

Ministry of Education and Science of Ukraine  
Mariupol State University

# **BULLETIN** **of Mariupol State University** Series: Economics

**COLLECTION OF RESEARCH PAPERS**

Founded in 2011

**ISSUE 16**



**Mariupol – 2018**

UDC 33(05)

Bulletin of Mariupol State University  
Series: Economics Collection of research papers  
Issued twice a year

The publication is authorized by the Scientific Council of Mariupol State University  
(Record 4, dated of November 28<sup>th</sup>, 2018)

The journal has been registered in the international scientific journal database  
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**official website of publication: [www.visnyk-konomics.mdu.in.ua](http://www.visnyk-konomics.mdu.in.ua)**

Certificate of state registration for print media (Series KB №17780-6130P dated of May 6th, 2011)

Edition: 100 copies. Order № 180/18

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## NATIONAL AND REGIONAL ECONOMY

L.A. Kyslova

### THE IMPACT OF DEMOGRAPHIC PROCESSES ON NATIONAL ECONOMIC SECURITY

*The question of the demographic component of economic security on the depopulation funds and the aggravation of the quality of the population is very relevant for Ukraine. This is associated with an extremely low birth rate, high mortality and morbidity rates, low life expectancy, high migratory losses. All this has a direct impact on the country's economic security, since the demographic component is the resource necessary for its provision.*

**Key words:** *demographic processes, migration, depopulation, economic security.*

**Problem statement.** In our time, demographic processes are one of the key to ensuring a stable and safe development of the state, and the demographic factor can be defined as one of the most important factors influencing the economic situation in the country. The role of the population as a carrier of demographic potential is especially important in modern conditions, when it is intellect that becomes the main motive and determining movement.

Therefore, achieving a stable functioning of the demographic component of economic security is a determining factor in improving the demographic situation as the main priority of realizing the national interests of the country.

**Analysis of recent research and publications.** Problems of demographic policy and the impact of demographic indicators on economic security were investigated by E. M. Libanov, V. L. Manilov, A. M. Martin, A. Poznyak, N. C. Smirnov.

**The purpose** of work is in-depth research impact of the problems in the demographic sphere on national economic security.

The current demographic situation in Ukraine is alarming, both from the side of authorities and country citizens. Reduced population, reduced life expectancy and fertility, and negative balance of migration have become the hallmarks of the latest demographic trends. The reasons are in the history and accumulated over a long period of time. Experts estimate that the first and second world wars, famines, forced industrialization, forced collectivization, mass repressions of the 1930s and 1950s, the Chernobyl catastrophe, the protracted systemic crisis of the 1990s had negative effect on the normal process of demographic transformation, led to significant deformations of the sex-age population, premature death of about 16 million people. These catastrophic events negatively affected the dynamics of the population, significantly distorted both the sex-age structure and the mode of its reproduction. In this regard, an important prerequisite for ensuring the demographic component of economic security is the study and analysis of natural reproduction of the population.

National and demographic security depends on the size of the population, and its state is affected by depopulation phenomena. In Ukraine, they are manifested on the one hand, a low birth rate, and on the other catastrophically high mortality rate. According to the State Statistics Service, at the beginning of 2018, the number of available population in Ukraine was 42384.4 thousand. During 2016, the population decreased by 182.0 thousand people. The number of Ukraine is steadily decreasing, according to estimates received over the last 27 years, this process is due to a generally stable natural decrease in the population, that is, exceeding the number of deaths over the number of births. From 1991 to the end of 2017, its aggregate value exceeded 6 million people, or almost 12.4% of the total population of Ukraine as of the beginning of 1991 [8].

The main causes of depopulation trends during the period of 1991-2017 are both the decrease in the fertility rate and the increase in the mortality rate. If in 1991 fertility and mortality rates were almost the same 12.6% and 12.1%, then in 2017, respectively, 10.9% and 14.8%. It is worth noting that the overall birth rate below 12% is considered very low and causes a decrease in the population. Another evidence of the process of depopulation is the net reproduction rate of the population, which in Ukraine is below 1.0, that is, the reproduction of the population is insufficient even for simple replacement of generations. Considering the depopulation of the territories, it should be noted significantly higher level among the villagers, but the difference between the indicators from 1991 to 2017 significantly decreased. An increase in the number of population is observed in 2000-2012, for the years 2013-2017, an increase in depopulation rates is characteristic [2, 3].

Table 1

**Migration movement of population in 2002-2017**

Year	All migration flows			Including interstate migration		
	number arrived	number of exits	migration increase, reduction (-)	number arrived	number of exits	migration increase, reduction (-)
2002	717532	717532	x	42473	76264	-33791
2003	22544	722544	x	39489	63699	-24210
2004	750812	750812	x	38567	46182	-7615
2005	723642	723642	x	39580	34997	4583
2006	721655	721655	x	44227	29982	14245
2007	711785	711785	x	46507	29669	16838
2008	673467	673467	x	37281	22402	14879
2009	609902	609902	x	32917	19470	13447
2010	652639	652639	x	30810	14677	16133
2011	637713	637713	x	31684	14588	17096
2012	649865	649865	x	76361	14517	61844
2013	621842	621842	x	54100	22187	31913
2014	542506	519914	22592	126,2	120,9	5,3
2015	533278	519045	14233	30659	21409	9250
2016	256808	246188	10620	14311	6465	7846
2017	247092	258912	9574	13250	4631	6590

*Summarized by the author on the basis of data from the State Statistics Service of Ukraine*

A certain factor of counteraction to the general reduction of the population in Ukraine is the migration. Migration processes are not purely demographic issues; they influence the participation in the international division of labor, access to European and world markets, economic and social security, including national security in general. The influence of external migration on social and economic development is primarily due to changes in the supply of labor in the labor markets both

in quantitative and qualitative parameters, as well as the change in the size and structure, in particular its disable part and associated with this variation of the level of demoeconomic load, the population's demand for certain goods and services [6].

Migration processes in Ukraine were rather rapid. In early 1990's there was an increase in the influx of migrants to Ukraine due to the return of Ukrainians and representatives of national minorities, which had previously lived in Ukraine (Germans, Crimean Tatars, etc.). Ukrainians return to their homeland after proclamation of Ukraine's independence. However, starting from 1994 and up to 2005, the negative balance of migration prevailed (about 130-150 thousand persons annually). During 2005-2017, migration processes have stabilized due to a decrease in overall migration and a slight positive balance of migration (0.1-0.4%) [2, 5].

Military actions have always irreparable damage to the economy and demographics of the country where they occur. But, the magnitude of what is happening in the Donbas does not change the general indicators of mortality in the country. Can not say that the deaths of hundreds military and peaceful citizens of Ukraine do not cause irreparable damage. Each death is a tragedy. But, moreover, it has more damage to fertility rates.

Over the past decades, Donbas could not boast by a positive dynamics in demography, especially in Donetsk and Lugansk regions. The miner's land was quite safe to call the zone of extinction, since in the entire period (from 01.01.2004 to 01.01.2017) the population of Donetsk district decreased by 477,014 and Lugansk by 333,117 people [1]. At the same time, the decrease was mainly due to natural reduction. The mortality rate in both districts during the decade almost doubled the fertility rate. Thus, only in the first quarter of 2014, the level of natural population decline in the Donetsk and Luhansk districts were 9298 and - 4847 respectively. That is, before the active phase of Russian invasion in these areas declined at a rapid pace.

It is clear that now, when there are ordinary armed gangs in occupied territories, besides highly organized terrorist groups, it is not even worth talking about stabilizing the situation in demography. Today, according to the UN, the number of refugees from Crimea and Donbass are already more than 1.3 million people, but it is clear that such data is not absolute and in practice the number of refugees may be higher. It should be noted that today's wave of migration, caused by military invasion, is only the first and after its completion it is necessary to wait for a second, much more numerous wave.

So, if in the first wave of migration the territory left mainly the pro-Ukrainian population, when level of threat to life was very high, then the second wave of migration could arise already after the end of military campaign. Judging by the latest sabotage operations carried out by organized terrorist groups in the East, one of the directions of their work was the complete elimination of existing infrastructure on the Donbass and adjacent areas. Thus, the terrorists for a long time remove the prospect of a rapid economic potential recovery. In the long run, this means outflow of capital, stop of many enterprises and all this would lead to massive unemployment. In order to stabilize this situation, despite all the optimism of today's government, it will take several years or even decades.

Under such circumstances problem areas will be forced to leave even such a working part of the population, which at the moment feels relatively safe and comfortable in occupied lands. And given that as of May 1, 2014, the total population of both regions was 6,154,903 people, then it is likely that the scale of the second migration wave will be significantly higher. Similar "perspectives" of demographic and ethnic changes are now opening up on occupied by the terroristic group of Donbas. Today, a full-scale anti-Ukrainian campaign has been launched and consequences will be felt here for many years.

Therefore, it will become a problem to return even in a relatively peaceful time for pro-Ukrainian citizens and activists who actively opposed Russian occupation. It is clear that after the active phase ATO is over, the confrontation provoked by mass attacks on the part of the Kremlin propaganda will not disappear and for many pro-Ukrainian donors, returning home will have to be



postponed for a long time. In quantitative equivalent, this is a small part of population, which nonetheless played a leading role in the revival of all Ukrainian in the Donetsk and Lugansk regions.

Much of the Donetsk citizens are forced to leave and for a long time will not be able to return home due to social, economic and everyday factors. Now, the terrorists are making every effort to turn Donbass into a zone of alienation, the residence where would be impossible and extremely dangerous even to exist. Many residents of Donbass lost their housing, many lost their business. In Donetsk and Luhansk regions, sabotage groups dig in virtually all that they have not yet been able to sort out, sell or destroy during the collapse of USSR.

It is highly expected that such targeted destruction will not contribute to economy development. Years will be spent on the elimination of its consequences. All this time, the settlers from Donbas will need to live, work, study somehow.

According to reports that periodically appear in the Russian media, thousands, more precisely, thousand hundreds of internally displaced persons from Ukraine are now in the Russian Federation, but this information could be false [1]. However, the flow of migrants cannot be avoided, but the nature of migration in its vast majority will be intra-state. Areas that are not currently covered by terrorist threats must now prepare for the development by similar scenario; the scale may become unique for Ukraine and can cause unforeseen consequences.

On one hand, decrease in the number of jobs and low wages are association with population problem of villages and growing migratory losses of the rural population. On the other hand, the influx of population for urban settlements is a positive phenomenon, since man is the main productive force, and any economic growth is impossible without displacement of significant human masses. Particularly distinguished is the problem of internally displaced persons in the regions of Ukraine due to the annexation by the Russian Federation of Crimea, Russia's foreign military aggression in the Donbas and the armed conflict that continues in the Donetsk and Luhansk districts [5]. The issue of counteracting the transit illegal migrants from developing countries and the abandonment of some of the illegal migrants on the territory of the country is also relevant for Ukraine. Thus, migration processes are a kind of demographic and demographic "investment" in the recipient regions and, on the contrary, cause ageing and deteriorating labor-intensive potential in donor regions.

Another significant demographic issue is the birth and death rates that were worst over the past ten years. Main part plays the fact that we have a coincidence of negative factors that affect the demographic situation. The war is one of the most painful and unpredictable. It pushes us to the demographic pit. In general, military actions have a negative impact on the demographic situation in the country. Mortality increases due to loss of life. In addition, due to stress and stress associated with the war, people often have a nervous disorder. And this applies not only to those who live directly in ATO zone, but also to people who live far beyond its borders. All this leads to an increase in mortality, especially among the elderly. In certain settlements (first of all, in the occupied territory), there are people who have nothing to eat. This is especially true for pensioners and people with disabilities. The reasons are obvious - shops do not work there, therefore it is possible to count only on humanitarian aid or on the help of militaries who share their food with the local population. It is clear that abnormal nutrition and extremely difficult living conditions affect the physical condition of people and affect mortality rates. However, the war also affects fertility. The couples are trying to delay the appearance of child. Fertility begins to decrease with a gap of about one year [6]. After the wars, demographic processes are usually restored in 2-3, and sometimes in 5 years. But the problem is that we do not know when the war will end in Ukraine. If it lasts for a long time, as it is, for example, in Israel, then the demographic crisis will deepen significantly. The war does not cover the entire territory of the country, but only part of it. Farther Donbas is, less impact of war on mortality and fertility is. But when the wounded are first taken to treatment in other regions and then these people return home, it also affects the demographics. The

war factor is superimposed on other bad trends in the country. It deepens the existing demographic crisis. After all, in our country and before the military events in Donbass (as early as the 90's) mortality exceeded the birth rate and population gradually declined. According to scientists forecast and calculation, in the middle of this century (in the 50's and 60's) the population of Ukraine should have been about 35 million. But then the loss of Crimea and present losses due to the war in the east were not taken into account. To this add a factor such as the deterioration of economic situation in the country. After all, people are also less likely to give birth and die more often [3].

