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COMPARATIVE ANALYSES OF FERTILITY EVOLUTION IN IASI COUNTY

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Abstract: *Iasi County has seen, in the last twenty-three years, a decline of the general fertility rate both in the urban region and in the rural region which leads to a decrease in the number of inhabitants and the aging of the population. The purpose of this study is to compare the trend of the general fertility rate, GFR, among the main age groups of fertile women, between 1990 and 2013. In order to accomplish this goal, we use time series analysis. Our results show that the GFR series presents a decreasing trend, from 70.6 children at 1000 women in 1990 to almost half in 2013. Future studies should investigate the determinant factors of this decline for GFR in Iasi County, we will investigate the influence of income, of unemployment and of level of education on general fertility rate (GFR).*

Introduction

During the last twenty-three years, the General Fertility Rate (GFR), of Iasi County has witnessed a decrease: from 70.6 children at 1000 women in 1990 to 45.2 in 2013. GFR for women between 20 and 24 years in the urban region decreased from 129.1 to more than half, to 59.1 children at 1000 women. GFR for women between 20 and 24 years in the rural regions also decreased, but with a smaller percentage than in the urban region from 182.8 to 90.4. GFR for women between 25 and 29 years in urban region decreased from 99.6 to 82.4 children at 1000 women. GFR for women between 25 and 29 years in the rural region decreased from 165.0 to 83.8. GFR for women between 30 and 34 years in urban region increased from 47.0 to 73.5 children at 1000 women. GFR for women between 30 and 34 years in the rural regions decrease from 181.7 to 62.8.

The fertility evolution was analysed by Frejka and Sobotka (2008) for some European countries. They assumed that the „baby boom period (1950-1960) was replaced by delaying motherhood resulting in a decline of the fertility in Europe" (Frejka and Sobotka in 2008). There are several other studies which analysed the decrease in fertility in Europe (Billingsley, 2009; Bloom and Sousa-Poza, 2010; Hondroyiannis, 2010).

In Romania, the decrease of fertility was study by Ghetau (2007) and by Amariei (2013). Another important study, (Jaba *et al*., 2008) shows a great decrease of the birth rate in Romania between 1990 and 2004, due to economic conditions.

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The purpose of this research paper is to quantify the level of fertility in Iasi County, between 1990 and 2013 using GFR, by developing the statistical model of fertility evolution that estimates the trend of GFR and quantifying the errors.

GFR measures the frequency of new born at 1000 women at fertile age (15-49 years) in a certain period, usually one year (INSSE, 2015). GFR is calculated for the whole fertile female contingent, as well as for age groups. It is calculated based on the mean of female population recorded by the mother's home.

1. Methods

This paper is focused on the fertile female population of Iasi County between 1990 and 2013. To measure the fertility, the General Fertility Rate was chosen, which indicates the average number of living new born at 1000 women in one year. The data for the total GFR and the GFR for the main fertility age groups were retrieved from the INSSE databases, covering the time span from 1990 to 2013.

In order to accomplish the study's goal, we use time series analysis to describe the fertility trend. The equations describing the GFR are:

$$GFR = \alpha_1 + \beta_1 t + e_1$$
$$GFRu_{20-24} = \alpha_2 + \beta_2 t + e_2$$
$$GFRu_{25-29} = \alpha_3 + \beta_3 t + e_3$$
$$GFRu_{30-34} = \alpha_4 + \beta_4 t + e_4$$
$$GFRr_{20-24} = \alpha_5 + \beta_5 t + e_5$$
$$GFRr_{25-29} = \alpha_6 + \beta_6 t + e_6$$
$$GFRr_{30-34} = \alpha_7 + \beta_7 t + e_7$$

$$(1)$$

where GFR is the dependent variable, defined as the average number of new born at 1000 women, $GFRu_{20-24}, GFRu_{25-29}, GFRu_{30-34}$ are the general fertility rates for women between 20 and 24, 25 and 29, 30 and 34 years in urban regions; $GFRr_{20-24}, GFRr_{25-29}, GFRr_{30-34}$ are the general fertility rates for women between 20 and 24, 25 and 29, 30 and 34 years in rural regions, is the general fertility rate for women between in the urban region; t is the time, expressed in years, as an independent variable, e_i designates the error, as a random component and α_i, β_i are the estimated coefficients, i=1 to 7.

The determinist component, $\alpha_i + \beta_i t$, is estimated by the least squares method, and the random component, e_i, is estimated using the Box-Jenkins method, namely ARIMA.

2. Results

The data used to show the fertility trend, based on entries between 1990 and 2013, is analysed under SPSS 16.0 and under Eviews 7.1. The results indicate that all GFR analysed except for the GFR of women between 30-34 years in rural region, in Iasi County during the examined period, presents a normal distribution, slightly asymmetric, as seen in Figure 1.

Figure 1 – GFR distribution in Iasi County between 1990 and 2013
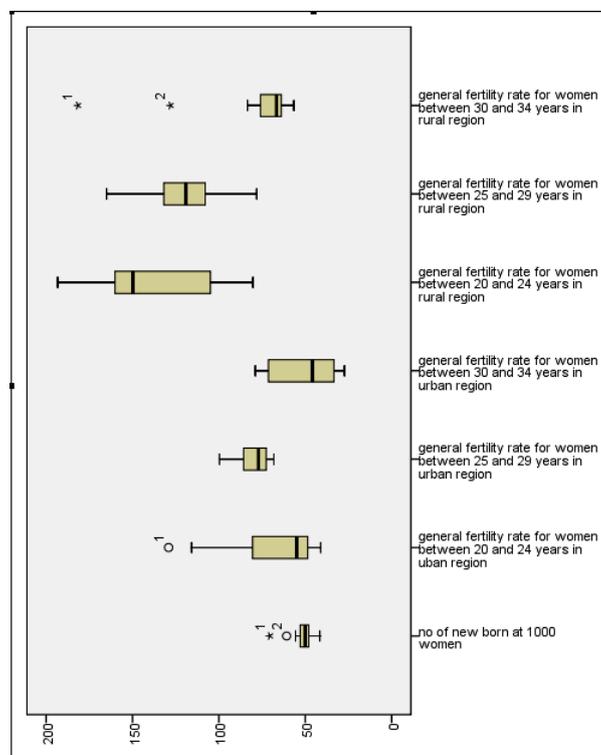
Source: Authors' results using SPSS

The average GFR in Iasi County, in the considered period, is 50.97 new born at 1000 women, the average $GFRu_{20-24}$ is 66.38, the average $GFRu_{25-29}$ is 79.22, the average $GFRu_{30-34}$ is 51.23, the average $GFRr_{20-24}$ is 137.62, the $GFRr_{25-29}$ is 117.36, the $GFRr_{30-34}$ is 75.12. The minimum value for GFR is 41.6 recorded in 2011, and the maximum GFR is 70.6, reached in 1990. The minimum value for $GFRu_{20-24}$ is 41.1 recorded in 2011, and the maximum $GFRu_{20-24}$ is 129.1, reached in 1990. The minimum value for $GFRu_{25-29}$ is 68.2 recorded in 1992, and the maximum

$GFRu_{25-29}$ is 99.6, reached in 1990. The minimum value for $GFRu_{30-34}$ is 27.3 recorded in 1995, and the maximum $GFRu_{30-34}$ is 78.9, reached in 2010. The minimum value for $GFRr_{20-24}$ is 80.3 recorded in 2010, and the maximum $GFRr_{20-24}$ is 193.3, reached in 1992. The minimum value for $GFRr_{25-29}$ is 78.1 recorded in 2011, and the maximum $GFRr_{25-29}$ is 165 reached in 1990. The minimum value for $GFRr_{30-34}$ is 56.6 recorded in 2011, and the maximum $GFRr_{30-34}$ is 181.7 reached in 1990.

In this article we examined only the trend and the errors for all GFR in Iasi County between 1990 and 2013. Using the scatter plot diagram we identify the models of the fertility evolution in Iasi.

Figure 2 – The general fertility rate evolution in Iasi between 1990 and 2013
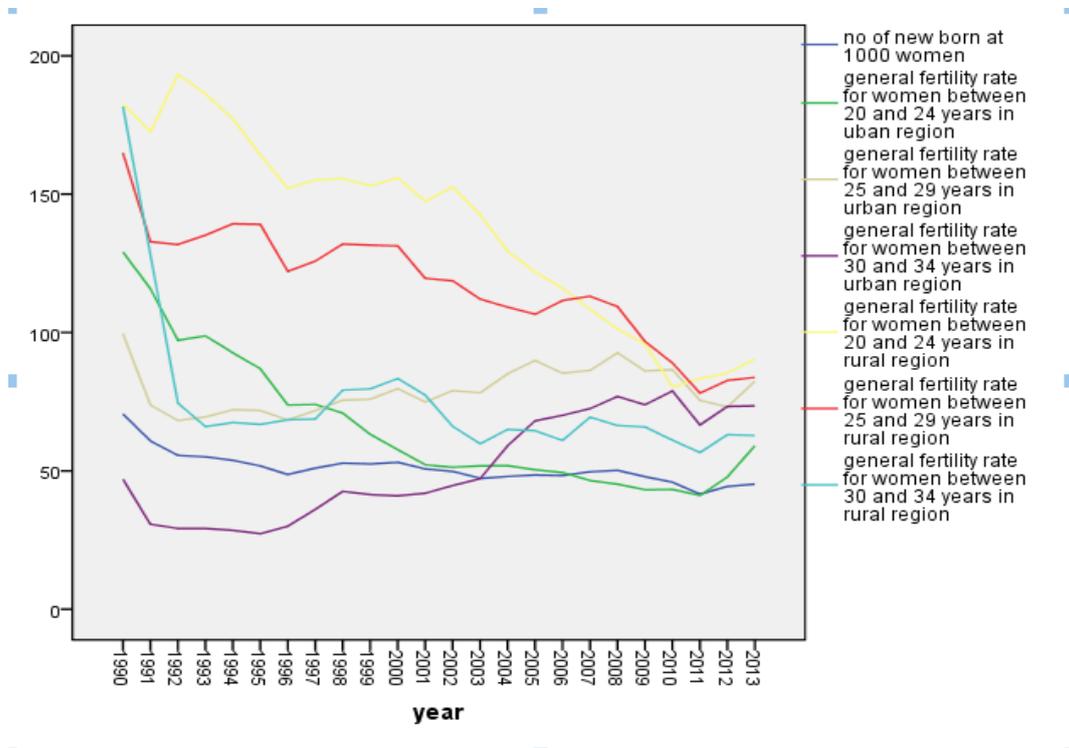
Source: Authors' results using SPSS

Through an analysis of Iasi County's general fertility rate for the period 1990-2013, as seen in Figure 2, while GFR, $GFRu_{20-24}$, $GFRr_{20-24}$, $GFRu_{25-29}$, $GFRr_{25-29}$, $GFRr_{30-34}$ series show a downward trend, the series for $GFRu_{30-34}$ show an upward trend. For additionally examining the nature of these trends - based on the determination coefficient - R^2, we prefer the cubic model for describing the dynamic of the GFR, $GFRu_{20-24}$, $GFRu_{25-29}$, $GFRu_{30-34}$, $GFRr_{20-24}$ and for $GFRr_{25-29}$, and the inverse model for $GFRr_{30-34}$.

The equations of the models are:

$$GFR = 69.721 - 4.425 * t + 0.318 * t^2 - 0.008 * t^3,$$

$$GFRu_{20-24} = 134.214 - 10.226 * t + 0.331 * t^2 - 0.002 * t^3$$

$$GFRu_{25-29} = 94.588 - 8.294 * t + 0.836 * t^2 - 0.022 * t^3$$

$$GFRu_{30-34} = 48.707 - 8.144 * t + 0.946 * t^2 - 0.024 * t^3$$

$$GFRr_{20-24} = 182.044 + 0.288 * t - 0.382 * t^2 + 0.008 * t^3$$

$$GFRr_{25-29} = 153.533 - 4.765 * t + 0.278 * t^2 - 0.009 * t^3$$

$$GFRr_{30-34} = 56.438 + 118.8/t$$

(2)

where GFR is the dependent variable, defined as the average number of new born at 1000 women; $GFRu_{20-24}, GFRu_{25-29}, GFRu_{30-34}$ are the general fertility rates for women between 20 and 24, 25 and 29, 30 and 34 years in the urban regions, $GFRr_{20-24}, GFRr_{25-29}, GFRr_{30-34}$ are the general fertility rates for women between 20 and 24, 25 and 29, 30 and 34 years in the rural regions, t are the years ordered in ascending order, $t = 1990, ... ,2013$.

The random component is calculated as the difference between the empirical values from the model described above and the theoretical values. The random component is analysed by employing the Box-Jenkins method. From the Augmented Dickey Fuller test, included in Table 1, with an assumed risk of 5%, the series are non-stationary and therefore we need to differentiate once. All series are becoming stationary after estimating first difference, meaning that they are order 1 integrated, symbolically denoted by *I (1).*

$$\Delta e = e_{t+1} - e_t$$

(3)

Where *e*=error; e_t=error at time *t*; e_{t+1}=error at time *t+1*.

Table 1 – Testing the unit root for all general fertility rates

Analysed series	Augmented Dickey-Fuller test statistic	
	t-Statistic	Prob.*
GFR	-2.517569	0.3163
GFRu_20_25	-0.904206	0.9383
GFRu_25_29	-3.286157	0.1090
GFRu_30_34	-2.085893	0.5235
GFRr_20_24	-2.445603	0.3489
GFRr_25_29	-3.020381	0.1501

GFRr_30_34	-2.820568	0.2065
*MacKinnon (1996) one-sided p-values		

Source: Authors' results using Eviews

The GFR series presents an autoregressive component, but it has no moving averages. This stands for an ARIMA (1, 1, 0) model as in table 2.

Table 2 –Equation estimates

Analysed series	Method: Least Squares - Sample (adjusted): 1991 2013					
	Coefficient		Std. Error		Prob.	
	C	AR(1)	C	AR(1)	C	AR(1)
GFR	48.15485	0.639912	1.239138	0.068897	0.000	0.000
GFRu_20_25	49.41383	0.823980	6.669071	0.038964	0.000	0.000
GFRu_25_29	77.64054	0.484531	2.480403	0.153239	0.000	0.047
GFRu_30_34	0.00	1.017844	0.00	0.024057	0.000	0.000
GFRr_20_25	0.00	0.971436	0.00	0.012008	0.000	0.00
GFRr_25_29	97.12782	0.837262	16.00192	0.088824	0.000	0.000
GFRr_30_34	66.07375	0.461025	2.900569	0.055438	0.000	0.000

Source: Authors' results using Eviews

The errors series have to simultaneously fulfil three conditions:

1. Normality- tested via the Jargue-Berra test. Because all Sig. values are greater than 0.05, the normality hypothesis is accepted. The mean of errors is zero and so the estimated parameters are unbiased.

2. The homoscedastic hypothesis is tested using the Breusch-Godfrey Serial Correlation LM Test. The null hypothesis of this test is: the error series has no serial correlation up to a certain number of lags. Because the correlation coefficient does not significantly differ from zero, all Sig values being bigger than 0.05, we conclude that errors are homoscedastic.

3. The independence of errors is proved using the corelogramme of partial autocorrelation function (FACP).

Based on the above results we can conclude that our model is robust and well fitted. All GFR series are described by a cubic trend except for $GFRr_{30-34}$, general fertility rate for women between 30 and 34 years in rural region, which is described by an inverse trend.

Conclusions

The models of fertility in Iasi County from the last two decades show a decrease in all age groups' GFRs except for the series of general fertility rate for women between 30 and 34 years in the urban region which has a notable increase, smaller than the decrease of general fertility rate for women between 20 and 24 years in the urban region.

The analysis of the GFR in Iasi County in the last 23 years shows a decline in fertility with one exception: general fertility rate for women between 30 and 34 years in urban region increased. In the analysed period no cyclic component could be identified, which confirms the theory that for Romania, there is no natural fertility cycle (Jaba et *al*., 2013).

The number of children that a woman or a couple decide to have is the result of a complex combination of factors. Job's uncertainty, unemployment and stress are all factors that led to the decline of fertility in Romania in general, thus also affecting the North-Eastern region. The results obtained by time series analysis for TFR and by ARIMA for testing the errors are consistent and well fitted. The year 2011 represents a turning point for all analysed series. All of these series reached one of the smallest fertility levels in 2011. From 2012, when Romania began to recover from the economic crisis, the fertility seams to recover slightly. If this trend is maintained for a longer period, we believe that the fertility will increase, and the aging of population will diminish. Therefore, future studies should focus on analysing the influence of job uncertainty, unemployment and education on female fertility in Iasi County, both in urban and in rural region.

Acknowledgment

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ECONOMIC SECURITY – NEW APPROACHES IN THE CONTEXT OF GLOBALIZATION

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Abstract: *Nowadays, more than ever, economic relations between states are the ones that define the general character of the relations between them and establish economic security as a concept which cannot be neglected anymore. Globalization, the process that shapes the international environment, undermines the old definition of economic security and forces its redefinition. The article aims to identify and analyse the effects of globalization on economic security and the new approaches it takes in this context.*

Introduction

World countries have been facing many ups and downs recently, which, in a global economy that has become more and more integrated, stimulated interest for economic security and forced its redefinition. At the same time, they encouraged the search for political prescriptions to strengthen and increase economic security in the new environment. Globalization, undermining the old definition of economic security, can be found in the centre of the new definition which needs to encompass the causal consequences of globalization and establish explicit reference criteria to account for its effects on economic security (Kahler, 2005, p. 23).

At present, more than ever, economic relations between states are the ones that define the general character of the relations between them. Conflicts nowadays are less about ideologies and taking over state power, and more about the fight to control or obtain resources, controlling territories rich in mineral resources and other valuable goods or routes on which they are brought on the market (Renner, 2002, p. 10).

Economic security is not a new concern for the government, economic instruments being part of the statecraft set of instruments for a long time now, a means to influence other states and their policies (Kahler, 2005, pp. 23-24). International relations analysts that have always acknowledged weapon power did not succeed in reaching a consensus on the importance, usefulness and definition of economic statecraft. Realists contested the usefulness and power of economic statecraft with respect to the normalization of international relations. Neoliberal criticism addressing the realist paradigm claims that an increased economic interdependency in the current context may determine a

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behaviour of collaboration between states against the background of higher prices for escaping this system of relations. Moreover, relations of increased economic interdependency boost the number and chances of coercive, yet non-violent policies that may be used. Simultaneously, these interdependencies may deepen the differences between developed, stronger states and the less developed, weaker ones.

The process of globalization, the movement towards a global economy with respect to the sector of goods, services and capital turns the integration of the economic dimension in national security policies into a need. Last but not least, economic performance is the one that mostly determines the military capabilities of a country and the citizens' welfare (Posen and Tarullo, 2005, p. 3).

Theoretical perspectives on economic security

Starting from Baldwin's statement (1997, p. 12) who claimed that security is a confusing concept, thus requiring further clarification, we may say that economic security is also a controversial concept, with political influences, yet its existence itself in a capitalism system was questioned, given the fact that agents need to be unsure on the market, otherwise the market would be inefficient (ILO, 2004, p. 5-17).

Buzan (1998, p. 95) feels that economic security is located in the intense debates which regard the relations between the anarchical political structure and the economic structure of the market. Various approaches have in view the position of states and societies in relation to the markets', as well as the situation in which individual economic actors have their own demands and their relation with the markets.

In Hough's (2008, pp. 108-111) opinion, the study of world economy is based on three main approaches that, besides being paradigms for its conceptualization, may be understood as ideologies for the increase of economic security. Moreover, economic security, may be achieved twofold: from a liberal viewpoint through a more intense globalization and from a mercantilist perspective through less globalization; and from a Marxist perspective with a radical change at world level. With respect to this, the various ideological positions generate different visions on the priorities of the economic security discourse. However, at present, this discourse is shaped by the liberal agenda and the consequences of its implementation in the field of commerce, production and finance. (Buzan *et al.*, 1998, p. 96).

At the same time, conceptualization and answers to economic security problems may be understood better according to historical, political and social contexts of the states and their societies,

as well as the strategic environment in which they are found (Kolodziej, 1992, p. 422). However, it is important to avoid the exaggeration of the notion of economic security so as not to include all economic risks as they might complicate the elaboration of security policies in an interdependent world economy. This requires a more careful conceptualization of economic security, although it is equally vital to avoid an extremely narrow definition which would normalise peculiar security concerns of a state for all states and societies (Nesadurai, 2005, p. 5).

Traditionally, economy caught the eye of national security by the impact it had on financing defence capacities and ensuring an innovative and efficient war industry, as well as the use of economic sanctions or other non-military instruments. Long-term success of national power depended on the capacity of the state to create and sustain a performance economy and a sustainable economic growth.

Buzan (1991a, p. 19) states that economic security is related to the access to resources, finance and markets which are needed to support acceptable wealth and power levels in the state. Furthermore, Tsereteli (2008, p. 16), with a similar approach, points out that the concept of economic security refers to long-term security of the access to economic opportunities in markets and resources such as people (human capital), capital, energy, water, technology and education. This concept is critical for individuals and nations, only free people being able to build free societies, their freedom drawing on the individuals' economic security. Long-term internal stability of each state is the key factor for national security. However, there is no stability without economic growth and opportunities for natural persons to freely choose economic activities.

Dick Nanto believes that economy is part of the debate on security due to three overlapping roles. The first role aims at economy as source of funding, materials and personnel for military power. The second role deals with economy as a provider of economic security and wealth, and the third one envisages economy as foundation for the interaction between states and common or concurring interests.

Still, from the viewpoint of nation overall, economic security has a wider sense; thus, the role of economy within national security can be regarded from a macroeconomic and microeconomic perspective. From a macroeconomic viewpoint, the problematic addresses budget and diminution of shortfall. The microeconomic perspective focuses on ensuring general wealth conditions to people and the support of other components of national security. Economy lies at the basis of each of them by the supply of funds, human resources and other, capital, products, not to mention culture and an inspiring economic model.

An operational economy is based, in its turn, on fiscal, governmental, monetary and industrial policies, the quality and the amount of human resources, the progress recorded in the field of science and technology, commerce and international capital flows.

In addition, economic security is the existence of necessary means and opportunities to ensure their own welfare within an economic system which is vibrant, accessible and grows steadily. This corresponds to stable revenues, a job or entrepreneurial support to maintain what someone considers being an acceptable standard of living. At the same time, the vague concept of economic security is more dangerous, perhaps, when it lacks during recessions, high unemployment periods and bankruptcy and when there is a gap between economic expectancies and reality. As far as the state is concerned, long-term security greatly depends on the assurance of a dynamic and growing economy (Nanto, 2011, pp. 1-16).

Economic security and the globalization process

In the past years economic, social, political and technological developments stressed insecurity worldwide. World economy became more integrated and more unstable. The increase of global interdependency leads to the increase of vulnerability in economies, whereas a higher economic specialisation induced by commerce (based on the "comparative advantage" principle) sometimes implies painful adjusting from the part of workers and communities which inevitably produce insecurity. Moreover, there has been a high increase of capital flows which became more volatile. Simultaneously, developing countries face superior and more volatile capital flows and their capacity to face them via controls and restrictions was constantly damaged. The financial market recorded a considerable integration which affected the autonomy of political decision at the national level.

World economy became more predisposed to economic crises, deep recessions which imply their sudden spread from a country or region of the world to others. Economic liberalization was accompanied by a growth of systemic shocks which triggered a systemic insecurity, hard to cover via standard insurance forms. Along with globalization, economic crises from a country or region have higher chances to influence other economies. "Contagion" became a fear for all world countries – for instance, further to the crisis of the August 1998 Russian debt, two of the most affected countries in the world were Brazil and Argentina, even if their economic relations with Russia were almost inexistent (ILO, 2004, pp. 21-39).

In Nesadurai's (2005, p. 4) opinion, an acceptation of economic security that does not consider the state of economic globalization does not correspond to the realities of contemporary life.

Economic security does not stop at the regular fluctuations in the GDP, workforce occupancy, productivity and other indicators that have been major concerns of the specialists in economy for decades and are still in the pipeline for academic studies in the field. In the present context, economic security refers to capital flows worldwide and capital markets and products that are the object of these flows. Through these channels, currencies may be destroyed, inflation passed on, stocks exhausted, and financial institutions destabilized.

At the same time, Kahler (2005, pp. 24-25) identifies three arguments that support globalization as far as economic security is concerned. First, governments, even the ones that sustained the traditional approach of international policy dominated by military force saw the links with global economy as strengths for national economy, technological structure and, ultimately, their military power. The ones that rejected an extended international economic exchange risked conventional military inferiority.

Moreover, globalization had the effect of reducing vulnerability by diversifying suppliers and markets, and the unilateral application of economic sanctions became more difficult, thus diminishing the states' vulnerability. Furthermore, economic liberalization meant that all governments gave up part of their influence on private economic agents, thus reducing the efficiency of statecraft economic instruments. On the long term, economic integration could also aim at a deeper transformation, leading to a redefinition of a vision on national security, a less militarised one.

Globalization brought into discussion new definitions of economic security centred on two types of flows: illicit flows that are harder to control and can easily take the shape of legitimate economic transactions (terrorism, crime, pollution) and economic shocks (financial, to a great extent) that may undermine economic growth, raise inequality and threaten political stability.

Helen Nesadurai (2005) proposes a comprehensive approach of the concept of economic security to consider socio-economic aspects, as well. But on the other hand, comprehensive concerns of economic security focus on the demands of sustainable economic development as means of promoting socio-economic progress. They usually encourage a positive perspective, aiming at the economic interdependence between states which is considered as facilitator when complementary economic interests need following via international economic integration (Boutin, 2014, pp. 8-9).

Besides the economic power that state elites have the intention of ensuring within the political competition between states, three other economic values that states and communities should ensure in a globalized world may be identified. These economic values are represented by the assurance of revenues and consumption meant to cover basic human needs, market integrity and equitable

distribution. These three values are an alternative conception of economic security, one that is able to consider the realities of global capitalism.

In this alternative approach economic security comprises a microeconomic and macroeconomic component. The microeconomic one focuses on the individual, as main referent of security, with the purpose of ensuring revenue security, as well as access to a level of consumption able to assure basic human and family needs. The macroeconomic component refers to the assurance of integrity or robustness of the market to generate economic growth and welfare in society. This may be achieved by ensuring the necessary number of institutions on the market, including a system of property rights and contracts which grant equal access to natural persons for the exploitation of economic opportunities. Economic security is also touched via an equitable distribution system which is now acknowledged as vital for assuring the political stability of capitalism. This economic stability of economic security speaks beyond the world of inter-state rivalry and political power. However, the traditional realist approach needn't be abandoned as it may be representative for some states in certain moments of time (Nesadurai, 2005, p. 13-14).

Conclusions

In a globalized world with an increasing number of players on the international scene (states, multinationals and various international organizations) and a growing interdependence, the economic security it is no longer an issue that concerns the internal state policy only. To a certain extent, economic security became a factor of stability or instability regarding political-military conflicts. As a result, the economic dimension gained an increasing role in the political matters leading to changes with respect to resolution methods, from "reactive to preventive" ones (Kuznetsov *et al.*, 2010, p. 26). "Geoeconomics" replaces geopolitics and becomes the key concern of the main actors on the international scene, economic power being acknowledged as essential in the determination of primacy or subordination of states in the international system (Nesadurai, 2005, p. 4).

Significant changes on the international scene, the intensification of globalization, the increase of economic interdependencies, technological development and the IT revolution led to a widening of the concept of economic security. Economic security does not stop at ensuring access to resources, markets and financing of military capacities or the use of economic statecraft elements. The integration and interdependencies of global economy, product and capital flows, the multitude of channels that convey economic crises, socio-economic aspects and implications of the economic

sector regarding welfare, security and development of societies establish the dimensions of the concept of economic security.

Moreover, despite the process of globalization and erosion of state institutions, by the occurrence of new international actors, state institutions remain key providers of economic security. However, in light of the new international environment states need to cooperate between them, with regional and global actors and to evolve in order to face the challenges imposed by the new threats on economic security.

The process of globalization contributed to a change on the concept of economic security, not only that we have a wider and more complex approach with an increased number of involved actors but also a reconsideration of the threats.

Last but not the least, the importance of economic security is given by the implications that the economic component has in the process that ensures the national security, as a generator factor and constraint element with respect to its achievement. In this context, economic security became an important, dynamic and complex concept, that needs to face the challenges of the new international environment, although, the idea of economic security remains one full of "contradictions and paradoxes" (Buzan, 1991b: 445).

Acknowledgement

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THE LOYAL CUSTOMERS' PERCEPTION REGARDING THE ONLINE BUYING PROCESS

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Abstract: *The purpose of the research is to investigate the Romanian online customers' perception as regards to the process of buying products from the Internet. The research objectives are: (1) to identify the advantages and disadvantages of buying from the Internet; (2) to identify the reasons of buying from the Internet; (3) to identify the reasons of frequently buying from the same website. We employed a qualitative research method, based on depth interviews. It is an exploratory and instrumental research. The sample is represented by 30 Romanian online customers who frequently buy products from a specific website. The results show that the most important reasons for online shopping are: space accessibility, access convenience, evaluation convenience, delivery convenience, time saving and money saving. The motivations for repeating the purchase from the same website are: product quality, product diversity, quick delivery, easy to use, recommendations, good deals, safety, reputation and interactivity.*

Introduction

In the international context of the digital communication era, online commerce becomes an important part of business systems. It is a business model which has a major impact on the entire society. Once the Internet became a tool used for communication, promotion and transactions, new platforms for competitive strategies were developed (Celuch *et al.*, 2007).

Electronic commerce includes any form of commercial transaction where involved parts interact in an electronic manner. The most important contribution offered by the electronic commerce was brought by new distribution channels options. Retail companies benefit from this opportunity for accessing consumers from all over the world with smaller costs. Due to online integration, their businesses obtain substantial incomes, much bigger comparing to the old traditional sales method (Molla and Licker, 2001).

The electronic commerce became more and more present on Romanians list of shopping options, in the context of a growing Internet penetration rate: "although Internet penetration in Romania is still low compared to the European average of 70%, by 2018, rates are expected to be significantly more balanced with over two thirds of the population having home access to the Interne" (Euromonitor, 2014).

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In a global economy developed in a highly competitive market, consumer orientation is no longer a trend but a necessity for business success. The online consumer behavior is still a challenging subject investigated by academic researchers and business representatives (Tugulea, 2014a). A good understanding of the way consumers leverage the Internet features, to make purchasing decisions in the e-commerce environment, brings a significant advantage for managers in order to develop suitable marketing strategies (Wu and Lin, 2006). Online buyers have unlimited access to the information they require and have the opportunity to choose from a wide range of options in selecting products and services with highly competitive prices (Jiang *et al.*, 2013). Regarding preferences in the online shopping context, Romanians mostly buy electronics and video games, apparel, beauty and personal care products.

With more and more customers switching to online shopping and a constantly growing rate of retailers' online presence in Romanian market, a great challenge for managers it to attract new clients, while forming loyal customers as well.

With more access to information and having already some buying experience, the online shopping habits of Romanians are evolving. The new generation of young people is more familiar with online technology, has more experience in using the Internet and is more willing to face perceived risk.

The purpose of the research is to investigate Romanian online customers' perception regarding the process of buying products from the Internet. We focused on customers who use to frequently buy from the Internet because they have more experience and are more likely to be loyal to a specific retail website.

The research objectives are:

(1) To identify the advantages and disadvantages of buying from the Internet;

(2) To identify the reasons of buying from the Internet;

(3) To identify the reasons of frequently buying from the same website.

1. Customers' perception on the online buying process benefits

Online shopping decision is influenced by consumers' attitudes toward the Internet as a whole (Whyte, 2001). The reasons for buying from the Internet can be justified by the benefits the online shopping offers: accessibility without time or space restrictions, convenience, a good product selection (Brynjolfsson and Smith, 2000), better possibilities for product searches and price comparisons (Blake *et al.*, 2005; Chang and Wang, 2011; Tugulea, 2014b)

One of the most important reasons underlying customer inclinations to adopt online purchasing is shopping convenience (Jayawardhena *et al.*, 2007; Beauchamp and Ponder, 2010; Jiang *et al.*, 2013). The study of Jiang *et al.* (2013) investigated convenience in online shopping and identified some important dimensions of this construct: access convenience, search convenience, evaluation convenience, transaction convenience, possession/post-purchase convenience. Also, this research indicates a positive correlation between online shopping convenience and the intention to repeat the purchase: "the more convenience that is perceived on searching, transaction and possession/post-purchase, the greater is the possibility for repurchasing and recommendation by the customer" (Jiang *et al.*, 2013, p. 207). Customers who buy from the Internet mention the advantage of reducing sales cost (Chan and Li, 2010; Chen *et al.*, 2010; Ku, 2012). When choosing a specific website, e-service quality, brand recognition and online retailer reputation are criteria for making the purchase decision (Kim *et al.*, 2008; Kwon and Lennon, 2009). The study of Madu and Madu (2002) mentions 15 dimensions of online service quality: performance, features, structure, aesthetics, reliability, storage capacity, serviceability, security and system integrity, trust, responsiveness, product/service differentiation and customization, Web store policies, reputation, assurance and empathy. Cai and Jun (2003) identified four key service quality dimensions web site design/content, trustworthiness, prompt/reliable service and communication.

