazorenko and Kolyshko, 2010).

The quality of education remains to be a difficult issue. This is the quality of education that actually represents a major factor for competitiveness and requires the introduction of quality management, marketing, market knowledge, and financial management. Goods on the market of educational services are standardized as the state establishes a list of professions. However, in response to challenges for a differentiated market, educational institutions can somehow violate from the standard scheme within the range of educational services, choosing from an approved by the state list and providing additional services, differentiated by level of educational services, brand, and educational innovations.

Price. Traditionally, the price is considered an important tool for evaluating the quality of educational services from potential buyers at the stage of deciding on educational services. The issue of pricing in educational institutions is of great attention because financial challenge triggers an economic dominance in the domestic education, especially higher. This core component of the pricing policy of the institution is not only selling price of educational services, but the ratio between the values of predicted effect and required additional consumer spending for the use, consumption of services, including the processes of their learning. V. Salohubova has pointed out that the notion «price» covers the price of studies, price discounts and mark-ups, maturity, credit conditions, the form of payment (Salohubova, 2011). This approach focuses only on cash, but not less important argument in deciding whether to purchase educational services is not the value of non-price costs «behavioural response». Consequently, the price of educational products is a set of cash and non-cash means of payment (time, physical and psychological effort).

Promotion. Communication objectives of higher educational institution have been qualified by P. Kotler and K. Fox as follows: to maintain or enhance the image of the institution; build loyalty and support for graduates; attract donors; provide information on institutions of higher education; attract potential students to encourage them to submit preliminary applications and to join the institution; correct inaccurate or incomplete information about the school (Kotler and Fox, 2011). These authors propose to use as the priority forms of communication PR, marketing communications and advertising aimed at enhancing the image of educational institutions, the formation of a sense of belonging and loyalty for future and current students or pupils. Taking into consideration the education market, an important aspect that is related to communication is direct communication challenged by the initiative representatives of interest groups, such as parents in the circles of friends, students, and teachers. This way of communication has become the most popular channel of communication between parents and the institution.

In the projection on communication discourse V. Salohubova notes advertising, PR, encouraging consumption of services, direct marketing, while advertising is given priority in the communication process in the educational market of Ukraine (Salohubova, 2001, p. 39). Other promotion tools such as direct selling educational services, stimulating consumption is less developed in the domestic market, however, these tools have great connectivity.

For example, empiric research (Harvey, 2006) shows that customers who engage with a company's educational marketing offerings are 29 times more likely to purchase a company's product than those who are informed through media ads alone, and 5 times more likely to make a purchase than those reached by direct marketing. They are also 94 percent more satisfied with their purchase and 93 percent more likely to tell friends about their experience.

I. Hryshchenko and N. Krakhmaleva consider that the system of university marketing communications involves the various methods of promoting the university to the market: the inclusion of prominent, well-known and respected people in the faculty; publications in national and international media, publishing scientific papers; participation in various conferences and other public events to share experiences, scientific and educational developments and knowledge; open houses and other events as part of working with students and their parents; PR-campaign (interview rector, leading scientists and heads of departments in the media); relationships with alumni; with foreign universities and student exchanges; admission of foreign students to study as an indicator of the prestige of the university (Hryshchenko and Krakhmaleva, 2013).

Place. Distribution of educational services is a process by which schools are promoting their educational services to target market segments. Distribution channels of the institution is a way to provide educational services and the way they move from school education to the consumer, using the principle of decentralized target distribution. Elements of marketing mix «place» in (Salohubova, 2011, p. 37] are considered in the context of the following aspects: place of supply of services (geographical location of the institution, branch network, transportation); forms and methods of service: stationary (day and evening), correspondence, interactive (remote), external studies, interval (counselling), self (with methodological and information support of high school); transportation (moving teachers of educational institutions, transport students to places of compact residence to academic buildings); order processing (operation selection committee, processing information about the competition, creating a network of correspondents in the region, etc.). Distance learning as a way to distribute educational product is a promising and profitable activity that uses the NPOs study areas for funding the delivery of educational services in a traditional way. This distance learning due to its potential functions is increasingly used by older generations of working students. In addition, abroad among this group of students distance learning is popular education in the evening and at weekends.