So today in Ukraine all the negative factors have come to pass: war, difficulties in economy and changes in demographic behavior in the realm of fertility (women produce an average of 27 years, not 24, as in the 1990s). In addition to fertility and mortality, we periodically affect the so-called phenomenon of demographic waves. When, during the Second World War, certain generations were "knocked out", they rebuilt, but gave birth to fewer children. Then these children also gave birth to fewer children. As a result, there are a whole few generations. And this in certain periods also affects fertility. In the projection for the future, we can say that the modern factor of war will still have its own demographic echo, because we are still reaping the consequences of 1939 - 1945 war.

To ensure the health care development, primary health care reform is being reformed on the basis of family medicine, primarily in countryside. In the area of overcoming the negative effects of ageing, state's demographic policy involves a creation of mechanisms for providing life to the elderly, their involvement in active lifestyles outside the sphere of labor activity by raising level of social security for retired persons and others [7]. In order to regulate migration processes, government adopted the Concept of State Migration Policy, which states that it is aimed at ensuring effective state management of migration processes, creation of conditions for sustainable demographic and socio-economic development of the state, raising level of national security by preventing emergence of uncontrolled migration processes and liquidation of their consequences, harmonization of national migration legislation with international standards, strengthening the social and legal protection of Ukrainian citizens who are working abroad [4].

**Conclusion.** In today's conditions, when public life continues to be in a state of crisis and uncertainty, when a sound economic strategy has not been developed at the state level, the demographic situation has become a big problem. The main demographic issue in Ukraine is the depopulation, its economically active part. Its main causes are a combination of factors, namely low fertility and high population losses due to natural processes. There is an intensification of migration processes; their impact on demographic and socio-economic indicators is contradictory and often negative. With regard to the structural characteristics, the main features are a high coefficient of ageing and a low youth index, which leads to an increase in "load" on the able-bodied part. Positive changes are improving the number of men in relation to women and raising the age of balancing in general, the state of the demographic component of economic security can be defined as a crisis.

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**V. Dergachova, N. Pysar**

## **PROSPECTS FOR THE FORMATION OF THE POLARIZED ENERGY SPACE:**

### **APPROACH TO DATA ANALYSIS**

*The study emphasizes the urgency of the formation of the polarized energy space in the context of globalization and threats to Ukraine's energy security. To study regional imbalances, a methodology has been developed for the analysis of the density of resources in the regions. A multi-resource model of fuel and energy resources for exploring the region's energy potential has been presented. The proposed approach to the analysis and assessment of concentration of the density of resources allows to characterize certain regional imbalances, which is instrumental in the formation of spatial polarization. The regions with the greatest concentration of fuel and energy resources have been identified on the basis of the comparative analysis. Among the advantages in the implementation of spatial polarization in terms of regional convergence is the possibility of reducing imbalances in the structures of various economic activities, which are one of the main socio-economic problems, since concentration of production and finance facilitates the redistribution of resources in their favor, leaving the periphery without a real chance of*

*overcoming threats to economic development. The study has showed that the analysis of concentration of the density of resources and spatial polarization are two interdependent processes aimed at equalizing the development of territories.*

**Key words:** *fuel and energy resources, spatial polarization, growth poles, energy security, region, globalization.*

**Introduction.** A qualitative assessment of existing and potential indicators of the territorial concentration of the economy is required to develop a strategy of regional growth in terms of the dominant market processes. Highest consideration should be given to specific features of the area, where the development of economic activity is to take place, with special focus on the analysis of certain types of natural mineral, social (especially labor force), production and other types of resources, economic and geographical position relative to areas of raw materials, energy, as well as outlets for finished products. The consideration of features of their placement on the territory of the regions contributes to the development of competitive forms of business organization at micro, macro and meso levels. Thus, (Schumpeter, 1989) viewed the creation of large-scale productions as an element of the long-term strategy of development and growth of the industry, where negative structural changes in the industry caused by the emergence of monopoly associations could be compensated by positive features of the monopoly. The result of the implementation of the concept of spatial polarization in the context of globalization is that industrial-territorial complexes are becoming more effective and competitive in terms of their specialization, concentration, and production capacity subject to the resource potential of the territory.

The density of resources is an important indicator in the formation of a polarized space since it indicates the potential for development of individual territories. With this indicator, it is possible to suggest ways of improving the policy of stimulating regional growth. Therefore, we propose to determine the indicator of the density of fuel and energy resources in order to create a resource frame of the polarized energy space that could represent the poles of economic growth and development of industry-specific polarization. Given the aforementioned, the subject of this study will be the process of analyzing the concentration of fuel and energy resources in Ukrainian regions from the perspective of the spatial development of Ukraine's energy market in the context of globalization and integration into the Common European Energy Space, which will enable to confront the risks and threats to the functioning of the energy sector by combining national energy potentials and capacities, and which affects the sustainable industrial growth and safety of citizens' life.

Since recent research into the concentration of resources is not considered in the context of the influence of globalization, where competitive advantages are formed by increasing the number of economic entities, the relevance of the approach to the analysis and assessment of concentration of resources is based on the fact that the attraction centers do not always and everywhere form such areas that are able to embrace the periphery that could provide said areas (growth poles) with resources.

The existence of a fact of the density of resources has a positive impact on the development and growth of the economic system as a whole and the possibility of implementing the economic potential. When examining the energy potential of the region, we will consider it from the perspective of the fuel and energy fossil resources available in the regional economy and the possibilities of implementing the polarized energy space on their basis. The integrity of economic potential is determined through strong interrelation of economic entities on the basis of the framework of available resources that are used in economic activities or can be used in it in the future; human potential, which is implemented through accumulated specialized knowledge; and capital in material and financial form, in the form of investment resource, ensuring the process of production and accumulation of funds for its renewal. The interrelation between the processes of

concentration of production and concentration of capital becomes a prerequisite for increasing the number of economic entities, and, consequently, for structural changes of the markets.

**Critical literature review.** Nowadays, the problematics of research in the field of the formation of spatial polarization of the regional economy is poorly developed. Thus, (Ascani et al., 2012 [1]) addresses the issues of spatial inequality of the regions and suggests the concepts of spatial polarization for the development of regions. In our opinion, however, it would be advisable to focus more on the theories of resource cycles, because the natural resources potential can significantly affect the regional economic advancement. (Vertakovaa et al., 2015 [15]) developed methodological foundations for the formation of the region's "growth poles" and proposed a system of indicators characterizing the industry as propulsive and dominant subject to the factors that produce a collateral effect. The authors proposed regression models for estimating the region's propulsive economic sectors, which can substantially rebuild the economy subject to their objective data. However, the models proposed by the authors do not consider the natural-resource factor, which is an objective prerequisite for the dominant growth of the industry. The author (Lu et al., 2015 [11]) proposed "the spatial field model" in order to achieve a comprehensive assessment and multivariate analysis of regional inequality. The model is based on the theory of growth poles and the theory of energy space. Given the authors' insight, we believe that the model does not adequately unleash the natural-resource potential, namely, no factor of the region's resource potential has been singled out for an integrated assessment of the prospects for regional growth. However, (Ye et al., 2017 [13]) emphasizes the issue of inequality of the sectoral structure among the issues of sustainable development and proposes a theory of spatial growth of the region, which, in our opinion, could be supplemented with the theory of resource cycles. (Li et al., 2014 [6]) examines the inequality of the regions using the methodology of an integrated assessment of the regional development factors, although little attention is paid to natural-resource factors that have a significant impact on the development of the regions. In addition, the regional aspects of the spatial inequality were considered by (Wei, 2017 [14]). Moreover, (Ezcurra, 2013 [5]) studied the region's polarization level through the per capita GDP distribution analysis and found that the degree of polarization is reduced due to the fact that the regional development factors neither function in a consistent manner nor are they combined into a single force field. With this in mind, the author suggests using the concept of polarized space. The author (Sekula, 2001 [10]) proposes a model of polarized development that allows to adapt the region to the current globalization context. The above opinion is shared by (Duan et al., 2009 [4]), who states that in the era of economic globalization, the concept of economic polarization is an effective means of agglomeration of economic elements and sustenance of the region's economic life. The findings of the research are that the region should be expanded as a qualification zone that is capable of meeting the challenges of globalization. The authors (Benedek and Moldovan, 2015 [2]) tries to combine two powerful concepts of polarization and convergence by emphasizing their relational and multi-scalar nature. On this basis, the author proposes a multidimensional concept of socio-economic polarization, which includes the processes of convergence and divergence, growth and mobility in the economic and social dimensions. The macroeconomic research by (Robles, 2013 [8]) showed that the polarization of the Latin American region contributed to an economic growth of industries as foreign direct investment and cash transfer flows to the region increased and various competitive business environments were created in Brazilian and Mexican clusters.

Thus, most of the theoretical and methodological approaches in the studies of spatial polarization processes are focused on an integrated study of economic activities of organizations, search for ways to improve their efficiency, as well as on the study of capital movements subject to globalization of economy. Theoretically, however, the feasibility of analyzing the concentration of the density of resources from the perspective of even territorial development within the country and the macroeconomic development of the market in the context of globalization has not been fully justified. If the analysis of the concentration of resources at the micro level is obvious, then

the issue of concentration of the density of resources calls for an in-depth study from the perspective of the regions' interests. Taking this into account, the analysis of concentration of the density of resources requires further study since it has a direct bearing on the formation of the scope of energy potential of the territorial unit and its individual components, and becomes especially acute in the face of growing threats to Ukraine's energy security. The need to address the aforementioned issues and the lack of research into the energy potential determined the choice of this paper, as well as defined its goals and objectives. Information on the existing energy potential will contribute to the development of new forms of business organization in the region, namely, increase the investment opportunities of the region and transparency of activities of the local authorities in the execution of operations with fuel and energy resources. Since Ukrainian scientific literature rarely uses economic density indicators to assess the concentration of economic activity at the regional and local levels, the development of such scientific thought is necessary from the perspective of multiplying the scientific results.

**Objective, methodology and scientific novelty.** The goal of this paper is to apply approaches to analyzing the density of fuel and energy resources in Ukrainian regions for managerial decisions on the prospects for concentration of economic activity in the context of the formation of the polarized energy space.

The methodological basis of this study is formed by a set of general scientific and special techniques and methods, namely, scientific abstraction - for theoretical generalization of findings of research into the issues of formation of polarized space; comparative analysis - for finding out the components of the region's energy potential; quantitative and correlation analysis - for determining the influence of factors on the formation of Ukraine's energy potential. The statistical and information bases of the study are formed by scientific works of domestic and foreign scientists and practitioners, legislative and regulatory acts, the State Statistics Service of Ukraine (Industry. State Statistics Service of Ukraine, 2017) [12], the State Service of Geology and Mineral Resources of Ukraine (Mineral resources of Ukraine. Mineral resources. Mineral Resources, 2012, 2013, 2014, 2015, 2016, 2017) [7]. The calculation in Tons Fuel Oils Equivalent was carried out in accordance with (Decree No. 63. July 21, 2011. On approval of the methodology for calculating the energy intensity of a gross regional product.

The scientific novelty of the study consists in theoretical and methodological substantiation of the basis of formation of the polarized energy space on the principle of development of the existing energy potential. The findings contain scientific novelty in terms of the assessment of density of fuel and energy resources based on economic and mathematical modeling, which allows to make strategic decisions and predictive estimates for the development of the energy market.

**Empirical results.** The process of concentration of resources in the economic science is considered with the aim of assessing the conditions for the formation of corporate organizational structures to enhance the region's competitiveness. However, concentration is considered as a form of non-commercial organization of production, as a process of concentration of production in larger enterprises or structural subdivisions, which are implemented both through the construction of new large enterprises and through the reconstruction, expansion of existing enterprises or creation of production associations and economic complexes. Representing the regional economic system as a set of economic processes taking place in it, it is possible to estimate the direct influence of its structures on the peculiarities of business activity of economic entities.

At the meso level, the effectiveness of the economic system is determined by the following elements: 1) Socio-economic relations between economic entities under the order of ownership and the order of title not only to economic resources and their distribution, but also rights to economic results of activities. 2) Forms of organization of activities of economic entities. 3) Methods and mechanisms of state regulation. 4) Economic relations between economic entities.

The interest of business entities in improving efficiency is the underlying motive for accumulation and concentration of capital. Since this process is related to the size of the return



value or profit, which in turn depends on the size created by its economic resources, it becomes clear that the concentration means the concentration of an ever increasing share of capital and economic resources in hands of owners of large capitals. The concentration of the density of resources is considered not only from the economic perspective, but also from the sociological and ecological one. Therefore, the concentration of the density of resources shall be understood to mean the process of convergence of various objects or subjects around a single center; the ecological process of accumulation of resources in the areas with the most favorable living conditions; the concentration of production, capital in one place or in one hands, the dominant position of one or multiple businesses in the market; increase in capital due to accumulation and capitalization of surplus value and income.

Thus, it may be concluded that if earlier the theory of placement of productive forces was geared either to the private interests of manufacturers (western school) or to the state interests (sociology school), then modern theories reflect the patterns of placement of production capacities and concentration of capital in terms of discrepancies among individual, group (corporate, regional) and state interests. It is very problematic to find a compromise in the settlement of interests.