The Euromonitor research report on Internet Retailing in Romania (2014) reveals as the main reasons for Romanians buying from website the comfort of accessing online stores, the wide range of products available and the lower price comparing with traditional stores.

One of the most significant factor causing anxiety when it comes to making the purchase from a website is risk (Bhatnager *et al.*, 2000) but it can be reduced by knowledge, skill, and experience (Clarke *et al.*, 2007). The research of Forsythe and Shi (2003) shows a strong connection between perceived risk and buying frequency in the online environment.

Online buyers are motivated to be loyal due to one or two attachments: desired-based and customized-based. (Bansal *et al.*, 2004; Tsai and Hunag, 2007). Online loyalty is a "customer friendly attitude towards online business, reflected in a repeated purchase behavior" (Anderson and Srinivasan, 2003, p. 125, Limbu, 2011) or a subjective probability for a customer to make future purchases from the same web site (Chiu *et al.*, 2009). Although the marketing theory and consumer psychology support the existence of four dimensions of loyalty, most studies treat either the behavioral or attitudinal component (Bobalca, 2013). Only a few of them propose models of cognitive, affective, conative and behavioral loyalty (Evanschitzky and Wunderlich, 2006), less applied in Romanian online sale research. Online loyalty is approached in most cases as a uni-

dimensional construct (Limbu, 2011; Hashemi, 2013) and, more rarely, as bi-dimensional. Harris and Goode (2004) propose a sequentially model of loyalty, taking into account satisfaction, trust, perceived value and quality of service as determinants.

Online repurchase intentions refers to the motives online customers remain with a particular web site and is defined as "a consumer's willingness to repurchase offerings in a particular web site" (Ha *et al*., 2010, p. 881). The research of Ha *et al.* (2010) underlined that online purchase intentions are influenced by the following variables: interest, namely, customized information, perceived interactivity, consumer satisfaction and consumer attitudes.

2. Research method

We conducted a qualitative research based on semi-structured depth interview. This research is a part of a larger study for developing an online loyalty model. The necessity for developing a qualitative research is justified by the need of a better understanding regarding the way consumers feel, think and act when buying from the Internet. The results of the qualitative research will be used to build an instrument for collecting quantitative data in a future survey but also for selecting the most relevant variables to be included in the model. The study presented in this paper is an exploratory and instrumental research. We considered depth interview the most appropriate method because it allows a depth investigation of consumer's perceptions, motivations and opinions regarding the online buying process which is a complex process and needs time to be explored.

3. Research sampling

The investigated population is represented by Romanian online customers who use to buy products from a specific website. The sample consisted in 30 persons who usually buy products from the Internet, between the ages of 19 and 26 years, who bought products from a specific website at least three times in the last six months and consider themselves loyal to that Internet site. We consider buyers' experience to be very important in this research that is why we chose only loyal customers.

The participants for the depth interview were sampled using a selection questionnaire. The purpose of this questionnaire was to select only the respondents who have the characteristics required by the sample conditions. The introduction presents the purpose of the research and the closed questions investigate products buying frequency from the Internet. The last section contains demographic information about the respondents (gender, age, income, education) and their contact data.

We used snowball sampling technique that assisted in the identification of the respondents fulfilling the conditions presented above (Alam, 2005). The researcher finds respondents through contact information that is provided by other people. "Informants whom the researcher meets are those who supply the referrals" (Noy, 2008, p. 330). Snowball technique is "the most widely employed method of sampling in qualitative research" and its relation with in-depth interviewing is "rather obvious" (Noy, 2008, p. 334).

The final sample was composed from 20 men and 10 women because the business research shows a bigger rate of male online buyers in Romania. The main products that the participants buy from online stores are: clothing (26 answers), electronic products (23 answers), footwear (17 answers), cosmetic products (10 answers) and accessories (7 answers).

4. Research instrument

The research instrument we used was the interview guide. We build this guide based on the documentary literature review and also on business studies from Romanian market. The interview guide was constructed in accordance with the rules and techniques suggested by qualitative research. The interviews were conducted by the author of this article, due to her previous experience. The introductory part presents the general purpose of the research and develops a familiar environment for the following discussion. The second section of the guide contains general questions about buying experience from the Internet: first time the consumers bought products using the Internet, type of products they usually buy, most common sites they prefer, places they access the Internet. The third part of the guide explored the perceived advantages and disadvantages of the Internet, as a shopping center. The next section investigates buyer's specific experience with the Internet: the last online shopping experience, the positive and the negative situations during time, reasons for using websites and preferences for websites. The fifth part of the interview guide was dedicated to the buying experience from a specific websites: website choosing criteria, strengths and weaknesses of the website.

We used open questions, questions investigating experience ("Could you tell me about a positive experience you had when you bought from this website?"), questions investigating opinions ("What do you think about people who buy products from the Internet") and feelings ("How do you feel buying from this website?").

We also used laddering technique, which is based on the assumption that the products and their features "do not in themselves represent any goals, instead they represent means by which to achieve

other ends" (Sørensen and Askegaard, 2007, p. 65). First, the respondents identify a set of attributes or features considered important in choosing a website. They were asked to rank their preferred websites and to justify their answers identifying the most important attributes or features. In the second phase, the interviewer will take every website attribute/feature as a starting point and ask the respondent why this is important for him. For each answer, a new "why is this so important to you" question is posed. In the end, we can link the websites attributes to its consequences and/or personal values for the online buyers.

The guide was tested on two persons who usually buy on the Internet, in order to correct the errors and to improve the coherence of the themes proposed to be discussed. We conducted the interviews at various hours, depending on participants' schedule, in the faculty's seminar rooms. The average time spent for every interview was 70 minutes.

5. Research results

All the information from the interviews was transcript and processed using content analysis.

The first objective was to identify the advantages and disadvantages of online shopping. Table 1 presents the identified advantages of buying from the Internet.

Table 1 – Identified advantages of buying from the Internet

Dimensions	Categories	Answer frequency
Accessibility	*Time*	25
	Space	24
Convenience	*Delivery convenience.*	30
	Evaluation convenience	29
	Access convenience	28
	Transaction convenience	14
	Search convenience	13
Product diversity		30
Cost savings	*Time*	30
	Money	29
Interactivity	*Access to other buyers' opinions*	12
	Online assistance	6

Source: The present research results

a. Accessibility

The accessibility dimension is reflected by two categories: time and space. Buying from the Internet eliminates *time* restrictions. 25 respondents identified this advantage: "The order can be placed at any time", "You can make an order during day or night, no matter what time it is". Also, there are no *space* restrictions (24 answers). The products can be bought at any hour from any country: "You can make an order from your home or from anywhere you have access to Internet", "You can buy products you cannot find in Romania, from other countries"

b. Convenience

We identified five categories for convenience:

Access convenience. Most of the respondents (28 answers) consider that buying from Internet means you do not have to go in a store, you can avoid crowded places: "You have easy access to the online store", "You do not have to go in town to find an open store". Also they consider it is easy to access the online stores (10 answers).

Search convenience. A third of respondents (13 answers) consider that the Internet offers better possibilities for product searches than traditional stores: "You can search for the products you want/need in short time"

Evaluation convenience. Almost all respondents (29 answers) consider that online buying facilitates a very good product selection and more efficient and detailed products and/or price comparisons: "You can compare product, their characteristic, their prices, more efficient and more detailed", "You can compare more products from more online stores", "You can view more products in the same time", "You have access to more details about products you compare". Also, evaluation convenience includes more time for the respondents to think, to evaluate: "You can spend as much time you want before placing your order; no one puts pressure on you, like in a traditional store", "You can take your time to decide what you want to buy without a pushing seller to hurry you"

Transaction convenience. About half of the respondents (14 answers) consider that another advantage is transaction convenience: "Is easy to place an order, you can easily choose the delivery method". Also, they appreciate the possibilities to pay: "It is easy to buy from the Internet, you place the order, choose the payment type".

Delivery convenience. All respondents (30 answers) consider home delivery to be very important "The products are brought to you at home", "It is very important that you can receive the order at home, someone else can pay for this, and you do not have to be home". Also, they mention the possibility to return a product: "You can send the product back if you don't like it".

c. Product diversity

All the respondents (30 answers) appreciate that online stores offer a large diversity of products, much larger than traditional stores: "You can find a lot of products", "You can track new products".

d. Cost saving

We identified two categories for cost savings dimension:

Time saving. All the respondents (30 respondents) consider this important advantage: "You can buy in short time", "You do not waste time for going to the store", "You can save a lot of time buying from Internet".

Money saving. Almost all respondents (29 answers) mention better prices of online products, many special offers that are available in the online environment and the free or small cost of delivery: "The prices are smaller in online stores", "You can always find special offers", "Some online stores send you the order with no delivery cost".

e. Interactivity

In the "Interactivity" dimension, we identified two categories:

Access to other buyers' opinions. 12 respondents said that online buying allows the customers to access feedback from other persons who bought from the same website or the same products: "I can read other people recommendations".

Online assistance. 6 respondents consider online assistance being an advantage: "You can communicate with the seller by phone or by email", "You can communicate with the representative by website chat".

Table 2 presents the identified disadvantages of buying from the Internet. The identified disadvantages are:

a. Delivery Costs

For this dimension, we identified two categories:

Money. A third of the respondents (10 answers) consider that paying the delivery cost is an inconvenient and that all websites should have free delivery charge: "You have to pay the delivery", "Sometimes the delivery is free".

Time. All the respondents were agree that buying from the Internet means not getting the product you have bought in time same day: „It takes few days until you get the order".

Table 2 – Identified disadvantages of buying from the Internet

Dimensions	Categories	Answer frequency
Delivery Costs	*Time*	30
	Money	10
Transaction risk	-	27
Delivery risk	*Delay*	15
	Return the order	10
Product risk	*Product with other characteristics*	30
	No testing possibility	28
	Quality risk	17
	Product damage	8
Lack of personal communication	-	5

Source: The present research results

b. Transaction risk

Concerning transaction risk, 27 respondents consider that unsecure payment methods represent a big problem in Romania: "The transaction is risky", "You can be cheated", "I have heard about a lot of frauds on the Internet", "You can pay and never receive the products you have ordered".

c. Delivery risk

Half of the respondents (15 answers) mention as possible disadvantages regarding delivery the fact that the products can rich the destination with big *delay*: "You get the order with 4-5 days later than they have promised".

Another problem is that the order is ***hard to be returned*** or even impossible (10 answers): "If you are not satisfied with the products you have received, is hard to send them back"

d. Product risk

Product damage. A few respondents (8 answers) mention as a disadvantage the risk for the product to be damaged during the delivery: "You can receive a broken product".

Product with other characteristics. The risk that the product might not be the same with the one a buyer ordered is a great problem for all the participants (30 respondents): "The product you receive can have other characteristics comparing to the product you have ordered", "You must pay attention on what you pay for and what you get".

Quality risk. More than a half of respondents (17 answers) consider quality risk an important issue in e-commerce: "You cannot be sure of the product quality".

No testing possibility. The fact that the products can't be seen, touched or tested before shopping is also a disadvantage mentioned by the participants (28 answers).

e. Lack of personal communication

Online shopping in characterized by a strong lack of personal communication (5 answers): "You do not see the seller", "You cannot talk face to face with the seller", "The reviews are not always correct."

The second objective was to identify the reasons the respondents buy products from the Internet. The motives described by the respondents can be organized the same as the advantages presented in Table 1.

The reasons that all the participants at the interviews have mention (30 answers) were: *space accessibility* ("On the Internet I find products that are not available in traditional stores", "I live in a small town and I cannot find here the products I want"), *access convenience* ("I do not have to go to the store, I stay in bed and order what I want"), *evaluation convenience* ("I have privacy when I choose what I want", "I can compare products and prices on many web stores", "I can better evaluate products"), *delivery convenience* ("It is very important to me that the order is delivered to my home") and *time saving* ("When I buy from the Internet, I save a lot of time", "I do not have to stay for hours in traditional stores, searching for what I want or what I need", "Time is too precious to lose it doing shopping").

Most of the answers (26) describe *money saving* motivation to buy from online stores: "The most important reason for me is the price, you can find good products at an attractive price", "The online prices are smaller than the ones in the traditional stores", "You can find a lot of promotional offers", "Some special offers are available only on the Internet". Almost half of the respondents declared that buying from the Internet means for them have access to *product diversity* (17 answers).

An interesting motivation to online shopping was also revealed- *habit* (15 answers): "I am used to buy from the Internet", "I am already familiar with the Internet".

Other motives, described by about a third of participants, are: *time accessibility* (12 answers: "I can place the order whenever I want"), *access to other buyers' opinions* (11 answers: "I can reach other people 'opinion on the product I want to buy", "The recommendations I find on forums are helpful for me") and *search convenience* (7 answers: "It is easy for me to search and to find a product").

The third objective was to identify the reasons the respondents repeat the purchase from the same website. We grouped these motivations in the following categories: product quality, product diversity, quick delivery, easy to use, recommendations, good deals, safety, reputation and interactivity.

All the respondents (30 answers) mention that they use to buy products from the same website because they are convinced by the ***product quality*** ("I was satisfied by the products", "I have received exactly the phone I ordered") and the ***quick delivery*** ("I was delighted by the fastness the order was sent to me"). Another important reason for repeating the purchase (25 answers) was the g***ood deals*** that the buyers make ("I have found very good offers on the website", "This online store has better prices that the others").

About half of the participants are loyal to a website because it is ***safe*** (17 answers: "This website gives me a feeling on security", "It is safe to pay with the card"), due to the ***recommendations*** they get on the specific online stores (15 answers: "The other customers' opinions are positive") and its the ***reputation*** (13 answers: "This site has a good notoriety"). Other reasons are the ***product diversity*** (11 answers) and the fact the site it is ***easy to use*** (9 answers). The interactivity is also a motivation for repeating the purchase (9 answers): "The seller asked me if I am pleased with the products I have bought", "I called the seller and he answered to all my questions".

Conclusions

This research is an exploratory investigation of online buyers about the advantages and disadvantages of direct selling and the reasons they buy from the online stores. The main advantages identified in this research are: accessibility (time and space accessibility), convenience (delivery convenience, evaluation convenience, access convenience, transaction convenience and search convenience), product diversity, cost savings (time and money savings) and interactivity (access to other buyers' opinions and online assistance). Online shopping has also some disadvantages, comparing to traditional process of buying from the stores: delivery costs (time and money), transaction risk, delivery risk (delay, returning the order policy, receiving products with other characteristics, no testing possibility, quality risk, product damage) and the lack of personal communication. The most important reasons for the participants use to buy from online stores are: space accessibility, access convenience, evaluation convenience, delivery convenience, time saving and money saving. The motivations for repeating the purchase from the same website are: product quality, product diversity, quick delivery, easy to use, recommendations, good deals, safety, reputation and interactivity.

Also, using laddering technique, we identified:

•Important attributes of a website: quick delivery, easy to use, small prices;

•Consequences for the respondents: saving time, using the product when they need it, saving money;

•Personal values: more time for personal issues, happiness, safety, self-esteem.

Research limits. The research was conducted on a sample of students, but they are not representative for the entire population.

Future research directions. This research will be continued with a quantitative research that aims to identify the factors affecting online buyers' satisfaction and loyalty. Based on the qualitative research, the instrument for the survey will be build and the variables for the loyalty model will be selected.

Another possible research direction is to investigate non-buyers perceptions (persons who have access at the Internet) about the process of online buying, in order to understand the reasons they do not buy from websites and their opinions about the advantages and disadvantages of the Internet as a shopping option.

The research might be developed on a larger sample with more categories of respondents, regarding age and education level. The results have significant implications for commercial web sites but the research results must be confirmed on a quantitative study.

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THE EUROPEAN UNION CONVERGENCE IN TERMS OF ECONOMIC AND HUMAN DEVELOPMENT

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Abstract: *In the context of EU enlargement there is no universal model which should offer a unique solution for diminishing the disparities in the development of a country. An approach only from the point of view of economic growth is not enough, so we extend the analysis towards the social development. Considering the level of GDP per capita and of HDI registered by EU states during 1995-2012, we test the hypothesis of real σ and β-convergence in terms of economic and social development. The estimated results indicate a tendency in reducing the divergence in both economic and social degree of development. A relatively strong process of real σ-convergence became evident while real β-convergence testing supports the hypothesis among EU countries, but the results indicate a slower process for HDI convergence compared with GDP per capita.*

Keywords: human development index; economic growth; GDP per capita; EU member states; sigma convergence; beta convergence

Introduction

During the 19th century, in the context of the industrial revolution which led to an increase in the level of welfare, the European countries experienced significant economic growth. However, they were quite unequally affected by the development process, so the disparities between nations have increased. Thus, this question emerged: Will the process of European integration emphasize or diminish the existing trend toward a well-balanced EU economic area? (Ignat and Bucur, 2012).

Extensively treated and debated in the literature, the matter of regional economic convergence is regarded as a *similarity or identity matrix* (Castro, 2004). Many studies carried out on national as well as on regional levels, which used the two types of convergence – *the sigma convergence and the beta convergence* (*absolute and conditional*) (Sala-i-Martin, 1996) – showed that in the EU the real convergence is far from being complete.

In a *narrow sense*, real convergence requires the similarity of the final results regarding the real economic variables, the difference between them tending towards zero, while *in a wider sense*, the differences and the modifications in time concerning the levels of development, competitiveness, the macroeconomic performance and the labour market as well as other aspects can show the degree of real convergence (Zd'arek and Sindel, 2007). Consequently, in the long term, real convergence means reducing the structural disparities among different countries/regions, thus allowing for certain

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similar performance concerning the real variables, the so-called catching-up process of the developing countries during the transition period, concerning the income per capita, the standard of living, productivity and other variables (Bucur, 2012a).

Achieving sustainable convergence by reducing economic disparities is possible only in the context of long-term economic growth, which is why the determinants of convergence are practically the sources of growth potential.

The existence of a convergence process of the poor economies towards the rich ones would satisfy the natural desire of humanity for justice and fairness. However, the presence or absence of convergence is not completely an economic phenomenon, the social situation of individuals that affects individual and national productivity aggregate being essential for the stability and sustainability of economic growth in both developed and developing economies (Parhi *et al.*, 2013). As President Franklin Roosevelt of the United States affirmed in his address at the Conference of the International Labour Organization in New York in 1941, "the economic policy can no longer be an end in itself; it is only a means of achieving social objective" Mückenberger (1994) also considers that "to discuss and decide economic issues without regard to social objectives is to lose all sense of purpose, and to discuss and decide social objectives without regard to economic conditions and constraints is to lose all contact with reality". The same opinion is supported by Pecican (2009), who suggests that the unilateral approach, only from the economic point of view, is not sufficient, and that it would be advisable to extend the analysis towards other fields of the social development, which implies including more synthetic indicators in the calculations performed.

Emerging from insufficient measurement of living standards, which were using only income as the sole indicator (Crafts, 1999), the *Human Development Index (HDI)* - published in 1990 by the UNDP in the HDR, as an analysis framework for the social development of a country as well as for its economic development – allowed a more comprehensive type of convergence analysis among the countries. The aggregate index includes specific variables for certain aspects which are extremely relevant for the social and economic status (the degree of education, life expectancy, Gross National Income) and it is calculated as an average of three basic dimensions of the human development (a long and healthy life, the level of knowledge and a decent standard of living).

Considered, at least so far, as the most useful composite indicator to measure the complex relationship between income and living standards, the HDI has drawn criticism on the one hand, for the equal weighting of the three dimensions and, on the other hand, for omitting extremely important indicators such as pollution, human rights, income inequality, unemployment etc.

Regarded as a determininant that enables the increasing of the economic standard to the level of development of a country or group of countries within the regional integration, real convergence can be quantified using a set of result indicators. The indicator that is most frequently used for assessing the standard of living or for monitoring the convergence process is the derivative indicator *GDP per capita*, which we also used in this paper. So, with the possibility of studying cross-country convergence using a more comprehensive indicator than GDP per capita, we will complement the analysis of the economic convergence with the analysis of the human development convergence. This can be quantified using the aggregate indicator *HDI* and the main components in its composition: Education Index, Life Expectancy Index and Gross National Income per capita in PPP terms (GNI). Our approach is meant to outline a much more accurate picture of the socio-economic reality in the analyzed EU member states.

In order to identify the existence of both economic and social convergence processes and also to emphasize their evolution in the context of European enlargement from EU-15 to EU-27, being characterized by an unprecedented scale and diversity, with high levels of socio-economic risk, we have chosen the period 1995-2012 for our analysis.

Using conventional tests for sigma convergence, our results indicate that there is a tendency of reducing divergence in both economic and social terms of development among the EU states during 1995-2012. Testing beta convergence for both indicators we can say that in terms of social development there is a much slower convergence process among the EU states, over the last seventeen years, mainly due to Life Expectancy Index and, to a lesser extent, to GNI per capita.

We structured the rest of the paper as follows: in Section 1 we present previous studies which are representative for convergence in terms of social development based on the cornerstones of the theory of economic. Data and methodological aspects for testing economic and social convergence are discussed in Section 2, while in Section 3 available data are processed and our empirical results are reported and analyzed. Finally, Section 4 contains the summary of the study and the main findings of our results considering previous studies mentioned in the paper.

3. Theoretical Background

3.1. Developments in the Theory of Economic Growth

Starting from the mid-50s, the theory of economic growth has developed two distinct generations of models. The first one, *the exogenous growth models*, inspired by the neoclassical

Solow-Swan growth model based on the Harrod-Domar model, considers that the conditional convergence implies achieving a relatively equal level of income per capita, in the context of certain significant growth disparities between economies, while the absolute convergence supports the equal level of income per capita, irrespective of its initial level (Solow, 1956 and Swan, 1956).

The empirical studies suggested that "real economies generally converge towards their state of balance at considerably slower rates than the ones predicted in the original Solow model" (McQuinn and Whelan, 2007). Thus, it is considered that the neoclassical model does not offer a proper perspective on the processes that cause the long-run growth.

Compared to the neoclassical models, the second generation, *the endogenous growth models*, developed during the mid-80s, offer different conclusions concerning the existence of convergence. All the new models emphasize the unlimited feature of the technical progress stemming from knowledge, in order to save all the factors of production, and plead for constant or increasing marginal efficiency of the investment. Two models are distinguished: the *Romer model* of learning by doing, which states that economic growth can be achieved with the increase of income, but with the manifestation of the divergence processes (Romer, 1986) and the *Lucas model* which, analyzing the transition period, emphasizes the fact that the less developed countries may have a slower or a faster growth rate compared to most of the developed countries, according to the insufficiency of the physical or human capital of the poorer economies (Lucas, 1988). Later on, the *Aghion-Howitt model* indicates the existence of a correlation between the level of the income and the economic growth rate (Aghion and Howitt, 2004).

A third generation of economic growth models was gradually shaped, which gives special significance to certain factors that pertain to the level of development of that particular country or region, the economic policies of that country and the specific problems existing in different regions. Starting with Williamson (1965) who supports the idea that the typical development model on national level leads to interregional divergence during the first stages of the process, while later on the differences diminish and the convergence in the regional development starts to be manifested, other empirical research was devoted to this matter and applied to the European integration model (*e.g.*: Davies and Hallet, 2002; Petrakos *et al.*, 2003; Dall'erba and Le Gallo, 2003; Brasili and Gutierrez, 2004).

The new economic geography models concerning the interpretation of regional disparities (e.g.: Krugman, 1979; Venables, 1996; Fujita, 1999) offered alternatives to traditional theories of economic growth and provided a series of explanations for the lack of convergence. As compared to central regions, which have an important human and intellectual capital with positive effect on the

intensification of the technology transfer and with a higher rate of economic growth, the peripheral regions are characterized by a reduced capacity of implementation of technical progress, which affects the sustainability of the economic convergence process. According to the conditions for achieving economic integration, such as: the mobility of capital, the workforce mobility and the mobility of technologies among different countries or regions, the central and the peripheral economies will react differently, according to the factors that prevail – the convergence or the divergence ones.

The term convergence should not be limited to the controversy between neoclassical and endogenous partisans in the theory of economic growth, since the development of a country is a much more complex phenomenon than the growth of income per capita or the growth of work efficiency (Konia and Guisan, 2008). In the case of countries during the catching-up process, the dimensions of human life such as health, education, working conditions, free time, environment or social justice become more and more important, and thus it is no longer enough to have higher income per capita, but it is equally important to increase the standard of living, in the broadest sense.

3.2. Previous Studies on Social Development Convergence

In their studies, Mazumdar (2002), Sutcliffe (2004), Noorbakhsh (2006), Konya and Guisan (2008) attempted to study convergence from the human development perspective.

Mazumdar (2002) examined the HDI convergence for a sample of 91 countries, for the period 1960-1995, and also for three groups of countries according to their level of human development. The author has carried out three tests for β-convergence based on the following regression equations (Baumol and Wolff, 1988):

$$\ln \frac{y_{i,t+T}}{y_{i,t}} = a_0 + a_1 y_{i,t} + a_2 y_{i,t}^2 + a_3 \ln y_{i,t} + \varepsilon_i \tag{1}$$

$$\ln \frac{y_{i,t+T}}{y_{i,t}} = a_0 + a_1 y_{i,t} + a_2 y_{i,t}^2 + \varepsilon_i \tag{2}$$

$$\ln \frac{y_{i,t+T}}{y_{i,t}} = a_0 + a_1 \ln y_{i,t} + \varepsilon_i \tag{3}$$

where: $y_{i,t}$ is HDI in the country i, in year t. The results showed divergence in terms of human development for all the four cases over the period 1960-1995.

Sutcliffe (2004) examined HDI trend for a sample of 99 countries, during 1975, 1980, 1985, 1990, 1995 and 2001. The author analyzed the evolution of descriptive statistics (mean, standard deviation, coefficient of variation) and tested β-convergence using the following regression equation:

$$\ln \frac{y_{i,t+T}}{y_{i,t}} = a_0 + a_1 y_{i,t} + \varepsilon_i \tag{4}$$

where: $y_{i,t}$ is HDI in country i, in year t. The results indicated convergence in terms of human development for the considered period. However, the author rejects the idea of a convergence process in terms of HDI, also bringing arguments for his position in his study.

Noorbakhsh (2006) examined the HDI trend for different samples of countries and regions over the period 1975-2002, using data slightly updated compared to previous studies. The author has tested β-convergence using the following regression equation:

$$\frac{1}{T} \ln \frac{y_{i,t+T}}{y_{i,t}} = \frac{1}{T} \ln \left(\frac{x_{i,t+T}}{\overline{x}_{i,t}} : \frac{x_{i,t}}{\overline{x}_t} \right) = \alpha + \beta \ln \frac{x_{i,t}}{\overline{x}_t} + \varepsilon_i \tag{5}$$

where: $y_{i,t} = x_{i,t} / \overline{x}_t$, x = HDI in country i, in year t and $\overline{x}$ = HDI average of considered countries in year t. The results indicated a weak β and σ-convergence for those countries in the considered period, in terms of social development.

It is important to note that Mazumdar (2002), Sutcliffe (2004) and Noorbakhsh (2006) tested the β-convergence regressions (1)-(4) with OLS method without testing and correcting heteroscedasticity, given the wide range of countries considered.

More recently, Konya and Guisan (2008) tested σ and β-convergence in terms of worldwide human development in the last three decades, analyzing HDI trend values over a period of seven years (1975, 1980, 1985, 1990, 1995, 2000 and 2004) for a sample of 93 countries. To ensure comparability, they tested the σ-convergence (standard deviation and coefficient of variation) on the set of 93 countries and β-convergence on a sample of 101 countries, using the regression equation (Sala-i-Martin, 1996) most commonly used:

$$y_{i,t,t+T} = \alpha + \beta \ln y_{i,t} + \varepsilon_i \tag{6}$$

where: $y_{i,t,t+T}$ is the annual growth rate indicator y in country i, between t and $t + T$.

The results indicate a convergence process, meaning that developing countries increased HDI faster than more developed countries, but this process was rather slow. They tested β-convergence using regression equation (6) and the OLS method and applied White test for heteroscedasticity, given the wide range of countries considered.

The authors also conducted similar analyses in the European Union for the period 1975-2004, testing HDI convergence for two groups, namely: EU-14 (pre-2004 EU members except Germany

and Slovakia whose HDI trend values are not available for 1975 or 1995 and 2000) and the EU-25 (post-2007 EU members, keeping the two exceptions). In both cases the presence of both σ and β-convergence and estimated values showed a more rapid convergence in these groups of countries than in the world. Moreover, although the 12 countries that joined the EU in 2004 and 2007 are relatively underdeveloped as compared to the other 15 EU member states, and thus their membership has slightly slowed convergence, the last two waves of enlargement seem to have a major impact on HDI convergence of the EU.

4. Data and Methodology of the Study

The matter of the real convergence is not a new one; there is a large variety of approaches and research concerning this process and a diversity of calculation methodologies. *Theoretically*, real convergence is explicitly and systematically founded on the neoclassical theory of economic growth. Studies on this process evolved following the econometric processing of growth models. *Methodologically speaking*, the internal and international interest in the analysis of the real convergence led to a large variety of indicators and methods, from the easiest statistical methods to complex econometric models.

Sigma convergence indicates a decreasing variation of the variable (GDP per capita, HDI) within a group of countries. The σ parameter shows the convergence or the divergence tendency, as this indicator shows the limitation or the increase in the dispersion of the data sample analyzed.

The real economic convergence can mainly be distinguished due to its complexity, reflected among others by the distribution of the variable and by inequality. The levels of the specific indicators concerning the *dispersion* are relevant in assessing the degree to which a convergence process can be confirmed along a certain period of time, confirming or invalidating a characteristic of convergence or a particular feature which determines such a process. As a part of temporal analyses, by using synthetic indicators (dispersion, standard deviation, coefficient of variation), the existence of a downward trend of the dispersion level allows us to state that the convergence process grows stronger and stronger; conversely, when its level increases, it means that there is a divergence process. More exactly, the calculation of the spread indicators refers to the opposite of convergence, meaning that it expresses numerically how far the entities of the group are from the central level towards which the values of the indicator analyzed are supposed to converge (Pecican, 2009).

Among the synthetic spread indicators mentioned, the *coefficient of variation* (CV) is especially used for comparative analyses (Dalgaard and Vastrup, 2001). It shows, in a comparable form, the

spread in relation to the average. The fact that its level depends neither on the measurement unit nor on the indicators' size order makes such an indicator an appropriate tool for the analysis of convergence (Castro, 2004).

Among many methodological concerns for the developing of a scientific on convergence, we can identify the econometric research on various statistical cross or chronological series assessing, through regression equations and estimated parameters, the convergence or divergence trends of the global economy and EU economies.

Besides σ-convergence, often used in regional studies and in the literature concerning the economic geography (Rey and Montouri, 1998), *beta convergence* also has a special place within macroeconomic studies. Friedman (1992) and Quah (1993) believe that the regression model is likely to lead to erroneous estimates of the existence and extension (Galton's fallacy) generated by the existence of approximately equal conditions for countries making up the sample regarding population growth, savings rate, depreciation rate and technology, which soon lead to the development of a process of polarization. Nevertheless, beta convergence appeared in the specialized literature as a requisite tool for econometric calculation and analysis and for process description.

This type of convergence shows that, in the long term, in the hypothetical context of absolute convergence, the poor economies tend to increase faster than the richer ones, while in the hypothetical context of conditional convergence the same phenomenon takes place according to certain determining factors. The economic parameter β shows the convergence speed when it is *negative*.