People. Both academic and administrative staff of educational institutions in the marketing context can be viewed in two dimensions. On the one hand, the element of «staff» is presented through quality work of management system, professional qualification level and practical skills, work ethic, friendly style of communication with pupils, students, their parents and other consumer groups, plays an important role in attracting students, foundations and educational services. On the other hand, the quality of internal communication between students and teachers, the intensity and effectiveness of cooperation is a factor of differentiation and positioning educational institutions in the educational market and an important element of the quality of the educational product. Therefore, we agree with the opinion of scientists (Obolens'ka, 2002; Chukhray, Patora and Lyalyuk, 2008) that the teaching staff of educational institutions as the most important competitive advantage because it is known scientific achievements footage already expressed a positive effect on the competitive advantage of domestic universities. The relevance of this approach confirms the activation of aggressive marketing to attract and retain teachers of institutions studied areas of developed countries.

Process. Provision of educational services is a process that must comply with the quality of education in accordance with Art. 18 of the current Law of Ukraine «On education». The process of educational services as a way of providing educational technology services includes the process of the students, teaching courses, testing and evaluation of the course, dissemination of results and graduation. The tools of the delivery of educational services is the process of maintenance, engineering staff, employee relations and customer service culture, compliance with sanitary standards (Salohubova, p. 45).

Manifestation of innovative and creative approach to the delivery of educational services is the creation of virtual schools (Cyber School), providing implementation of training programs with the help of the Internet and electronic communications. In Ukraine regulatory norms of a product offering educational services providers make it a priority to use group learning. However, the development of information technology led to the development of national educational innovations, including online learning (distance learning). Before the development of public education programs align more universities around the world, marking thus the global technological revolution in online learning. The world market of distance education in 2011 reached $ 35.6 billion, experts predict that the trend will grow the next five years by average of 7.6% per year and will have reached $ 51.5 billion by 2016; most dynamically growing market of distance education services is in Asia (17.3%) and Eastern Europe (Russia) (E-Learning Market Trends & Forecast 2014 – 2016 Report, 2014). Distance education in Ukraine was introduced in the 2000s. Now it is at the stage of formation and globalization, integration processes and implementation of information technologies create the preconditions for its development.

Physical evidence. Element «physical evidence» is considered, first, in the context of the material environment, the environment in which the process of providing services, and secondly, in terms of equipment directly where the process of service delivery (Salohubova, 2011, p. 43). In the same context, T. Obolens'ka uses the concept of «material support» (Obolens'ka, 2002). Here it means buildings, clean rooms, interior, equipment and rooms' availability, computers, technical facilities and furnishings. Some of them were provided by the hostel students. One of the directions of radical improvement of logistics and information management, in our opinion, is to promote the sharing of equipment, especially for the intensification of research activities. The analysis of the literature found that in the context of the educational elements of the marketing mix the most differentiated components are product and distribution. However, all elements of marketing educational institution must be reconciled as they mutually affect each other, increasing or reducing their efficiency, and create favourable conditions for the establishment of relationships and commitment to customers.

4. Build profitable relationships, create customer delight. To establish profitable relationships with customers and meet their needs, educational organizations must find out who these consumers are. Direct customers are educational institutions, students, pupils, employers are also mediated indirect consumer product providers of education services, in addition, society as a whole receives the benefit from the activities of educational institutions, so the consumer can also be considered in the educational market. Since marketing is defined not only as object orientated, and the presence of exchanges and other stakeholders also come to the subject field of marketing. Therefore, in addition to students, employers and society, there are other stakeholders, the exchanges among which will help to achieve marketing goals. With this holistic approach to marketing non-profit educational institution should use more resources than commercial, as a priority objective is to achieve social impact, which should be combined with the solution of the secondary, but vitally important issue of financial support.

5. Capture value from customers to create profits and customer equity. The non-profit status of most educational institutions determines their priority orientation to achieve profit goals, their social mission. This implies that their commercial activities support acts only on the basic of social-oriented activities and should focus on value exchange with consumers in both monetary and non-monetary terms. Considering the problems of non-profit marketing in the light of developing effective mechanisms of interaction between public, private and «third» sectors there should be indicated the special role of non-profit education and research. First, NPOs study areas provide economic benefits, increase GDP, create jobs, contribute to national and regional development, reduce the burden on the state budget, and increase the potential to transform the national economy into a knowledge-based economy. Secondly, NGOs exert social impact, which is not associated with a profit, but that benefits the society or the individual groups. This over-consumer market received from non-profit business education and research social impact due to the formation and enrichment of knowledge, skills, competencies for employment rights, to ensure its competitiveness in the labor market, productive employment, reduce unemployment and poverty reduction. Third, NPOs of education and research sector with educational products (knowledge, ideology, cultural experience, the necessary level of training) contribute to the formation of stable value preferences and responsible behaviour of their customers on healthy lifestyles, leadership development, patriotism, class, gender, racial, ethnic equality, reducing crime, increasing social mobility and more. Traditionally, for the subjects of non-profit areas the value they receive from consumers in exchange for educational product is contained in a sphere of economic and non-monetary rewards.