In the context of differentiation of regions, the process of concentration of resources within individual territories is characterized by fewer obvious positive moments. In addition, there are no mechanisms for eliminating the negative trends in the socio-economic development of the regions due to their differentiation, where individual regions concentrate resources, while others begin to overcome their deficit through state measures.

Considering the influence of concentration of the density of fuel and energy resources on the concentration of industry, one can be assured of their joint territorial "attachment".

Table 1 shows the stocks of all fuel and energy resources concentrated in Ukrainian regions. Thus, the calculations for the regression model represented as  $y=a*t+b$  with different parameters  $a$  and  $b$  for each region, and  $t$  standing for time, allowed to come up with the forecast for 2017.

When comparing regions with high concentration of the density of fuel and energy resources, it is seen that Dnipropetrovsk, Donetsk, Lugansk and Kharkiv regions are characterized by the highest concentration of the density of fuel and energy reserves. In general, the movement of stocks of fuel and energy resources (see Table 1 (1), (2)) indicates that Ukraine's average annual production of fuel and energy resources for own needs is 100 MTFOE.

Given the unchanged consumption rates of fuel and energy resources, the existing fuel and energy reserves can suffice for the needs of Ukraine for another 400 years. Taking this into account, the development of alternatives and renewables is becoming increasingly important and necessary.

This paper does not consider the full structure of Ukraine's energy potential, both recoverable and non-recoverable, but according to the State Statistics Service of Ukraine, it can be argued that the share of extractive industry is dominant in many Ukrainian regions. In addition to the extractive industry, the most important functional areas of Ukraine's energy market, which are suitable for the development of the polarized energy space, include oil and gas transportation and storage and power supply. However, each region has its own specific features, but the centers of capital attraction are still hierarchical ones, around which the service industry is activated.

Despite the fact that fuel and energy resources are considered as factors used for the production of economic goods, the most important assessment criterion is their natural scarcity. The concentration of resources and spatial polarization are two time interdependent processes. According to scientific insights, space boundaries are concentrated by specifically defined resource factors. However, the growth poles emerge at those space points for which currently the most favorable conditions arise given the totality of factors. As a rule, something new emerges in the environment that is free from system pressure and limitations, and that should be of a liberal nature. Spatial systemically important innovations and their inherent processes predetermine the overall configuration of space.



Table 1.

**Concentration of the density of fuel and energy resources by Ukrainian regions, TFOE (1)**

Indicators	Stocks of all fossil fuels in TFOE					Regression coefficients	Regression coefficients	FORECAST
	Years	2012	2013	2014	2017			2016
<b>Ukraine</b>	<b>40,715,913,004</b>	<b>40,635,268,335</b>	<b>40,533,472,144</b>	<b>40,202,884,638</b>	<b>40,311,560,845</b>	<b>-105,030,552</b>	<b>252,049,507,215</b>	<b>40,202,884,638</b>
Crimea	32,273,390	32,228,390	32,226,960	32,208,245	32,226,960	-9,429	51,226,538	32,208,245
Vinnitsia	4,658,100	4,495,800	4,495,800	4,430,880	4,495,800	-32,460	69,902,700	4,430,880
Volyn	106,781,960	99,891,880	97,217,680	93,166,280	97,426,920	-2,163,560	4,457,066,800	93,166,280
Dnipropetrovsk	10,334,192,399	10,317,529,669	10,293,325,579	10,206,396,940	10,220,922,839	-27,122,183	64,911,840,051	10,206,396,940
Donetsk	13,037,564,990	13,017,373,070	12,988,368,590	12,949,349,290	12,972,048,150	-16,680,604	46,594,127,558	12,949,349,290
Zhytomyr	12,166,248	11,249,148	10,646,748	9,958,308	10,624,248	-369,120	754,473,348	9,958,308
Transcarpathian	11,475,129	11,531,475	11,529,746	11,281,583	11,317,660	-51,700	115,561,088	11,281,583
Zaporizhyya	3,464,920	3,464,920	3,464,920	3,464,920	3,464,920	0	3,464,920	3,464,920
Ivano-Frankivsk	72,226,690	73,524,620	76,340,080	72,132,037	71,154,680	-330,181	738,107,114	72,132,037
Kyiv	24,520,500	25,348,200	23,201,400	22,459,080	23,201,400	-478,500	987,593,580	22,459,080
Kirovograd	195,132,223	195,237,939	195,237,939	195,280,225	195,237,939	21,143	152,634,391	195,280,225
Lugansk	12,881,321,770	12,878,606,940	12,852,359,450	12,827,863,193	12,844,320,750	-10,796,077	34,603,550,502	12,827,863,193
Lviv	1,077,009,260	1,079,527,650	1,067,860,590	1,060,477,842	1,070,593,310	-3,398,446	7,915,143,424	1,060,477,842
Mykolayiv	0	0	0	0	0	0	0	0
Odessa	7,916,670	7,916,670	7,916,670	7,916,670	7,916,670	0	7,916,670	7,916,670
Poltava	541,354,150	524,637,980	524,196,500	428,003,052	451,224,950	-24,251,788	49,343,859,448	428,003,052
Rivne	40,767,300	40,726,200	38,209,200	37,352,700	38,764,500	-657,420	1,363,368,840	37,352,700
Sumy	109,672,120	105,356,610	101,133,960	83,546,688	85,796,800	-5,493,332	11,163,597,332	83,546,688
Ternopil	9,938,700	8,892,300	8,779,800	8,304,990	8,779,800	-243,030	498,496,500	8,304,990
Kharkiv	2,048,407,245	2,037,544,625	2,037,890,685	1,998,010,086	2,008,004,815	-10,405,857	22,986,623,655	1,998,010,086
Kherson	743,100	743,100	743,100	743,100	743,100	0	743,100	743,100
Khmelnytskyi	7,720,200	7,720,200	7,138,800	6,785,940	7,061,100	-189,960	389,935,260	6,785,940
Cherkasy	27,400,160	25,858,919	25,854,737	25,225,811	25,843,214	-312,032	654,593,346	25,225,811
Chernivtsi	9,402,980	9,391,110	9,388,250	9,380,608	9,380,670	-3,828	17,101,684	9,380,608
Chernihiv	56,558,600	55,475,380	54,969,440	49,115,968	50,066,610	-1,597,982	3,272,245,662	49,115,968
Kyiv	0	0	0	0	0	0	0	0
Sevastopol	0	0	0	0	0	0	0	0

Reference: calculated by the author

*Table 1.*

**Concentration of the density of fuel and energy resources by Ukrainian regions,  
TFOE (2)**

Indicators	Density of stocks of all fossil fuels in TFOE per capita					Density of stocks of all fossil fuels in TFOE per 1 sq. km				
	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
<b>Ukraine</b>	<b>893.81</b>	<b>894.53</b>	<b>893.81</b>	<b>894.53</b>	<b>893.81</b>	<b>894.53</b>	<b>893.81</b>	<b>894.53</b>	<b>893.81</b>	<b>894.53</b>
Crimea	16.42	16.38	16.42	16.38	16.42	16.38	16.42	16.38	16.42	16.38
Vinnitsia	2.86	2.78	2.86	2.78	2.86	2.78	2.86	2.78	2.86	2.78
Volyn	102.68	95.93	102.68	95.93	102.68	95.93	102.68	95.93	102.68	95.93
Dnipropetrovsk	3,124.19	3,133.71	3,124.19	3,133.71	3,124.19	3,133.71	3,124.19	3,133.71	3,124.19	3,133.71
Donetsk	2,979.71	2,996.71	2,979.71	2,996.71	2,979.71	2,996.71	2,979.71	2,996.71	2,979.71	2,996.71
Zhytomyr	9.59	8.91	9.59	8.91	9.59	8.91	9.59	8.91	9.59	8.91
Transcarpathian	9.15	9.17	9.15	9.17	9.15	9.17	9.15	9.17	9.15	9.17
Zaporizhzhya	1.94	1.95	1.94	1.95	1.94	1.95	1.94	1.95	1.94	1.95
Ivano-Frankivsk	52.27	53.20	52.27	53.20	52.27	53.20	52.27	53.20	52.27	53.20
Kyiv	14.24	14.69	14.24	14.69	14.24	14.69	14.24	14.69	14.24	14.69
Kirovograd	196.08	197.70	196.08	197.70	196.08	197.70	196.08	197.70	196.08	197.70
Lugansk	5,708.41	5,750.73	5,708.41	5,750.73	5,708.41	5,750.73	5,708.41	5,750.73	5,708.41	5,750.73
Lviv	423.90	425.27	423.90	425.27	423.90	425.27	423.90	425.27	423.90	425.27
Mykolayiv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Odessa	3.31	3.30	3.31	3.30	3.31	3.30	3.31	3.30	3.31	3.30
Poltava	368.81	359.78	368.81	359.78	368.81	359.78	368.81	359.78	368.81	359.78
Rivne	35.24	35.14	35.24	35.14	35.24	35.14	35.24	35.14	35.24	35.14
Sumy	95.93	92.99	95.93	92.99	95.93	92.99	95.93	92.99	95.93	92.99
Ternopil	9.23	8.28	9.23	8.28	9.23	8.28	9.23	8.28	9.23	8.28
Kharkiv	746.39	744.38	746.39	744.38	746.39	744.38	746.39	744.38	746.39	744.38
Kherson	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Khmelnitskyi	5.88	5.91	5.88	5.91	5.88	5.91	5.88	5.91	5.88	5.91
Cherkasy	21.59	20.52	21.59	20.52	21.59	20.52	21.59	20.52	21.59	20.52
Chernivtsi	10.37	10.34	10.37	10.34	10.37	10.34	10.37	10.34	10.37	10.34
Chernihiv	52.48	52.00	52.48	52.00	52.48	52.00	52.48	52.00	52.48	52.00
Kyiv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sevastopol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Reference: calculated by the author*

The links between the individual elements of space are the most potent and sustainable in terms of propagation of the breakthrough wave. At the macro level, this is indeed a completely filled space in the form of its specialization as part of the territorial division of labor. At the meso and micro levels, however, "all" this breaks up into a mosaic of highly differentiated spatial fragments, many of which remain an "innovative desert". Such "empty spaces" are the last to be filled, the more so with very little innovation or nothing at all. Having lost the competitive advantages due to obsolete fixed assets and technologies, the issue of development of peripheral regions remains open.

The developed regression model for the formation of Ukraine's energy potential, which has fuel and energy resources as its factors, determines the share of the energy potential. Thus, with reference to the method of correlation-regression analysis, the multiple regression model obtained the following form:

$$Y=2.74848E+13-151813.72*X_1+1908548.43*X_2-777357.76*X_3-9368902.17*X_4-3179.27*X_5+2645.44*X_6$$

Where y is the energy potential; X<sub>1</sub> is gas, million cubic meters; X<sub>2</sub> is gas condensate, thousand tons; X<sub>3</sub> is oil, thousand tons; X<sub>4</sub> is brown coal, thousand tons; X<sub>5</sub> is hard coal, thousand tons; X<sub>6</sub> is peat, thousand tons.

The next step in this model eliminates the parameters causing high multicollinearity. As a result of calculations, a multi-resource model of the following type is obtained:

$$y=2307174906.07+1347.81*X_1+1426.78*X_2+689.28*X_3+345.29*X_4$$

Where  $y$  is the energy potential;  $X_1$  is gas, million cubic meters;  $X_2$  is gas condensate, thousand tons;  $X_3$  is hard coal, thousand tons;  $X_4$  is peat, thousand tons.

The developed model of interrelation of energy resources shows that the factors of gas and hard coal are the most significant components of Ukraine's energy potential.

When considering the elasticity of impact of an individual factor, the gas factor is the most important since an increase in the gas production level by 1% increases the energy potential by 1.19%. At the same time, one of the largest volatilities of impact is observed, indicating a significant positive momentum subject to a possible increase in production of hard coal. The loading of this factor in the energy potential growth model is also very significant and is more than 39%. Therefore, the key to boosting the energy potential is to increase the level of exploration and production of fuel and energy resources (see Table 2).