Considering Solow's neoclassical theory concerning the decreasing capital efficiency, we take into consideration the hypothesis of the upper growth rates registered by the less developed economies compared to the developed economies. This means a gradual decrease in time of the differences in terms of GDP per capita as well as the existence of an inverse relationship between the growth rate of GDP per capita within a certain period of time and the initial level of the indicator. Moreover, if we analyze the real convergence in terms of the social implications and the redistribution policies of the decision makers concerning social equality, we can reformulate the previous hypothesis considering the index of human development; in other words, the states with low HDI value will evolve at a faster rate than the states with higher HDI value. The relationship of dependency between the initial level and the growth rate in the case of both variables (GDP per capita and HDI) can be noticed on the level of a group of countries, being more or less intense according to the period analysed or to the social and economic context specific for that particular period of time.

Beta convergence can be estimated using a regression model, by quantifying the marginal reaction of the effect when modifying the cause, more exactly the condition expressed by the development level during the initial stage:

$$\frac{1}{T}\ln\left(\frac{y_{i,t+T}}{y_{i,t}}\right) = \alpha + \beta \ln y_{i,t} + \varepsilon_i \qquad (7)$$

where: t – reference year; T – number of years; i – country; $y_{i,t}$ – development level during the reference year; $y_{i,t+T}$ – development level after T years; α – constant; β –regression parameter estimated concerning the regression slope; ε_i – residual value.

Thus, employing the statistic data concerning *GDP per capita based on the Purchasing Power Standard (PPS)* during 1995-2012, available on Eurostat and the data concerning *HDI* over the same time period, available on UNDP, we focus on the group of 26 member states of the EU (except Luxembourg, because of the extreme values of GDP per capita – the outliers). First of all, we intend to test the hypothesis of real σ-convergence, and second, using chronological statistical series, we aim at assessing the convergence trends of the EU countries from economic and social points of view by means of regression equations and estimated parameters.

5. Data Analysis and Presentation of Results

5.1. Economic and Social σ-Convergence in the European Union

Besides the data provided by descriptive statistics, we also estimated the numerical evolution of sigma convergence by means of the standard deviation and the coefficient of variation.

We observe that the minimum as well as the maximum values concerning GDP per capita and HDI show an increasing trend during the considered period of time. A faster rate is identified in the case of the first indicator. At the same time, the standard deviation and the coefficient of variation for both indicators show, through the calculated values, a slight variation. This also signals the existence of a homogenous community and thus a favourable evolution of sigma convergence over the period 1995–2012 *(Table 1)*.

Table 1 – Descriptive statistics and the status of economic and social convergence in the European Union, 1995-2012

Indicators		1995	2000	2005	2012
GDP per capita	N (number of valid elements/countries)	26	26	26	26
	Minimum value	4,600	5,000	7,900	12,100
	Maximum value	19,700	25,600	32,500	33,300
	Average	14,700	19,100	22,500	25,600

	Standard deviation	5,378	7,040	7,138	6,794
	Coefficient of variation (sigma convergence)	0.3658	0.3686	0.3172	0.2654
HDI	N (number of valid elements/countries)	26	26	26	26
	Minimum value	0.680	0.710	0.756	0.782
	Maximum value	0.870	0.900	0.907	0.921
	Average	0.7843	0.8176	0.8458	0.8631
	Standard deviation	0.0546	0.0516	0.0452	0.0413
	Coefficient of variation (sigma convergence)	0.0696	0.0631	0.0534	0.0479

Source: Personal processing of Eurostat and UNDP available data
Note: For comparability Luxembourg was eliminated from the analysis of both economic and social convergence, given its extreme GDP per capita (in PPS) value.

In light of the progress made by some member states, the absolute disparities remain as a result of the enlargement and the territorial concentration of EU-27 GDP, with lower rates in the traditional core of Europe and higher ones at the national level (Bucur and Stangaciu, 2012). Analyzing the coefficients of variation *(Table 1)* we can notice that the territorial dispersion (σ-convergence) related to GDP per capita is much higher than the one corresponding to HDI, which would mean that there are some large GDP per capita differences between countries compared to HDI. Thus, while in 1995 the CV for GDP is 0.3658, its value for HDI is only 0.0696, and the difference between the two coefficients remains approximately the same until 2012. Different degrees of territorial dispersion of these indicators is a prerequisite for the existence of a slower HDI sigma convergence process (the dispersion is lower and, therefore, the catching-up process speed is slower) than for GDP per capita (a case in which the large differences between countries lead to a faster convergence).

The situation concerning the degree of dispersion of GDP per capita and HDI is reflected more clearly through the graphical representations of the evolution of these processes. The functions described allow us to draw certain conclusions concerning the stage of the real economic and social convergence. Therefore, as a result of the negative slope of -0.0353 for GDP per capita and -0.0075 for HDI, the evolution of the indicators concerning the coefficient of variation of GDP per capita and HDI, namely, of sigma convergence (*Figure 1*), shows a greater tendency of improvement, especially during the last years, of the divergence of the economic growth than of human development, with a coefficient of significance R^2 of 87.5% for GDP per capita convergence and of 99.0% for HDI convergence.

Figure 1 – Economic and social σ-convergence in the European Union, 1995-2012
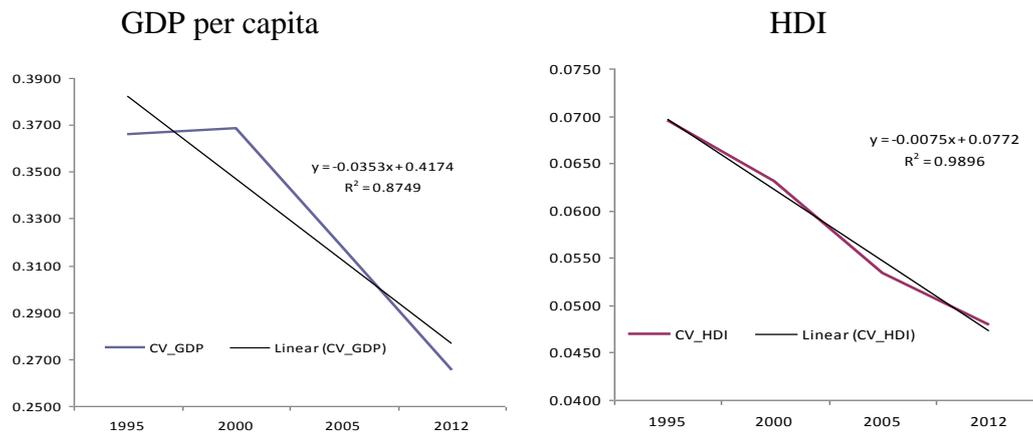
Source: Personal processing of Eurostat and UNDP available data

Sigma convergence determined by the coefficient of variation indicates, by means of the calculated values, a low and decreasing variation for Education Index and also for Life Expectancy Index and a stronger dispersion for Gross National Income. Since the values of the coefficients decreased during 1995-2012, we can identify the manifestation in the EU members of a sigma convergence process for the indicators that build HDI (*Figure 2*).

Figure 2 – HDI main components σ-convergence in the European Union, 1995-2012
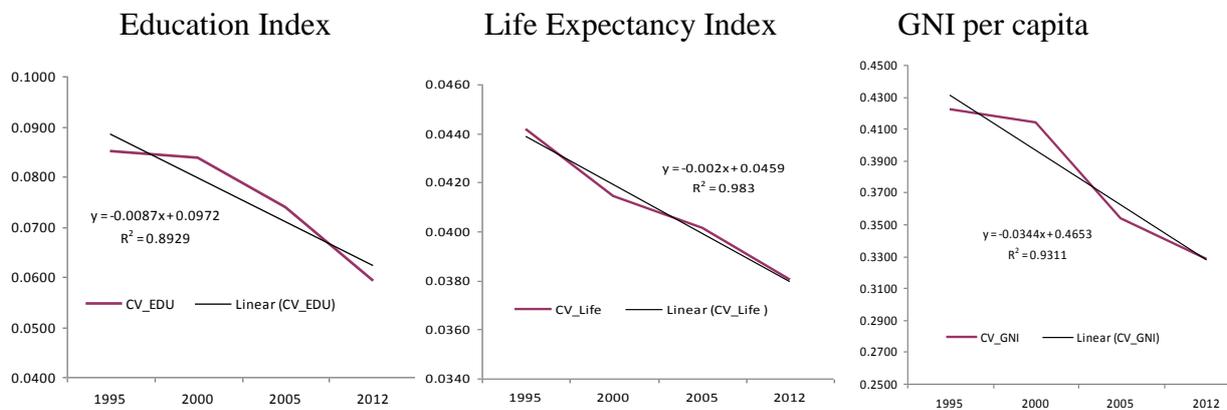
Source: Personal processing of the UNDP available data

5.2. Economic and Social β-Convergence in the European Union

In this section we will test the beta convergence hypothesis in the EU from both economic and social perspectives, using the same indicators GDP per capita and HDI, for the main period of time 1995-2012 and for other two interim periods: 2000-2012 and 2005-2012. To this end, by applying the regression model, we quantified the marginal reaction of the effect given by the growth rate of

GDP per capita and HDI, also modifying the conditions expressed by the level of economic growth and social development during the initial stage. We also extended the analysis of HDI β-convergence with Education Index, Life Expectancy Index and Gross National Income convergence process for the same main and interim periods of time.

Table 2 and *Figures 3–7* present and interpret the results offered by SPSS (Harja and Stangaciu, 2009) concerning the regression analysis and the extent to which the annual average growth rate of the indicators (dependent variables) can be explained through the initial level of the indicators (independent variables). The data are presented and interpreted from the point of view of the manifestation of beta convergence based on the parameters of the regression equation.

Table 2 – The results of the regression analysis for economic and social β-convergence in the European Union

| Regression equation	Period	MODEL		ANOVA		COEFFICIENTS		
		R^2 (R Square)	Std.Error of the Estimate	F Test	F Test Significance (Sig.)	Beta Coefficient (β)	T Test (β)	T Test Significance (Sig.)
for testing *GDP per capita* **β-convergence**	1995-2012	0.808	0.007	101.075	0.000	-0.027	-10.054	0.000
	2000-2012	0.857	0.008	143.556	0.000	-0.036	-11.981	0.000
	2005-2012	0.658	0.012	46.231	0.000	-0.039	-6.799	0.000
for testing *HDI* **β-convergence**	1995-2012	0.670	0.001	48.699	0.000	-0.022	-6.978	0.000
	2000-2012	0.730	0.001	65.014	0.000	-0.022	-8.063	0.000
	2005-2012	0.425	0.001	17.711	0.000	-0.017	-4.208	0.000
for testing *Education Index* **β-convergence**	1995-2012	0.497	0.002	23.729	0.000	-0.026	-4.871	0.000
	2000-2012	0.539	0.002	28.095	0.000	-0.030	-5.300	0.000
	2005-2012	0.591	0.002	34.676	0.000	-0.033	-5.889	0.000
for testing *Life Expectancy Index* **β-convergence**	1995-2012	0.334	0.001	12.061	0.002	-0.010	-3.473	0.002
	2000-2012	0.195	0.001	5.812	0.024	-0.009	-2.411	0.024
	2005-2012	0.207	0.001	6.269	0.019	-0.008	-2.504	0.019
for testing *GNI per capita* **β-convergence**	1995-2012	0.651	0.008	44.828	0.000	-0.021	-6.695	0.000
	2000-2012	0.721	0.009	61.961	0.000	-0.027	-7.872	0.000
	2005-2012	0.342	0.012	12.480	0.002	-0.022	-3.533	0.002

Source: Personal processing of Eurostat and UNDP available data
Note: For comparability Luxembourg was eliminated from the analysis of both economic and social convergence, given its extreme GDP per capita (in PPS) value.

Using the methodology applied by Kaitila (2004), according to which the rate of convergence is determined by the slope of the regression equation (the β coefficient), we can assess the intensity of the real economic and social convergence process. The estimated results for β parameters of the regression equations reveal that, in terms of GDP per capita, there was a convergence process that manifested more intensely in the last seven years. Thus, while the speed of the process was approximately 0.027 (β) during 1995-2012, in the last seven years the rate was higher (0.039) and the influence of the variable that quantifies the initial situation in the EU states (R^2) was strong but on a downward trend from 80.8% to 65.8% (*Figure 3*).

Figure 3 – GDP per capita β-convergence in the European Union

| 1995-2012 | 2000-2012 | 2005-2012 |
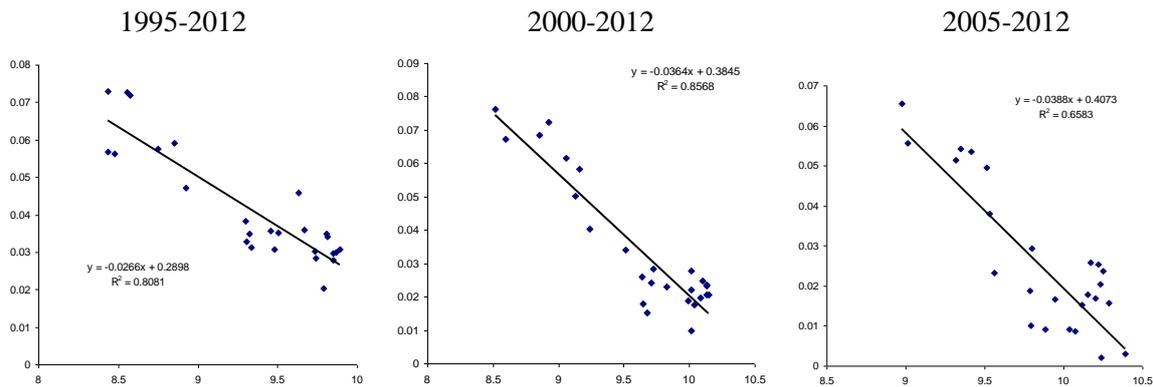
Source: Personal processing of Eurostat available data

The differences between the EU economies required investment efforts so that, through the EU Cohesion Policy, less developed MS benefited from structural funds, which allowed them to have higher growth rates compared to the developed economies. This led to a slight process of levelling the discrepancies pertaining to the economic development in the EU-27 (Bucur, 2012b).

Therefore, in the EU, during the analyzed period, there was a process of convergence in terms of HDI, but the speed of the process was lower in the recent years due to Life Expectancy Index and, to a lesser extent, due to the GNI per capita. Thus, while the intensity of the convergence during the main period 1995-2012 was approximately 0.022 (β), in the last seven years it was lower (0.017) (*Figure 4*). The influence of the initial situation in the EU states (R^2) decreased from 67.0% to 42.5%, which signals the existence of other possible determinants.

Figure 4 – HDI β-convergence in the European Union

| 1995-2012 | 2000-2012 | 2005-2012 |
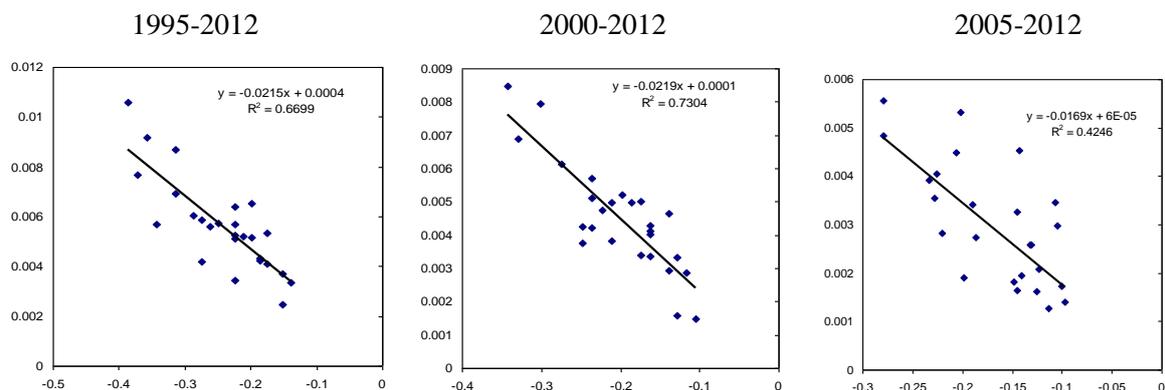
Source: Personal processing of the UNDP available data

Given the estimated results for the β parameters of the regression equation we observe that during the main period, in terms of Education Index, there was a convergence process in the EU

countries, a process that manifested more intensely in recent years. Thus, while the speed of the convergence process during the period 1995-2012 was approximately 0.026 (β), in the last 7 years it was slightly higher (0.033) and the influence of the variable that quantifies the initial situation in the EU countries (R^2) increased from 49.7% up to 59.1% (*Figure 5*).

Figure 5 – Education Index β-convergence in European Union

1995-2012	2000-2012	2005-2012
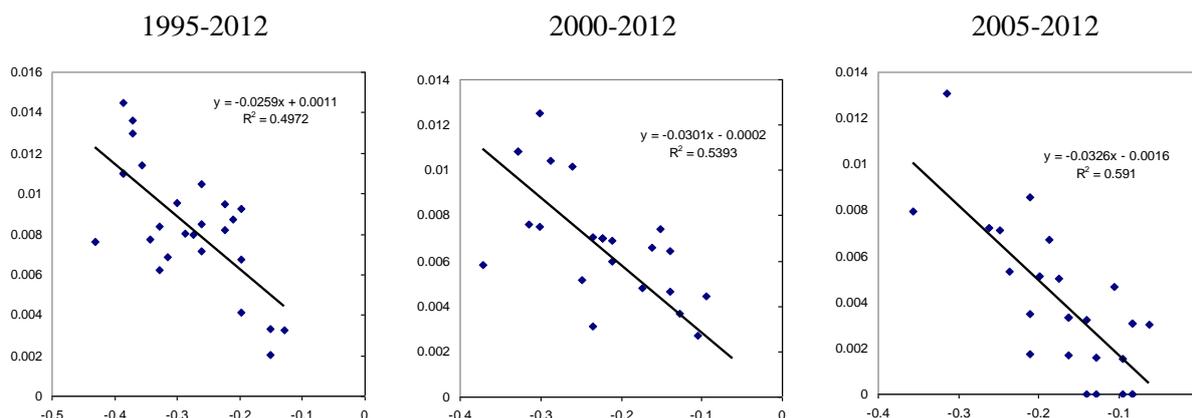
Source: Personal processing of the UNDP available data

Regarding the convergence of Life Expectancy Index in the EU countries, the estimated results of β parameters reveal the existence of a convergence process, but due to the specificity of this indicator (Life Expectancy Index undergoes significant changes over long periods of time) the speed of the convergence process was lower in recent years. Thus, while the speed of the process during the main period 1995-2012 was approximately 0.010 (β), in the last 7 years it was lower (0.008) and the influence of the variable that quantifies the initial situation in the EU countries (R^2) was weak and decreased from 33.5% to 20.7% (*Figure 6*).

Figure 6 – Life Expectancy Index β-convergence in European Union
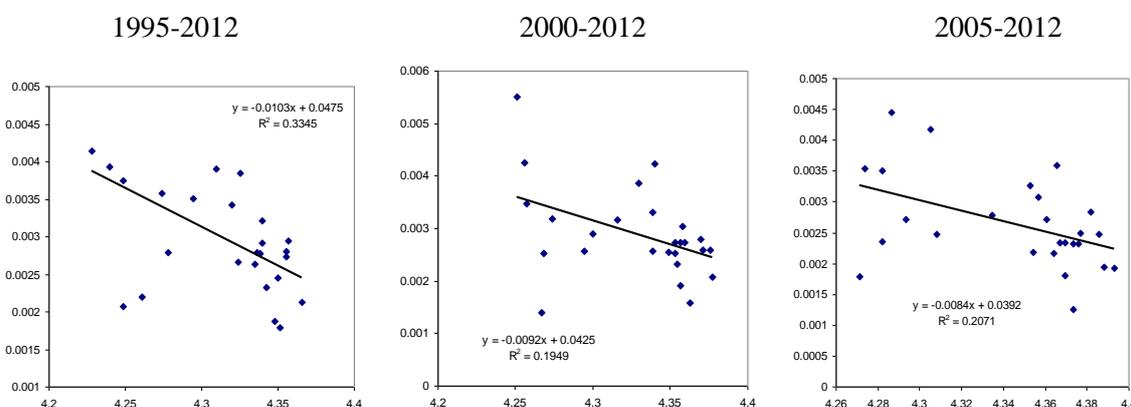
1995-2012	2000-2012	2005-2012

Source: Personal processing of the UNDP available data

Given the estimated results for β parameters of the regression equation, the GNI per capita analysis highlights the fact that there was a process of convergence in the EU countries, whose intensity was higher in the last 12 years. Thus, while the speed of the convergence process during the period 1995-2012 was approximately 0.021 (β), in the last 7 years it was slightly higher (0.022) and the influence of the variable that quantifies the initial situation in the EU countries (R^2) decreased from 65.1% to 34.2% (*Figure 7*).

Figure 7 – GNI per capita β-convergence in European Union
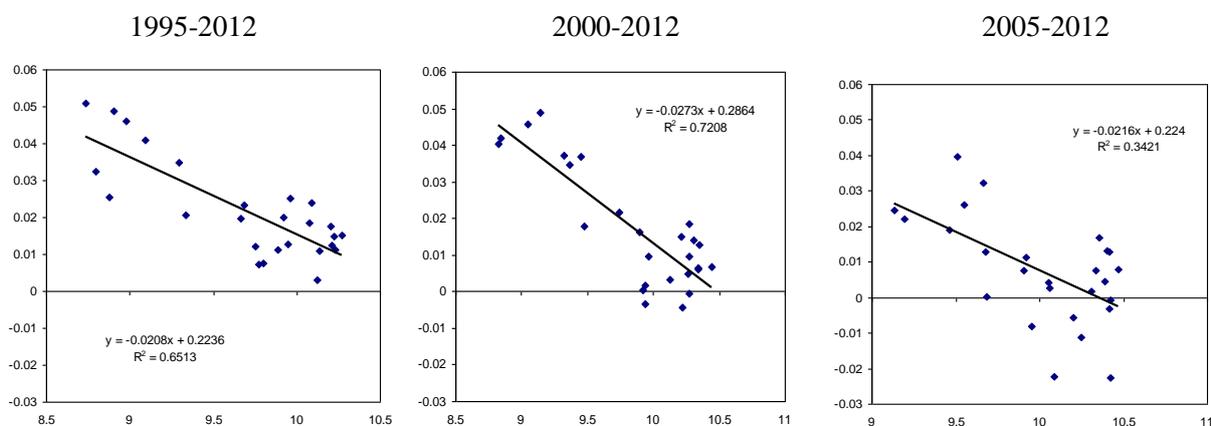
Source: Personal processing of the UNDP available data

Therefore, the results obtained for regression equations, due to the negative β coefficient, allow us to state cautiously that in the European Union, between 1995-2012, there was a moderate β-convergence process in terms of economic development, while the recovery rate of disparities between the countries in terms of HDI was much slower.

We also notice a difference between the GNI per capita and GDP per capita convergence, which suggests that although the poorer EU member states attract substantial foreign investments from the developing ones, thus contributing to their economic growth, a significant part of the profits arising from these investments does not remain in the respective nations. In this case, GNI per capita may be a better indicator of poorer countries' economic performance than GDP per capita, since the latter overstates the strength of the economy.

The regression factor and the residual factor were calculated by means of the F test. The findings reveal high values of F in all the regression equations and the Sig. value of F, which was lower than 0.05 in all equations. The results of the analysis concerning the evolution of the dependent variable under the influence of the regression factor and the residual factor confirm that the connection

between the variables taken into consideration is significant in the European Union during the considered periods.

Given that the Sig. value of t is lower than 0.05 for the European Union during the main and interim periods, the testing of the parameters in all regression equations (using Student Test) confirms that there is a significant connection between the considered variables. In other words, the slope of the β regression line corresponds to a significant connection between the initial level of the two indicators taken into consideration and their development rate during the analyzed time period, which indicates that the applied model is correct and reflects the reality.

Conclusions

In this paper, we investigated the degree of achievement and the intensity of the real economic convergence process from the point of view of the GDP per capita, in EU states (except Luxembourg) between 1995-2012, as well as the social convergence using HDI, considering the same data and period for reasons of comparability.

Compared to former studies, we focused our attention only on EU states and we approached and analyzed σ and β convergence processes from economic and social development perspectives, presenting the results in a comparative manner. Moreover, using the available data, which have been updated compared to other research in the field, we extended our study to the evolution of the convergence process with the analysis of the main components of HDI: Education Index, Life Expectancy Index and GNI per capita, in order to identify their evolution's influence, in terms of reducing disparities between the countries.

In the context of the European Union's evolution from the so-called core Europe to the enlarged EU with high levels of socio-economic risk, the results of our research show that, overall, the EU members benefited from real economic as well as social convergence.

Our results confirm the neoclassical theory of economic growth and the theory formulated by Heckscher-Ohlin-Samuelson regarding international trade, according to which the poorer economies have certain advantages in terms of economic growth compared to the richer ones. Such advantages allow them to grow faster and to make up for the disparities existing among those countries. Our results also indicate that the less developed countries from economic and social viewpoints managed to increase their level of GDP per capita and of HDI at a faster rate than the more developed states. Although both convergence processes were quite slow, they grew stronger and stronger.

However, the convergence process in terms of human development revealed a much lower intensity than the economic one, which gives us a much more accurate picture of the socio-economic reality in the context of the EU enlargement.

Prosperity as well as intelligent, sustainable and inclusive growth while promoting the harmonious development of the EU through a reduction in economic and social cohesion represent a common task for all member states, which must undertake and coordinate national policies in order to achieve economic and social cohesion. It is clear that there is a series of external and internal elements that influence the development policy and strategy and which should be analyzed, quantified and exploited. A well-founded strategy prevents the persistence of disparities and, at the same time, requires the pursuit of capitalizing the EU available resources. Identified trends regarding the impact of EU Cohesion Policy, over the last twenty years, confirm that in its absence the disparity would be much stronger, especially in the context of the persistent global economic crisis, the turmoil that engulfed the intensification of the euro area and global challenges.

By intensifying the cooperation among the EU member states and by implementing national economic and social policies which encourage the human capital and investments, the EU as a whole will be able to achieve the desired level of economic convergence as well as a faster social development and better social and economic conditions in countries with lower income.

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SOME PSYCHOLOGICAL CAUSES OF THE FINANCIAL CRISIS

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Abstract: *Besides the numerous effects that the financial crisis of 2007 has produced over the entire global economy, its onset has reopened fundamental discussions on the methodology of the economic science. One of the main controversies in the literature revolves around the nature of the neoclassical homo oeconomicus used in the mainstream analysis, with emphasis on the concept of rationality. Although the causes of the crisis are numerous, we propose to investigate in this paper only some aspects related to the psychological factors that contributed to the outbreak of this situation. The analysis is developed especially around the concept of economic rationality, arguing that the human being has a bounded rationality rather than a perfect one. Moreover, the relationship that exists between bounded rationality and the economic freedom of the individual is brought to the fore.*

Introduction

From a dynamic perspective, seen under the spectrum of time, the economic activity is not uniform and linear, but fluctuating and cyclical. Contemporary economic developments are proof of this truism, which was often confirmed by the past events. While business cycles are phenomena recognized in economic theory and practice, the global financial crisis of 2007 surprised both economic agents and the majority of the scientific community. One of the main points from the crisis agenda was to clearly identify its determinants, in order to apply the appropriate treatment. Some of the major causes have been related to issues such as the role of capital markets and of financial systems, the regulation versus liberalization debate, the role of information and the complexity of the innovations, the importance of transparency, etc. Many economists, however, did not stop at the analysis of the purely conventional economic causes of the crisis, but went further and investigated the role of the psychological forces.

This article aims to investigate some of the main aspects discussed in the literature related to the possible psychological causes of the financial crisis. The analysis is mostly developed around the concept of bounded rationality. The notion aims to provide an alternative to the standard neoclassical hypothesis of objective rationality. It is based on the real nature of the individuals in the market, particularly because the cognitive limitations of the human being manifested especially in the process of obtaining and processing information are accepted. The notion of bounded rationality therefore is based on the empirical establishment that human perception, judgment, attention and memory have

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certain boundaries and that emotional and social factors are powerful elements in shaping the individual's economic choices. Finally, we propose to investigate if bounded rationality supports the free market mechanism or the state interventionism. This concern has amplified when the liberalization – intervention debate became a central subject after the onset of the economic crisis. The complexity, the amplitude and the fast spread of the effects of the financial crisis, all over the world, highlighted some shortcomings of the traditional analysis and challenged an ardent debate on its adequacy to reality.

1. The importance of the psychological forces among the crisis' determinants

One of the prominent causes invoked in order to investigate the financial crisis of 2007 was the hypothesis of bounded rationality, one of the fundamental concepts on which the argumentation of behavioural economics is built. This concept is discussed in the following part of the article, so we will not deepen the analysis here. Objectively, we can say that the economic crises are not caused by the rational behaviour (as promoted by mainstream), but by the incapacity of a human being to behave in this manner. In the neoclassical view, there is no room for emotions and attitudes, as their influence is considered exogenous. At a superficial look, we can say that if individuals would respect the perfect rationality assumption, then they will always opt for the option that would maximize their own utility no matter the circumstances. So, the preferences for risk or the optimistic – pessimistic attitudes would not influence the individual to act in the same maximizing manner. However, the mental attitudes of optimism and pessimism have been recognized by many authors (for example, John Maynard Keynes and George Katona) as playing an important role in directing the individual behaviour on the market. When the economy is in expansion, under the frenzy of a positive climate, individuals tend to be more optimistic (and less sceptical) and consequently to assume greater risks and vice-versa (when the economy is in contraction, individuals tend to have a more pessimistic attitude and be more precautious). The radiography of the crisis is an ample process, the variation of economic activity being caused by a complex network of economic forces that mix with the psychological and social ones. We believe that in order to understand these kinds of events, we must give proper consideration to the core elements on which the economic theory is build – such as the hypothesis of rationality.

George Katona was an early proponent of the view that optimism (seen as the attitude to look at the future with confidence) and its opposite, pessimism, influence the economic behaviour. The author claimed that, in some extent, the business cycle is determined by these two psychological states

of the individual because they define the changes in the precautionary motives over time. In the phases of expansion, consumers are optimistic and the positive economic climate impels them to spend more, while during the recession periods the process is reversed. The author was concerned with analyzing the consumer expenditures and argued that these spending are a function which depends (Katona, 1960, p. 22) both on the individual ability to buy (which comprises mostly economic elements) and the willingness to buy (which comprises mostly psychological elements, such as personal attitudes and expectations). By pointing out this idea, the author stressed the importance of the psychological factors, along with the economic ones, in understanding the consumer behaviour and the formation of the business cycles. Moreover, in the positive climate generated by the general state of the economy, individuals tend to be more risk-seeking than risk-averse to gain bigger profits and vice versa.

These two factors, along with the triggering of the crisis itself, are questioning the economic quantitative (econometric) models in the extent to which these instruments serve to a large extent as guiding elements of the economic and especially financial decisions. It was shown that these elegant models of forecasting are unable to predict the true course of the evolution of real events, but they have often played a central role of forecasting in the modern economic systems. The error can sometimes be very high, however, since such models fit extremely well historical quantitative data, but ignore new information, the subjective human judgment and most of the qualitative social and psychological factors. Moreover, uncertainty as an incompletely defined variable (from a mathematical significance) is always a part of the future and it is unpredictable. As much as we would like, we can not anticipate the unexpected.

The failure of these models is considered by many scholars among the factors that have caused the financial crisis. For example, Barberis (2013, pp. 18-21) asked how could the banks accumulate such a high volume of subprime loans and "toxic" financial products and expose by this to a high risk, and gave three possible answers, namely: "poor incentives", "bad models" and "bad luck". These are three possible scenarios that are not necessarily exclusive, but may represent variants that overlap. The "poor incentives" scenario suggests that the bank's employees were aware of the possible risk, but ignored it, since the consequences did not affect them directly and they were mostly rewarded for short term performance. We can add that in this case the individual preference for the present manifests because the immediate gains appear to dominate the long term ones, being more than obvious that the collapse of the financial institution means in fact the loss of the job. According to the "faulty models" view, the representatives of the banking institutions were not really aware of the real dimensions of the risks embedded in the instruments with which they were operating. The reason

supports the idea that their forecasting capacity failed. These models use historical data to extend the past trends and do not have the ability to take into consideration the uncertainty of the future and most of the qualitative factors – this is why they did not highlighted any worrying risks. However, the use of the mathematical models could also help the individuals to manage their ambiguity aversion, especially in this dynamic sector as finance is. Throughout the so-called explanation of "bad luck", any rational person would have considered unlikely such a scenario of events, even with adequate incentives. In the same manner with the author, we believe that this version does not seem to be very plausible, since rationality would assume an objective and deep accurate analysis of all the future consequences associated with the options.