The modern role of secondary and higher school must consist in forming of new humanism necessities the awareness of which will provide growth the demand on knowledge, on educational services as products, and consequently, new marketing strategy (Obolens'ka, 2002). But statistical research (State Statistics Service of Ukraine, 2014) shows, that in Ukraine there is unbalance between the scales of activity and volumes of financing, which threatens the achievement of social goals and deepens the problem of insufficient quality in providing university educational services. It can be concluded that higher education in Ukraine prefers functioning to the development thus, there is a gap between objectives and actions of service providers of educational services, and it affect on capture value by customers.

Discussion. Thus, having analyzed the basic characteristics of the marketing of non-profit education and research, we are confident that it has got inherent specificity, which is caused by a special mission, objectives and terms of the education market. This is an urgent need for concerted action of all market participants, coordination of government policy on regional policy and school work. O. is right to focus on the high importance and necessity of state and local governments in the development of marketing in education (which is important for the transformation period of state development and integration into global civilization processes) and the creation of equal conditions for education in different forms of property in the market educational services (Obolens'ka, 2002). These positions are important expansion of the use marketing to macromarketing as proposed in (Chukhray et al., 2008, p.24) as support of educational institutions that influence the formation of a favourable environment for functioning of NPOs in education and research. Marketing activities should have thorough information provision at the local and regional levels. Therefore it is necessary to strengthen the information component of marketing activities vertically, creating an effective marketing information system that would embrace the level of NPOs, regional and national levels.

The study has found that in Ukraine there is a clear imbalance between the scope of activity and its funding. The most intense competition for state funding, students and highly qualified scientific personnel is among universities. Reducing state funding actualizes the diversification of funding sources. This requires education and research institutions to be more open to the environment functioning, be more market oriented. It can be concluded that higher education in Ukraine prefers functioning to the development that threatens the achievement of social goals and deepens the problem of insufficient quality in providing university educational services, i.e., there is a gap between objectives and actions. This creates a risk of deepening «market imperfections» in education and research through increased information asymmetry, externalities, reducing social effect, strengthening the monopoly and market power of individual actors. It is expected that in the future competition in Ukrainian educational services will be further strengthened due to globalization and demographics. The impact of major universities will be even more influential ant this will increase the integration of educational establishments. From this perspective, the marketing process of education and research serves as an important tool for improving educational alternatives for target customers (through improving the quality and diversity of services), liberalization of the education market, strengthening of the financial capacity of educational institutions. Thus, the present challenges actualize the need to enhance the process of marketing the national non-profit sphere of education and research taking into consideration the specificity of Ukrainian marketing environment.

Today, most Ukrainian educational institutions give priority to economic objectives due to the lack of advantages of NGOs that are so typical for foreign countries. Nowadays Ukrainian educational establishment are in conditions of fierce competition for in the market, which is exposed to global competition, the effectiveness of marketing activities which are not relatively higher. The problem of marketing of non-profit organizations in developed countries is related to finding ways of marketing campaigns, finding new tools of mechanism for fundraising, accounting and evaluating the effectiveness of marketing activities. The Ukrainian educational establishments, in our opinion, require the following aspects of marketing. First, there is a need for increased market orientation of the sphere of non-profit education and research, as market orientation is inherent for universities in Ukraine, but it is not always carried out properly. Second, development of markets (the direction of the educational market in Ukraine, as well as for Europe is lifelong learning and adult education, which are less spread in Ukraine, the development of distance learning, attraction of foreign students from less developed countries). Third, there is a constant need for the organization of effective marketing in order to improve the quality of education and reduce the gap between the supply of educational services market and demand in the labor market. In this context, it is necessary to intensify cooperation between the education system and the employment, to reduce unemployment (especially among the young), to strengthen on innovation and social components of educational marketing in the direction of increasing values of supply and social impact.

The obtained results give a clearer understanding of current problems of non-profit organizations of education and research, which undoubtedly have a positive impact on further theoretical and empirical research areas of marketing sector. Positively assessing the scientists' achievements on the concept of non-profit marketing in education, we consider it to be important for further development towards adaptation to conditions of national non-profit sector. This study is part of a larger research area on the directions and methods of marketing of non-profit sectors in Ukraine, so future research will cover exploration of current conditions and trends of marketing of other non-commercial areas (religion, health, environment, etc.).

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The article was received on September 23, 2014.

«JOURNAL OF EUROPEAN ECONOMY» IN 2014

Vol. 13

Macroeconomics

Microeconomics

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Ukrainian Economy

Economic Theory

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