Table 2

### Coefficients for assessing the impact of factors on the region's energy potential

Indicator	Value	Economic interpretation	
Partial coefficients of elasticity		Used for economic interpretation of nonlinear links, shows the average percentage of change in the size of the region's energy potential subject to the increase in factor by 1% and a fixed state of other factors.	
$X_1$	$E_{i1}=0.16$		
$X_2$	$E_{i2}=0.12$		
$X_3$	$E_{i3}=0.00$		
$X_4$	$E_{i4}=0.05$		
$X_5$	$E_{i5}=0.12$		
$X_6$	$E_{i6}=0.09$		
Standardized regression coefficients or beta coefficients		Used to eliminate differences in measurement and the degree of fluctuation of factors, shows the part of value of the mean-square deviation the mean value of the level of Ukraine's energy potential changes to where the respective independent variable increases by one mean-square deviation with the fixed state of other factors.	
$X_1$	$\beta_1=0.70$		
$X_2$	$\beta_2=0.34$		
$X_3$	$\beta_3=0.05$		
$X_4$	$\beta_4=0.02$		
$X_5$	$\beta_5=0.22$		
$X_6$	$\beta_6=0.35$		
Delta coefficients		Shows part of the effect of each factor in the overall effect of the factors included in the regression equation.	
Factor loading, %			
$X_1$	$\Delta_1=0.395$		39.6
$X_2$	$\Delta_2=0.014$		20.5
$X_3$	$\Delta_3=0.185$		10.6
$X_4$	$\Delta_4=0.374$		9.4
$X_5$	$\Delta_5=0.129$		20.6
$X_6$	$\Delta_6=0.324$	18.8	

Reference: calculated by the author

The developed multifactor model for the formation of Ukraine's energy potential enables to assess the mutual influence of resource factors. It shows a direct interrelation between the region's capacity and the region's potential and points to the need to expand the sources of financial security for the development of the region's resource potential. This model can serve as the basis for making managerial decisions on the calculation of the level of energy security of Ukrainian regions in terms of availability of own fuel and energy resources.

**Conclusion.** Despite the serious structural changes in the formation of the added value of Ukrainian regions and the increase in the share of services, the development of the postindustrial economy makes the production potential one of the significant factors of regional

development and economic growth since the complex of extracting and processing industries remains dominant in the structure of Ukraine's industry, followed by individual service industries. The concentration of fuel and energy resources forms the growth poles, with the analysis of their density indicator giving impetus to the spatial development of the combined structures, which is undoubtedly a competitive edge in the context of globalization. At the same time, the importance of the periphery is also emphasized since the outflow of capital, the aging of the production sector reveal social problems. With the growth potential, the periphery in the common energy space can demonstrate intensive development together with growing and flourishing centers. The polarized development of Ukraine's energy market can help reduce energy threats to supplies of fuel and energy resources and contribute to the development of regions with high concentration of own energy potential, which to some extent can smooth out or eliminate spatial disproportions. This undoubtedly depends upon the included strategic initiatives for regional development, the state distribution policy and specific actions of the management of large economic entities aimed at integrating small and medium-sized enterprises into the whole new forms of cooperation in the sphere of their interests that are territorially located in the optimal space. In addition, effective measures are required to support the development of small territories, small business and maintenance of its infrastructure. This is subject to both the expansion of organizational and legal forms that are optimal for small businesses and the development of microfinance organizations with investment orientation.

In view of the foregoing, we consider it possible to use the approach to analyzing the density of fuel and energy resources in the energy market monitoring methods. To this end, the list of statistical studies should include the systematic collection of information on the concentration and density of fuel and energy resources for all regions of Ukraine, which will allow us to continuously analyze trends and changes. With this indicator, it is possible to suggest ways of improving the policy of stimulating regional growth.

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**M.J. Kramchaninova, S.E. Sevastyanov**

## **WAYS TO INCREASE THE COMPETITIVENESS OF ENTERPRISES IN THE METALLURGICAL INDUSTRY OF UKRAINE**

*The article analyzes the current state of metallurgical industry in Ukraine. The importance of this branch for the further development of the Ukrainian economy is determined. The main problems of the metallurgical industry from the standpoint of different authors are considered. A number of factors that negatively influence the development of the metallurgical industry are studied. The main competitive advantages of domestic metallurgical enterprises in the world markets are revealed. The possibilities of further improvement of the activity of enterprises of the industry are considered. The problems of modernization of the metallurgical industry of Ukraine are analyzed in order to increase the competitiveness of metal products on the domestic and foreign commodity markets. Modern tendencies of further globalization are characterized by the growth of competition in world markets. Competitiveness of any enterprise is primarily determined by the innovative nature of its development. Metallurgy is one of the key industries in the country's economy. It is precisely this sector that provides industrial development in general. It is determined that energy intensity is one of the main factors that reduces the competitiveness of domestic metal products, because the energy efficiency issue is now particularly acute in our country. High levels of electricity use are observed in steelmaking. Reducing energy intensity can be achieved through the use of secondary energy resources of metallurgical production - gaseous waste coke, blast furnace and converter production. In conditions of unfavorable dynamics of the innovative level of production of domestic metallurgical enterprises, their export orientation as the main factor affecting the main financial and production indicators are prices on the world market for metal products. With the help of various methods of conducting the analysis, it can be said that exactly world prices have a significant impact on the main performance indicators of enterprises. At low*



prices in the world market, domestic enterprises have some advantages over the main competitors. Low productivity in comparison with other countries also reduces the competitiveness of metallurgical enterprises. One of the most important problems of domestic metallurgical enterprises is the high level of deterioration of the main production assets. The main investments were directed at the completion of the construction of new facilities, reconstruction and modernization of existing capacities. The priorities of modernization connected with introduction of high-tech industries, reduction of energy intensity of production are investigated.

**Keywords:** metallurgical branch, competitiveness, enterprise, converter shop, investments, factor.

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**O. Chenusha**

### **DEVIATION ANALYSIS OF THE ECONOMIC SECURITY SYSTEM OF UKRAINIAN OIL REFINING ENTERPRISES**

*Over the last 10 years the state of national oil products market was characterized by structural changes in the direction of import increasing, reducing of production volumes, increasing of national oil products markets dependence from foreign producers and, as a result, exacerbating threats to economic security for oil refining enterprises.*

*Considering competence as a subjective possibility of an employee of a certain qualification to perform work of the corresponding complexity level, in the research it was expedient to estimate qualitative and quantitative indicators of the influential determinants of the micro level of the oil refining enterprises' economic security as a result of such management. In this article it was identified five groups of key determinants for assessing the economic safety of oil refining enterprise in the context of a competent approach. It was conducted the deviation analysis of the economic safety system of oil refining enterprises. Based on the calculation of the economic security complex indicator, it was determined the level of researched oil refining enterprises as pre-crisis and critical. The composition of the key determinants of the oil refining enterprise was based on the development of threshold values, which was carried out taking into account global trends and average values of indicators for the oil industry. The analysis and evaluation of the EB level was carried out by the following companies: Kremenchug Oil Refinery (PJSC "Ukratnafta"); Shebelinsky Refinery (PJSC "Ukrgezvydobuvannya"); Odessa Oil Refinery (PJSC "Lukoil-Odesa Refinery").*

*It was no group of key determinants in the Kremenchug and Shebelinsky refineries is in line with the stable state of the oil refining enterprises economic security under study. Complex index of Odessa Oil Refinery economic security had no threats until 2013. The economic security evaluation of oil refining enterprises in conditions of unstable market environment, it was possible to identify the main problems posing external threats for its provision.*

*The result of research is the improvement of scientific and methodological provisions about the evaluation of the economic security level of oil refining enterprises on the principles of competence management, which involves the application of developed criteria for the deviation analysis of the integrated economic security indicator, and, unlike the existing ones, takes into account the integral coefficient of financial security as a system tool for forecasting bankruptcy of the enterprise.*

**Keywords:** *deviation analysis, determinants, economic security, competence, oil refining enterprises.*

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## ACTUAL SCIENTIFIC AND METHODOLOGICAL APPROACHES TO THE NATIONAL FOREIGN EXCHANGE SECURITY ASSESSMENT

*The approaches to the interpretation of the concept of foreign exchange security are investigated in the article; the methods of determining the level of country's foreign exchange security are systematized, taking into account the nature and form of the final results of the assessment; these methods include: first, approaches that provide an assessment of the level of foreign exchange security based on the analysis of indicators of the national foreign exchange market; second, approaches that provide a comprehensive assessment of country's foreign exchange security level. The indicators of the foreign exchange market that can serve as indicators of foreign exchange security are considered.*

*Among the scientific and methodological approaches which allow to obtain a comprehensive assessment of the foreign exchange security level, the following approaches are highlighted: 1) methods providing a comprehensive picture of the foreign exchange security state and the prospects for the development of the situation in the foreign exchange sphere through drafting analytical descriptions, model construction, and the formation of scenarios; 2) methods based on the calculation of the integral index of foreign exchange security. The methodological tools of the complex assessment of the foreign exchange security level are explored (methods of multidimensional statistical analysis, method of analysis and processing of scenarios, game methods, methods of pattern recognition, methods of the indistinct systems theory).*

*It is determined that in Ukraine the calculation of the integral index of foreign exchange security is carried out according to the official method of determining the level of economic security, which is constantly being improved. The official method of 2013 has the following advantages compared to the method, accepted in 2007: it includes an expanded list of foreign exchange security indicators; it provides specific recommendations for calculating security indicators; it contains data on the sources of incoming information on the state of the foreign exchange sector; it clearly distinguishes indicators for stimulators and destimulators; it provides a more understandable algorithm for normalization of foreign exchange security indicators.*

*Alongside it, this method does not consider the possibility of using alternative indexes to assess the foreign exchange security indicators. In particular, the level of international reserves sufficiency, which the official method estimates by means of the gross international reserves expressed in the months of imports, can be estimated using alternative indicators such as: the ratio of the monetary base coverage by the gross national reserves; the ratio of money supply (M2) coverage by the gross international reserves; the ratio of the state short-term external debt coverage by the gross international reserves. In addition, the calculation of the difference between the forward and official UAH exchange rate is complicated by the limited access to the statistics on the forward exchange rate of UAH to the US dollar. Forward contracts NDF UAH/USD can be concluded for different terms (1, 3, 6, 12, 18 months), however, the official method does not specify, the rate of which contracts should be used in the calculations.*

*The ways to improve the official method for calculating the foreign exchange security index are offered. First, one can exclude the difference between the forward and official UAH rate from the calculations of the foreign exchange security index and make the corresponding proportional increase in the weighting factors of other indicators. Second, one can use the difference between interest rates on deposits in USD and in UAH as an alternative indicator. The possibility and advisability of using the interest differential to assess the level of foreign exchange security is proved and the values of the alternative indicator of foreign exchange*



*security for normalization are presented.*

**Key words:** *national foreign exchange security, foreign exchange market, integral index of foreign exchange security, exchange rate of the national currency, international reserves sufficiency, dollarization of the economy.*

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**Yu.V. Makogon**

### **DONETSK REGION IN THE CONDITIONS OF POLITICAL CONFRONTATION: ECONOMIC ASPECT**

*The article is devoted to the study of the state of economic and social development of the Donetsk region in the context of political confrontation. The analysis of the activities of industry, construction, transport, small and medium businesses, etc., as well as foreign economic relations and the provision of services in recent years. Conclusions and directions for solving problems at this stage of development of the regional economy are given.*

*During 2017, the implementation of the tasks and activities of the Program of Economic and Social Development of the Donetsk region for 2017 was ensured. The tasks and activities of the Program were carried out in four directions, which are coordinated with the strategic priorities of the region:*

*- assistance in stabilization of the economic situation in the region;*

- promoting social development and justice;
- development of an environment that is safe for human life;
- improving the efficiency of socio-economic development of territories.

*In fact, during this period, 390 events worth 6200.0 million UAH were implemented from all sources of financing. But, at the same time, the total volume of industrial production in comparable prices decreased by 12.4% compared with 2016 (the Program provides an increase of 4.0%).*

*As the analysis shows, production volumes decreased in many types of activities. The decline occurred in the production and distribution of electricity - by 29.9%, production of coke, refined products - by 22.1%, mining and quarrying - by 15.1%, metallurgy - by 7.9%, production of chemicals and chemical products - by 7.6%. At the same time, the volume of production grew in machine building - by 6.5%, light industry - by 23.7%*

*Thus, in relation to the implementation of the Program and the general improvement of the state of socio-economic development of the region under the sustainable development scenario, it is necessary to establish a peaceful life and gradually move to a political process of normalizing the life of the region and the whole country. Moreover, it is not possible under any circumstances to allow de-industrialization of Donbass and Ukraine in general, but rather to develop neo-industrialization at a new level of technologies, which are quite a lot at the level of scientific developments and, to a certain extent, already implemented in the real economy, such as, the FEZ, TPD, Euroregions.*

*Keywords: socio-economic development, innovation processes, foreign economic activity, attracting foreign investment.*

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**N.Balabanova, O.Bondarenko**

#### **EVALUATION OF THE IMPACT OF DIRECT FOREIGN INVESTMENT ON ECONOMIC DEVELOPMENT OF THE COUNTRY**

*The article analyzes the main tendencies of direct foreign investment in Ukraine, their quantitative parameters are determined. It is determined that at the present stage there is a decrease in the intensity of attraction of direct foreign investments, due to a number of factors of economic and political nature.*

*The analysis of the geographical structure showed that the first five countries-investors account for more than half of the total direct investment, namely: Cyprus (27.1%), the Netherlands (15.8%), the Russian Federation (11.5%), Great Britain (5.4%) and Virgin Islands (4.5%).*

*The study of sectoral priorities for investing in the national economy has shown that the representatives of the private sector of foreign countries are attracted mainly by highly profitable sectors, in particular, the financial sector and industry, which currently account for about half of the accumulated foreign investment in the country's economy. Moreover, with each passing year, there is a growing differentiation in attracting foreign investment in the area of their investments.*