However, the author made an analysis of some important psychological factors that stand on the basis of the economic crisis, which represent important topics on the behavioural economists' agenda. Besides the three explanations mentioned, another cause comes directly from the branch of psychology through the concept of cognitive dissonance. Although the bank employees were to some extent aware of the risks implied by the used business models, they manipulated their own beliefs and have convinced themselves that the options deserves to be pursued to achieve profits. In this context, the feeling of discomfort caused by the risks' recognition, although extremely real and menacing for the bank and for the whole financial system, was annihilated by the individual through manipulating its beliefs about the negative effects. We can add to this that the opposite solution for the individual would have been to renounce to such operations. In this situation the individual could be put in an additional dilemma, because this fact would affect the incomes and, if the information would be found somewhat inaccurate, even the image in the society. Cognitive dissonance is at the basis of a frequent cognitive error, namely the confirmatory bias (Jermias, 2001, p. 146). A main effect of this error is resistance to new information, individuals rejecting those which are contrary to their previous preferences and beliefs. However, this is not the only cognitive error which had a significant contribution in the outbreak of the financial crisis. Among other shortcuts in reasoning, overconfidence played an important role. Overconfidence lies in the spectrum of optimism, because it denote people's tendency to have an excessive confidence in their own capabilities. An important consequence of it is represented by the estimation error in planning (or planning fallacy), because individuals tend to attribute to a situation more favourable characteristics than it actually has and to consider the goals more easily to accomplish (Kahneman, 2011, p. 255).

As in the case of the consumer behaviour, the factors and relationships that describe phenomena that occur on the capital market are numerous, and experts often focus only on some specific issues, fact that leads to the fragmentation of the overall picture. In this context, all the advanced explanations

ignore some important influences of other factors (than the considered ones) which affect the behaviours. In the same time, for the same problem different arguments are advanced, which can describe it from different angles and are not mutually exclusive. The profoundness and rigorously of an analysis requires such a fragmentary study focused on certain specific elements and ignoring other complex ones. However, its real pertinence should be seen and interpreted throughout a dynamic overview image.

2. The meaning of bounded rationality

What is the concrete significance of bounded rationality? The central argument of the notion (which is not synonymous with irrationality in the strict sense of the term) is that given a limited knowledge, typical to the current situations in which individuals (including as representatives of groups) act, the decision strategies are different from those specific to a complete knowledge, to which the neoclassical model refers. It was introduced and mainly developed by Herbert Simon (1957). Thus, the concept represents a feature of the complex human mind which involves that rationality is never perfect and it is not confused with irrationality.

First, there are some reasons which sustain the fact that human rationality is bounded. For example, it is influenced by the way in which the individual manages to gather, collect and process information about the situation in question. In this regard we can only mention the imperfect memory, the limited attention, the heuristics and the cognitive biases that occur in the decision making process. Human mind has its edges. Also, perception, which is a first step in the process of interpreting and representing the external stimuli, has a subjective nature. This manner, in which the individuals understand reality, causes that two persons exposed to identical stimuli in the same apparent conditions perceive them differently. Moreover, man is also influenced in his actions by emotions, by will (which is also bounded) and by the social, cultural and moral values to which he reports. All these non-economical variables, mostly qualitative, affect the manner in which man decides to act, even on the market. Past experience and imagination also play an important role in the decision making process.

Second, the fact that man actions are not in accordance with the neoclassical definition of perfect rationality (namely maximization) does not mean that his decisions are irrational. Bounded rationality should not be confused in any case with irrationality. However, many behavioural economics' scholars frequently used both in the academic and media speech the term of "irrationality" to emphasize the difference from the neoclassical view. We believe that the use of this expression,

although has the power to catch attention, can cause confusions, especially to the large public. The concept of bounded rationality recognizes the real capacity of the human mind and departs from the neoclassical hypothesis of "omniscience". The economic man behaves in accordance with the rationality standard (in a general sense of the notion) even in the conditions in which he is not self-interested pursuing the utility maximization or his choice is not optimal.

Simon argued that in real market situations, contrary to neoclassical theory, the individual fails to achieve the best[*] solution and he is most of the time far from a suitable consideration of it. Specifically, in this respect the author noted: "The capacity of the human mind for formulating and solving complex problems is very small compared with the size of the problems whose solution is required for objectively rational behaviour in the real world – or even for a reasonable approximation to such objective rationality" (Simon, 1957, p. 198). The decision making is a complex process. Its understanding requires the consideration of many interdisciplinary variables (economic, psychological, social, cultural and even situational ones). Furthermore, in many contexts, the deliberation among different alternative choices demands a short period of time. The author specifically emphasizes on the computational abilities of man, which are in general reduced when is considered a "reasonable time" to make a choice. We can claim that bounded rationality represents a recognition of the real human capabilities and, in the same time, it is in opposition with the neoclassical hypothesis of "objective" (or "perfect") rationality.

The author emphasizes, however, that bounded rationality does not identify with irrationality. In this regard he argues that if, on the one hand, some economists have attributed to the human being full rationality, on the other hand, some psychologists after Freud, attempted to "reduce all cognition to affect" (Simon, [1947]1997, p. 81) and have tried to demonstrate that unconscious dominates many of the choices. However, Simon hoped that the "next" generation of economists will describe an individual with a less sublime rationality than the one considered in the neoclassical tradition, but will not fall in the other extreme of considering man dominated by instincts, thus, keeping a more realistic middle ground. Here, we could mention that the concept of bounded rationality outlines a man with a psychology that lies between the neoclassical model of perfect rationality and the

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[*] In general, perfect rationality is associated with the neoclassical standard of maximization (of utility or profit). Klein argued, for example, that Simon mostly used the term of optimization as a synonym of maximization, respectively, "the selection of best choice, the one with the highest expected utility" (Klein, 2002, p. 103). However, in one of his first definitions of rationality, Simon stated that: "a decision may be called "objectively" rational if in fact it is the correct behaviour for maximizing given values in a given situation" (Simon, [1947]1997, p. 85). However, even when the decision making process does not relate to maximization, but to optimization, objective rationality is not possible to achieve from mostly the same principal reasons (for example, the cognitive human limitations and the future's uncertainty). Optimization is more complex than maximization and requires a most detailed evaluation of the alternative choices. In these conditions, bounded rationality opposes and dispenses both maximization and optimization process.

behaviourism theory (which is excessively and exclusively deterministic and negates rationality by the fact that it denies individuality and the role of mental functions).

Maybe bounded rationality could be better understood throughout its opposition with perfect rationality. In this regard, Simon identifies three limitations of the neoclassical standard of objective rationality (Simon, [1947]1997, pp. 93-94). Firstly, the objective rationality implies that the individual has the capacity to perfectly foresight all the consequences associated to each future action or choice that he will make. Secondly, the future consequences must be both anticipated and evaluated, giving them a meaning and an importance. Thirdly, objective rationality implies the consideration of all the potential alternatives to accomplish a certain aim. These assumptions are hard to satisfy for certain reasons. The main argument is probably represented by the fact that man must predict a further outcome and, moreover, he must assess its future significance. This process is always "fragmentary", as Simon mentioned, and it can never be complete. When the individual evaluates a result, he will take as a reference point the similar past experiences. Most of the decisional process' variables are instead dynamic in time. Both the external and internal influences can change anytime. In this regard, we can think only to the manner in which social media can affect the individual perception in a very short time. Nowadays, the technological advance made possible a fast exchange of information between people all around the world. Future is always open, both through individual's imagination and external uncertainty. Regarding all the alternatives to solve a problem, frequently the individual does not have access to all the relevant information. There are situations, for example, in which man does not have enough available time to collect all the relevant data or in which the asymmetric information plays an important role. Moreover, even when this assumption is accomplished, in short and very short time, the human mind does not have the capability to process a large amount of data, especially when this process requires solving complex problems.

In von Mises' ([1949]1998, p. 18) tradition, the behaviour is rational as long as it is consciously directed towards a specific purpose. This way of looking at the problem differs from the omniscient rationality promoted by the neoclassical economists. Complete knowledge is denied to man and the situation is even more complicated when the analysis regards the future. This should not be demonstrated by any scientist − it is a fundamental feature faced by any human being in everyday life. However, bounded rationality represents an attempt to outline a scientific theory of rationality in economics which lays to the real characteristics of the human mind.

3. Bounded rationality – an argument in favour of liberalism or state interventionism?

In general, behavioural economists advocate the replacement of the objective rationality assumption with bounded rationality. Its acceptance, however, would involve a reassessment of the decision making theory and of the market institution. Market can be seen as a mechanism that provides to the individual proper means to satisfy his needs, even in the condition of limited access to information and man's bounded rationality. To this regard, Simon emphasized von Hayek's vision and argues that on a free market the auto-regulation mechanism allows the formation of acceptable agreements, even if in many situations the optimality criterion is not reached. In everyday life, market is the place where real man, one without a genuine rationality, acts "more or less intelligent" (Simon, 1983, p. 89). In this part of the paper we propose to answer a fundamental question: "bounded rationality supports the policy of state interventionism or that of liberalism"? The fact that man does not have the unlimited cognitive powers and he is unable to find, in general, the best objective solution to a problem is an argument which justifies the market intervention or, on the contrary, an argument that favours the self-regulative market mechanism?

In this regard, an important concept developed mostly by Sunstein and Thaler (2003) is "libertarian paternalism". The authors claimed that it is not an oxymoron, as one would be tent to believe at first appearance. Specifically, it refers to the manner in which the individuals' choices can be influenced while respecting the freedom of choice. It is paternalism because public and private institutions could help individuals by outlining some directions of the choice, especially in the conditions in which preferences are often unclear or formless[*]. In other words, from this point of view, the interventions of the institutions in the personal decisions are justified, but only in the directions that are considered to increase the individual's welfare. It is libertarian because it respects and promotes the freedom of choice. This means that man can or cannot opt for the specific provided arrangement. Carlin *et al.* (2013) argued that some of the main reasons that support the libertarian paternalism are related to the fact that such a policy could help individuals to orientate (for example, in the growingly complicated contemporary financial system) and to protect them from some forms of exploitation that can arise due to lack of information or / and expertise (for example, because not everyone understands the particular terminology of the banking system, some can have difficulties

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[*] One of the findings of behavioural economists is that some of the individual preferences are not well-defined, for example when the situation is relatively new. In this context, because the individual did not face that specific situation until that moment, he does not have a strong particular opinion about it and did not attribute it any valence. The preferences can be viewed in his case as a constructive process and even context-defined (Tversky and Thaler, 1990, p. 210), for example, depending on the preferences of the majority, etc.

when approaching a credit). However, its implementation requires additional costs (to produce the required influences) and significant precautions. The authors have shown that libertarian paternalism may lead to a decrease of people welfare, a final effect contrary to the expected one. Even if it is a soft type of paternalism, its effects are manipulative and can generate distortions in the information's production into economy.

Glaeser (2006) suggested that bounded rationality supports a minimal government, rather than a paternal one (even on the form of libertarian paternalism). The bounded rationality of man is reflected inclusively in the government policies decisions. If the decision making process is ruled by governments (even through incentives that orient the individual behaviour), as their power increases, more and more errors are expected to occur (including throughout the conflict that may appear between the personal and social motivations that guide the decisions). Although private decision makers often commit mistakes, the market mechanism offers strong incentives for their correction. On the contrary, the errors are more likely to occur on the governmental process because there are not enough correcting means (sometimes, on the political stage strong coercive measures are almost entirely lacking). Moreover, the governors' errors have greater effects and can affect the entire economy of a country for a long period of time. Individuals have incentives which are more efficient, powerful and cheaper to overcome errors, compared with the bureaucratic system.

Our opinion is that bounded rationality is not an argument for market intervention, but on the contrary. Eventually, government policy makers are human beings facing the same bounded rationality as everyone else – with imperfect information, motivational matters, cognitive errors, social influences and so on. These, in conjunction with the inability to forecast the future using historical data, are the main arguments that support the free market, regulated by a minimal set of appropriate rules. The bureaucrats (state representatives' of supervision and regulation institutions) are characterized by a limited rationality, which is likely to produce errors. The fact that human beings cannot be completely objective and rational reinforces the belief that nobody has the absolute knowledge and that only the market can provide a right mechanism for natural pricing and for correcting errors and imperfections (resulted, for example, from information asymmetries, from subjective decisions, etc.). Moreover, the present times are characterized by complex and dynamic innovative processes. The legal decision makers sometimes cannot respond to the market realities in a reasonably short time. Seen throughout the bounded rationality perspective, the financial crisis of 2007 was not due a lack of states' intervention, but maybe throughout the governors' errors when interfering on the market mechanism and due to the absence of a simple system of appropriate, updated and adequate regulations.

Conclusions

An important aspect emphasized by the financial crisis of 2007 is the inadequacy of the framework on which the neoclassical analysis builds its arguments. It was demonstrated that faulty premises have significant implications for understanding the real results and courses of actions occurring on the market. The rationality is not a perfect attribute, and this assumption was strengthened by the psychological studies. Between the most important psychological causes that led the entire global economy in collapse a main importance is given to the optimistic – pessimistic opposite attitudes (which manifest a strong influence of the attitudes toward risks – risk averse and risk seeking – too), the cognitive errors (in which the confirmatory bias, the overconfidence and the planning fallacy played a central role), the impossibility to forecast the future with historical data (used inter alia to overcome the effect of the ambiguity aversion), the preferences for the present gains, the cognitive dissonance, etc. All of these are nothing else, but a recognition of the human bounded rationality, which contrast to the neoclassical hypothesis.

The assumptions underpinning the neoclassical theoretical construct of *homo oeconomics* have endowed the human being with characteristics that depart from reality. In these circumstances, the trigger of the financial crisis drew attention to the fact that although the economic science investigate only the market phenomenon, the way in which researchers do this is very important. The neoclassical economic theory assumes that rationality is perfect and, thus, individuals are able to act in the sense of maximizing their economic rewards on the bases of an objective reasoning. This objective rationality almost never occurs in practice. The individual who is acting in real life, as opposed to the neoclassical economic man, does not take decisions on the premise of complete information and does not have the cognitive ability to process a large amount of data in a short and very short period of time as it happens many times on the market. In this case, man frequently uses heuristics (cognitive shortcuts) to solve difficult problems. Furthermore, individuals do not always perceive information accurately or in the same manner and the issue of economic rationality became even more complicated if the role of emotions and of (bounded) will are taken into consideration. The decision making is presently a multidimensional process in which different variables are involved, from the economic factors to psychological, social, cultural and even situational ones.

The concept of bounded rationality discusses both the citizens' ability to make the most effective decisions and the one of the legislators. From this perspective, state intervention is reduced to the actions of the government actors. A first impression might be that the bounded rationality of the individuals is a powerful argument supporting paternalism. At a closer look, however, we can see

that the state institutions' representatives don't have the right incentives (and sometimes even the capabilities) to make the best decisions. Governors are affected by the same influences as everyone else, from the internal factors (related to the affect influence, motivational issues, heuristics and biases, etc.) to the external ones (social and cultural elements, limited access to all the relevant information, etc.). We can claim that the argument of bounded rationality weakness the reasons for state intervention as far as public institutions' decision makers are likely to make errors whose correction is poor compared with the one provided by the market mechanism. Furthermore, because governors make decisions for the public interest, their errors' effects can affect all the citizens of a country.

By appealing to the *homo oeconomicus* restrictive model, the mainstream ignored and even denied many important aspects of the complexity of human nature. The actual financial crisis has determined a reconsideration of its essential principles. The crisis from the real economy has emerged eventually in a crisis of the economic science, to the extent that mainstream theory is guided by neoclassical assumptions of the illusory *homo oeconomicus*.

Acknowledgement

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A THEORETICAL APPROACH ON THE STRATEGIC PARTNERSHIP BETWEEN THE EUROPEAN UNION AND THE RUSSIAN FEDERATION

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Abstract *The purpose of this paper is to explore the theoretical approaches of the „strategic partnership" concept, and then applying them to the relationship and cooperation between the European Union and the Russian Federation, thus emphasizing its evolution. The base of this article lays on a literature review that gathers recent articles and several studies of some researchers in the field, providing some professional information on the subject. Findings reveal that there has not yet got to a general definition of the concepts, researchers and not only would agree upon, and, when applying it to the EU-Russia relation, that there are some mutual benefits as a result of the cooperation. This article shows that, despite of the fact that the startup of the cooperation between the two major global powers was a good one, it now has reached some kind of dead moment, when policy contradictions block the evolution of the partnership.*

Introduction

There is a large number of hypotheses that support the definitions of the term "partnership". First of all, the potential of association or coordination of activities in a certain form, in order for the whole to be stronger than the parts. Second, the partnership implies both the conceiving and the implementation of one or more strategies, project series or activities, despite the fact that the parts can be equally or differently involved within different stages of the projects.

The partnership implies the cooperation process, which supposes common behavior or activities. From the economic point of view, Sellgren (1990) defines the partnership as a plan that necessitates the implication or the financing by more entities. Bennet and Krebs (1994) also emphasize the common goals of the sides and define the partnership as the cooperation of various actors that are willing to cooperate, in order to reach common goals.

De Wilde and Pellon (2006) claim that "the strategic partnership between the European Union and the Russian Federation represents a real challenge from the perspective of common values", which seems to suggest that common values are a needful element within the relations defined as strategic partnerships. In exchange, Danilov and De Spegeleire (1998) assume that "there is a recent devaluation of the strategic partnership concept" within the EU – Russia relations, getting support from Smith and Timmins (2003), which deny the existence of a real strategic partnership between

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Russia and the EU and affirm that a clearer terminology for defining this relation should be elaborated so that to call it an obvious partnership.

1. Literature review

At the base of strategic partnerships, we can find the use of an older concept in a new context, namely "strategic partner". This expression has been firstly used within the EU in 1998, as a conclusion of the European Council, which reaffirmed "Russia's importance as strategic partner of the Union". Six months later, the European Council has adopted the common strategy for Russia, whose objective was to "deepen the strategic partnership between Russia and the European Union", according to Article 12.3 of the Amsterdam Treaty, which stipulated that "the European Council will decide upon the common strategies to be implemented by the Union in the areas where member states have important common interests".

However, the EU itself does not offer a certain definition of the "strategic partnership" concept, it only presents the results to be obtained through strategic partnerships. Due to them, the objective of the EU is to promote multilateralism in order to reach certain goals. More precisely, it wants "to find common points in common interest problems, to mutually support its political agendas and to act in common at a local or global level".

Several researchers consider the lack of accuracy of the strategic partnership concept, as being a phenomenon that does not have a negative influence. Grevi (2008) claims that it can be an advantage, since a certain degree of flexibility and constructive ambiguity are necessary to such a concept. The lack of a uniform conceptual frame gives space to adjustments, concessions, compromises or common pragmatism and an elementary approach. In order to do so, the strategic feature of the EU partnerships with the emerging states allows the Union to follow its goals and set its rules at international level.

Contrary, Biscop and Renard (2009) criticize the fact that strategic partnerships were seen in various ways within the EU and internationally. According to them, the significant lack of accuracy leads to the overload of the use of the concept and to confusion both within the EU and internationally, which seems to be a negative phenomenon. The "strategic partnership" concept is flattering for all the entities involved – who wouldn't want to be seen as a strategic and useful player?

Other authors are concerned about the fact that the "strategic partnership" notion leads to some expectations that are not fulfilled. Maihold (2010) studies the separate meaning of the two words. "Partnership" is a cultural ideal of a common relation. By simply choosing the term, the concept

includes assumptions regarding equal rights and duties and the possibility of constructive dialogue regarding the common development of the relation. Without this term, expectations regarding exclusivity emerge. The word "strategy" should not be individually used. Like the concept of "strategic alliance", it is based on the cooperation of the economic agents agreeing upon certain objectives. Cooperation thus means common advantages and success.

Bendiek and Kramer (2011) also clarify the concept of "strategy" by giving it military and defense policies origins, like the choice of campaign strategies. This rises the standards of the European Union. From their point of view, strategy can be seen as "the well planned pursuit of a long term well clarified objective or as a planned fulfilment of a long term goal", which has well defined goals, time intervals and action plans.

Authors such as Biscop or Renard (2009) claim that the role of the partnerships in the context of efficient multilateralism promoting remains unclear. From their point of view, strategic partnerships could be only used as means of promoting efficient multilateralism only if preceded by an evaluation of EU's interests in each region, followed by the identification of common interests.

Alvaro de Vasconcelos *et al.* (2008) has attracted attention on the inherent tensions between multilateral objectives and the bilateral approach of strategic partnerships. To this extent, the objective of the EU is to understand the global common responsibility of different strategic actors on the global scene of peace and security. Thus, when defining partnerships with China, Russia or India, the multilateralism of the strategic partnerships has been more like a way to balance the forces than a global governing, which rises doubts on the principle of noninterference.

If partnerships really target efficient multilateralism, it determines the partners' choosing. Thus, the EU designs strategic partnerships "with all that share our objective and values and are ready to act to their support". Thus, strategic partnerships with other states show that rules are not definitive when it comes to choosing the partners. In the case of Russia, "common interests" are mentioned.

Biscop and Renard (2009) emphasize the fact that there are a few pre-established criteria when choosing the partners, beyond the common values and objectives sharing. Partners should be though capable of having some influence in global or regional problems.

Hussar *et al.* (2011) are concerned about the fact that the decision of choosing only global or regional powers in order to create partnerships will lead to the development of a circle of potential strategic partners that are significantly different when talking about values, the risk, interests, objectives and historical experience. When identifying potential partners, one should pursuit the convergence of interests, partners' ability to design a successful foreign policy and locational advantage.

If choosing strategic partners sometimes seems as following different principles, we can say that it is the same as choosing the interest areas of the partnerships. Thus, it might concern terrorism, mass destruction weapons proliferation, regional conflicts and organized crime as the main global problems, and we may also add to the list internet and energy security, as well as climatic changes.

The Russian Federation and the European Union are strategic partners with a wide range of interdependencies regarding various fields, including economy, global and national security, but not the least, there is a common responsibility for the situation in Europe and the evolution outside the European continent. The main regulation instrument between the EU and Russia is represented by the Partnership and Cooperation Agreement from June 24th 1994, aiming at the development of deep relations in politics, economy, trade, justice and population. At the 2003 Sankt Petersburg Summit, Russia and the EU have adopted a common strategic frame to create common spaces in four political fields – The Common Economic Space, the Common Space on Freedom, Security and Justice, the Common Space of External Security, Common Space of Research and Education, including cultural aspects. The implementation of these common spaces designed at the Summit in Moscow in 2005 represents the essential element of the deepening of the relations between the two sides.

At the London Summit in 2005, the Russian Federation and the European Union agreed on the necessity of renewing the existing legal frame, which failed in reaching the objectives of creating the four common spaces and reflecting the cooperation degree. In May 2006, the sides have made a political decision to elaborate a new document which was to introduce the strategic cooperation idea and to create efficient mechanisms to practically implement it. The negotiations have started in 2008 and they are still on.

Of course, the potential of the Russian Federation – European Union partnership can be exploited more. The main cooperation fields in the near future include the exemption or even elimination of visas for Russian or European citizens for short travels, the conceiving of a more efficient and result-oriented relation regarding politics and external security, including crisis administration, the harmonization of integration processes in Europe and Eurasia, the creation of mutual beneficial and sustainable conditions regarding the cooperation in the energy field. All these stages should lead to the strategic emergence of a common economic and human space, which is to unify the Atlantic and the Pacific Oceans.

The European Union is one of the strategic economic partners of the Russian Federation. The commercial and investment cooperation between the two sides used to evolve in a dynamic manner. Almost 50% of the Russian Federation external trading relations target the European Union. Russia is the third economic partner of the EU after the United States of America and China, being the main

oil and petrochemical products provider. Now, Russia and the EU actively cooperate to elaborate common approaches regarding the strategy and administration methods of the effects of the global economic crisis through bilateral dialogue, materialized in the form of the experts' collaboration of the governmental agencies and by maintaining close relations with the business environments in Russia and the EU, which offers great opportunities of taking part in the economic life and cooperation.

The EU – Russia partnership is mainly conceived on energy and resources. Russia represents a main actor whose contribution to the optimization of European energetic security cannot be ignored. The start of the first pipeline, North Stream, and speeding up the construction of the second one are amongst the main achievements in the field. There were also plans designed to create a common energy market for the Russian Federation and the member states of the EU. Despite the problems and difficulties between the two sides, the Russian Federation does not make a drama out of the situation and it is sure that there are mutual acceptable solutions based on the strategic feature of the partnership.

The relation between the EU and Russian is designed as a strategic partnership based on common interests and shared values upon which both sides agreed within several important international organizations such as UN, the Council of Europe or OSCE. The values the sides share are democracy, human rights, justice and market economy rules.

The EU – Russia partnership is deeper than their relations with other states. The bilateral dialogue frequency is unique. The necessity of developing such a partnership, both strategic and commercial, is easy to explain. The Russian Federation and the European Union are incredibly interrelated from the economic point of view. Russia is the third trading partner of the European Union after China and the United States (GD for External Relations form the European Commission). The main reason of the deepening is the EU's enlargement towards Eastern Europe, most of the Russian investments in the former soviet states being then included in statistics after the integration of the states in the European Union structures.

Russia surely sees itself as a global actor, which is significantly different compared to the other former soviet republics which want to join the European structures. The self-image of Russia show that the efforts to make it join the real democracy like the western countries and to modernize its economy, like the possible member states of the EU are not very useful since Russia does not respect any of the convergence criteria of the EU. Surely the EU cannot act in order to influence Russia's internal affairs and cannot get any certain promise from Kremlin regarding the future changes in the Russian political structure. Knowing this, Putin's Russia wants an EU which does not interfere in

Russia's internal affairs. In aspects such as political freedom, the rule of law and the power of justice or the conflicts in Chechenia or Ukraine, Russia wants the EU to abstain itself. From the economic perspective, Russia wants to increase the cooperation level with the EU, but after its rules.

Under Putin, Russia has diminished the economic domination of the oligarchs, their power being taken by the central authorities by creating state controlled gigantic companies. The centralization has become the main phenomenon of the Russian economic development and brought stability on the market by reducing the private business elites which had the power to impose themselves in front of Putin's authority. The Khodorkovsky case is a certain example. Now, Russia wants economic integration according to the European model which would be beneficial for the economic modernization by attracting investments and by tolerating the activities of the great state owned companies, such as Gazprom, which is allowed on the EU market.

Moreover, Russia desires a Europe which is more transparent when it comes to the design of common policies which involve the Russian Federation. The EU should allow Russia to get more involved in the European decision making process in aspects that influence Russian interests, such as trading policy, anti-dumping regulations and the certain impact of the increasing goods volume that Russia exports in the new member states of the Union.

The knowledge of the "partnership" concept were generated and codified using various methods, depending on the field, context, goal and audience. The concept differs as an explication, depending on the study object and the research field. The academic origins and the working experience of the authors influence their perspective on the partnership concept and the aspects they focus upon. Studies on the partnership include analytical studies that analyze the emergence and operation methods of partnerships, as well as information regarding the norms that promote partnerships and the way they should act.

Conclusions

Used for the first time in 1998 by the European Council, the "strategic partnership" concept supposes the strategies that the European Union would use to reach common objectives with certain states in various regions of the world, which would support its political agenda and promote global or local cooperation. The lack of a uniform conceptual frame offers researcher the chance to adjust, make concessions, compromises or apply common pragmatism and an elementary approach. The significant lack of accuracy leads to the overload of the use of the concept and to confusion both within the EU and at an international level, which seems to be a negative phenomenon. The "strategic

partnership" concept is flattering for all the entities involved, as each state in the world wishes to be seen as a trustful partner.

"Partnership" is a cultural ideal of a common relation. The concept includes assumptions regarding equal rights and duties and the possibility of constructive dialogue regarding the common development of the relation. Without this term, expectations regarding exclusivity emerge. The word "strategy" should not be individually used. The objective of the EU is to understand the global common responsibility of different strategic actors on the global scene of peace and security. The EU designs strategic partnerships "with all that share our objective and values and are ready to act to their support". Thus, strategic partnerships with other states show that rules are not definitive when it comes to choosing the partners. In the case of Russia, "common interests" are mentioned.

The European Union is one of the strategic economic partners of the Russian Federation. The commercial and investment cooperation between the two sides used to evolve in a dynamic manner. Almost 50% of the Russian Federation external trading relations target the European Union. The EU – Russia partnership is mainly conceived on energy and resources. Russia represents a main actor whose contribution to the optimization of European energetic security cannot be ignored. Despite the problems and difficulties between the two sides, the Russian Federation does not make a drama out of the situation and it is sure that there are mutual acceptable solutions based on the strategic feature of the partnership. The relation between the EU and Russian is designed as a strategic partnership based on common interests and shared values upon which both sides agreed within several important international organizations

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FDI DETERMINANTS IN BRICS

Sebastian-Andrei LABES[*]

Abstract: *In the past two decades the volume of Foreign Direct Investments increased substantially becoming a phenomenon that characterizes the economic environment in the emerging markets. The aim of this working paper is to investigate the Foreign Direct Investments Inflows in the BRICS economies. The research study employs a Panel Data analysis on a sample of 5 countries, the BRICS economies Brazil, Russia, India, China and South Africa and a time series from 1992-2012. The variables taken in consideration are Trade Openness, GDP per capita, Population, Exchange Rate and Human Capital. Our results indicate that the most significant determinants of FDI Inflows are Trade Openness, GDP per capita and Exchange Rate. The value of this work is that it investigates the factors that contribute to the increase of FDI inflows towards the most important emerging economies in the world.*

Introduction

In 2001 Jim O'Neill, Goldman Sachs economist coined the term BRIC in a paper titled 'Building Better Global Economic BRICs', in order to define the flagship nations of the emerging economies – Brazil, Russia, India and China. With its first Summit held in June 2009 in Yekaterinburg, BRICS is the first coalition that prefigured „in the mind of the economists", and only subsequently turned into „reality" (Oehler-Sincai, 2011). Although the same research institute warned in another paper 4 years later 'How solid are the BRIC's' about the major distinction that has to be made between potential and reality the BRIC's fired economists imagination. In December 2010 South Africa was invited to join the club in order to confer it a worldwide perspective and legitimacy. The term BRICS is no longer just a catchphrase coined around trade and international relations, it is a reality and it exists as a transcontinental foreign-policy actor.

Taken as a trans-continental group the BRICS nations do matter in terms of population, land surface, and economies their sizes are impressive. Together the BRICS represent 40% of world's population, 25% of land surface and approximately 25% of world's GDP (van Agtamael, 2012). The BRICS turned out to be an important aspect of the modern globalized era and what distinguishes them from any other story of Emerging Markets (EM) growth is their ability to influence and to be influenced by the global economy and the global markets. (O'Neill, Wilson, Purushothaman, Stupnytska, 2005). Between 2000 and 2005 the 4 large BRIC's contributed to 28% of global growth in US dollars and 55% in PPP (Purchasing Power Parity) and their share in global trade rose to 15%

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in 2010 from 3.6% two decades ago. (see in annexes Figure 1 Trend in BRICS share in global trade (%), 1990–2010)

The BRICS growing importance for the world economy is reflected by various economic and demographic indicators. These include, but are not limited to, their increasing share in world GDP; GDP per capita; total investment as percentage of GDP; share in world trade; trade openness and their foreign direct investment (FDI) inflows and outflows. (see in annexes Table 1 Overview of BRICS, 1992 vs. 2012) The BRICS countries have been the predominant recipients of FDI during the last decades. However, the evolution of FDI inflows and outflows shows very distinct trajectories for the five countries (see in annexes Figure 2. FDI Inflows BRICS, 1992 – 2012 and Figure 3. FDI Outflows BRICS vs. Selected Economies, 1992 - 2012).

"Until 1984, Brazil was the major FDI recipient country among the BRICSs, overtaken by China in 1985 and since then China continues to be a major destiny of FDI, especially in the automotive and consumer durables sectors. China became the world major recipient of FDI in the 1990s, matching with country's efforts to integrate with the world economy. South Africa and India received an almost constant and small part of the world total FDI flows during last two decades. India has many restrictions to FDI inflows, where, public enterprises dominate in many key sectors. Equally, the low and constant inflow applies to the Russian Federation since 1990". (Vijayakumar, Sridharan, Rao, 2010, p. 3)

In Figure 4 - FDI inflows and their share in global FDI inflows, 1998-2012 we can clearly see that FDI inflows towards the BRICS economies tripled over the past decade (see annexes). Between 2003 and 2008 the nominal growth was from 77 billion US dollars to 281billion US dollars. Not even during the crisis the FDI flows did not decreased too much – only 30% compared with 40% for developed countries. Almost half of the total FDI inflows go to China and a quarter to Brazil.

Figure 5 - FDI outflows and their share in global FDI outflows, 1998-2012 show that the role of BRICS as investors in the world's economy increased significantly (see annexes). In 2012 BRICS accounted for 9% of world outflows but ten years before that share was only 1%. "BRICS investors also remained resilient to the crisis, with outflows dropping by only 26% in 2009, compared to 41% for the world as a whole." (UNCTAD, 2014)

The following paper is divided into 4 sections: Literature review, Data & methodology, Results, Summary and concluding remarks.

1. Literature review

Foreign direct Investment (FDI) is an increasing phenomenon. During the 1980's and 1990's it has grown significantly faster than trade flows, and the estimation is that over 30% of world trade is due to multinational firms that transfer goods between them, which is all part of FDI. Main causes for this trend were on the one hand the reaction of multinational corporations to regulations and trade barriers and on the other hand the preservation of intellectual property that makes self-production more profitable than licensing agreements.

As shown in the introduction the volume of FDIs in the past decade has increased substantially and as any other type of capital flows (portfolio investments, international loans) can be measured by flows at a given point in time or by stocks accumulated over time. Capital inflows are net purchases of domestic assets by foreign residents, whereas capital outflows are net purchases of foreign assets by domestic residents. A country's exposure to international capital flows can be measured either by its government's policies (restrictions or incentives vis-à-vis capital flows) or by the actual amount of capital movement (scaled by the size of the recipient economy).

International capital flows have the potential to bring a variety of benefits to recipient countries. In theory, financial globalization could raise a country's economic growth rate through a number of direct and indirect channels. The direct channels include (a) augmenting domestic savings, (b) reducing the cost of capital through better allocation of risks (Henry, 2000; and Stulz, 1999), (c) transferring technology and managerial know-how (Grossman and Helpman, 1991), and (d) stimulating development of the domestic financial sector (Levine, 1996 and 2005). The indirect channels include (a) promoting specialization (Brainard and Cooper, 1968; and Imbs and Wacziang, 2003), and (b) committing to better economic policies (Gourinchas and Jeanne, 2004; Tytell and Wei, 2004).

The theoretical literature on FDI focuses on two broad categories: the factors that determine the patterns of worldwide FDI and the impact that FDI and MNEs have on the parent and host countries, including economic growth, returns to factors of production, and externalities for innovative activity. (Bloningen, 2008) The most common methods of FDI are through acquisition of a firm, construction of a plant (Greenfield FDI), partnership in joint-venture or earnings reinvested in an existing foreign affiliate. Firms with affiliates in more than one country are termed 'multinational enterprises' (MNEs).

The empirical literature can also be divided into two types: country level analyses, where the sample contains macro level data by country; and firm level analyses, in which the sample contains

micro level data from firms in a single country. In general country level estimations of FDI effects on growth are positive while most of the firm level gets to controversial results.

The role of FDI seems to be country-based and can be positive/negative/insignificant depending on the economic, institutional and technological conditions in the recipient economy. In Xu (2000) developed countries are expected to have a higher level of human capital and hence to benefit more from FDI than developing countries.

Durham (1994) finds that the effects of FDI are contingent on the absorptive capability of host countries. Related to the absorptive ability Borensztein (1998) conclude that differences in the technological absorptive ability may explain the variation in growth effects of FDI across countries. The level of human capital determines the ability to adopt foreign technology. Larger endowments of human capital are assumed to induce higher growth rates given the amount of FDI therefore a minimum threshold sock of human capital is required for stronger effects.

GDP and GDP per capita are most commonly used as major determinant for FDI flows between two countries. This is due to the fact that FDI is strongly influenced by the size of the markets of the partner countries because FDI flows tend to gravitate towards larger economies. Kinoshita and Campos (2003)

Moreover Olofsdotter (1998) concludes that beneficiary effects of FDI are stronger in those with a higher level of institutional capability stressing the importance of bureaucratic efficiency. However Bende-Nabende (2003) in a comparative study on East Asian countries concludes that the direct long-termed impact of FDI on output is significant and positive for comparative economically less advanced Philippines and Thailand, but negative in the more economically advanced Japan and Taiwan even though the absorptive abilities of Philippines and Thailand are lower than those of Japan or Taiwan. Zhang (1995) investigates the causation in 10 East Asian economies and finds that FDI appears to enhance Economic Growth in the long run for mainland China, Hong-Kong, Indonesia, Japan, Taiwan and on the short run for Singapore. Sjoholm (1999) stresses the importance of the technology gap between domestic and foreign establishments in which the larger the technology gap the greater the productivity spillovers. In Balasubramanyam *et al.* (1996) FDI is seen as a composite bundle of capital stock, know-how and technology that augment labor training, skill acquisition, alternative management and organizational arrangements. Blonstrom (1996) finds positive growth effects of FDI using FDI inflows in a developing country as a measure of its interchange with other countries. According to Balasubramanyam *et al.* (1996) FDI is more important for economic growth in export-promoting than in import-substituting countries in a matter that that the impact of FDI varies across countries and that trade policy can affect the role played by FDI in economic growth. In an

UNCTAD report (1999) FDI's impact on economic growth can be perceived both negative and positive depending on the variables used in the proposed equation of the model (GDP per capita, education attainment, domestic investment ratio, political instability, terms of trade, block market premium, state of financial development, etc.). Bengoa and Sanchez–Robles (2003) find a positive correlation between FDI and economic growth but host countries require Human capital, Economic Stability and liberalized markets in order to have a long-term benefit from the FDI inflows.

2. Data & methodology

For our analysis we are taking into consideration FDI inflows for the 5 BRICS economies – Brazil, Russian Federation, China, India and South Africa from 1992 – 2012. The dependent variable in our study is the FDI inflows in current US dollars (FDI inflows i,t) and the independent variables that are expected to determine FDI flows are carefully chosen, based on previous literature and availability of dataset for the selected period. All data is compiled from the World Bank database and UNCTADstat database in current US dollars. The set of independent variables are expected to capture the main economic characteristics of the target country.

The econometric specification is written as the following presented in Equation 1:

$$\text{FDI inflows}_{i,t} = \alpha_0 + \alpha_1\,(\text{GDPpercapita}_{i,t}) + \alpha2\,(\text{HK}_{i,t}) + \alpha_3\,(\text{PoP}_{i,t}) + \alpha_4\,(\text{TO}_{i,t}) + \alpha_5\,(\text{X}_{i,t}) + \mu_{i,t} + \varepsilon_{i,t}$$

(1)

Where: we analyze the influence of the parameters that we find in the literature as determinants of FDI. *GDPpercapita* consists of data take from World Bank and is in current millions of US dollars. *HK* is the variable expressing the Human Capital as education attainment taken from Barro-Lee dataset for total population aged 25 expressed as percentage of total population aged 25 and over that have completed secondary level of education. *PoP* is an indicator that refers to total population expressed in millions data taken from World Development Indicators, World Bank. *TO* is an indicator of trade openness expressed as a sum of exports and imports calculated for trade in goods, trade in services and total trade in goods and services, data is in millions of US dollars taken from *UNCTADstat*. For Russian Federation data is available only for period from 1994-2012. Finally, *X* is an indicator to grasp country's international competitiveness in terms of its foreign exchange rates that cannot be understood by examining only individual exchange rates between the country's currency and other currencies. It is expressed as Real Effective Exchange Rate. The term 'effective' means that exchange rate changes are not measured against one particular currency, but instead use

an average index (Consumer Price Index) of a whole basket of currencies, each weighted according to the issuing countries' respective importance as a trade partner. $\mu_{i,t}$ represents the between-entity error and $\varepsilon_{i,t}$ within-entity error. Random effects assume that the entity's error term is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables. Data is taken from *UNCTADstat* available for all the countries in the study except Russian Federation. Data is processed using Stata11 software package.

3. Results

The descriptive statistics and correlation results for the selected variables for BRICS countries are given in Table 2 and Table 3 respectively (see annexes). All the variables in the estimation are having 105 observations. The trade openness has highest mean and standard deviation of 488023.5 and 766319.8 respectively in the data distribution. The independent variable *FDI inflows* is highly correlated with GDP per capita, Population, and trade openness. The variable Population is highly correlated with GDP per capita, Exchange Rate and trade openness. The existence of high correlation among the independent variables will lead to the problem of multicollinearity in the estimation. Still we consider these variables because of advantageousness of the panel data estimation which takes care of the collinearity problems.

Regarding stationarity we check for each variable whether we have a stationary/unstationary series using the ADF test. The results for each variable are presented in Table 4 (see annexes). In order to work with stationary series we estimate equation (1) using the log function into equation (2):

$$dl\_FDI\ inflows_{i,t} = \alpha_0 + \alpha_1\ d(GDPpercapita_{i,t}) + \alpha2\ d(HK_{i,t}) + \alpha_3\ d(PoP_{i,t}) + \alpha_4\ d(TO_{i,t}) + \alpha_5\ _d(X_{i,t}) + \mu_{i,t} + \varepsilon_{i,t}$$

$$(2)$$

We estimate Panel data analysis including OLS pooled regression (Common constant method), testing fixed effects method and random effects method for the selected study period. The robustness of parameter coefficients are used to explain the relationship between FDI inflows and the selected independent variables. Since, the results of OLS pooled regression, the Random effects parameter coefficients sign and their significance levels are almost similar, we choose to check the robustness with the Hausman Test (see annexes). To decide between fixed or random effects we ran a Hausman test where the null hypothesis is that the preferred model is random effects vs. the alternative the fixed

effects (Green, 2008). The chi2 probability is higher than the expected 0.05 value so we decide to use the random effects method.

The R square coefficient is 0.9333 meaning that 93% of the variation in the dependent variable it is explained by the independent variables of the model. Table 5 in annexes is showing the results of Random effects model and confirms the significance of GDP per capita, trade openness and Exchange rate. The co-efficient signs for each of these variables are as expected, positive for GDP per capita, trade openness and Exchange rate.

4. Summary and concluding remarks

In recent days, BRICS − the fast developing economies of the world having larger market potentials are expected to attract larger inflow of FDI. However, the factors attracting the FDI inflows towards these countries are relatively less researched. This study made an attempt to identify the factors determining the FDI inflows of BRICS countries from the period 1992 to 2012. The determinant factors include: GDP per capita, Population, Human Capita, Exchange Rate and Trade Openness. The study finds that Trade openness (measured by the ratio of total trade to GDP), GDP per capita (often considered an indicator of a country's standard of living) and Exchange Rate (a measure of country's international competitiveness in terms of its foreign exchange rates) seem to be the potential determinants of FDI inflows in BRICS countries. The empirical results are robust in general for alternative variables determining FDI flows.

The empirical analysis has some policy implications towards the improvement of investment climate to attract higher FDI inflows into BRICS countries. Therefore, it is an important object to maintain the stability of the currency of the host country to attract increased FDI. The benefit of trade openness in terms of their impact on FDI is validated in this study. Thus, BRICS countries as developing nations have to involve themselves in the path of economic reform and liberalization activities. As expected, the significance of exchange rate seems to validate the study as the determinant of FDI.

The overall significance of the model specified in this study would contribute to a greater understanding of the FDI determinants in the emerging markets, as well as, the findings of this study would also lay emphasis on the importance of liberalization and economic policy reforms.

Annexes

Figure 1 - Trend in BRICS share in global trade (%), 1990–2010
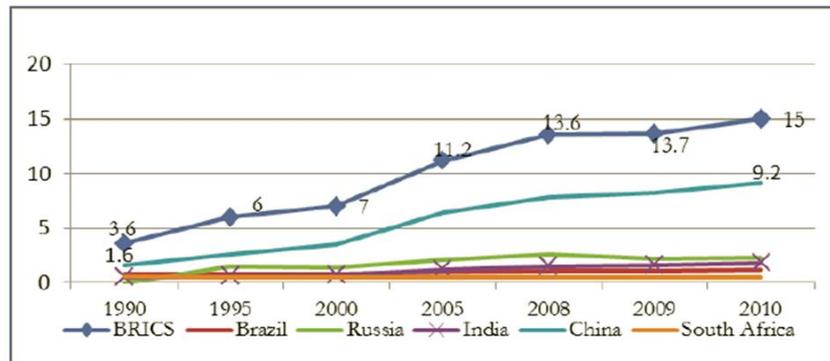
Source: UNCTAD, UNCTADstat data processed by author in Microsoft Excel 2010

Figure 2 - FDI Inflows BRICS, 1992 – 2012
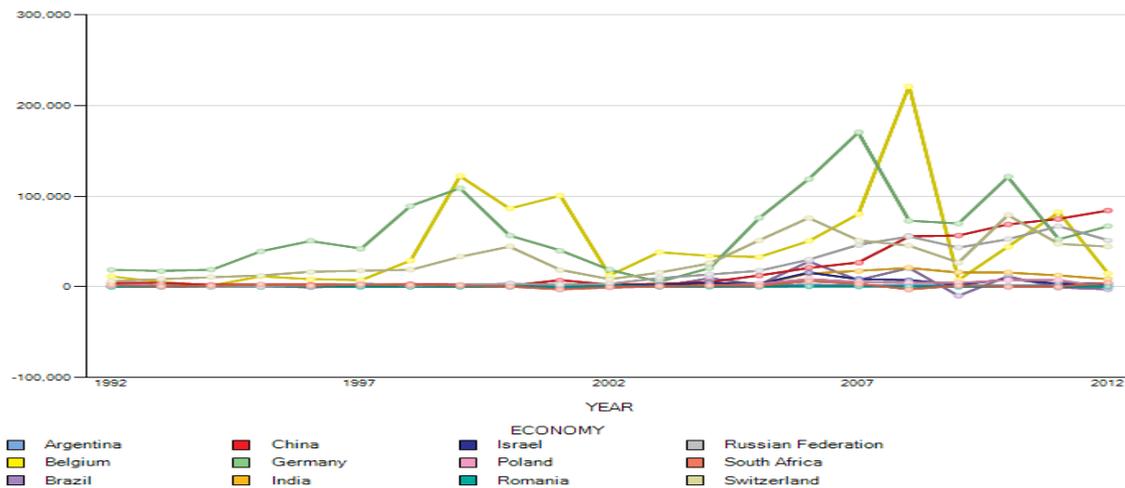
Source: UNCTAD, UNCTADstat data processed by author in Microsoft Excel 2010

Figure 3 - FDI Outflows BRICS vs. selected economies, 1992 – 2012
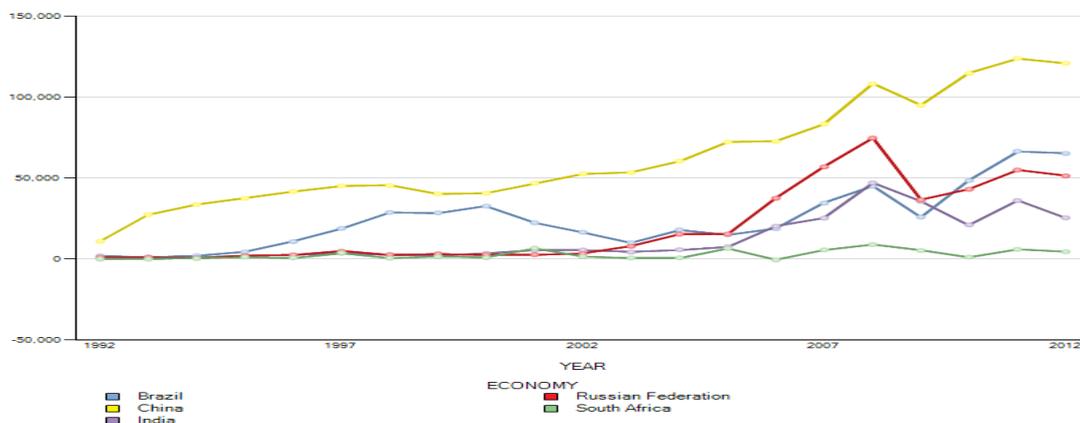
Source: UNCTAD, UNCTADstat data processed by author in Microsoft Excel 2010

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Table 1 - Overview of BRICS, 1992 vs. 2012

Overview of BRICS, 1992 vs. 2012									
Country	GDP, Current prices ($ bn)		GDP Per capita ($)		GDP (ppp bn)		Share in world GDP (%)		Total investment (% of GDP)	
	1992	2012	1992	2012	1992	2012	1992	2012	1992	2012
BRAZIL	390	2,253	2,529	11,358	838	2,330	2.9	2.8	17.2	17.6
RUSSIA	85	2,029	575	14,302	1,170	2,486	4.1	2.9	37.6	24.9
INDIA	293	1,841	333	1,500	861	4,715	3	5.6	23.7	35.6
CHINA	488	8,221	416	6,071	1,204	12,261	4.2	14.7	37.4	48.8
SOUTH AFRICA	130	384	3,389	7,525	206	576	0.7	0.6	12.2	19.4

Source: IMF, World Economic Outlook Database, October 2013

Figure 4 - FDI inflows and their share in global FDI inflows, 1998-2012
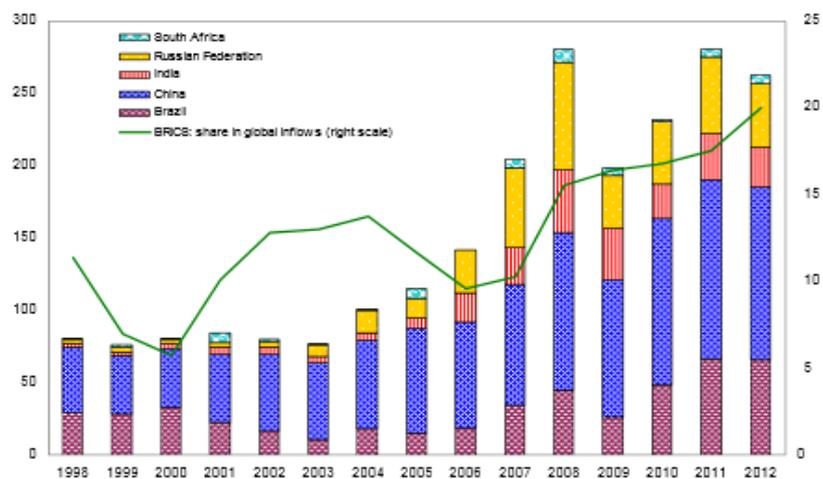
Source: UNCTAD, FDI/TNC database

Figure 5 - FDI outflows and their share in global FDI outflows, 1998-2012
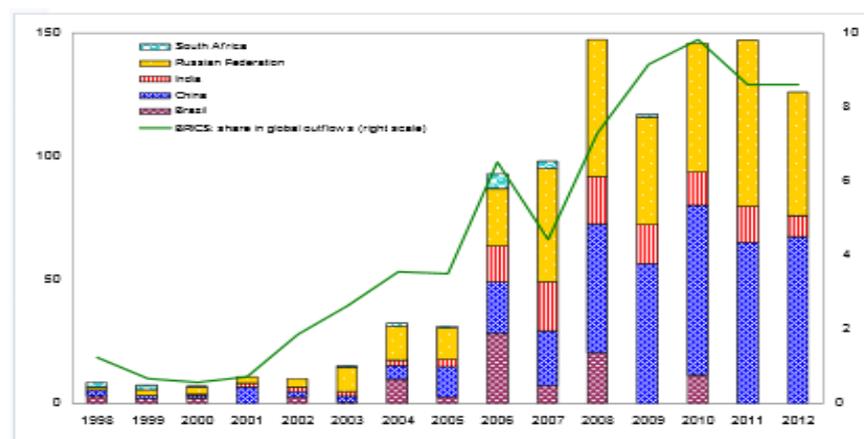
Source: UNCTAD, FDI/TNC database

Table 2 - Summarize

Variable	Obs	Mean	Std. dev.	Min	Max
fdi_inflows	105	30974.5	51110.6	-183	280072
humankapital	105	3.764952	9.309777	0	40.32
gdppercapita	105	3609.856	3155.633	305.94	13860.91
population	105	5.43e+08	5.25e+08	3.67e+07	1.35e+09
tradeopenness	105	488023.5	766319.8	0	4272634
exchangerate	105	84.51429	45.00195	0	158

Source: data processed by author in STATA 11

Table 3 - Pearson Correlation

	fdi_inflows	*humankapital*	*gdppercapita*	*population*	*tradeopenness*	*exchangerate*
fdi_inflows	*1.0000*					
humankapital	0.1477 0.1327	*1.0000*				
gdppercapita	0.2238* 0.0218	0.1085 0.2705	*1.0000*			
population	0.4539* 0.0000	-0.0363 0.7132	-0.5406* 0.0000	*1.0000*		
tradeopenness	0.9609* 0.0000	0.1212 0.2180	0.1679 0.0869	0.4873* 0.0000	*1.0000*	
exchangerate	0.1619 0.0988	-0.0648 0.5111	-0.1062 0.2811	0.2888* 0.0028	0.1110 0.2594	*1.0000*

Source: data processed by author in STATA 11

Table 4 - ADF test

| Variable	Level		1st difference	
	t- statistic	Prob.	t- statistic	Prob.
FDI inflows	19.3530	0.0360	26.9369	0.0027
Exchange Rate	5.14316	0.7422	40.6548	0.0000
GDP per capita	0.20028	1.0000	23.8743	0.0079
Human Capital	3.65254	0.9617	1316.95	0.0000
Population	11.5055	0.1747	19.1972	0.0378 *(2nd difference)*
Trade Openness	0.14278	1.0000	40.0143	0000

Source: data processed by author in STATA 11

Table 5 - Panel Data Regression, Random Effects

R-sq: within = **0.9205**	between = **0.9723**		overall = **0.9333**	Obs per group: min = **21**	avg = **21.0** max = **21**	
Random effects u_i ~ Gaussian Corr(u_i, x) = 0 (assumed)				Wald chi2(5) = 1384.33 Prob > chi2 = 0.0000		
fdi_inflows	Coef.	Std. err.	Z	p>|z|	[95% Conf. interval]	
humankapital	176.5394	144.7072	1.22	0.222	-107.0814	460.1603
gdppercapita	1.618406	.6209188	2.61	0.009	.4014276	2.835384
population	4.70e-06	4.34e-06	1.08	0.279	-3.81e-06	.0000132
tradeopenness	.0606997	.0024763	24.51	0.000	.0558463	.0655531
exchangerate	67.70383	31.02893	2.18	0.029	6.888249	128.5194
_cons	-13430.74	4200.511	-3.20	0.001	-21663.58	-5197.886
Sigma_u	0					
Sigma_e	10871.278					
rho	0 (fraction of variance due to u_i)					

Source: data processed by author in STATA 11

Table 6 - Hausman Test

	(b) Fixed	(B) Random	(b-B) Difference	Sqrt(diag(V_b-V_B)) S.E.
Coefficients				
Human capital	.0193653	.0321566	-.0127913	.0042975
GDP per capita	.0739573	.0999224	-.0259651	.0148767
Population	-.8316785	.0483474	-.880026	.3246855
Trade openess	.9211341	.9100932	.0110408	.0262347
Exchange Rate	.0633331	.059612	.0037211	.0913538
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg				
Test: Ho: difference in coefficients not systematic				
chi2(**4**) = (b-B) ' [(V_b-V_B)^(-1)](b-B)				
= **37.70**				
prob>chi2 = **0.157**				

Source: data processed by author in STATA 11

Aknowledgement

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LABOR FORCE INTERNATIONALIZATION. UNEMPLOYMENT AND EMIGRATION IN BACAU AND VASLUI COUNTIES OF ROMANIA

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Abstract: *The article analyses the relations between unemployment and emigration in Bacau and Vaslui counties, in a comparative outlook. The article starts with an analysis on Romania situation concerning the two phenomena. The second part brings forward the two counties, Bacau and Vaslui, trying to provide a clear view over the reality these two are confronting with. A mapping method was further used to cartography the statistical data provided by the National Institute of Statistics in order to provide a visual outlook over the reality concerning unemployment and emigration.*

Introduction

If in the 80`s internationalization was based on political or socio-cultural reasons, currently the focus shifted on the Romanian labor force increased need to accede to a material, social and professional welfare, identified abroad. The article captures unemployment and emigration in a relation of convergence whose scale determined internationalization of the labor. Thus said, once with the opening of borders, the prospecting area has also increased, becoming a "savior" response for the industry decline for Romanian population.

It is difficult to demonstrate if emigration indeed became the short and medium-term saving solution for unemployment or not. According to the International Labor Organization in 2013, Romania had an unemployment rate of only 7% in a population of about 19 million people wherefrom 6 million were working legal or illegal, while in Spain, an attractive country for immigrants, unemployment is 26%, given that almost a third of the population in Spain (14 of 46 million people) has the status of an employee (IOM, 2013). These two social phenomena have an important impact over the transformations of labor force. Because the labor force is sensitive to unfavorable economic prospects we can see on the Romanian market a surplus of labor in comparison with the offer.

Industry restructuring and the economic crisis has led many people to give up seeking for a job, being oriented toward rural or abroad, and therefore they are not registered as employed, preventing unemployment to rich high values. This behavior is also visible through the high number of people working in subsistence agriculture.

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According to the International Labor Organization and the Romanian law nr.76/2008 unemployed is considered that person, from years 15 till the fulfilling of the retirement conditions, that is looking for a job and do not have any income. Looking simplistic we actually refer to the two generations, generation "x" in the range 1965-1980 and generation "y" from 1980 till today, affected to the same extent of these two phenomena. These two generations brought to the front describe both visually and by simple statistics the proceedings of this social phenomenon. However is important to mention that the generation "y" is more affected by migration because today is easier to cross the border in search of a job.

What draws attention in this article is the answer of each generation to these two situations. According to International Organization of Migration, migration to European countries has risen sharply with the advent of crisis and freedom of movement, and, among the many Eastern European immigrants, Romanians and Polish are counted. Opportunity of emigration has managed to keep under control the scourge of unemployment (IOM, 2010).

1. Unemployment and emigration in Romania

Unemployment, having its premises in the malfunctions of the social economy, in the field of employment, was a constant companion of the transition to market economy (Badulescu, 2006). Although Romania is facing a negative emigration rate still cannot find opportunities for the reintegration of those who left the Romanian economy. What is worse is that our country has provided in the past decade and still provide skilled labor in areas where our country needs (IOM, 2013).

If we bring to the fore Romanians destination countries, it can be seen in Figure 1 that the countries of Central and Southern Europe dominated the last decade. Ignoring the fact that Romania's external migration is dichotomous: one corresponding to legal act, statistically recorded as emigration and immigration, and migration for work that is not registered in real time. According to the Romanian Office for Labor Migration, there are about two million Romanian employees abroad, outside of seasonal work, representing more than 10% of the country's inhabitants (IOM 2013).

In terms of destination countries for Romanian emigrants, Germany occupied the first position during 1990-2000 (see Figure 1), but of course statistics include the ethnic German population which chose to leave Romania and return to Germany after the communism fall. Currently, Germany seems to attracting Romanian population in order to work, hoping for a better life. Italy, USA, Canada and other countries are also attractive to Romanian emigrants. In this regard we mention Spain that, according to statistical data, has become a main destination for emigrants especially since 2008,

registering a continuous increase over the previous period. Australia and Sweden were also considered as attractive destinations in the period immediately following the fall of communism, but currently Romanian people that choose these countries as destinations is much lower as compared to the period after 1990. By analyzing the links between migration and unemployment can be seen in the recent years a number of consequences that were directed to important sectors of the Romanian economy.

Figure 1 - Destination countries for Romanian emigrants, 1990 - 2011
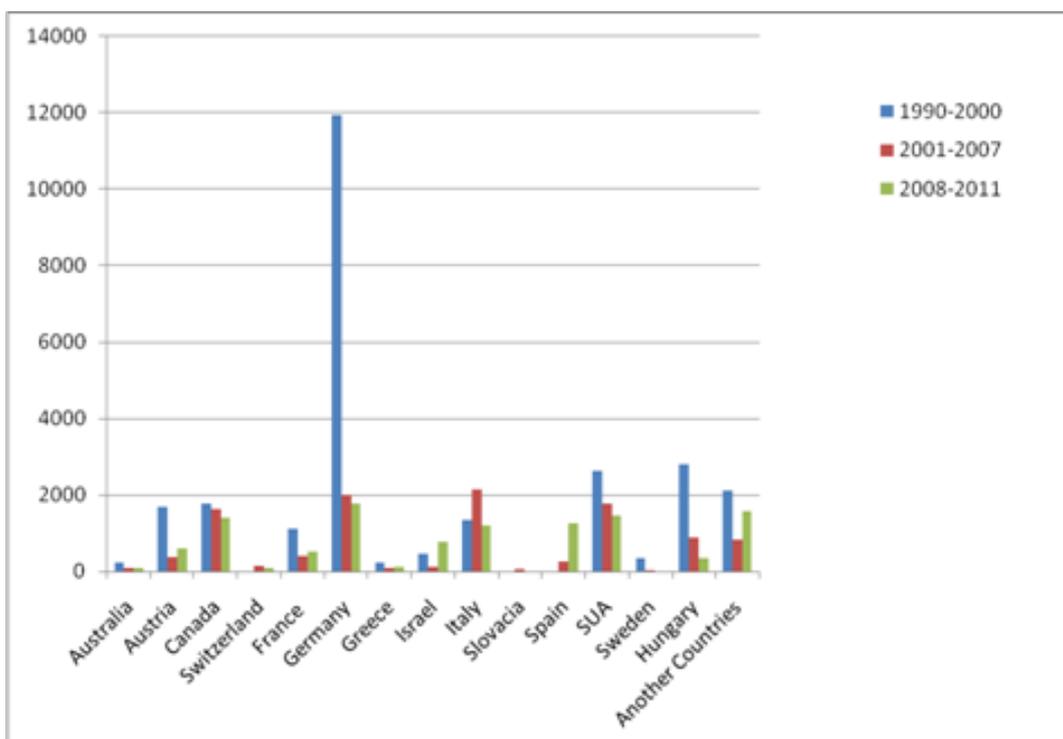
Data source: National Institute of Statistic

Currently, in Romania there are two levels of unemployment, one calculated by National Institute of Statistic and one calculated by the National Agency for Employment (ANOFM). National Institute of Statistic calculate unemployment based on data collected from surveys made by households and includes people aged between 15 and 74 years who simultaneously meet three conditions: they have no job, they would be available to start work within the next two weeks and they were been actively seeking a job in the last four weeks at the time of the investigation. "Unemployment is a statistical trap in the extent that the definition is not well understood and there is a significant discrepancy between the scale of the phenomenon of lack of jobs and the relatively small number of registered unemployed," says Bogdan Hossu, chairman of the National Trade Union Confederation Cartel Alfa (Mihai, 2014). Romania is among the countries that have managed to keep

unemployment - referring to the entire population - within acceptable limits, but they face major problems with youth. According to statistics, youth unemployment is a persistent problem throughout the world which, despite the improved economic conditions, remains at very high levels. Despite all considerations of so called decline in the unemployment rate, this is only hidden in the countryside, abroad and in official statistics (Voinea, 2009).

The majority of Romanian people often feel as they are strangers in their own country and because of that they make decisions accordingly. Increasingly, in the current crisis, qualified or unqualified labor force migrate to other countries choosing to face there difficulties of integration including bad working conditions because they are simply paid better. According to ANOFM, in terms of total number of unemployed registered by the county agencies for employment at the end of December 2014 it was higher with 9,489 persons compared to the previous month, reaching 478,338 people.

Data confirm that the labor market in Romania is facing some inaccuracies regarding the real situation of unemployment and the directions of labor demand. According to the data recorded by ANOFM, in the late 2014 an increase in male unemployment from 5.57% to 5.78% can be noticed in comparison with the female unemployment which decreased. Regarding the structure of unemployment by age group at the end of December 2014 it is dominated by the 25-39 years and 40-49 years age groups: 78 185 unemployed were under 25 years, 39 024 were aged between 25 and 29 years, 102 188 were unemployed aged between 30 and 39 years, 129 554 unemployed were between 40 and 49 years, 60 679 unemployed were between 50 and 55 years and 68 708 unemployed were aged over 55 years. Concerning the structure of unemployment by level of education, unemployed with no education and those with primary education, secondary and vocational education have the largest share in the total unemployed registered by the county agencies for employment (74.71%). Unemployed persons with upper secondary education level is 19.24% of the total number of unemployed, and those with university education 6.05% (ANOFM, 2015).