*The investment attractiveness of Ukrainian industries based on the modified FDI inflow index is estimated, which is calculated as the ratio of the share of the recipient sector in the total volume of foreign investment in the national economy to its share of the industry in the creation of the gross domestic product (GDP), assuming that the industry (or type of economic activities) is relatively attractive and priority if the share of attracted foreign investments equals or exceeds the share of GDP created in this area.*

*The obtained results of the calculated indices of the relative investment attractiveness of the industry confirmed the conclusion that the most intensive investment processes are observed in highly profitable areas, which do not require a significant investment of capital in providing fast returns. Thus, the most attractive for foreign investors is the sphere of financial intermediation, namely banking and insurance activities. The average value of the index of relative attractiveness over 12 years is 5,47.*

*In order to determine the dependence of economic growth indicators on the sectoral distribution of foreign direct investment, a pair correlation-regression analysis was performed. As a factor, the indicator of investment growth in the sectors that are most attractive to foreign investors is selected (%). Dependent variables were selected: the country's GDP growth rate (%), the country's export growth rate (%), the country's import growth rate (%), and the country's unemployment rate (%).*

*According to the results of economic-mathematical modeling it is determined that the greatest influence of the growth of FDI is on the indicators of employment level in the country. At the same time, the influence of foreign investment on the indicator of the GDP growth rate of the country is almost absent, which is explained by the accumulation of investments in high-income sectors, which do not make a significant impact on the modernization of production*

*processes and, consequently, on the significant growth of gross production.*

*Key words: foreign direct investment, index of relative attractiveness of industry, economic development, sectoral structure of FDI, FDI impact on economic development.*

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## WORLD ECONOMY, THE ECONOMY OF FOREIGN COUNTRIES

O. Bezzubchenko, K. Bodrova

### PECULIARITIES OF THE PRESENT STATE OF INTERNATIONAL TRADE DEVELOPMENT

*International trade occupies a leading place in the system of international economic relations. The specificity of the current stage of international trade is particularly evident in the analysis of its long-term trends, forms and methods.*

*International trade has been an important driver of economic growth for many countries over the past quarter century. According to the world trade organization (WTO) and UNCTAD, international trade, as measured by exports at current prices, rose from \$ 2376.3 billion. USA in 1980 to 22757,3 billion. USA in 2017. According to the International monetary Fund (IMF), the world's GDP increased 7 times over the corresponding period, from \$ 1,1005.6 billion. USA (1980) up to \$ 80439.2 billion. USA (2017)*

*The processes taking place in the economies of developed countries have a significant impact on the economic growth of developing countries. It can be noted that trade affects the level of development of countries in different ways. The dynamics of export activity in different countries in terms of economic development is a clear proof of this. Moreover, the direction of impact may differ significantly if we take a more detailed systematization of States for analysis - for example, with geographical regions. For some regions with a high degree of integration and strong links with external markets, this impact is very significant.*

*To identify the regions with the greatest dependence on foreign economic mechanisms of influence, as well as factors that affect a particular country, the following analysis is carried out: the main geographical and economic regions that have a high degree of dependence on each other are identified; the share of exports in the GDP of the regions is determined and its dynamics is studied.*

*Calculations have shown that the share of exports in GDP for most regions is higher than 20%. And for the countries of South-East Asia, this figure is even more than 50%. The analysis of regions and integration associations according to the degree of dependence on international trade showed weak dependence in South America and OIL, moderate dependence – in the region of South Asia and high for the regions of the Middle East, East Asia, South-East Asia and the EU-28. Analysis of the impact of international trade on the economic development of the world, shows that the same factors have different effects on the development of the country's economy, based on the fact, firstly, the basic degree of development it has, secondly, the degree of integration in the country, and thirdly in what region it is located. It should also be emphasized that the mechanisms of influence on international trade are specific to each region.*

*Key words: international trade, GDP, integration, level of economic development.*

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**O. Zakharova, K. Sukhova**

## **THE EVALUATION OF THE COUNTRIES TRANSPORT SYSTEMS DEVELOPMENT AS A FACTOR OF ECONOMIC GROWTH**

*The methodical approach to assessing the transport systems development level based on the constructing integrated indicators is improved in the article under way. It is proposed to include in the integrated index the following indicators: indicators of transport work (freight turnover, passenger turnover, transport capacity), indicators of the role of transport in the economic system (the share of transport in the formation of gross value added, GDP, employment, in trade in services), indicators of the infrastructure development as a material and technical basis for the transport system functioning (length and density of roads, railroad, the number of transport vehicles, seaports and airports), environmental indicators that characterize the impact of transport on the environment.*

*A comparative analysis of the EU and Ukraine transport systems development level is carried out. The calculations made have shown that in the ranking of countries with the highest national transport system development level in the 2015, the top ten leaders include Germany (0.612), the Netherlands (0.399), France (0.381), Great Britain (0.381), Luxembourg (0.361), Poland (0.358), Denmark (0.354), Italy (0.343) Lithuania (0.342) and Czech Republic (0.340). Ukraine is ranked 12th after Estonia with an integrated index of 0.336. Ukraine ranks 12th at the expense of the highest figures for the freight turnover of pipelines and rail transport, large volumes of passenger traffic in the railways, high share of transport in GDP and exports. The dynamics of Ukraine's transport system the decrease development on the basis of the integrated index demonstrates the decreasing trend, for the period of 2011-2015 it has decreased by 6%, while in 2011 the Ukraine's transport system among the EU countries took the 7th place, in 2014 - the 14th place, in 2015 - 12th place.*

*Using the statistical methods for identifying interconnections, the correlation analysis of the influence of the transport component on the country's economic growth was carried out. It makes possible to systematize the EU countries into groups based on the nature of the interconnections identified and the level of transport system development.*

*The medium and high correlation between economic growth rates and the dynamics of the transport system development integrated index was identified for the 17 EU countries and*

Ukraine.

*Lithuania and Latvia have a close but inverse correlation between economic growth rates and transport system development level. There is no significant correlation between economic growth and the transport system development of Germany, whose share in the EU's GDP is the largest and makes 20%, country has the most developed transport system. The other large EU economies such as France (the share of the EU's GDP is 15.2%), Great Britain (15.6%), Italy (11.7%), Spain (7.5%). The Netherlands (4.7%) have a very high correlation between economic growth and the transport systems development level. As Ukraine has a high level of transport system development, which, according to the calculations made, correlates with the rates of economic growth, it is expedient to study the experience of countries with have the more developed transport system in terms of its implementation in programs for transport system development and modernization.*

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**O.V. Bulatova, V.G. Panchenko**

## **NEO-PROTECTIONISM AS A CHALLENGE TO THE LIBERAL REGULATION**

*The empiric analysis is used to demonstrate that at the current phase of the development of international economic relations the arsenal of developed countries is dominated by instruments of hidden protectionism, implemented mainly by methods of internal economic policy. The economic basis of hidden protectionism is related with internal taxes and duties, public procurement, requirements to use local components in manufacturing of finished products. The disguised or semi-open character of neo-protectionism does not fall under classical manifestations of protectionism, fixed in WTO documents. Neo-protectionism, being an instrument for gaining a segment of the global market and protecting national economic interests, involves modification of economic policy instruments towards the strengthening of its protective forms, and synthesizes both classical and novel forms of protectionism.*

*Key words: protectionism, neo-protectionism, new normal of global economy, economic growth.*

Economic neo-dependence of countries, being an objective reality in the current spiral of globalization, signals a radically new phase in the development of international economic relations, involving transformations of the destructive symbiosis dependence into the balanced synergetic interdependence of countries, which is seen as a process of building up a complex meta-system of mutual relations in space and time with its specific features: the ramified structure having components with a wide spectrum of diverging relations, subordinated at global and regional level; a set of economic controversies that are implicit in global economic entities and constitute the objective basis for emerging new forms of cross-country interactions in the conditions of globalization; rise and spread of new forms of economic interdependences, immanent in the diffusion wave of globalization. Transformation of the dependence-based relations has had predictable effects for the rise of neo-protectionism as an instrument for gaining a global market segment and protecting national economic interests [16, p.31].

In the globalization process, protectionism has transformed from the trade policy based on tariff restrictions and later on non-tariff protection instruments into a sophisticated and comprehensive policy mechanism for enhancing the competitiveness of a national economy in the globalization process, which we call neo-protectionism. The articles' objective is to explore the immanent features of protectionism embedded in economic policies of both developed countries and the ones that have to develop in the conditions of the rising "new normal" in the global economy.

Neo-dependence demonstrates a novel paradox, when no country is capable of taking on the responsibility for securing public welfare required for orderly operation and preservation of the global economy and effective monitoring of international institutes that are deemed responsible for maintaining openness of the trade system, sustaining stability of the monetary system and proper operation of global financial markets [17, p.174].

G. Kolodko [10] rightly emphasizes that at the beginning of 21 century the global



economy entered a complex and turbulent period of the evolution. It was the recent past, namely the earliest years of the new century, that marked the aggravating contradictions between the cosmopolitanism of capital and the sovereignty of a national state as a form for social organization, between the processes of globalization, based on liberalization of various forms of social and economic dialogue, their harmonization and unification, and the political power still concentrated by the state. The balance between traditional state institutes charged with decision making and new centers controlling the resources and economic processes required for their operation has been broken. But the need for supranational regulation is still ignored by the egoism of national states.

Resource and technological, economic and geographical, socio-cultural, institutional and economic policy factors recombine the existing and potential competitive advantages of countries, thus visualizing the need in rethinking the role of the state in stimulation of the economic activity and reconfiguration of the existing institutional superstructure. According to H. Kolodko [10], globalization will inevitably lead to re-institutionalization of the global economy: building up new and globally rational principles of operation or a new pragmatic economic order. The changed weight of each of the five factors in determining the dominants of economic growth depending on the countries' grouping as developed or developing ones, with their content components revised, constitute the immanent feature of "new normal".

The contemporary economics is inseparable from a phenomenon such as institutional vacuum. Institutional vacuum refers to absence of actors and necessary "rules of the game" in given spatial and time coordinates, which would secure progressive development of the social system. Institutional vacuum is often equalized with institutional chaos as a coexistence of old and new rules and business norms in transitional economies, which does not seem to be reasonably right.

As argued by N. Roubini [13], we are no longer live in the world of "Big 20", although the group of 20 still continues to position themselves as a central actor in the regulation of international economic relations. This transformation occurred when the last financial crisis declined and incompatible political and economic values of countries were revealed. Today, the U.S. is lacking the capacities to remain the main producer of the global social benefits. Europe is being busy rescuing the eurozone. Japan is being plunged in its domestic political and economic problems. Today, these countries have neither time nor resources nor internal political capital to become new international centers of force. China, too, is not inclined at take on the burden of responsibility of the global leader. Also, international challenges of today cannot be faced without direct participation of developing countries such as Brazil or India, which, being busy with domestic development problems, are not eager to seek for solutions of vital global problems.

Today, as rightly emphasized by N. Roubini, we live in the world of "Big Zero", in which neither countries nor groups of countries have political and economic levers or will to solve significant international problems. It can result in the aggravating international conflicts in all-important issues like macroeconomic coordination at global level, reform of financial regulation, trade policy or climate change. The concept of "new normal" was proposed by Mohamed A. El-Erian [3], one of the directors of an investment company, in 2009.

The signs of "new normal" will occur as a consequence of crisis.

1) The explicitly slower rates of economic growth compared with the previous decade. In fact, "new reality" is being formed as a result of the global crisis, encompassing not only the economy, but all the essential walks of life of the contemporary society. The leading countries of the world are entering a new trajectory of growth. It involves rates of growth, factors of growth, and quality of growth. Many criteria used to measure the development dynamics at late 20 and early 21 century call for revisions. New technologies and disseminated innovations, including ones implemented by small companies, have radical and efficient effects



across markets and industries. This determines the market behavior in a new manner, including approaches to implementation of large long-term projects. In the contemporary world industry-specific criteria like “progressiveness” or “backwardness” are abandoned: the innovation capacities are available across industries. This raises the importance of issues associated with search for optimal mechanisms for enhancing diversification and innovativeness at industry level, in order to adapt the existing economic structure to the challenges of the time.

2) High rates of unemployment and ageing in OECD countries and rapidly growing developing countries.

Demographic gaps between OECD and non-OECD countries are likely to have long-term effects for key macroeconomic variables. This tendency forms but the vicious circle of dependence of new jobs creation on the total demand that is dependent on the attempts of the global economy to eliminate the recession-specific drawbacks that obviously reflect structural deficiencies of national economies. The problem of low labor productivity in the era of technological and innovation advancements in the industry deforms the perception of a human as the carrier of qualifications and skills. The global financial crisis has affected the market performance in EU countries, where the unemployment rate, being 7.1% in 2008, rapidly grew to as high as 9% in 2009 and 9.6% in 2010. The unemployment rate, being 10.1% in I quarter of 2012, grew up to 10.7% in IV quarter of this year. The unemployment rate, growing in 2013, declined in IV quarter 2014 to 10%. On the other hand, unemployment data for Greece and Spain, which markets were hit much harder from the global crisis, are much higher compared with other EU countries. Actually, the unemployment rate in Greece was 21.9% in I quarter 2012 and 28% in III quarter 2013. In Spain, it was about 27% in I quarter 2013 [12].