The highest levels of unemployment have been reached in Vaslui (11.15%), Teleorman (10.92%), Mehedinti (9.75%), Buzau (9.56%), Galati (9.39 %), Dolj (9.20%), Olt (8.11%), Ialomita (8.02%) counties, followed by Calarasi (7.99%) and Dambovita (7.70%) counties (ANOFM, 2015).

At regional level, employment is close to the national average of 33.8%. However a very large percentage is working in agriculture (42.7%), especially in Botosani (52.9%) and Vaslui (51.2%). Share of employment in industry and services is below the national average (23.5%) respectively 19.4, counties like Botosani (15.1%) and Suceava (16.8%) having the lowest employment rate in industry and Vaslui (30.0%) in services. Besides that, these two countries are confronting with an

obvious underdevelopment of the industrial and agricultural technology, as well as low-skilled labour force. (ANOFM, 2015).

2. Unemployment and emigration from Bacau and Vaslui counties

Analyzing the map (see Figure 2) presenting the distribution of unemployment in the North-East Region of Romania, we can explain why is emigration often seen as a solution and here we refer in particular to Bacau county whose population did not hesitate to choose emigration at the expense of fighting for survival within their own country. Of course correlation between unemployment and emigration does not always receive the same results: while Vaslui county has a higher number of unemployment, Bacau county has higher net emigration due to networks with other migrants. It is often easier for a person to decide to emigrate if he is supported by someone who have already did as compared to persons who are not connected with persons with migration experience. In the case of Bacau it is already known that catholic communities had a great contribution (Muntele and Atudorei, 2011).

Although the link between migration and economic development receives special attention, the particular dynamics of migration and its effects on the labor markets of sending countries are still poorly understood due to the lack of reliable data. OECD studies on this subject concluded that migration has little or no impact on employment: a 1% increase in the number of immigrants reduces employment for low skilled workers by 0.04% and reduces employment on average by a 'negligible' 0.02% (Vasilescu *et al.*, 2012).

Figure 2 - Numbers of unemployed persons in the counties from the North-East Region 2014

Source: Own representation

Figure 3 shows the registered unemployment rate in the two counties, Bacau and Vaslui, over a period of about two decades. The two counties are very different from many perspectives but both have undergone through major transformations regarding employment situation. The first decade is characterized by the so-called "race" to occupy first place in the unemployment rate, which, in 1994, placed Vaslui on the first place, and Bacau County in 2002. It should be noted, however, that this was the darkest decade on increasing unemployment in both counties.

Figure 3 - Unemployment in Bacau and Vaslui counties between 1992 and 2014
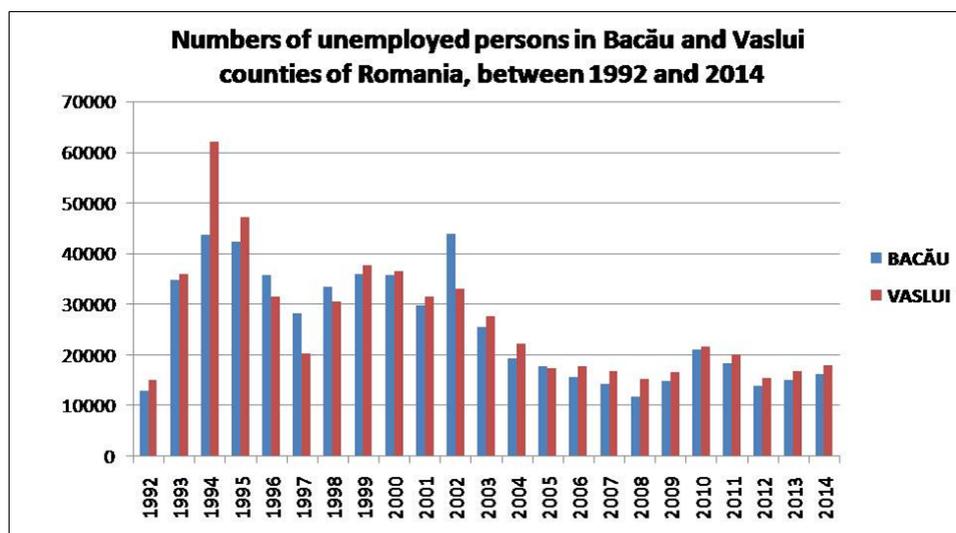
Data source: National Institute of Statistic

The "boom" of unemployment finds its explanation in the recession at local, regional and national levels, where the effects of the exchange rate liberalization and restructuring programs initiated in enterprises with losses during 1997 have been felt and especially we find that economic decline was 50% higher at regional than national level. After 2002 a quite considerably decrease in the unemployment rate for the two counties was experienced. This decrease can be argued by the fact that those who were unemployed in the first decade have reached the stage of retirement, but also because many have turned their gaze toward other horizons.

Conclusions

Relations between unemployment and emigration are complex and it is hard to say to what extent unemployment influence emigration or which are the exactly long-term effects of emigration over the labor market. The fact is that emigration exists and population of Bacau and Vaslui counties experience it to an important level, which rise many questions about what make them decide to

emigrate and in which case unemployment has something to do with the decision of leaving Bacau or Vaslui in order to work abroad. Vaslui and Bacau counties have the highest numbers of unemployment in the North-East Region of Romania, Vaslui county being on the top of the list. It seems that the decisions of x generation had a very big impact on the y generation until now and the statistics sustain us. We wonder what happened with the people who were unemployed in the last decade of the 90` as they do not appear anymore after 2000. Did they disappeared or what? And the immediate answer finds us: the majority of them emigrated.

Comparing the two counties helped us to see two different cases: Bacau county reaches a higher level of emigration than Vaslui county, while the situation of unemployment is exactly the opposite, higher in Vaslui than in Bacau. Being so we may conclude that decision to emigrate is not influenced by unemployment only, people do not emigrate only when they cannot find a job, but when they find an opportunity and the courage to emigrate in order to earn better and provide a better living for them and their families. On the other side, emigration can help reducing of unemployment but the long-term impact on the labor market make costs not worth this price. In the future the need of labour in domains rejected by Romanian people will surely find a solution in employing foreigners who are satisfied with lower wages, increasing immigration.

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JEWISH AND ARMENIAN POPULATION AT THE BASE OF IASI COUNTY DEVELOPMENT

Alexandra Georgiana PARASCA[*]

Abstract: *Through this article I try to highlight the importance of Jewish and Armenian population which contributed to the development of Iasi County. They were a numerous population some centuries ago, contributing to commerce, being known as good merchants. Commerce was the base for establishing trade relations with foreign countries, therefore Armenians and Jewish helped in territorial and economic development of Iasi County. Also, they built churches, synagogues and schools for their community. Due to hard times, wars, discrimination, they had to leave the country for a better life, thus, their number decreased. As it is seen in the graphic and cartographic representations, the Jewish population decreased from 45,372 Jewish, in 1930, up to 257 Jewish, in 2011. As for the Armenian population, they decreased from 100 Armenian, in 1930, up to 14 Armenian, in 2011. Nowadays, they are not as numerous as they used to be, but they try to raise their visibility at local level through events on various occasions. I took into consideration the 1930-2011 censuses data from the National Institute of Statistics to observe the evolution of these two populations in Iasi County and how they diminished in time.*

Keywords: Jewish; Armenian; development; Iasi
JEL Classification: Z12; Z13

Introduction

It is a well-known fact that many Jewish and Armenians were part of Iasi County many years ago. In 1776, when Ghica Voda was a ruler, there were listed guilds of craftsmen and tradesmen in the capital of Moldova, highlighting the Jewish and Armenian guilds. There are not historical sources to tell us from what times they established in Iasi, but from Ionita Sturza Voda time, the Jewish population seems to be more compact. Regarding the Jewish population in Iasi, there is evidence (due to fiscal reasons) that in 1755, there were registered a number of 60 Jews, while in 1774 there were registered 171 Jews. It is recorded that in 1803 there were 367 families of Jews, and another source mentions that in 1838, there were 6178 Jews living in Iasi (Cihodaru, Platon, 1980). After Bogdan (1997), in 1899 the Jews represented 50% of the Iasi County population, while 45.5% were orthodox and 4.5% were of other religions. In 1901, in "Marele dictionar geografic al Romaniei", it was presented statistical data which showed that in Iasi County, there were 24,087 Romanians and 33,141 Jewish (Lahovari, 1901).

The Jews had occupations like selling trinkets, food and clothing, but also inkeeping, as well as money and commodities speculation. During the rule of Mihai Sturza, the Jewish population started to occupy the whole commercial area, and they become bankers, house owners and tenants of estates

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(Bogdan, 1997). In the 17th century they even had their own butchery. In the 18th century it is mentioned the existence of a Jewish public bath. In the Sarata suburb, in current Targu Cucu area, there was also a Jewish Synagogue. The Jewish population had a separate tax regime and they performed their duties to the "IRS" in a different manner (Cihodaru, Platon, 1980). All industrial and merchant occupations from Iasi, in the 19th century, passed into the hands of Jews. Because of this, there were always conflicts between Jews and local people (Bogdan, 1997). The Administrative State of Moldova, imposed in 1843 a law which stipulated that any Jew who had an occupation, business or assets should receive an identity ticket for the rest of his life. In 1871, it was founded the Reunion of Israeli Women which opened a school for women. In 1872, there was also founded a theatre entitled "La Pomul Verde", but, after a while, the theatre caught fire, which nowadays is marked by an obelisk (Mitican, 2005). Mitican (2005) presents to us in his research a fragment from Gazeta Moldovei in which there were reported statistical data from 1904 about merchants and small industrialists in Iasi County, respectively: 1907 Jews and 174 Romanians. Braunstein (2003) presented similar statistics, which shows that in 1941 there were 3229 Jewish businesses, 1045 Romanian businesses and 71 of other nationalities.

After Cihodaru and Platon (1980), the Armenian people came around the 14th century and formed a settlement around a street called Armeneasca, near their current Armenian church. In the 18th century there was an Armenian elementary school, probably near the church. Bogdan (1997), in his research, presents us a census made in 1889 in which Armenians accounted for 136 people (64 men and 72 women).

The Armenian population was known as merchants, their occupations being diverse, such as: grocers, merchants of manufactured goods, drapers, importers of oriental objects, silversmiths etc. Iutis (2014) presents their economic activities, the majority consisting of bow making and trading, but they were also priests, deacons etc. In his opinion, they were a strong community, because they were shopkeepers, they had vineyards and cellars. They had some control over the trade market, having competitors like Turkish, Greeks, Jews, etc. After a while, they occupied jobs like owners of coffee shops, tailors, shoemakers, bakers etc. They had a whole neighbourhood between Golia and Sfantul Sava Church, Royal Court and Beilic, but also near Calcaina creek. They also had a cemetery in Ticau area, around 1830, but their current cemetery and a chapel are near Spital Pascanu area. They were not kindly seen by local people because of their religion (Bogdan, 1997).

Nowadays, the strongest evidence regarding the existence of the Armenian population is the Armenian Church "Sfanta Maria", which was built in 1395, fact that is demonstrated by the date engraved into the stone which is situated above the church door (Balinisteanu, 2008). There was also

another church called "Grigore Luminatorul" around 1600, but eventually it was left in ruins in 1860 (Bogdan, 1997).

1. Method and Methodology

As methods of research, the current study was based on the following: analysing bibliographical resources, meetings with officials from Jewish and Armenian Community in Iasi, using as a qualitative research method the interview, which took into consideration the history of these minorities (in May 2015). Also, I used 1930-2011 census data concerning the religious and ethnic structure of the population in Iasi County, from National Institute of Statistics.

I did a dynamic analysis, trying to observe the evolution of these two populations, comparing the statistical data from 1930 census with the statistical data from 2011 census. The statistical data was processed in Microsoft Excel and Philcarto and afterward represented in graphics and cartographical materials regarding the evolution in time of Armenians and Jewish, but also their territorial distribution in Iasi County.

2. The evolution of Jewish and Armenian population in Iasi County, between 1930 and 2011

In this section of the research paper I will present the evolution of these 2 populations, which contributed to the development of Iasi County centuries ago, bringing their abilities of good merchants and traders to the benefit of our county's economic progress.

2.1. The evolution of Jewish population

Figure 1 – The evolution of Jewish population in Iasi County, between 1930 and 2011
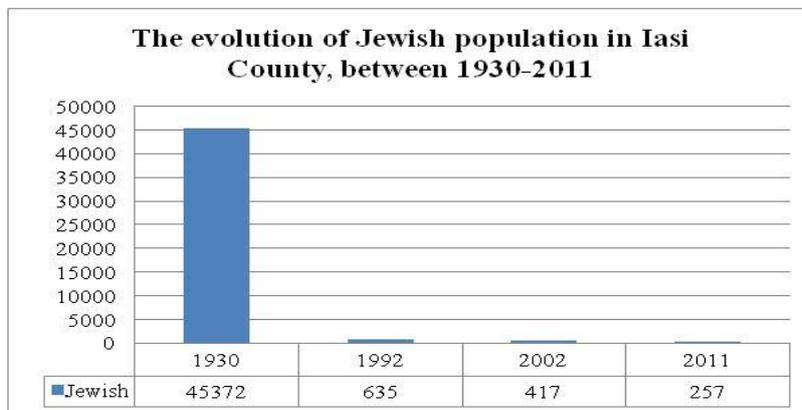
Source: National Institute of Statistics

As we can see in figure 1, the Jewish population was numerous in 1930, compared to 2011. If in 1930 there were 45,372 Jewish people, now there are only 257 people. Yet, after an interview held at the Jewish Community Centre of Iasi, in May 2015, they declared that there are 333 people in their community. It is easily noticeable the fact that in time, the Jewish population has met a significant decrease. This decrease may be due to World War II, when many of them decided to leave Romania, being affected by a wave of emigration (Mitican, 2005), or because of the pogrom.

Figure 2 – The territorial distribution of Jewish population in Iasi County, registered in 1930
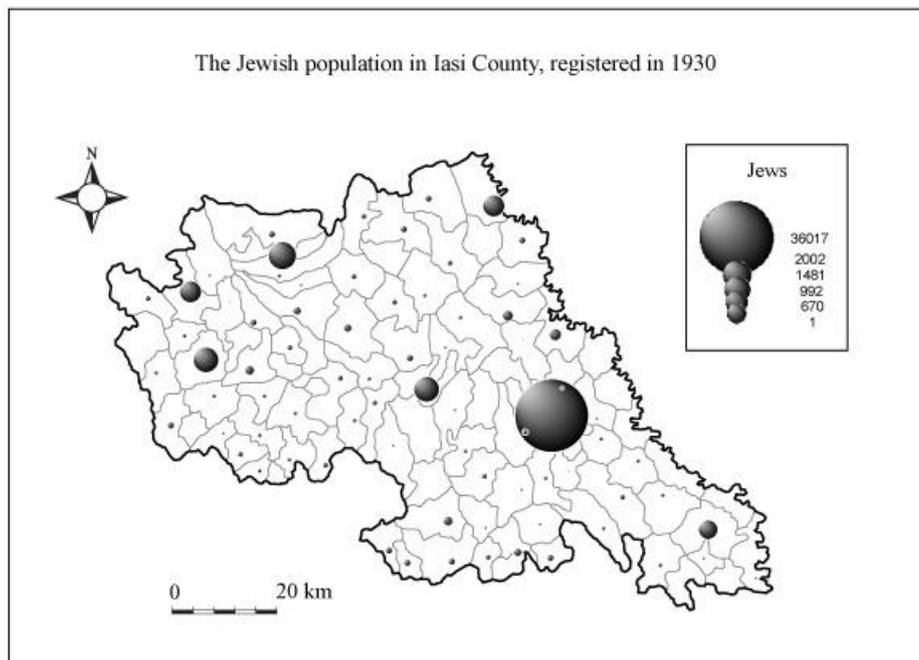
Source: National Institute of Statistics

As it is presented in figure 2, in 1930, the most Jews were in Iasi City (36,017 Jews), followed by Harlau City (2,002 Jews), Podu Iloaiei City (1,601 Jews), Pascani City (1481 Jews) and Lespezi (1,049 Jews). In the rest of the county their numbers varied, from 992 Jewish in Bivolari, to 1 Jewish registered in Birnova. There were also regions where there are no registered Jews, like Golaiesti, Grozesti, Letcani, and Madarjac, etc. It is obvious that in 1930 the Jewish population was very present, representing 11% of the religious structure of the population in Iasi County.

Table 1 – The territorial distribution of Jewish population in Iasi County, registered in 2011

Area	Number of Jewish
Iasi City	249
Harlau City	3

Pascani City	1
Podu Iloaiei City	3
Miroslava	1

Source: National Institute of Statistics

Nowadays, there are only 5 areas where we can find Jewish people, many of them being concentrated in the cities, mostly in Iasi, with a population of 249 Jewish. Even though there are not so many, they are a very active community, organizing and participating in all kinds of events, trying to preserve the spirit of Jewish culture and traditions in Iasi City.

2.2. The evolution of Armenian population

Figure 3 – The evolution of Armenian population in Iasi County, between 1930 and 2011
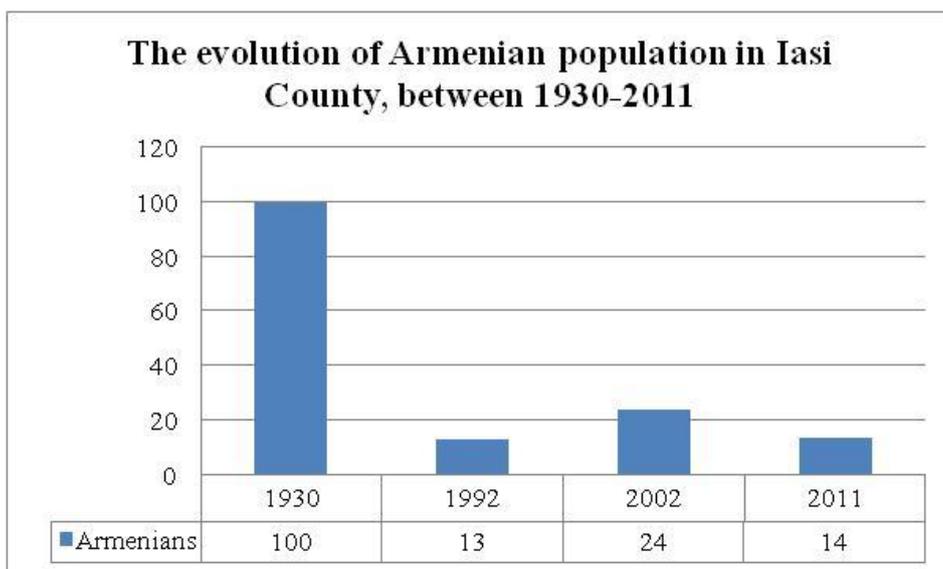
Source: National Institute of Statistics

From figure 3 we can observe that the Armenian population was not as numerous as the Jewish one in 1930. There were only 100 Armenians in 1930, while nowadays there are 14, as is it shown by the National Institute of Statistics data. This high decrease was surely due to World War II and by the waves of emigration.

Table 2 -The territorial distribution of Armenian population in Iasi County, registered in 1930 and 2011

Area	Number of Armenians (1930)	Area	Number of Armenians (2011)
Iasi City	98	Iasi City	12
Helesteni	1	Barnova	2
Strunga	1	-	-

Source: National Institute of Statistics

It is obvious from Table 2 that most of the Armenian population is concentrated in Iasi City in both cases, respectively, in 1930 there were 98 Armenians, while in 2011 there were only12. In 1930 there were only 2 isolated Armenians in the rest of the Iasi County, 1 in Helesteni and 1 in Strunga, while in 2011 there are also 2 Armenians, both in Barnova according to the National Institute of Statistics data. Nevertheless, after an interview held at the Armenian Community from Iasi, in May 2015, they estimated a number of around 30 Armenian families living in Iasi County.

Conclusions

In both cases, there is a discrepancy regarding the statistical data presented by the National Institute of Statistics and the ones presented by the Jewish and Armenian Communities. Nevertheless, the most important conclusion is that both of these communities are present in Iasi County by: organising various events and contests, developing partnerships with other institutions, trying to preserve the minorities in the region, raising their visibility at local level, as well as promoting their history and importance in the evolution and development of Iasi County.

Even if they are not so many as there were in the past, the present counts more through their actions and we have to understand their massive contribution to the development of, not only our county, but also of our country. As we know from our historians, they were good merchants, practicing trade with other countries, but also importing other goods in our country. It is a known fact that commerce helped in setting relations with foreign countries, but also to the economic development of cities and regions.

I presented only a few of the synagogues, Jewish schools, other organizations, and a short representation of the Jewish and Armenian community in Iasi County, but it would be necessary a deeper analysis, conducted for a longer period of time in this kind of research, as it is important to

know a part of our city history, as well as the manner in which the communities contributed economically to the development of our county.

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GLOBALIZATION AND FOREIGN DIRECT INVESTMENTS

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Abstract: *Much discussed and analyzed globalization is a multidimensional and complex process having today a significant magnitude as compared to the past, manifested through various forms of internationalization of production, foreign direct investment (FDI) flows, transnational corporations (TNCs), technology transfers, capital movements, migration flows, amplifying competition between investors and the connections between markets. The complexity phenomenon of globalization contributes to the diversification of opportunities for the development of national economies through effects in economic, political, social, technological, cultural sphere, intensifying the economic and financial relationship between economies and the interdependence between them. The purpose of the current attempt of research is to analyze the link between FDI and globalization, the paper focusing on FDI as one of the most powerful evidence of economic globalization.*

Introduction

Globalization has become one of the hallmarks of XXI century, a path of world development and growth that makes national isolation no longer be a solution, contributing in understanding the world as a whole, where the effects and intensity of globalization is not equal for all, depending on the individual to individual, the way of life, of the social, educational and cultural nature of each individual.

The concept of globalization knows nowadays many different meanings and definitions related to social and economic reality that is constantly changing.

Globalization is an open concept that serves to define "the opening" of mutual societies under the influence of the rapid technological change; is a concept that is about the function of the real markets with their advantages and disadvantages, taking into account the progress of advanced economic theory in order to learn important lessons, such as: the need for effective regulation of the markets, the role of the state in providing public goods, the role of institutions, the need for public goods and good governance in the world economy, as well as the importance of diversity and international development policies that should prevent coordination failures (Daianu, 2009, pp. 39-53).

Economic globalization according to Stiglitz (2008, p. 19) "implies a closer cooperation of the countries of the world, through enhancing the movement of goods and services, capital and even

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labor" and Stiglitz (2008, p. 20) believes that "the great hope of economic globalization is that it will help to raise the living standards all over the world by the opportunity to give the poor countries access to foreign markets in order to sell their products; by attracting foreign investments, in order to facilitate the emergence of new products at lower prices; open borders that allow easy movement of people all over the world, in order to train, to work, to build new businesses", the author also believes that "the economy has led to globalization, especially by decreasing communications and transport costs, but the policy was the one that outlined this process" (Stiglitz, 2008, p. 20).

Globalization can be found in one way or another in all spheres of economic and social life, it is a real process that can not be stopped. In this context, Sen (2004, p. 300) underlines that "the only solution that is not available is the one to stop the trade globalization and economies, because it is hard to resist to the forces of economic exchange and division of labor in a competitive world, fueled by massive technological evolution, that gives modern technology a competitive side in economic terms".

Bari (2003, p. 37) defines the globalization of the world economy as "a very dynamic process of increasing interdependence of national states as a result of expansion and deepening of transnational connections in ever larger and more varied spheres of economic, political, social and cultural life, demanding, in their turn, a global solution rather than a national one".

In contemporary literature it can be seen that there are many perceptions of globalization and over time there have been both favorable and critical opinions about globalization process. Authors as Linda Weiss (2002, p. 260) points out that "globalization trends were exaggerated and we need to use the language of internationalization in order to have a better understanding of changes that take place in the global economy." In this context, Francis Fukuyama in an interview on "Economic Globalization and Culture: A discussion with Dr. Francis Fukuyama" believes that in many respects, globalization is still superficial pointing out that the global economy is still limited and the real layer of globalization is restricted to the capital markets.

The paper is structured in the following sections: section one provides an analysis regarding the link between FDI and globalization, while the second section of the paper presents the dynamics of FDI inflows, global and by groups of economies in 1990 – 2013, followed by the main conclusions.

The purpose of the current paper is to analyze the link between FDI and globalization, focusing on FDI as one of the most powerful evidence of economic globalization.

1. Foreign direct investment and globalization of production

Foreign direct investments by transnational corporations play a decisive role in the evolution of economy as a whole, in connecting the economies of many countries and through them transnational corporation develops international production activities, highlighting the global interdependence on interstate in a process of increasing integration.

Table1 reflects the link between FDI and globalization and the important role of the foreign affiliates of transnational corporations, so of FDI and it shows that global sales of foreign affiliates of transnational corporations represents 46 per cent of GDP in 2013 and 1.49 times more than the value of exports of goods and services. Based on these data it results that 46 per cent of everything that is produced worldwide is carried out by transnational companies through their subsidiaries located in another country than their own country.

Table 1 – The importance of FDI and globalization of production

Value at current prices (Billions of dollars)

Indicator	1990	2005 – 2007 pre-crisis average	2011	2012	2013
GDP	22 327	51 288	71 314	72 807	74 284
Sales of foreign affiliates	4723	21 469	28 516	31 532	34 508
Value added (product) of foreign affiliates	881	4 878	6 262	7 089	7 492
Export of foreign affiliates (thousands)	1498	5 012	7 463	7 532	7 721
Exports of goods and services	4 107	15 034	22 386	22 593	23 160

Source: based on: UNCTAD, 2014 - World Investment Report - Investing in the SDGs: An action plan, p. 18

On the basis of UNCTAD report for 2014, FDI by TNCs from developing economies reached another record level of 454 billion USD and together with transition economies, they accounted for 39 per cent of global FDI outflows, compared with only 12 per cent at the beginning of the 2000s. International production by TNCs continued to expand in 2013, generating value added of approximately 7.5 billion USD and their foreign affiliates employed 70.726 thousands people. According to UNCTAD's estimates there are at least 550 State-owned transnational corporations from both developed and developing countries, a number that is relatively small, but UNCTAD points out that the number of their foreign affiliates and the scale of their foreign assets are significant, with more than 15.000 foreign affiliates and foreign assets of over 2 trillion USD, some are among the

largest transnational corporations in the world and FDI by these TNCs have reached more than 160 billion USD in 2013 (UNCTAD, 2014, p. 14 – 18).

Transnational corporations benefit from resources, management, and production, they supply the markets from around the world and through the development of foreign direct investments they also acquire and have assets in several states.

Corporations play a major role in spreading the benefits of globalization in the developing countries, helping to raise the living standards in many regions of the world, and as agents of technology transfer, they have contributed to reducing the gap between advanced industrialized and developing countries. Therefore, the essential role of corporations in the globalization process is explained by: corporations cover the entire globe, they bring together technology and capital of the developed countries with production capacities of the developing countries; they have brought in developed countries cheap products, offering them increasingly better products, thus determining decrease in the cost of living; corporations also led to the creations of jobs and they have stimulated economic growth in developing countries (Stiglitz, 2008, pp. 164-171).

2. The dynamics of FDI inflows, global and by groups of economies, 1990 – 2013

The growth of foreign direct investment is one of the most powerful evidence of economic globalization, thus FDIs being considered as "the peak" of globalization, therefore of the entire global economy (Donciu, 2013).

The increase of FDI flows is driven by factors such as: the structure of the world economy, gross domestic product (GDP) trends, mergers and acquisitions by foreign companies; measures of economic policy, privatization and liberalization of foreign investments (Negritoiu, 1996, pp. 26-27).

Figure 1 shows FDI inflows trends by group of economies, divided into developed, developing and transition economies, in the 1990 – 2013 period, and it can be seen that, the FDI inflows trend is asymmetrical and is generally upward. From figure 1, it can also be seen an accelerated upward FDI inflows trend until 2000, followed by a significant decline in FDI inflows until 2003, due to the slowdown of the global economic growth. Between 2004 and 2007 the FDI inflows returned to an upward trend, after three consecutive years of decline, reaching a record level of 2 trillion USD in 2007. The growing of foreign investment liberalization measures was an important contributing factor for the FDI inflows growth. After the collapse of one of the largest institutions in the United States, Lehman Brothers on September 2008, the global FDI inflows met a significant decrease, from the

record level of 2 trillion USD in 2007, to 1.82 trillion USD in 2008. The global FDI downturn has evolved differently by country and groups of economies in 2008 and 2009, this trend persisting in the period of 2009 – 2010 as well. FDI inflows in developed economies fell significantly in 2008, due to: the slowdown of the global economic growth, the sovereign debt crisis, reduced demand, fall in the prices levels and in asset values, while, in contrast, both developing and transition economies registered record levels of FDI inflows in 2008. The global FDIs inflows and those by group of economies registered a significant downward trend reaching a global level of 1.22 trillion USD in 2009. In the period 2008 - 2009, the FDI flows and their components, such as: equity capital, reinvested earnings, and intra-company loans, met significant downturns at the level of developed countries.

The critical point was reached in 2010, when for the first time, developing countries and transition economies received more than half of the global FDI flows, while the FDI inflows towards developed countries continued to decline.

Figure 1 - FDI inflows by groups of economies, 1990 – 2013 (Billions of dollars)
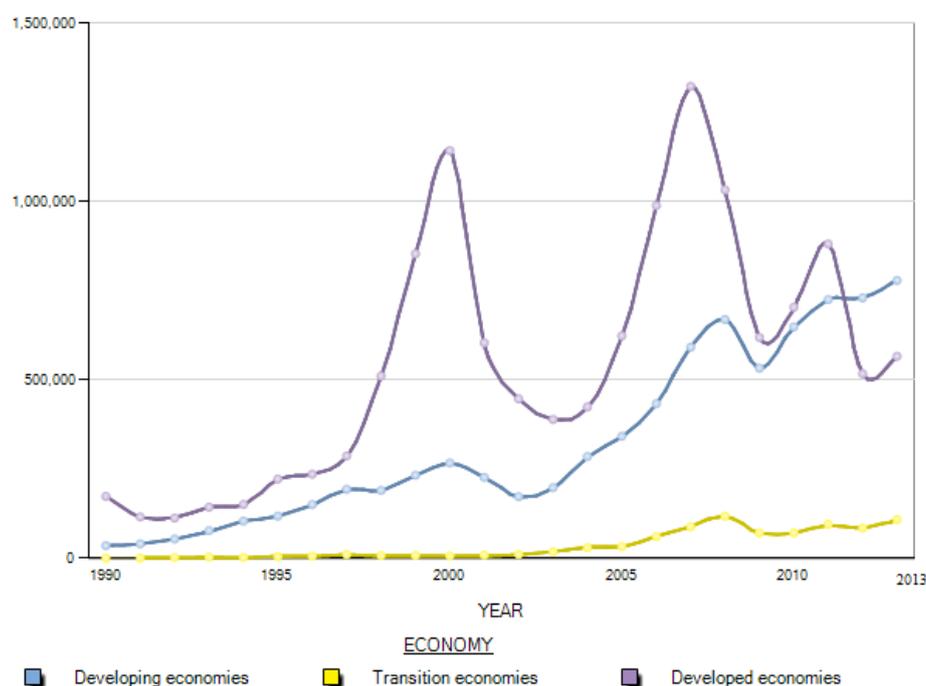
Source: own representation using UNCTAD database

In 2011-2012, the global foreign direct investment inflows have again taken a downward trend, as the global economy is continuing its fragile recovery, as well as due to the political uncertainty the investors faced. In this context, the global FDI inflows have declined by 18 per cent, from $1.65 trillion in 2011 to $1.35 trillion in 2012 (UNCTAD, 2013, p. 9).

The global foreign direct investment inflows increased moderately by 9 per cent in 2013 to $1.45 trillion. According to UNCTAD report for 2014, FDIs rose across all groups of economies in 2013.

FDI flows to developed countries rose by 9 per cent, reaching a level of 566 billion USD, accounting for 39 per cent of global FDI inflows, mainly due to the greater retained earnings in foreign affiliates in the European Union (EU), resulting in an increase in foreign FDIs flows towards the EU. Developing economies increased their global share of FDI inflows to a record level of 54 per cent of the total, reaching a value of 778 billion USD, while transition economies registered a value of 108 billion USD accounting for 7 per cent of the global FDI inflows, much of it driven by Russian Federation, which reached a value of 79 billion USD, making it the world's third largest recipient of FDIs for the first time (UNCTAD, 2014, p. 2 - 4).

In developed countries, the five largest recipients of inflows in the world in 2013 are: United States (188 billion USD), Canada (62 billions USD), Spain (39 billions USD), United Kingdom (37 billions USD) and Ireland (36 billions USD). In contrast in developing and transition countries stand - out as the five largest recipients of inflows in the world: China (124 billion USD), Russian Federation (79 billion USD), Hong Kong, China (77 billion USD), Brazil (64 billion USD) and Singapore (64 billion USD).

The top 5 countries ranked among the 20 largest investors in the world in 2013 are: the United States that is the largest investor abroad (338 billions USD), followed by Japan (136 billions USD), China (101 billions USD), Russian Federation (95 billions USD) and Hong Kong, China (92 billions USD) (UNCTAD, 2014, p. 15).

A survey of UNCTAD on investment prospects of TNCs and investment promotion agencies (IPAs), is cautiously optimistic; there is expected an upturn in global FDI flows for the period of 2014-2016. According to UNCTAD projects, the global FDI flows are expected to rise further to $1.62 trillion in 2014, $1.75 trillion in 2015 and $1.85 trillion in 2016 (UNCTAD 2014, p. 23). Nevertheless, there is no FDIs scenario which expects the levels of FDI inflows in the period of 2014 - 2016 to reach the 2007 peak of 2 trillion USD.

Conclusions

Globalization is represented by progressive economic integration of national economies on a world scale, which become components of the global economy, aiming to develop free trade relations

and transforming the world economic system including all aspects of production, trade, distribution or other processes belonging to the socio-economic sphere.

Globalization is not perceived similarly in the world; over time there have been both favorable and critical opinions about this process, although "the problem is not if globalization itself is good or bad, but how can we reshape globalization in order to make it work better" (Stiglitz, 2008, p. 164).

The paper has examined the link between FDI and globalization, and the dynamics of FDI inflows, the global ones and those by groups of economies for 1990 – 2013. The FDI inflows trends by group of economies in the period 1990 – 2013 is asymmetrical and generally upward. The FDI inflows in the developing and transition countries have reached higher levels than those in the developed countries between 2006 - 2013, due to the size of markets (Brazil, Russian Federation, India, China), efficiency, lower labor costs and international production. The proliferation of FDIs, especially those of transnational corporations had a significant impact on the globalization process, as the dispersion of transnational corporations activities stressed the interstate interdependencies, integrating them into a complex system of international production.

In contemporary economy FDI have become an important source of external financing for all countries in the world. Foreign direct investments facilitate the transfer of advanced technologies and "know how", implementing new managerial and organizational forms, and their presence in the economy is a key factor of globalization.

Acknowledgment

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A COMPARISON OF MANAGEMENT PROCESSES IN EDUCATIONAL HOSPITALS LOCATED IN ISFAHAN, IRAN

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Abstract: *Hospitals are service organizations and act as the main health and treatment institutes in the society. To achieve organizational goals, hospitals need to implement a proper management system. The present study tries to compare management processes in educational hospitals located in Isfahan, Iran between 2009 and 2012.*

Study population of this descriptive-survey research was comprised of all nursing managers in the educational –treatment clinics affiliated with Isfahan Medical Science University. Sample (n = 165) was selected through census sampling. A standard questionnaire based on Stoner's model (1995) was used for data gathering. Validity of the questionnaire was tested using face and content validity and reliability of the questionnaire was checked by Cronbach's alpha (α = 0.85). For data analyzing, descriptive statistics and inferential statistics such as independent t-test ANOVA, MUANOVA and LSD were used in SPSS (ver.18).

In 2009, the t-value for all the managerial processes were less than error level (0.05) in 2012 and; therefore, the four managerial processes were lower than the mean level. Comparison of managerial processes in the educational hospitals located in Isfahan based on demographical variables showed that obtained F for 2012 was significant (P≤0.05). Furthermore, means of programming, leadership, and control processes of the participant hospitals, based on education degree, were different.

Proper management is the key to meet the organizational goals and surveying managerial processes can be a large step to improve efficiency and effectiveness of the organization.

Keywords: programming; organizing; leadership; supervision and control; educational hospital
JEL Classification: I1; I2

Introduction

We deal with several organizations in the society every day. The main philosophy of existence of an organization is in that only through teamwork and cooperation that we may achieve our goals in this competitive world (Irannegad Parizi and Sasangohar, 2006). Although, management has long been an important issue for many, its importance has been doubled following development of communication technologies, which have changed our world into a complicated system or a global

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organism (Robins and Dvid, 2007). Rapid changes of our age are beyond control unless we operationalize well organized process and management to meet organizational goals (Sadr and Salarianzadeh, 2003). Management is the process through which we organize and harmonize individual and group activities to reach a shared goal (Robins and Dvid, 2007). Management, in a more comprehensive and accurate word, is a process to achieve maximum results out of minimum efforts; so that maximum welfare and satisfaction with the job are also experienced by both employees and employers and the customer on the other hand enjoys quality products and services (Irannegad Parizi and Sasangohar, 2006). Through management process, the manager tries to determine organizational goal and plans for realizing the goal, recruits the employees, and makes the arrangements. Afterward, the manager leads, controls, and supervises the employee (Mosadeghrad, 2004) and taking into account the dynamic, unstable, and unpredictable environment, keeps revising the plans and goals (Wilhelm, 2005). Since 19th century, management has been generally defined within the framework of four key tasks that managers are assumed to carry out (programming, organizing, leadership, and control). Despite variety of criticisms that this framework has provoked, it is still widely accepted (Stoner *et al.*, 2010). Importance and necessity of management, despite many who argue that employees can carry out managerial tasks in absence of managers, is in that there is no single case of an organization found by historical and sociologists that has survived without managerial hierarchy. Manager is the vital element of an organization and their tasks regardless of the level is to create, preserve, and run an environment in which the members are able to work in group and toward realization of determined goals (Dargahi, 1999). Importance of management is not evident only in industries, but its importance can be felt in other sectors including health and treatment. It is not deniable that industries are one step ahead of other sectors in utilizing modern technologies for better utilization of limited resources; still it does not mean that managers of health organizations (hospitals) have neglected the role of technology (Mosadeghrad, 2004). Successful operation of health sector depends on fundamental political, economic, scientific, and technical bases of the country, which are generally called as health and treatment infrastructures (Asefzadeh, 2003). The infrastructures are subject to many rapid changes. Given high costs of establishing and running specific organizations in these sectors, achieving objectives of health sector needs specific knowledge and skills and proper attitudes. All these depend on a comprehensive management system (Ebadi and Ansari, 1999).

A critical and strategic organization in health sector is the hospital that plays the central role in supplying health, treatment, training, and research services. Establishment and running hospitals is a costly process. These organizations preserve public's health through coordinated measures with

another set of factors (Asefzadeh, 2003). Hospitals need to supply wide range of health services to the society; the services are growing in extent and variation along with scientific and technological development. Supplying complicated health services entails participation of several expert groups and provision of these services in an effective and reliable way needs implementation of an effective and reliable management system (Sedqiani, 1998). Needless to say the patients and their families expect satisfactory quality services to come out of the enormous investments made in hospitals. Furthermore, necessities and principles that must be observed by hospitals such as justice in providing the services, the patient and employees' satisfaction, efficient utilization of resources and so on call for implementation of a comprehensive and systematic management system. Therefore, managing an organization is complicated and taking into account enormous financial inputs, this task cannot be handed over to non-expert groups.

1. Literature review

Goldstein (2006) conducted a study titled "Surveying management and leadership in running hospitals" in the USA and concluded that a strong management team enables the organization to utilize its capabilities within the basic and fundamental limitations of the market. Where the management team and the controlling board have a deep commitment to adopt novel strategies, the organization is surely led toward creating changes (Goldstein, 2006). Commitment to change may eventuate in improvement of financial performance and higher correlation. Most efficient management teams use common benchmarks to spot weaknesses and strength of their organization. Achievements of hospitals and their clinical popularity are highly dependent to medical teams. Successful management board can demonstrate its successful performance through stable and reliable financial performance or several years of steady financial improvement. In a study titled "small hospitals and measuring strategy and performance" in the USA, Lied (2001) recommended methods to demonstrate responsiveness, measurement, and improvement of service quality in hospitals. Hospitals are required to be more and more responsive regarding their services. The point is that small hospitals do not have enough financial resources to meet performance standards (Lied, 2001). Welch and Kleiner (1995) carried out a study titled "new development in American hospitals management" and showed that increasing cost of health care services has influenced the elderly health insurance repayment so that medical care is provided to specific groups. This trend, however, has cut revenue and increased competition among the hospitals and consequently, cost reduction, strategies, marketing, HR management are revised purposefully (Welch and Kleiner, 1995). Role of efficient

management in realization of organizational goals is undeniable; thereby management processes examination can be a major step in improvement of efficiency of hospitals. The present paper is aimed at surveying and comparing management processes in Isfahan-based educational hospitals from managers' viewpoint in 2009 and 2012.

2. Methods

Descriptive - survey method was used to survey the processes of management based on viewpoint of managers of educational and medical centers affiliated with Isfahan University of Medical Science. Study population in 2009 and 2012 were 36 and 72 individuals respectively who were working in three managerial levels (top, middle, operation) in educational and medical centers including Alzahra, Kashani, Feiz, Nour, Aliasghar, Shahid Beheshti, Farabi, Chamran, Imam Mosa Kazem, Seyed Alshohada, Amin, Modaras, Iesa Bin Maryam, and Imam Hossein hospitals. Because the study population was small, all of them were selected through census method. The participants included heads and managers of hospitals, nursing supervisors, educational supervisors, ranking supervisors, clinical governance, heads of general affairs, and heads of human resources. To collect the data, a standard questionnaire based on Stoner's mode (1995) of which validity was ascertained through content and face validity, and reliability was ascertained using Cronbach alpha ($\alpha = 0.85$) was used. Data analysis was carried out in SPSS18 using descriptive and inferential statistics (percent, frequency distribution, one variable t-test, multi-variant variance analysis, LSD test).

3. Results

The results showed that 29.4% and 70.6% of the sample group were from 2009 and 2012 respectively; 10% of the respondents were unmarried and 90% were married; men and women constituted 51.1% and 48.9% of the sample group respectively; average age of the participants of 2009 was 44 and that of 2012 was 43.88; average work experience of the participants of 2009 was 20.21 and that of 2012 was 20.0; and 3.9% of the participants had high school diploma, 2% had associates' degree, 62.7% had bachelors' degree, and 31.4% had post graduate educations. Moreover, 84.1% of the respondents had passed management course; 26.7% worked in general hospitals, 46.7% in specialized hospital, and 26.7% in top specialized hospitals. Highest average point of the responses (4.26) by the participants of 2009 was for "concerns about economic justification of operation at programming stage" and lowest average point (3.46) was for "programming to improve occupational

development"; as to participant of 2012, highest and lowest points were for "concerns about resource and facilities assessment at programming stage" (4.05), and "programming to solve employees' problems" (3.40%) respectively.

Table 1 - Comparing management processes in educational hospitals in Isfahan, Iran, 2009 and 2012

Management process	Year	Ave.	SD	t	P
Programming	2009	3.17	0.601	5.66	0.001
	2012	2.64	0.717	5.92	
Organizing	2009	3.27	0.601	4.23	0.000
	2012	2.61	0.593	6.89	
Leadership	2009	2.37	0.646	3.87	0.202
	2012	1.97	0.614	5.58	
Supervision and control	2009	2.40	0.715	4.23	0.102
	2012	2.78	0.709	6.19	

Source: own compilation

T-value of "programming and organizing" in Isfahan-based hospitals in 2009 was higher than critical value at error level (0.05); thereby, programming and organizing points are higher than average level. On the other hand, t-value of "leadership" and "supervision and control" was less than critical value at error level of 0.05. Thus, leadership and supervision and control were lower than average level. Moreover, t-value of all the four processes of management (programming, organizing, leadership, supervision and control) was less than critical value at error level (0.05). Therefore, value of all four processes of management were less than mean level. Furthermore, comparison of management processes in educational hospitals, Isfahan, Iran in 2009 and 2012 showed that observed F was significant (P≤ 0.05). Thus, mean point of programming and organizing processes of 2009 was higher than that of 2012.

Moreover, comparison of management processes in educational hospitals of Isfahan city from demographical viewpoint in 2009 showed that observed F was not significant (P ≤0.05); which means there was no significant differences between mean points of management processes from demographical viewpoint. Additionally, based on demographical variables, comparison of management processes of educational hospitals of Isfahan city in 2012 showed that observed F was significant (P≤0.05) – i.e. there was significant difference based on education degree. In this way,

based on education degree, there was difference between programming, leadership, and control in 2012.

Table 2 - Comparison of man point of management processes based on education degree in 2012

Management process	Education degree	Mean different	Sig.
Programming	Associates' degree – post graduate	-1.13	0.012
	Bachelors' degree- post graduate	-0.637	0.014
Leadership	Associates' degree – post graduate	-0.879	0.024
	Bachelors' degree- post graduate	-0.529	0.019
Control	Associates' degree – post graduate	-1.21	0.007
	Bachelors' degree- post graduate	-0.529	0.019

Source: own compilation

LSD test results (Table 2) indicate that difference of mean points of programming, leadership, and control based on education level was significant (P≤ 0.05), so that obtained points by holders of bachelor and associates' degree regarding programming, leadership, and control were less than that of holders of post graduate degrees.

Conclusion

Health is the centerpiece of permanent social, economic, cultural, and political development of human societies. It is a critical element in variety of infrastructures of the society. Hospitals are one of the organizations that plays paramount role in health and treatment sector. By supplying specialized health services, hospitals fill in a key role in treatment of patients and obtaining their satisfaction. Realizing these needs strong and stable management system. A competent manager to run the organization must be master of technique and knowledge in their field.

The findings showed that t-value of programming and organizing processes of the study population in 2009 was higher than the critical value at error level 0.05; which means points of programming and organizing processes were higher than mean point. On the other hand, t-value of leadership and control and supervision in 2009 was less than the critical value at error level 0.05; which means point of leadership, programming, and supervision were less than mean point. Moreover, t-value of all management processes (programming, organizing, leadership, control and supervision) in 2012 was less than critical value at error level 0.05. Therefore, in 2012, all four

processes of management were less than mean level. Goldstein (2006) surveyed management and leadership in Hospital Affairs Department, the USA and showed that strong management team enables the organization to realize all potential and unique capabilities within limitations and opportunities of the market. Managers who strongly believe in changes and creating new strategy will lead the organization toward change and improvement of financial performance. The most efficient management teams used routine assessments to detect their weaknesses and strength. Doubtlessly, the medical team has notable effect in clinical reputation of the hospital so that by gaining high credentials, they prepare the ground for further successes. Strong management teams display their good performance by stunning financial performance or steady growing performance trend (Goldstein, 2006).

Additionally, comparison of management processes in the hospitals under study based on demographical variables in 2009 showed that F value was not significant (P≤0.05). Thereby, no significant difference was observed by mean point of management processes based on demographic variables. On the other hand, the same comparison for data set of 2012 showed that F value was significant (P≤ 0.05). Thus, there was significant difference between mean points of management processes based on education degree – i.e. programming leadership, and control were different in 2012 based on education degree.

In a study titled "small hospitals and measuring strategy and performance" in the USA, Lied (2001) recommended methods to demonstrate responsiveness, measurement, and improvement of service quality in hospitals since hospitals are required to be more and more responsive regarding their services. The point is that small hospitals do not have enough financial resources to meet performance standards (Lied, 2001). Welch and Kleiner (1995) carried out a study titled "new development in American hospitals management" and showed that increasing cost of health care services has influenced the elderly health insurance repayment so that medical cares are provided to specific groups. This trend, however, has cut revenue and increased competition among the hospitals and consequently, cost reduction, strategies, marketing, HR management are revised purposefully (Welch and Kleiner, 1995). Hospitals are complicated organization hosting variety of fields of expertise and interactions within this heterogeneous complex bring in many challenges in the way of the managers of hospitals and experts of behavioral sciences.

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APPROACHES TO PUBLIC INTEGRITY

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Abstract: *Both concepts, integrity and public integrity, are always asked qualities in the social and economic environment, but they are never well defined. In this context, finding precise definitions and offering an ample explanation of the concepts are desired and useful for both economic theoretical and practical levels and become the aim of the present paper. Without a good understanding of a concept, no one is capable to attain it. In this context, it is impossible to ask for a public sector of integrity if both public actors and the citizens do not know what it really means. Therefore, the public actors first have to understand what integrity really supposes, and, then, to be capable to respect its principles. Taking into consideration the effects of public integrity or, on its opposite, of the divergence from it, especially represented by the phenomenon of corruption, on the economy at the macro, but also, on the micro level, public integrity in itself becomes a real economic problem that is aimed to be extensively analyzed through our interdisciplinary approach.*

Introduction

Different theories about the determinant factors of the ethical or unethical behaviours did exist over time. The divergence from the ethical ones was first explained as being caused by the human nature deficiencies. This theory was sustained by Platon, who considered that cupidity is the source of the unethical behaviours and concretes in the corruption phenomenon that erodes the moral values of the society and its common objectives (Radu and Gulyas, 2010), or, in other words, taking into consideration the present integrity glossary, erodes the national integrity system. So, corruption appears when persons having a bad character attain powerful positions. This perception was reconsidered when big differences in the levels of national corruption were observed. These differences could not be explained only by the variations of the human nature.

Punch (1994) considers that the individualistic approach, studying the fact that vulnerable persons are tempted to abate from the ethical way, is the matter of psychological studies. The economic field is more interested in the macro level, in the context consideration, revealing the interaction between individual and social context. In this way, the divergence from the moral standards and norms means the dissipation of public integrity and the infection of public actors' behavior that do not come under public ethics. So, the actual theories of the public integrity domain emphasize the encouraging context for the appearance of such unethical behaviours. The main encouraging causes are: the lack of efficiency in public institutions and, as a consequence, the

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diminishing of their authority; the abasement of people's standard of living; the absence of moral values and the alteration of existing morale principles; the lack of conformation of the institutional-legislative reforms to the national context (Dobrescu and Sima, 2010, p. 261). In other words, the public values are not only the result of the different human nature, specifically for each individual, but a sum of factors including it. So, legality, for example, as a public value derived from the duty as a general ethical value is determined by public actor's psychological construction, but also, by the historic, cultural, legal, etc. context of the society that includes this individual. Near the personal way of being, the environment helps or not him to tend to integrity or to be corrupt. Much more, the economic, political, social context influences the general ethical values in the same way as the public sector context impacts on its members' public values. The conclusion is that the general ethical values and, then, the public values are the starting point for all the discussions about public integrity and corruption. As a consolidation of this idea, Bertok (2000, p. 37) sustains that the core values give the fundamental directions for the activities of the public service. However, public servants need to know more precisely the standards they are expected to apply in their daily work and where the boundaries of acceptable behaviour lie.

1. The pyramid of the public values

The values represent the foundation of the public sector, every country having well established the own principle set of ethical values (Bertok, 2000, p. 31). Their homogeneity is proven by the OECD's report, „Trust in Government. Ethics Measures in OECD Countries", in which eight principal public values were identified: impartiality (24%); legality (22%), integrity (18%); transparency (14%); efficiency (14%); equality (11%); responsibility (11%); justice (10%) (Bertok, 2000, p. 32).

Between these values, considering them a synthesis of these values and of the others that were not up mentioned, five values are kept in attention: legality, transparency, impartiality, responsibility and public integrity. These values constitute the pyramid of public values. The start is given by legality as foundation and without which the public actor may not pass to the next levels of the pyramid, here referring to transparency, impartiality, responsibility and public integrity, because, in the public sphere, any system may pretend as being transparent, impartial, responsible or characterised by integrity without respecting, first of all, the law.

Similarly with Maslow's Hierarchy of Needs or with the pyramid of general ethical values for the actors implied in reports of labour (Ulman, 2015), passing to the top of the hierarchy is

progressive, the gaining of one level is impossible without the achievement of the value of the anterior level. So:

- transparency cannot exist without legality;

- impartiality cannot be achieved without respecting the principles of legality and transparency;

- public responsibility is not able to be put into practice if the public actor does not respect the legality and the transparency of his acts from the public sphere and is not impartial with all society's members who relate to him in his public work; and

- public integrity does not exist without legality, transparency, impartiality and public responsibility.

Figure 1 – The Pyramid of the public values
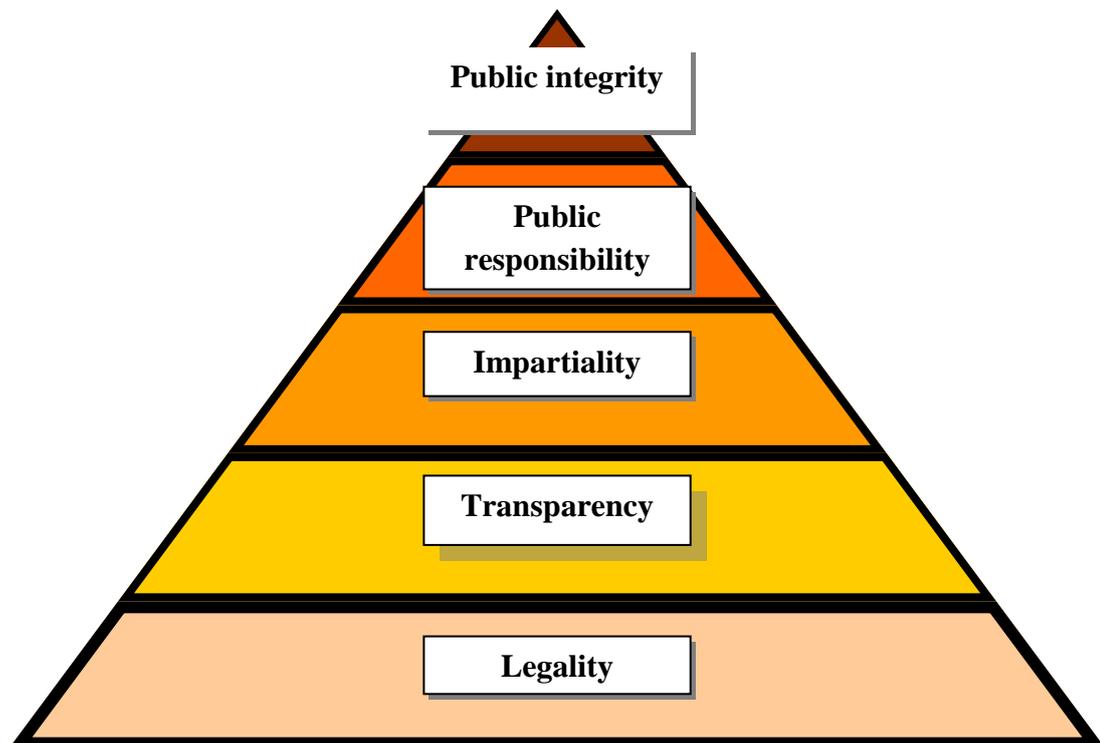
Source: author's representation

In the opposite way, the divergence from the public integrity means: first, the contravention of the principle of the law; second, lack of transparency; then, failing in offering the proper impartiality; and lately, deficiency in the public responsibility.

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1.1. The prerequisites of the public integrity – the first levels of the public pyramid

The values that were retained for analysis and considered to be the most important are in high affinity with the values from the pyramid of the general ethical values, premises for the social actors to have efficient reports of labour (Ulman, 2015). In this context, the duty forms the basis of the first pyramid, is equivalent to legality from the second pyramid, as basis value for the public actor who is obliged to respect the law, to be aware of the importance of the judicial norms from its space of labour.

"All the actions that compound the public administration and all organizational forms of the system must be founded on law. In this context, this is the expression of the law and its instrument" (Negoita, 1993, p. 21). The legality principle is, also, well-known as named „the domination of law", being one of the principal pillars on which the public sphere from a democratic state rests on. In another words, „legality represents the objectivity of judicial system pyramid's respect, that has on its top the Constitution" (Lazar, 2004, p. 44).

To reach the second level of the pyramid, the public actors must do their work and its results in a transparent manner, being conscious of their mission, without creating speculations or doubts. So, dignity, as a human general value, finds its equivalent on the public frame in the value of transparency. A person with public role and that is dignified day by day in his personal life is open to transparency and assures the citizens' information and involving through the direct access to the public documents. Besides some restrictions in this area, it is proven that when the public acts and activities are made on sight, the errors and the infractions can, also, be easier identified. The development of transparency's level brings to the elusory growth of the number of divergences from the public rule. In reality, the higher level of transparency makes more visible the ethical abnormalities that are correlate with transparency's growth. "(...) when the actions of public servants are more visible, so are their mistakes and misdemeanours. What was before hidden in bureaucratic secrecy is now open to public and media scrutiny" (Bertok, 2000, p. 73).

On the European Central Bank's site, transparency is seen as meaning that „the central bank provides the general public and the markets with all relevant information on its strategy, assessments and policy decisions as well as its procedures in an open, clear and timely manner"[*]. Adapting this point of view on our paper, the public transparency means that the public sphere provides the citizens with all relevant information on its strategies, assessments and policy decisions and procedures in an

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[*] For further detalis see https://www.ecb.europa.eu/ecb/orga/transparency/html/index.en.html

open, clear and timely manner. Therefore, transparency represents an extremely important element of the public sector and its detaining of this value confers higher understanding and trust of citizens, and more discipline to public actors. Also, in „ Local Public Administration Integrity and Transparency", realised by Transparency International – Romania (2004, p. 7), transparency is defined as being „the set of instruments whereby the administration (local public administration's institutions and authorities) gives account to the citizens about the activity implemented in their service".

Impartiality, as a value from an equivalent level with the level of co-operation from the first pyramid, is added to the values of legality and transparency. Co-operation promotes an inosculation of personal interests with the others' ones from the reports of labour, translating into the abdication of focusing on own person and interest and taking into account the interests of the others so that the final objective to be materialized in the general welfare, and not only in the personal one. In this context, the idea proclaiming that impartiality, as a public value, detaches from co-operation, as general ethical value, is logically argued. The public space is different from the citizens' one, but the two spheres interfere and reciprocally influence each other. Therefore, if co-operation is the specific value for almost equal reports of labor (Ulman, 2015) in the relation between the public sphere and the citizens, the reports are not from similar positions. In this context, the impartial point of view of the public actors is very important for the objectivity and equity which is proposed by this public value. In other words, not the bias, but contrary, the conviction that every citizen counts equally, that anyone, including the own person, is not more important or significant than other, indifferent of its social status or position, is the central meaning of the ethical value here discussed. The connection between impartiality and equality is, so, a certain important one, being almost equivalent (Jollimore, 2011). But, impartiality is the value that can be better and more specifically given to the public sphere. Its matter is proven by the reports of OECD (2000), „Trust in Government. Ethics Measures in OECD Countries", where it is the top chosen public value (24%) in OECD countries.

Moral responsibility, as a general ethical value for the social actors implied in reports of labor (Ulman, 2015), is similar with public responsibility from the public value pyramid. So, the public responsibility, as detached from the social one, is conscious and wanted self-deployment in a public action, having as its basis a choice from a list of options made especially taking into consideration the objective tasks of the public office. So, even though another option gives more personal benefits, a public actor does not choose it if this option does not respect the permissive limits of good behaviour or commitments and obligations that the public status requires. Through public responsibility, similar

to moral responsibility, the public actors admit themselves as authors of their own acts and are ready to respond for them in front of their interior ego, but, also, in front of their superiors and citizens.

1.2. The public integrity

The integrity from the general ethical pyramid (Ulman, 2015) is named here public integrity, meaning the integrity of the public actors or of the public sector. Transparency International – Romania and Pro Democracy Association (2004), in their report, „Local Public Administration Integrity and Transparency", borders the term of public integrity among the processes of taking decisions, of their implementation, of public money inventory and the public employees' integrity. In the present paper context, integrity targets the implementation of those norms and values that are generally accepted on the day by day practice of the public sector's actors, as it is defined in "Towards a Sound Integrity Framework: Instruments, Processes, Structures and Conditions for Implementation", realised by OECD (Maesschalck and Beltok, 2009, p. 9). The institutionalization of integrity by means of agencies, laws, practices and ethical codes is generally recognised as being the best option for the corruption limitation in many societies (Sampford et. al., 2005, p. 96).

Integrity became one of the fundamental conditions for the public sphere to transform into a trustworthy space and to offer an efficient, economic and social environment for its citizens; also, the institutions and the mechanisms that promote integrity are more and more considered basis components of a good governance, which is known as having great impact on the macroeconomic stability. Integrity assurance, as it is sustained in „Trust in Government. Ethics Measures in OECD Countries", realised by OECD (2000), assumes:

- the behaviour of the public actors is consonant with their organizational aims;

- the quotidian business public services are trustworthy;

- the citizens are treated equally on the legality and justice principles;

- the public resources are used correctly, efficiently and effectively; and

- the procedures of taking decisions are transparent to the public, and the implemented measures permit the attentive evaluation and rectification.

Figure 2 – The pyramid of the general ethical values versus The pyramid of the public values
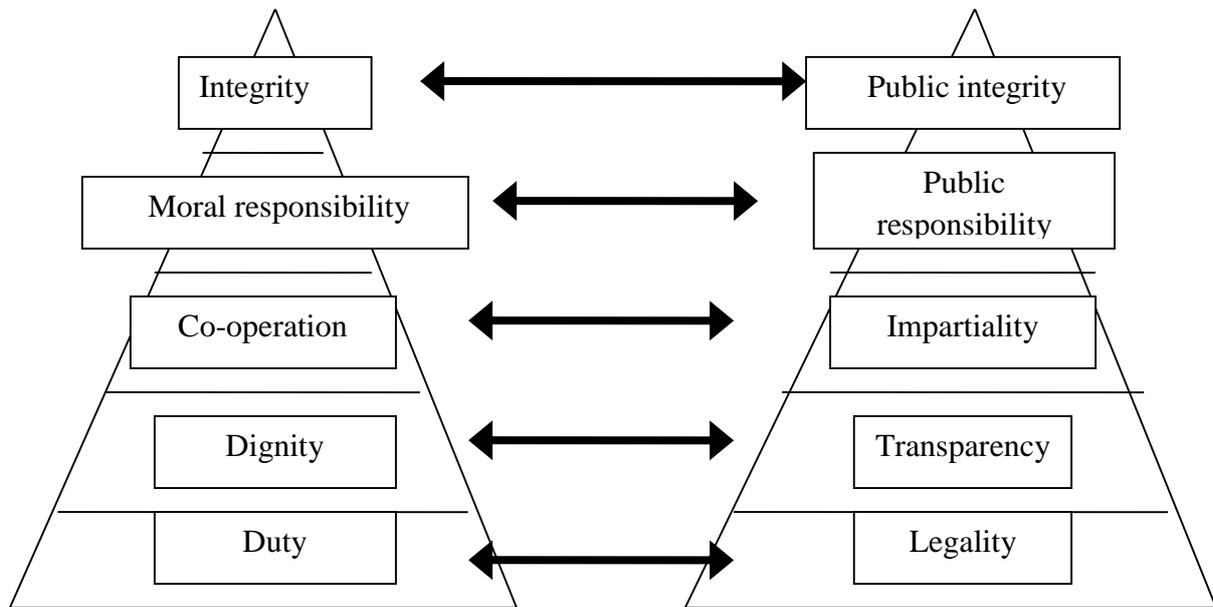

Source: author's representation

The public values are derived from the general ethical values (Ulman, 2015) and influenced by them in a very high level. Therefore, the public actor who in his personal life is defined by the ethical values from the general pyramid translates them at his job in the public sphere. This retrieval also depends on the characteristics and particularities of the public sphere. So, the legal frame, the rules, the regulations, the ethical and behavioural codes, the organizational management, but also the hygiene factors (safety, status, relations with subordinates, supervisors and employees from the same hierarchic level, the salary, the conditions of work, administration policies) and motivators factors (professional growth, responsibility, work itself, recognition, achievements) from Herzberg's theory influence the general ethical values such as, when they are transposed into the activity of the public actor, to delineate the public integrity that is concreted in ethical or un-ethical behaviour in the public sector (Figure 3).

In other words, the public values correlate with the general ethical values of the individual from a public position, nearby the public context of the public sphere. The influence does not come from a single direction, the delineation of the public value system represents a combination between personal determinants of public actors and environmental factors of the public activity. This correlation's result concretes into the moral reasoning that, nearby the competence and motivation, conducts to an ethical or un-ethical behaviour of the public actor (figure number 3-6).