The boosting unemployment and the loss of workforce due to the economic crisis resulted in the parallel growth of competition for limited government resources and tensions between social groups. This situation incited protest moods of the indigenous populations against citizens of non-EU countries, the latter being seen as potential competitions at the labor market. The risk of displacement of the indigenous population by immigrants caused reductions in salaries and wages in a number of industries, sometimes being a trigger for nationalistic movements. These fears obviously led to protests against immigrants.

Thus, in Great Britain, native factory workers protested in February 2009 against Portugal and Italian ones with slogans like “British jobs for British workers”. The even stronger demand of trade unions that foreign workers must not be allowed to work in Great Britain is an indicator of the growing protectionist tendencies. Like in Great Britain, Irish came out to another massive protest against Polish workers. Once Poland was admitted to EU in 2004, nearly 300 thousand Polish workers set out to Ireland, where the construction industry was creating new jobs. However, due to the crisis of 2008, thousands of Polish workers were forced to return to the home country, which caused collapse of the Irish real estate market. Yet, the Irish came out to strike against the Polish who remained in Ireland and, therefore, competed with domestic workers in time the crisis.

The problem of unemployment, which rate grew in EU countries due to the crisis, caused fears of the future, being the most important reason for the expansion of protectionist measures, such as hiring of only indigenous citizens. Also, it became harder to implement policies aiming to protect domestic workforce independently from external markets.

3) Inclusive development as an ideological imperative for economic growth of countries. Principles of trade regulation were in focus of discussions as globalization processes developed, their reason being, inter alia, the impact of trade globalization on labor markets of the countries affected by socio-economic consequences of demographic transition. Use of trade protection instruments became increasingly important as the ideological meaning of principles of economic growth was rethought as the goal of policy implementation. The inclusive dominant overshadowed extensive principles of economic operation and prioritized the search

for optimal ways of coexistence of national and global interests [15, p.68]. The announced change in the emphasis by redirecting it to a human not only predictably excused the use of anti-cyclic stimulating measures of macroeconomic policy, but called for search for ways of structural transformations in developing countries' economies and revisions of economic policies pursued by developed countries.

4) Unbalancing of the global trade or, in the G20 wording, "the Global Trade Disorder". According to scientists, its signs are "distortions or warping of trade practices". As shown by the analysis of XVII report "Conditions of the global trade", the "distortions" in trade are caused mostly by fiscal stimuli for exports of goods that are competitive at markets of third countries, and they have stronger effects for trade volumes than import restrictions. Therefore, fiscal instruments, according to the document, have become the priority ones in protecting domestic producers. The most widespread forms of trade distortion over the latest seven years have been measures against dumping and subsidized imports, measures to restrict imports in case of their rapid growth, and providing subsidies and refinancing.

5) Aggravation of debt problems. This peculiarity of "new morn" originates in the unemployment and ageing problem. It was demonstrated that the country's capability to pay back its debts declines in parallel with aging of its population. Because the period of gaining potential benefits from access to international markets becomes shorter, elder people will prefer the solution in favor of default on sovereign debt. Yet, pensioners are interested in public welfare and social support, which amounts may be reduced due to paying back the external debt. Creditors, therefore, will prefer to reduce the amount of new loans to a country with ageing population.

6) Considerable market uncertainty and further refocus of the global economic activity towards the countries with emerging markets [8]. The long process of globalization, the deepening international integration of economic markets and the blurring trade borders have forced countries to protect the markets that were becoming the increasingly more liberal. Although free trade had existed before the liberalization process started, it became especially important with the beginning of the financial liberalization process in 1970s. As a central objective of many countries in our time is to create favorable conditions for eliminating any potential barrier to international trade, the number of bilateral and regional agreements on free trade is increasing. However, in times of economic crises, when GDP declines and unemployment grows, even the strongest advocates of free trade would offer a number of arguments in favor of protectionist policies, especially in the developing economies that may not be ready to the global competition. The problem of choice between free trade and protectionism is being put forward once and again, becoming an issue in the agendas of G20 summits and discussions of domestic economic policies in both developed and developing countries.

There are three visions of protectionism in the post-crisis period. The first one argues that the international system for free trade protection has worked well: WTO could implement the measures to counteract protectionism, and multilateral import restrictions like ones practiced in 1930s could be eliminated. According to the second one, sings that the problems with protectionism were aggravating could be observed in 2009, but thanks to the concerted effort of countries they could be "nipped in the bud". Yet, the optimism of these arguments can be easily refuted, which is confirmed by the analysis of the quarterly cumulative number of the so called "distortions of trade practices" beginning with November of 2008.

Governments' attempts to introduce protectionism are called by scientists "distortions or warping of trade practices". As shown by the analysis of XVII report on "Conditions of the global trade", the "distortions" in trade are caused mostly by fiscal stimuli for exports of goods that are competitive at markets of third countries, and they have stronger effects for trade volumes than import restrictions. Therefore, fiscal instruments, according to the document,

have become the priority ones in protecting domestic producers. The experts advocating this statement argue that the G20 contribution is more fundamental than the WTO efforts [5; 6; 7]. Prior to G20 summit of 2013 it was assumed that protectionist measures used intensively by countries beginning with 2009 would lose their importance with time passage. However, the optimistic conclusions articulated by high government officers were not confirmed over time. According to the third vision, protectionism in time of the crisis was necessary from the political point, but it was an interim measure and, therefore, would be declining.

S. Evennet and J. Fritz in XVIII report “Conditions of the global trade”, presented in the Global Trade Alert, defined three phases in the post-crisis stage of the protectionist measures implementation. The first phase begins with the boosting numbers of protective measures taken as a response to the shrinking global trade in I quarter 2009, when 263 trade restrictions were introduced across the world, with the subsequently reduced number of complementary trade restrictions till III quarter 2010.

Trade protectionism, competitive devaluations, monetary expansion, and tax stimuli constitute instruments of the so called “destruct neighbor” policy. Financial aid, measures of trade protection, import tariffs etc. have different effects for the trade. Financial aid and subsidies to the industries not engaged in exports stimulate firms to keep production capacities, in order to have the country’s imports declined through pursuing the import substitution strategy, reducing in this way the trade balance deficit. Apart from this, they allow for stimulating the domestic demand through the increased earnings of local residents, resulting from new jobs created on line of stabilization or stimulation programs.

It should be recognized that developing countries and industrially development countries use different methods to protect domestic industries. While developed countries tend to use subsidies and financial aid to domestic companies, developing countries (not considering the practices of China, India or South Korea) had neither budgets sufficient to cover subsidies nor money sufficient to cover debts of domestic companies. Developing countries, therefore, preferred to increase tariffs and use other preventive measures of non-financial nature.

It should be noted that the rules of global grade per se allow countries to use preventive measures like custom duties, when the amount of imports puts pressures on operation of domestic companies. On the other hand, countries cannot increase customs fees above a certain level due to the obligations adopted in WTO. This can excuse preventive measures like non-tariff restrictions, import quotas or various kinds of import subsidies. Unlike tariffs, non-tariff restrictions can be considerably changed in time, because they are flexible and dependent on administrative decisions.

It can be noted, however, that while the protective measures used by developed countries are characterized by flexible neo-protectionist instruments, measures of developing countries are often confined to protection from imports. The most widespread method of protection from imports, not contradicting to WTO rules, is non-tariff restrictions. Protectionism is conventionally used to protect domestic producers from foreign competition. Non-tariff measures are so commonly used today because customs tariffs cannot be increased by countries. Four European countries – France, Germany, Italy, and United Kingdom – as early as before the crisis ranked just after the U.S. in the list of countries imposing the majority of tariffs, by number and by ratio of measures called “compensation fees”. They are followed in the list by major trade countries: Canada, Australia, and Japan. The countries of Old Europe have used the conventional policy of neo-protectionism against non-EU countries, in order to eliminate or prevent negative effects of the crisis. This policy included import quotas and non-tariff measures, as well as new protectionist strategies such as export quotas, invisible trade barriers, government loans to companies in strategic industries etc.

Thus, a major part of leading EU countries used the policy protecting their strategic sectors through compensation fees against non-EU countries. The analysis of the number of

protectionist policy measures adopted after 2008 shows that protectionist policies had the prevailing impact on agriculture and horticulture (233 protectionist measures), chemical industry (225), and transport equipment (193). At the second phase, the number of trade restrictions per quarter continued to rise and reached 160–170 till IV quarter 2011. At the third phase, quarterly totals reached the level of the first half of 2013, with the extreme of 225 trade restrictions in a quarter. The most significant compensation measures adopted in EU were measures of trade protection (484), measures of government assistance (476), and tariff measures (232). The most effective measures were export subsidies (with effects for 198 trade partners of EU), public assistance (194), and export fees or restrictions (183). Restrictions in public procurement, adopted by European Parliament at the beginning of 2014, have the important role, as non-EU countries are banned from taking part in public purchases if the access to market is not reciprocal. These restrictions have affected 137 trade partners of EU, including Canada, the U.S., Korea and Mexico [5; 6; 7; 8].

Although S. Evennet and J. Fritz are convinced that the declining quarterly figures of implemented trade restrictions beginning with 2014 signal the occurrence of the fourth phase, characterized by the lowering protectionist rhetoric in international economic policies, we are sure that the protectionism of 21 century has more flexible and extensive instruments of influence, which cannot be identified only by analyses of the imposed barriers. It follows that the chronology of waves of protectionism in the world, proposed by S. Evennet and J. Fritz, cannot be regarded as a representative one.

Conclusions. Measures stimulating economic development against recession tendencies in the global economy, announced in macroeconomic policies of developed and developing countries, fall under the concept of “neo-protectionism”. Unlike “classical” protectionism focused on protection of domestic producers depending on their significance and political force of stakeholders, neo-protectionism is equipped with instruments to respond on new challenges of “new normal”. In the up-dated form, the emphasis on goal setting is changing: to stimulate economic activity in response to the shrinking total demand rather than protect domestic businesses from foreign competition inside a country. The goals related with defending of economic sovereignties (for developing countries) or fighting for maintaining (for developed countries) or expanding of economic influences (for developing countries) are, therefore, becoming the dominants of transformation of classical protectionism into no-protectionism. Neo-protectionism involves modification of economic policy instruments towards the strengthening of its protective forms, and synthesizes both classical and novel forms of protectionism. This makes the term “new protectionism” invalid, because it has to be radically different by meaning from “classical” one associated with tariff protection.

At the current phase of the development of international economic relations, the arsenal of developed countries is dominated by instruments of hidden protectionism, implemented mainly by methods of internal economic policy. Developing countries are trying to exploit the potential of sectoral protectionism, and implementation of the policy of economic sanctions correlates with idea of selective protectionism used against individual countries or individual commodities. The economic basis of hidden protectionism is related with internal taxes and duties, public procurement, requirements to use local components in manufacturing of finished products. As the disguised or semi-open character of neo-protectionism does not fall under classical manifestations of protectionism, fixed in WTO documents, further hybridization of its forms raises the importance of their classification, to draw attention of the scientific community to new challenges to global regulation of the system of international economic relations.

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**V. Matsuka**

### **EVALUATION OF UKRAINIAN COMPETITIVENESS IN THE WORLD TOURISM MARKET**

*The article is devoted to the analysis of Ukraine's competitiveness in the global tourism market and the search for ways of its increasing.*

*It is proved that one of the most important indicators of the assessment of the countries' competitiveness in the sphere of tourism and travel is the Index of the World economic forum. It reflects a combination of factors that ensure the sustainable development of the tourism sector, which contributes to the development of the country's competitiveness.*

*Scales of international tourism development are estimated. So the overall dynamics of tourism development in the world is positive. The structure of tourist flows in the world macroregions is analyzed. Among the tourist regions, the European region is powerful, followed by Asia-Pacific, America, Africa and the Middle East.*

*The state of the tourist industry of Ukraine is investigated. In general, there are certain trends in the development of tourism in Ukraine: the revival of tourism activity alternates with recessions, reproducing in these fluctuations not only the state of the internal market environment, but also the world market situation, where Ukraine's competitiveness remains very low; there is a tendency of exceeding the entry flow over the exit flow in the structure of international tourism, which is indicated by an increase in the flow of foreign tourists to our country; Despite the positive changes in the national tourism services market, a slight drop in the rate of outbound tourism should be noted.*

*Analysis of the components of the competitiveness index of travel and tourism in Ukraine indicates a high level of health and hygiene, human resources and the labor market, price competitiveness, cultural resources and business travel. However, most of the indicators in the rating are below the average: business environment, security and protection, information and communication readiness, priority of tourism and travel, international openness, environmental stability, air transport infrastructure, land transport infrastructure and ports, tourism infrastructure, natural resources.*

*To form a competitive tourism industry in Ukraine, it is necessary to introduce measures in the following directions: legal, administrative, economic, social, cultural, and environmental.*

**Key words:** *tourism, tourist flows, world tourism market, competitiveness, competitiveness index of countries in the field of tourism and travel.*

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**O. Bezzubchenko, V. Darmenko**

### TRANSNATIONALIZATION ANALYSIS IN THE WORLD ECONOMY

*In 2017, the top 100 global MNEs' foreign operations represented 9 per cent of world foreign assets, 17 per cent of world foreign sales and 13 per cent of foreign employment. The top global TNCs represented a tiny 0,1 per cent of the estimated universe of TNCs, but their total sales in 2017 were equivalent to about 10 per cent of world GDP. The relative importance of the top 100 TNCs is a function partly of globalization and partly of concentration among the universe of TNCs. In 2017, top TNCs scaled up their global operations, increasing assets and sales by 8 per cent, although internationalization statistics remained roughly stable. Assets and sales were boosted by a wave of megadeals across virtually all industries represented in the Top 100 that brought five new companies into the ranking.*

*It's quiet clear the leading financial TNCs of the world are banking institutions. Any financial crises are incapable to dent the banking sector, which has become one of the main mechanisms of the transnationalization process implementation. However, they should admit the insurance companies, mortgage-lending institutions and so on are among those leading financial TNCs. One of the main advantages of the financial TNCs in comparison with those traditional industrial TNCs is their high ability to perceive innovative financial instruments and services.*

*The presented calculations allow us to suggest that among the large number of TNCs in the global oil production market only a few (China National Petroleum, Royal Dutch Shell, Exxon Mobil, Sinopec Group) have a significant impact on this market development, accumulating more part of its assets.*

*The main tendencies in the processes of transnationalization are the predominance of the oil industry share, as well as telecommunication and pharmaceutical TNCs among the companies in the non-financial sector. It also should be emphasized according to the criterion of assets, the largest TNCs of the world are mainly financial institutions.*

*An important undertone in the today's world economy development is the active development of the global value creation that is influenced by TNCs. It builds up about 80% of world trade.*

*At the global level, the most integrated countries with the GVC are regional headquarters and logistics centers (as well as financial ones) for TNC operations (Belgium, the Netherlands, Singapore, Hong Kong, China and Ireland). They have a relatively small domestic market, but their economies influence global service, as well as technol*

*Key words: transnational corporation (TNC), transnationalization., globalization, Global Value Chains (GVC), FDI.*

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## I. Lutsenko

### REVERSE LOGISTICS AS A COMPONENT OF SOCIO-ECONOMIC SECURITY OF REGIONAL AND GLOBAL STRUCTURES

*The article presents the results of research of the essence, tasks and prospects of reverse logistics in Ukraine. The positive effect of reversing logistics on the socio-economic security of regions is shown. In terms of the integration process with the EU Ukraine needs to improve the economy and quality of life, consistent with the principles of sustainable development, environmental standards, which set new "rules of the game" for producers (this quality products, processing and recycling of consumption and production, protection the environment) and human life. The analysis of the state of utilization and recycling of garbage in Ukraine shows, positive examples of the organization of reverse flows in the EU countries are given. Ecologization today is a decisive trend in the development of a modern developed world. Unfortunately, our country still stands aside from these global processes. This is affected by the inconsistency of the regulatory framework of Ukraine with regard to environmental issues, not the state's desire to systematically address these issues and the social irresponsibility of the population.*

*In the course of scientific research, the models of reverse logistics of the EU were analyzed and possibilities of their use in Ukraine to improve the country's environmental safety and it was determined that reverse logistics could become an integrator linking socio-economic aspects and significantly help to significantly improve the decision of the ecology of our country.*

**Keywords.** Reverse logistics, reverse flows, supply chains, return flows, reverse flows, traditional channels, reverse channels, safety, socio-economic security.

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**K.V.Osipenko**

### **TRENDS OF NATIONAL TOURISM INDUSTRY INTEGRATION TO THE EUROPEAN TRAVEL REGION**

*The article is devoted to the search and determination of the directions of Ukraine's integration into the European tourist region. On the basis of the conducted research, it was determined that the key direction of the Ukrainian national tourism industry integration into the European region is the development of a documentary base of tourism, which coordinates the processes of integration cooperation between Ukraine and the European tourist region. It is determined that the tourism industry is characterized by dynamic development and is one of the first places among the types of economic activity, which brings big profits to the countries and regions. Due to its geographical position, its natural and historical peculiarities, its active participation in the international division of labor, the attraction of foreign investment in the tourism industry, the presence of high quality goods and services on the domestic market, and the stability of the national currency, Ukraine has great perspectives for the development not only domestic, but also international tourism. The analysis, which was made, defined that in the regions of Ukraine there is a insignificant economic result from tourism activity, which indicates the ineffective functioning of the tourism sector, as well as the low level of competitiveness of national services in comparison with the offer of services in the international tourism industry.*



*It is noted that in the context of the interconnected world development, the most effective economic model is the openness and unity of the economy, as well as the expansion of foreign economic relations. It is worth to understand that Ukraine's development, including in the tourism industry, is impossible without international cooperation. Therefore, a progressive transformation of the Ukrainian tourism industry is needed, which would be able to integrate into international tourist relations. The listed tourist resources, geopolitical parameters and borders, scientific and technological, cultural and human potential give Ukraine significant competitive advantages, which in perspective will allow taking a respectable place among the countries of the European region.*

**Key words:** *tourist region, regional development, regional integration, international cooperation.*

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O. V. Bulatova, O. I. Karpenko, E. V. Fedorov

### ASSESSMENT OF SHADOWING OF UKRAINIAN ECONOMY AND ECONOMIC STABILITY OF THE COUNTRY

*This article analyzes and assesses inter-temporal changes of shadowing process of Ukrainian economy. It has determined that the shadow economy affects negatively the economic stability of a country, its competitiveness as well as development of state's international image in general. In the broadest sense, the basis of the shadow economy is made up of unregistered income from any economic activities. In a strict sense, the shadow economy incorporates all goods and services produced in the market and deliberately hidden from the state authorities in order to avoid paying taxes and other statutory payments as well as not to comply with standards and regulations.*

*As per the analysis results it has been found out that according to official canvassing, the level of the shadow economy in Ukraine is one third of the official GDP therefore exceeding the legally defined critical threshold level, and posing a serious threat to the national security. Experts estimate that the level of shadow economy is much higher. The level of discrepancies is due to cleavage in the essence definition of the "shadow economy", volume determining methods and approaches, and failure to assess objectively services provided in the shadow sector.*

*The paper specifies and determines the group of factors contributing to the spread of shadowing of the Ukrainian economy, namely: economic ones (related to the imperfection of the market environment, the ineffectiveness of state regulation of market processes, etc.) institutional ones (related to the results of the activities of institutions functioning within the national economy); moral and ethical ones (conditioned by the scarcity of appropriate law-abiding behavior standards that determine the level of corruption, economic crime, etc.).*

*The study highlights the features of the shadow economy as a complex social and economic phenomenon, namely: structure (the shadow economy has an appropriate structure and infrastructure, and it is characterized by the presence of stable ties and relationships that ensure its integrity); common motivation and failure to distinguish between the shadow and the official (legal) economy, in relation to which the shadow economy can be alternative, non-alternative and criminal, which makes it impossible to determine the real scope and scale of the shadow economy; networking capabilities of shadow structures (activities of which encompasses the following levels: local, regional, national, interstate and international ones), the dual nature of the shadow economy (due to its constructive and destructive influence principles and mechanisms).*

*It is been stated that the country's rating in the relevant international comparisons is becoming a significant indicator of the environment that forms the level of shadow economy since the share of the shadow economy is increasing simultaneously with the decrease of the country's placement in international ratings, that characterize the level of economic freedom, economic reform progress as well as its institutional environment, etc.*

**Key words:** economic security, shadow economy

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**Jan Polowczyk, Ofer Zaks**

## **PLANNING FALLACY IN ISRAELI HIGH-TECH SECTOR M&A**

*Purpose: The aim of this study was to identify the role of cognitive biases in M&As failures. Decision making process in M&As is not purely rational. It is influenced by so-called planning fallacy, which is a concept comprising a few cognitive biases described in literature.*

*Design/ methodology/ approach: The research applied case study analysis from Israeli high-tech sector. The research was of a qualitative nature and based on secondary data.*

*Findings: Decisions and selection of target companies for M&A are often based on the imaginary optimism of the acquirer instead of a rational calculation of profit and loss. CEOs sometimes exaggerate the advantages by building success scenarios and by so doing they ignore the failure potential. As a result they promote initiatives that will never remain in budget and time frame.*

*Practical implications: Executives should use a variety of strategies to counter the cognitive biases, building more breaks into schedules and introducing a decision quality control checklist that can reduce the effect of cognitive biases in an organization.*

*Originality/value: The article contributes to better description and understanding of M&A failures by the concept of planning fallacy.*

**Keywords:** *cognitive biases, planning fallacy, mergers and acquisitions*



### **Introduction.**

Despite the abundance of mergers and acquisitions (M&As) activity, many of these deals produce negative returns to shareholders. Behavioral theory enriches our knowledge of the micro behavioral processes that underpin the micro cognitive decisions that drive firm outcomes. The article presents the pilot research regarding the planning fallacy phenomenon in M&A failures.

The article consists of two parts. The first chapter discusses the concept of the planning fallacy and the connected main cognitive biases: overconfidence, overoptimism, sunk-cost effect and herding instinct. In the second chapter the pilot sample consisting of four M&A cases from Israeli high-tech sector which did not deliver a satisfactory return to shareholders are presented. The history of each case is described and the reasons for their failure are identified in terms of planning fallacy.

Entrepreneurship in Israel has a long history of innovating (Senor, Singer, 2011). Silicon Wadi, an area with a strong concentration of high-tech industries, is regarded as the second only to the American Silicon Valley. The smart Israeli start-ups are sought after by hi-tech giants like Google, Apple, Intel, Microsoft and many others.

The acquisition of another business entity is one of the most challenging strategic activities a firm can undertake (Hitt et.al., 2001). Despite the abundance of M&A activity, researchers indicate that many of these deals produce negative returns for the acquiring firm's shareholders (e.g. Mulherin, Boone, 2000; Schoenberg, 2006; Yim, 2013). The literature has posited numerous explanations as to why M&As fail (Friedman et al., 2015).

Currently rationality is still a dominant perspective in M&A research (Iyer, Miller, 2008). However as H.A.Simon (1976, p.242) pointed out, rationality does not determine behavior because *„behavior is determined by the irrational and nonrational elements that bound the area of rationality’*. Behavioral theory enriches our knowledge of the micro behavioral processes that underpin the micro cognitive processes that drive firm outcomes (Olejniczak, Śliwowski, 2015).

M&A failure can be conceptualized in different ways such as low shareholder value, low or negative return on equity/assets and a declining stock price, etc. (e.g. King et al., 2004). M&A decisions are made by human beings who are bounded in their rationality and, as such, are subject to human predisposition, prejudice and bias (Powell et al., 2011). Human cognitive biases affect managers' approaches to M&As and are naturally among the fundamental causes of their failure.

### **Planning fallacy and cognitive biases.**

D.Kahneman and A.Tversky (1979) coined the term planning fallacy to describe plans and forecasts that are unrealistic. Examples of planning fallacy abound in the experiences of businesses, governments and individuals. The authors of unrealistic plans are often driven by the desire to get the plan approved – whether by their superior or by a client – supported by the knowledge that projects are rarely abandoned unfinished merely because of cost overruns or completion times (Kahneman 2011).

There are four cognitive biases which play a significant role in planning processes: overconfidence, overoptimism, sunk-cost effect and herding instinct. Our brains are programmed to make us feel overconfident. This can be a good thing: for instance, it requires great confidence to launch a new business. Only a few start-ups will become highly successful. The world would be duller and poorer if our brains did not inspire great confidence in our own abilities. But there is a downside when it comes to formulating and judging strategy based on M&As.

Related to overconfidence is the problem of overoptimism. People have a natural bias toward overoptimism (Lovallo, Kahneman, 2003). Executives are often selected for their enthusiasm and optimism. Pessimists can be perceived as disloyal. This means that one is likely



to find a greater proportion of optimists amongst executives as one gets nearer the top of the organizational ladder. This then creates a barrier to adaptability because the optimists feel a less acute need to change than do realists. Optimistic individuals play an important role in shaping our lives. Their decisions make a difference; they are the inventors, the entrepreneurs, the political and military leaders. They succeed because they seek challenges and take risks. Their self-confidence is reinforced by the admiration of others.

Another cognitive bias connected with strategic planning is called the sunk-cost effect, otherwise known as "throwing good money after bad." When large projects overrun their schedules and budgets, companies (or governments) still keep investing to complete them, although a decision to write off their investments could be more rational. The fourth cognitive bias discussed here is herding instinct. The desire to conform to the behavior and opinions of others is a fundamental human trait and an accepted principle of psychology (Belsky, Gilovich, 2000). For most executives, only one thing is worse than making a huge strategic mistake: being the only person in the industry to make it. Herding effect can have positive effects when for example supports distribution of new technology. On the other hand following competitors can reduce return from the investment.

CEOs tend to commit other biases, e.g.: confirmation bias leads them to ignore evidence that contradicts their preconceived notions; anchoring causes them to weigh one piece of information too heavily; false-consensus effect causes them to tend to overestimate the extent to which others share their views and experiences. Researchers show many causes of false-consensus, including: confirmation bias (the tendency to seek out opinions and facts that support our own beliefs and hypotheses), selective recall (the habit of remembering only facts and experiences that reinforce our assumptions), biased evaluation (the quick acceptance of evidence that supports our hypotheses, whilst contradictory evidence is subjected to rigorous evaluation), and groupthink (the pressure to agree with others in team-based cultures).

F.Gino and B.Staats (2015) have identified four additional biases: towards success (preoccupation with success which impedes learning), towards action (work harder, even if it is counterproductive), towards fitting in (people conform to what they think are the organizational norms and rules), and towards experts (the notion that experts are the best source of ideas).

Scholars (e.g. Hayward, Hambrick, 1997; Mulherin, Boone, 2000; Seth, et al., 2002) have claimed that managers are affected by hubris and eventually may overpay for target firms by mistakenly presuming that their managerial abilities in gaining synergy outpace those of others. For example, when performance is below the aspirations or expectations, managers often tend to engage in high-risk behaviors (Mishina, et al., 2010) and tend to make acquisitions which are not fully assessed and thus often yield undesired outcomes (Haleblian, et al., 2006).

#### **Case studies from the Israeli high-tech sector**

The sample consists of four cases from the Israeli high-tech sector focusing on human biases as an explanation for M&A failure. The aim of this analysis is to identify elements of planning fallacy. The cases are presented in below four tables. Each case is presented in a separate table. Each table has the same structure and presents a case in three following columns: the M&A process, why does M&A fail?, and cognitive biases.

The most frequent cognitive biases in the investigated cases are: herding instinct (Boxee – Samsung, Fast – Aladdin, Lannet – Madge) and confirmation bias (Boxee – Samsung, Fast – Aladdin, Lannet – Madge). There are three cognitive biases presented in 50% of the sample: overoptimism (Boxee-Samsung, Fast-Aladdin), sunk-cost effects (Boxee – Samsung, Fast – Aladdin), and bias towards success (Fast – Aladdin, Miracle). The rest of observed cognitive biases are present only in separate cases: overconfidence (Lannet – Madge), overreliance on past performance (Fast – Aladdin), and bias toward experts (Miracle).

A start-up needs to remain a cutting edge entity in technological innovation, therefore it

must create innovative solutions in a limited time frame that attract perceived customers' attention as a producer of competitive advantage. In those cases where young entrepreneurial managers are pursuing an acquisition, it might result in wrong strategic decisions that are related to planning fallacy. On the other hand, the buyers are under pressure to speed-up the creation and adoption of radically new technologies, which after few years probably might be replaced by a new generation and become obsolete. A start-up is therefore a suitable target that can produce and test the feasibility of hundreds of possibilities for a new business idea, but at the same time in doing that, allows the opportunity to make wrong decisions that often end up as failures, by overestimating the added value of the acquisition.

Table 1 Case 1: Boxee - Samsung

<b>M&amp;A case</b>	<b>Description</b>	<b>The M&amp;A process</b>	<b>Why does M&amp;A fail?</b>	<b>Cognitive biases</b>
Boxee (an Israeli start-up company) was acquired by Korean Samsung. Period: 2012-2013	The idea was to disconnect from the big networks to the TV Ethernet. A streamer they have developed connects TV to the home computer with connectivity to network contents. Competitors: Hulu, Apple, Google TV and Netflix.	Started in 2003 and was sold to Samsung in 2012. Invented a breakthrough technology which "cut the cables". Offered an attractive way to stream online videos to a television and to see what friends were viewing.	Ahead of its time Boxee found eager adopters in hipsters, but they weren't enough to increase sales. Cancelled the product and announced an entirely new product, the Boxee TV, in October 2012. Cashed out, selling its assets to Samsung. Two years later Samsung is laying off the entirety of the Boxee team. It has good ideas and good performance. The main problem was that sales didn't reach to enough customers but only to a niche users market. The founders challenge was to attract, change and lead a technical revolution. They failed in their efforts to make Boxee a mainstream leader with features, qualities and an attractive product price. Time to market estimation was optimistic together with R&D high expenses and changes in hardware for new versions.	A planning fallacy, over optimism combined with sunk-cost effects, herding instinct and confirmation bias.

Source: authors' compilation based on Ingraham (2015) and Cohen (2015).

Table 2 Case 2: Fast - Aladdin

<b>M&amp;A case</b>	<b>Description</b>	<b>The M&amp;A process</b>	<b>Why does M&amp;A fail?</b>	<b>Cognitive biases</b>
German company Fast was acquired by the Israeli	Aladdin was one of the most successful Israeli startups,	By 1995, Aladdin had already made five M&As outside Israel and wanted	The relationship between the two was established only at the highest level, and Fast's CEO joined the Aladdin board. Employees were not informed about the merger and uncertainty	A planning fallacy, over optimism combined with sunk-cost effects,

company Aladdin. Period: 1995-1997	established in 1985 with the objectives to market software programs and develop application tools for software protection. Fast established in 1985 had a slower rate of growth than its competitors (Aladdin, Rainbow).	to become a leader in the European market. Aladdin decided in 1995 to merge with its competitor Fast. In 2008 Safenet acquired Aladdin.	surrounding the implication. Aladdin's managers had doubts about the merger because they prefer to invest in new products. Competitors were contacting Fast distributors attempting to persuade them to leave it. In reality, there were some "teacher's syndrome" manifestations meaning that acquired employees lost their sense of belonging, confidence and national stereotypes ("square" vs "improvisers"). The acquisition process did not provide sufficient time for in-depth examination of possible obstacles to integration. No assessment was made as to difficulties expected in implementing the merger.	herding instinct and confirmation bias. Behavior can be explained by bias towards success, e.g.: overreliance on past performance.
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Source: authors' compilation based on Weber and Tarba (2011).

Table 3 Case 3: Lannet - Madge

M&A case	Description	The M&A process	Why does M&A fail?	Cognitive biases
The merger between Lannet (Israeli) and Madge (British) high-tech companies. Period: 1995-1997	Madge Networks NV, before the merger, was a supplier of computer network solutions. Competitors were IBM, 3Com, and Bay Networks in ATM market. Lannet developed, produced, and marketed local area network (LAN) & internet products for ATM technology. Lannet was a perfect partner. The acquisition announcement described the deal	Firstly done- the name 'Lannet' was removed. After clashes- Madges' management concluded that it was best to allow Madge- Israel to become an independent division in its decisions- it was the merger break-up. A company called 'Lannet- Israel' was registered in the Netherlands as	In Lannet employees could approach senior management at any time to present problems, suggest possible solutions. Decisions were made quickly and informally. In Madge the hierarchy was always acknowledged and decision making was centralized. The differences between the organizational cultures, the need for the acquired company and of its principals to retain their autonomy were not investigated. Cultural clashes emerged following the choice of the post-merger integration approach. Lack of synergy realization happened because no prior planning was done. In sum, significant differences (that during the process were	Using prior planning, it is possible to avoid superfluous costs. Without such a plan potential synergy melts away- a case of planning fallacy, confirmation bias, overconfidence and

	as a merger to give Lannet employees a good feeling.	Madge's division. In 1998 Lannet was acquired by Lucent Technologies.	anticipated) in corporate culture existed between Madge and Lannet. No evaluation was made of the likely reactions of competitors, customers, suppliers, and distributors.	herding instinct.
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Source: authors' compilation based on Weber, Tarba and Bachar (2012).

*Table 4 Case 4: Miracle*

<b>M&amp;A case</b>	<b>Description</b>	<b>The M&amp;A process</b>	<b>Why does M&amp;A fail?</b>	<b>Cognitive biases</b>
Miracle established as an Israeli merger of five Israeli IT companies. Period: 1998-1999	Miracle, a prominent NASDAQ-listed, Israel-based global information technology firm specializing in outsourced systems integration and application development, software and consulting, quality assurance, and training. Miracle came into being in several stages in 1998–1999, as a group of U.S. institutional investors.	The integration was planned by a task force (top management team of the acquired firms and an external consulting firm): "We decided that we won't waste our resources and efforts on integration in stages (...). We realized that we have enough firepower to become a meaningful actor. So we merged them all, with an idea that the whole is stronger than the parts."	This case represents a complicated situation in which founders' vision and goodwill were misinterpreted by an ambitious management team in order to create a powerful business entity. Predictions about how much time will be needed to complete the task display an optimism bias regardless of customers', employees' and managers' attitudes and emotions. Management rejected justifications for actions or activities on the grounds that these were practices from the pre-merger firms. The data reveal boundary negotiation dynamics on the part of employees, management, or both concerning the implementation of best practices, transfer of information, assessment of performance and success, and the assertion of ownership and a strategic approach. TMT recommended appointing Jupiter's chief executive officer as CEO of Miracle but the board chose an external candidate. A group of senior managers left. In 2004, the premerger identities were still in evidence.	It was an attempt to force a unified firm identity, often through clashes of identity and culture. From the beginning it was a planning fallacy case. Biases towards success (fixed mindset) and toward experts dominated the TMT activities.

Source: authors' compilation based on Drori, Wrzesniewski and Ellis (2013).

Beyond that many Israeli entrepreneurs understand that mergers are part of the business cycle for companies seeking to expand. If in the past business people preferred foregoing growth to remain independent, now they realize they need to put personal considerations aside and even merge with companies they had previously considered their bitter rivals.

M&As represent typically a complicated organizational change. Like the projects their results, performance and success are time consuming and dependent on planning, agile implementation, control and careful follow-up. Cultural clashes result in intergroup biases and thinking in terms of “us versus them” (Vaara et al. 2014). This nationalistic bias can give rise to stereotyping, prejudices and xenophobia.

Most of the best practices for designing an M&A organization are well known. But many companies fail to put them into practice. M&A teams include members with unnecessary skills as often as they lack members with essential ones. Too little capacity is a common problem, but inflated teams frequently create issues as well. Nearly two-thirds of underperforming companies lack the capabilities to integrate their acquisitions (Doherty, Ferrer and Rinaudo 2016).

During M&A processes managers experience a sense of power (e.g. overconfidence, optimism, hubris), they do not consider a broad range of cues; they focus too much on the principal goals, disregarding other peripheral sources of information. Company leaders can use a variety of strategies to counter the biases, including stressing that mistakes are learning opportunities, building more breaks into schedules and introducing a decision quality control checklist that can reduce the effect of cognitive biases in an organization (Kahneman et al., 2011).

### **Conclusions**

The acquisition of another business entity is one of the most challenging strategic activities a firm can undertake. Despite the abundance of M&A activity, researchers indicate that many of these deals produce negative returns for the acquiring firm’s shareholders. Decisions and selection of target companies for M&A are sometimes based on the imaginary optimism of the acquirer instead of a rational calculation of profit and loss. CEOs sometimes exaggerate the advantages by building success scenarios and by so doing they ignore the failure potential. As a result they promote initiatives that will never remain in budget and time frame.

The size of the organizations is a critical factor in M&A failures. It will work better, with some good success stories, for some small-scale organizations. If you want to get something done, you have to plan: why, where, when, how and so on to figure out how much time and how many resources are required; visualize the steps from the beginning to a successful conclusion. A risk management plan is considered to be a pre-merger "must do" in order to remain flexible and a learning organization.

Creative and innovative high-tech companies, especially start-ups, are usually fast runners with sharp sensors as to market opportunities and environmental chances and changes, but they are not protected from planning fallacy decisions. On the contrary, constant and intensive technological change might cause them to "miss the boat".

Executives can use a variety of procedures to counter the biases, including stressing that mistakes are learning opportunities, building more breaks into schedules and introducing a decision quality control that can reduce the negative effect of cognitive biases in an organization.

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BULLETIN  
OF MARIUPOL STATE UNIVERSITY

SERIES: ECONOMICS  
ISSUE 16

The editor-in-chief is corr. NAS of  
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Founded by Mariupol State University  
129a Budivelnykiv Ave.,  
Mariupol, 87500  
Tel.: (0629) 53-22-59, e-mail: msuj\_e@mdu.in.ua

Certificate of state registration for print media (Series KB №17780-6130P dated of May 6 th, 2011)  
Edition: 100 copies.Order № 180/18

Published by “Видавничий відділ МДУ”, 87500, Mariupol, 129a Budivelnykiv Ave.

Certificate of registration in the State Register of Publishers

ДК №4930 dated of June 07th, 2015

Printed in the author's version of the  
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