Figure 3 – The determinants for the ethical/un-ethical behaviour in the public sector

| General ethical values |
| Integrity |
| Moral responsibility |
| Co-operation |

| Public values |
| Public integrity |
| Public responsibility |
| Impartiality |

| Public environment |
| Legal frame |
| Rules |
| Regulations |
| Ethical codes |
| Behavioural codes |

| Moral reasoning |
| + |
| Competence |
| + |
| Motivation |
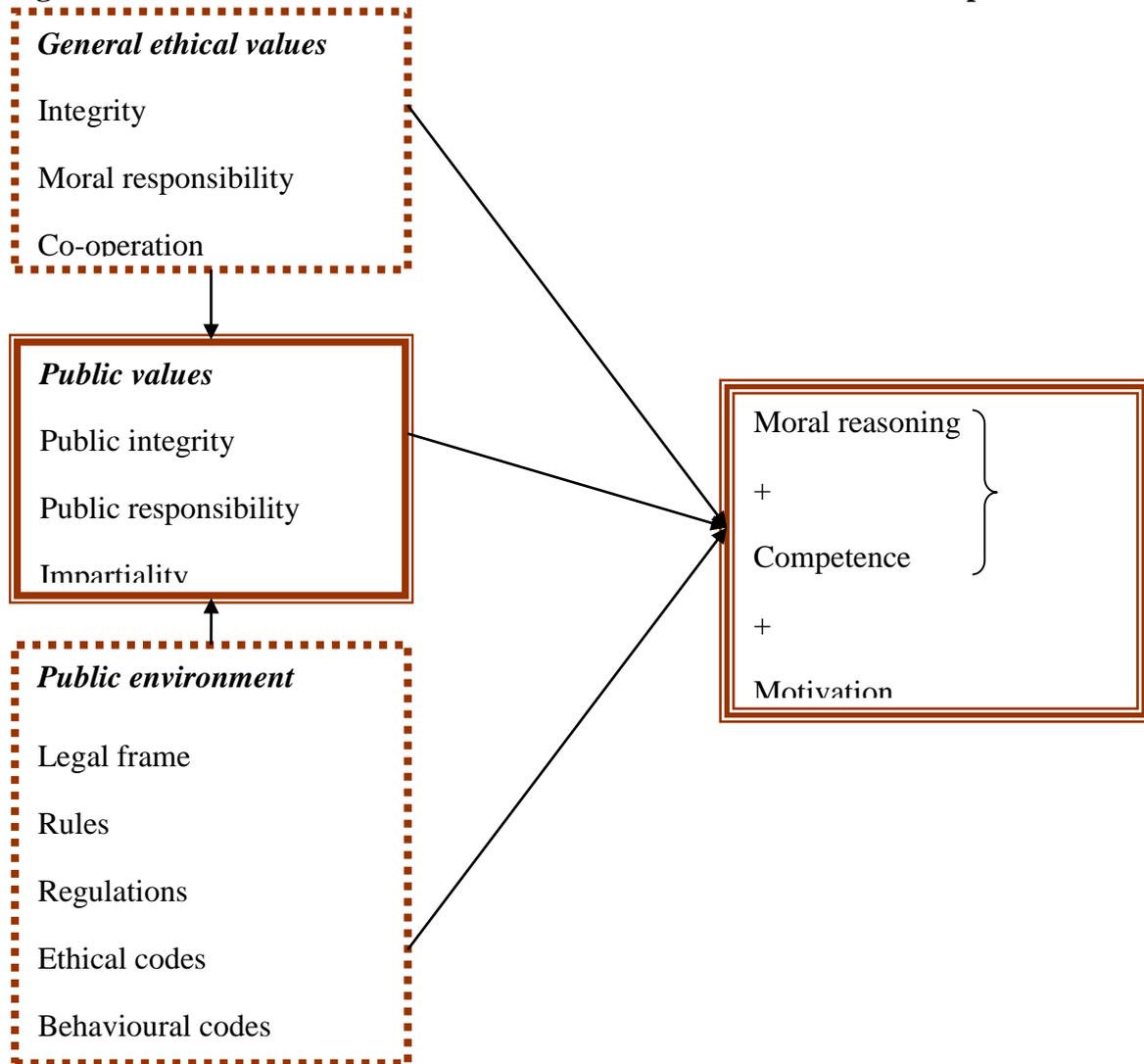
Source: author's representation

The public actor may be estimated taking into consideration two dimensions: professional competence and his ethics from the place of work. First of them, professional competence, has two extremes: high professional competence and low professional competence. The second, the ethics from the place of work concretes into an ethical or un-ethical behaviour, with its extremes: totally ethical behaviour and totally un-ethical behaviour. Their intercrossing divides the public actors in four categories:

1) The un-ethical amateur – the professional competence and the ethics from the place of work are at a low level;

2) The ethical amateur - the professional competence is at a low level, but the ethics from the place of work is at a high one;

3) The ethical expert or the expert of integrity - the professional competence and the ethics from the place of work are at a high level; and

4) The un-ethical expert - the professional competence is at a high level, but the ethics from the place of work is at a low one.

Figure 4 – Public actor's professional categories taking into consideration his professional competence and his ethics from the place of work
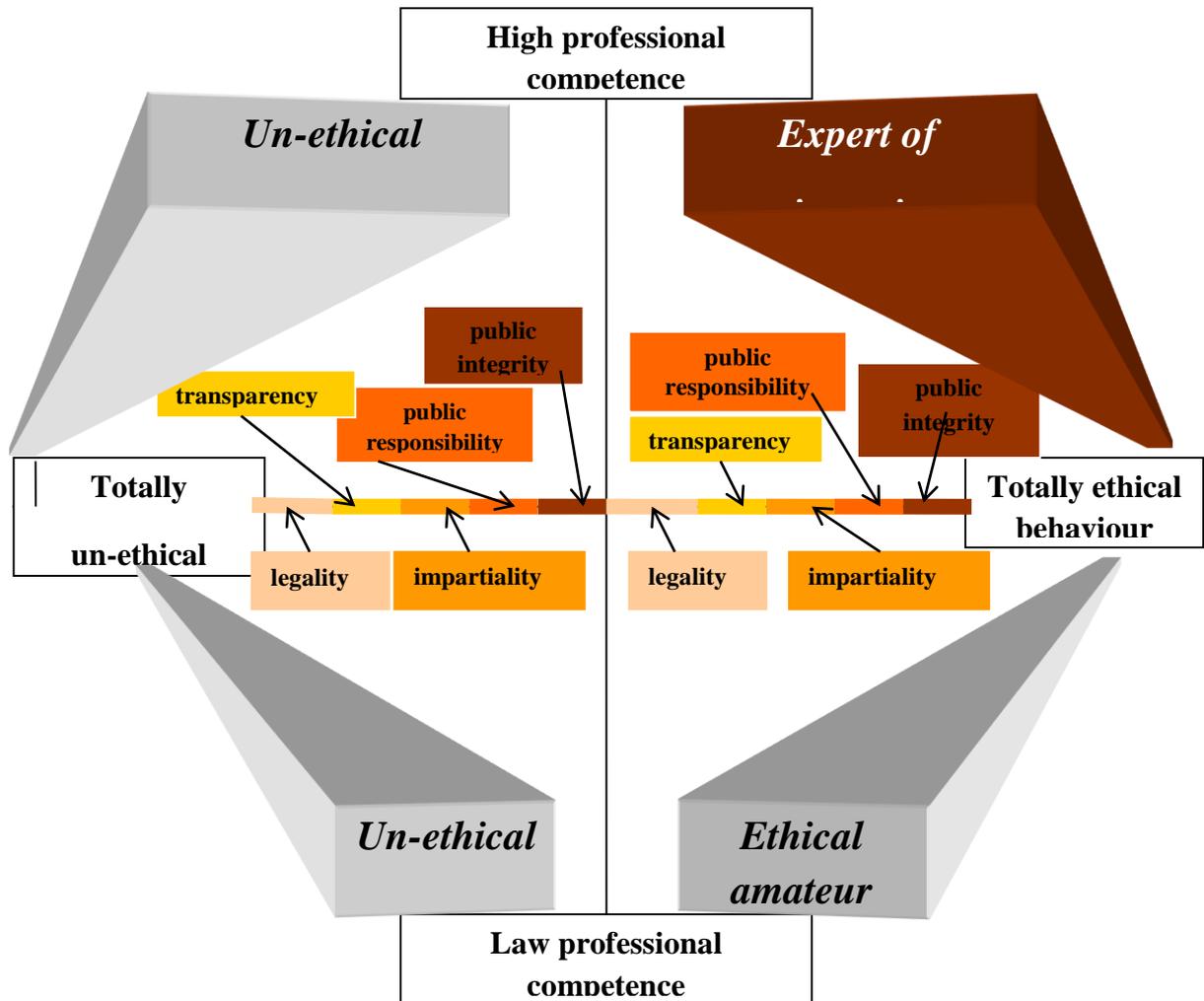
Source: author's representation

A public actor can be called as having integrity only when he detains both professional and ethical competencies at a high level. So, a public actor is an employee of integrity only when he is professionally competent and behaves in an ethical manner, being called an ethical expert. In the former figure, the right above quadrant is the only quadrant in that can be included the public actor of integrity. Indifferent if the public actor respects the first four values from the pyramid of public

values – legality, transparency, impartiality, public responsibility – but he does not attain high professional competence, he cannot be seen as a man of integrity at his place of work. This happens because the ethical part becomes insignificant here without attaining the professional skills needed to be balanced with the ethical ones.
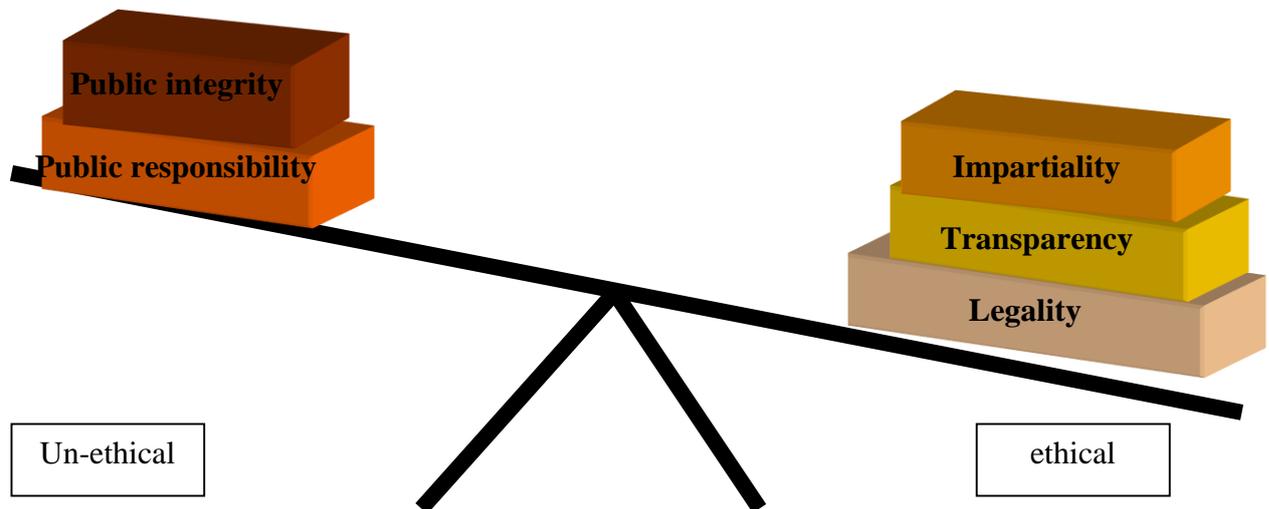
**Figure 5 – The balance of the public actor's values**

Source: author's representation

The ethical or un-ethical condition of a public actor can be evaluated through a balance of values that, once being accumulated, or, on the contrary, being lost by an individual, bows it either to the right, meaning to an ethical condition, either to the left, to an un-ethical one. As long as the public actor learns to take into consideration and to respect, one by one, the values of the pyramid, he advances on the ethical aspect and bows the balance to the right till near its vertical position. It must be said that both the zero level of ethics and the maximum level of ethics aren't possible to attain. This fact can be explained if we think on the way of being of the equivocal human nature, that is always inclined to habilitate himself, but also to tend to the general moral welfare. In this context, if a public actor respects the public integrity's values, he assures to himself and to the people around him, proper public relationships, that helps him and the others to obtain the expected economic and social stability.

From general to particular, similar to the integrity concept as a general ethical value specifically for the social actors implied in reports of labour, the tending to public integrity is almost impossible to attain, but, also, it is wanted to be always cultivated as a final ethical aim in the public space. Therefore, a conscious public actor, that is always available and open to find and resolve the goals

from an ethical and fair perspective to himself, to the organization and society, is a real model, dignified to be followed and possible to be characterized as tending to integrity.

Figure 6 - The framing of the public values taking into consideration the level of ethics needed to be attained
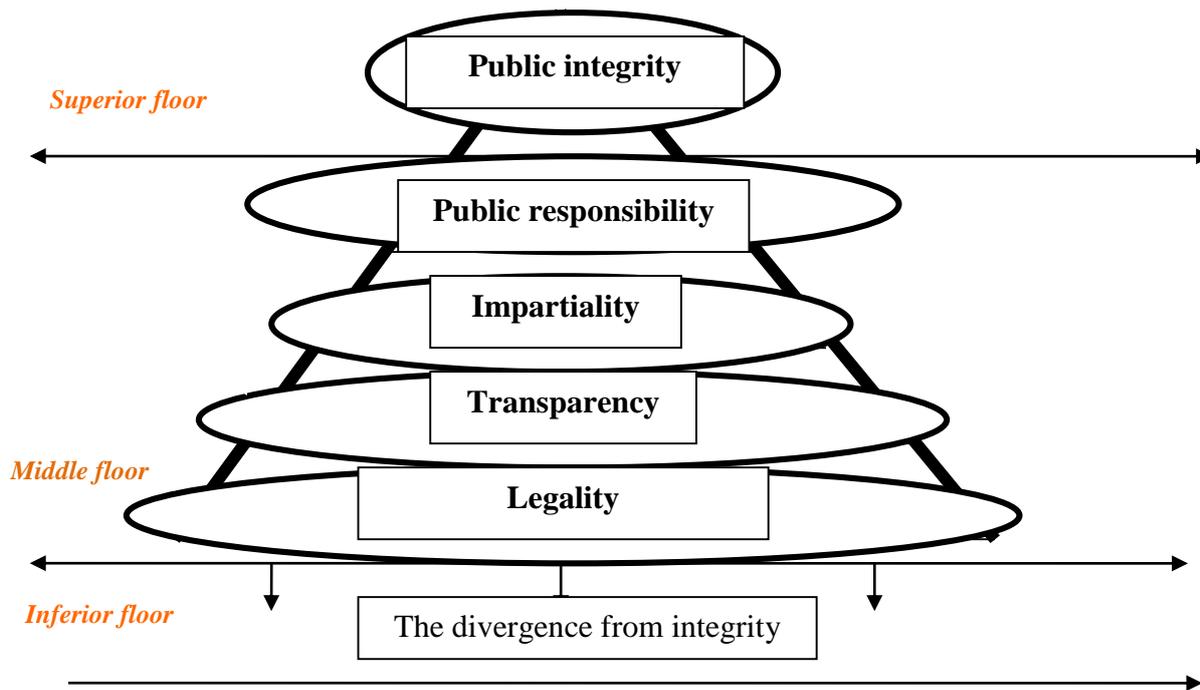

Source: author's representation

As a supreme public value, the public integrity can be identified, as the general integrity, with the value of the values from the superior floor of the values. The middle floor of the public values is formed by the other four values of the pyramid: legality, transparency, impartiality and public responsibility. The inferior level is for the divergences from the value of integrity, corruption being included here. Neaby this, fraud, conflicts of interest, violence, abuse or manipulation of information, discrimination, abuse of public resources, etc. can be included in this floor.

2. The way to put into practice the public values of the pyramid

As we discussed about what integrity really means, trying to define in a precise way its characteristics and manner of achievement, the way it can be applied to the social and economical reality as to generate a more ethical and economically stabile space and a development of the general welfare is imposed to be up for debate. All the public actors frame its principal characteristics,

defining and transforming it in correlation with their attitudes and behaviours about the problems and challenges of the public environment and of its relations with the exterior provoke. If a management policy is desired to impact the public actors, it is necessary that its goals to be very clearly defined. On their turn, the public actors and their system of values concreted in the adapted behavior from the place of work are influenced by the belonging system. In these conditions, the macro perspective approach is as important as the micro perspective approach is.

Figure 7 – The frame of imposing an integrity policy in the public sector
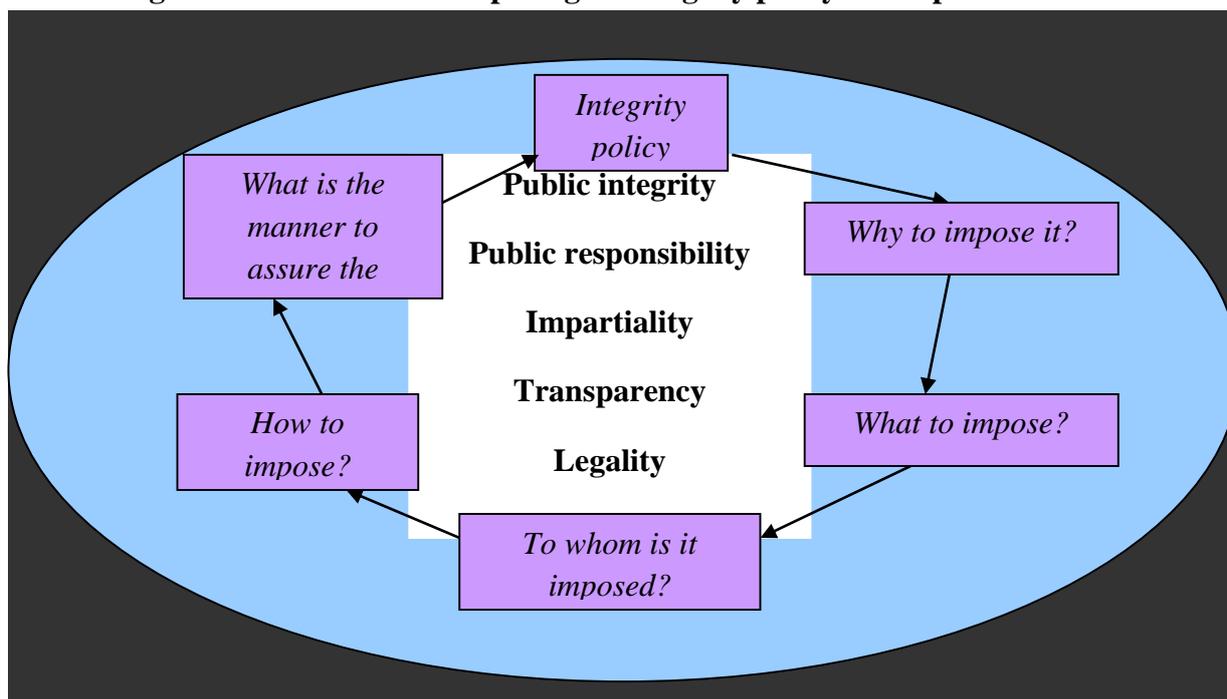
Source: author's representation

Much more, as Mises accentuates, the action is always an action made by particular human beings (Mises, 1985, p. 152), but, he likes or not, the individual is obliged to take into consideration that he is born into a pre-existent society; and this society is not a manifested entity across him, but only through him and his peers (Pohoata, 2009, p. 119). Making a parallel of this reference adapted to the present paper, it can be concluded that the public action is always made by the public actor directly responsible for this, but, either he likes or not, he is obliged to realise that he is part of a pre-existent public system. So, his entire system of personal values must be adapted to the conditions and to the context of the pre-existent public system. Secondly, this must happen with the conscience that this system is not an entity that manifests above him, but only through him and his colleagues. Therefore, the influence between the two variables is reciprocal, and the greater importance of one

then the other one is equally with the dilemma of the ascendency or of the egg or of the hen, equally with the problem of the individual's pre-eminence over the society, as it appears to Mises (Ibidem).

The integrity policy must concentrate to the five discussed public values: legality, transparency, impartiality, public responsibility and, finally, public integrity. Its major goal must be the achievement of the supreme value – public integrity. For the possibility to materialize this goal, it is essential to identify the arguments for implementing such an aim so that, starting from the top of the public hierarchy and ending to its basis, each actor to be conscious and disposed to achieve it. A policy that targets the ethical problems needs, more than others, to be unequivocally supported in the organization. The ways it is implemented must be very clearly established, the implementing steps must be very sure as the trust level to grow along the process. To be well defined, the integrity policy's assessment frame must have the responses to five questions: *Why to impose it?*; *What to impose?*; *To whom is it imposed?*; *How to impose?*; *What is the manner to assure the impact?* (Figure 7).

The studies reveal that in the countries with a democratic tradition that is high and well implemented in the collective subconsciousness of their citizens, and with a high level of economic freedom, the integrity from the level of ideas is less detained than the one from the practical level, concreted into the behavioural level. Therefore, although at the first level, they have a similar attitude with the emergent countries, when the ideas are put into practice, the integrity national systems of the developed countries are so well constructed that the systems do not permit the same un-ethical behaviour met in the emergent ones.

Starting from these premises, the sustaining of the legal frame and objective and official regulations consolidation in the countries with high levels of corruption imposes as a logical option. So, for the rules-based approach, the most adequate measures are: risk analyses, codes of conduct, conflict of interest policies, whistle-blowing policies, complaints policies, inspections, integrity testings, early warning systems, formal sanctions, procedure for handling integrity violations, etc. In this way, the level of the public integrity can be improved in the emerging countries. In other words, through the formal and detailed rules and procedure, as instruments to reduce the abnormalities from the integrity and to prevent corruption phenomena, the first two public values – legality and transparency – improve. After their achievements, the advancement to the next levels of the pyramid – impartiality, public responsibility and public integrity – can be assured focusing to personal guidance and internal control improved with the training sessions, workshops, ethical codes, etc. It must be underlined that the balance between the rules-based and the values-based approach to integrity is needed. But, while the first are almost totally attained by the developed countries, so the focus on the value-based measures is naturally argued, in the emerging countries the situation is

different. For better results, the policies must concentrate first on the rules-based measures to improve the first two values of the public pyramid, and, scarcely then, to focus on the public values from the next levels to assure a complete integrity system.

Figure 8 – The pyramid of public values and the integrity management approach perspectives
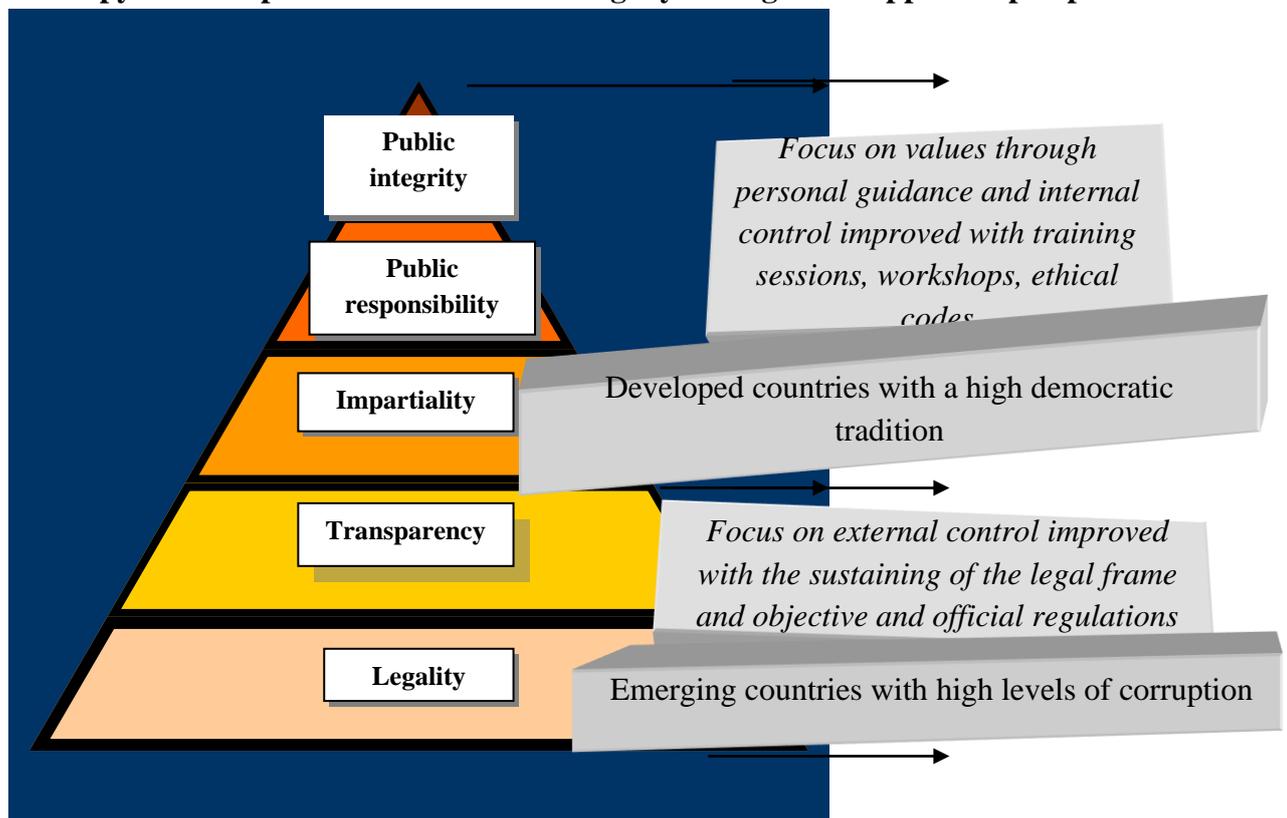
Source: author's wrepresentation

In this context, nearby these important elements of the public integrity management, beneficial for the achievement of the integrity goals are: the insertion of better performance standards, the results control and their comparison with the quantitative indices, the promotion of an intervention management and the competition encouragement to the public level, the three E principle specifically implemented in the public sphere (the economy of the resource usage, efficiency and efficacy) to be also applied to the public integrity policies.

Conclusions

The public servants need to know more precisely the standards they are expected to apply in their daily work and where the boundaries of acceptable behavior lie. In this context, the general ethical values and, then, the public values are the starting point for all the discussions about public integrity and corruption. The public values are derived from the general ethical values and influenced by them in a very high level. Therefore, the public actor that in his personal life is defined by the ethical values from the general pyramid translates them at his job in the public sphere. This retrieval also depends on the characteristics and particularities of the public sphere. So, the legal frame, the rules, the regulations, the ethical and behavioral codes, the organizational management, but also the hygiene factors (safety, status, relations with subordinates, supervisors and employees from the same hierarchic level, the salary, the conditions of work, administration policies) and motivators factors (professional growth, responsibility, work itself, recognition, achievements) influence the general ethical values such as, when they are transposed into the activity of the public actor, to delineate the public integrity that is concreted in ethical or un-ethical behavior in the public sector.

The divergence from the public integrity means: first, the contravention of the principle of the law; second, lack of transparency; then, failing in offering the proper impartiality; and lately, deficiency in the public responsibility. If a management policy is desired to impact the public actors, it is necessary that its goals to be very clearly defined. On their turn, the public actors and their system of values concreted in the adapted behavior from the place of work are influenced by the belonging system. In these conditions, the macro perspective approach is as important as the micro perspective approach is. The profound sustaining of the legal frame and objective and official regulations consolidation in the countries with high levels of corruption imposes as a logical option. For better results, the policies must concentrate first on the rules-based measures to improve the first two values of the public pyramid, and, scarcely then, to focus on the public values from the next levels to assure a complete integrity system. Through the formal and detailed rules and procedure, as instruments to reduce the abnormalities from the integrity and to prevent corruption phenomena, the first two public values – legality and transparency – can be improved. After their achievements, the advancement to the next levels of the pyramid – impartiality, public responsibility and public integrity – can be assured focusing to personal guidance and internal control.

Acknowledgements

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FEATURES OF LOGISTIC SYSTEM ADAPTIVE MANAGEMENT

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Teodora ROMAN[**]

Abstract: *The study presents literature survey on enterprise logistic system adaptive management place and structure in the general enterprise management system. The theoretical basics of logistic system functioning, levels of its management and its effectiveness had been investigated. The role of adaptive management and its types had been scrutinized. The necessity of creating company's adaptive regulator such as its economic mechanism had been proved.*

Introduction

The changing global market enviroment, the increasing level of enterprises competiteveness and high entry barriers to existing goods and services markets had made the necessary subsoil to use organizational and managerial set of tools as a mean of technique that can provide companies with additional advantage in goods productionto attract more customers and increase enterprise effectiveness. These global market tendencies brought the necessity to react quickly and produce speed high-quality managerial decisions. The company has not only to reply to the changes of business environement, but to provoke them as well. In this case the enterprise adaptive management should be implemented. There is a lot of misunderstanding and mishandling in company's adaptability as a feature and enterprise adaptive managment as a conception.

The aim of this article is to investigate the place and structure of enterprise logistic system adaptive management (ELSAM) in structure of company'sgeneral management. Due to this aim the following tasks had been accomplished:

1.To analyze theoretical basics of enterprise logistic system management;

2.To define enterprise logistic system management structure;

3.To scrutinize enterprise logistic system adaptive management and state its role in general enterprise management structure.

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1. Enterprise logistic system management. Theoretical basics

The question of enterprise logistic system management had brought an immense interest in the scientific society. The scrutiny had discovered two theoretical approaches that are presented in the table 1. According to the assumptions, the key element is the attitude towards company's logistic flow, whether it had been defined in advance and we can only coordinate and improve its characteristics or the managers have to design them first and afterwards create the other parts of organization. The main differences of these two conceptions can be defined in the target, subject, aim, actions and the key-criterion for company'slogistic management effectiveness evaluation.

Table 1 - Theoretical approaches to enterprise logistic system management

Elements / Sources	Logistic management target	Logistic management subject	Logistic management aim	Logistic actions	Logistic management effectiveness criterion
Bowersox *et al.* (2002), Gadjinskiy (2012), Ivanov *et al.* (2010),. Krukavskyi *et al.* (2009), Daganzo (1999), Stahanov *et al.* (2001), Waters (2002)	Enterprise logistic system	Enterprise flows	All logistic flows coordination	Existing flows operation	Economic effect and effectiveness; costs minimization
Oklander M.A.(2003), Semeneko A.I. *et al.* (2003)	Enterprise logistic flows	Process of flows organization	Enterprise flow processes optimization	Material, information and financial flows design	Optimum in particular situations (reaching function extreme: taking into consideration limits such as costs minimization and profit maximizing)

Source: authors combination by Bowersox *et al.* (2002), Gadjinskiy (2012), Ivanov *et al.* (2010),. Krukavskyi *et al.* (2009), Daganzo (1999), Stahanov *et al.* (2001), Waters (2002), Oklander (2003), Semeneko A.I. *et al.* (2003)

Due to the first conception, its representatives (Bowersox *et al.*, 2002; Ivanov and Sokolov, 2010; Gadjinskiy, 2012; Krukavskyi and Chornopuska, 2009; Stahanov and Ukraintsev, 2001; Waters, 2002) define absolute or comperative indicator as a criterion of logistic system (e.g. productivity of one worker or aimed results divided by costs to acheiving it) effestiveness when the managers operate only with existing flows and improve enterprise logistic system by coordinating the flows parameters in order to improve company's profitability in general and its specific features

such as competitiveness, effectiveness, sustainability, responsiveness, cost-efficency, stability, quality and flexibility.

The representatives of the second paradigm (Oklander, 2003; Semeneko and Sergeev, 2003) state the necessity to design material, financial and information flows first, but their researches have only theoretical part without thoroughly practical recommendations. In this case the relative or taxonomy indicators (e.g. aggregated indicator of one worker productivity or company's productivity; logistic costs multiplied by function of optimization logistic flows) can be used to measure enterprise logistic system effectiveness in every particular situation and the prior aim of logistic system management is to construct its flows first.

According to this literature survey, the further investigation of logistic system of enterprise, the levels of its management and key-components andthe nature of mentioned processesare necessary to study.

2. Enterprise logistic system management structure

Generally company's management can be categorized by levels of managerial decisions and the areas of its influence within the enterprise. The assumption and classification made by authors are presented at the table 2.

Due to presented logistic system management structure, the levels and tasks of its maintaining can be defined by general logistic system for strategic level, its functions on tactical level and logistic flows at operational level. All mentioned above decisions can be separated by range of influence, problem classification, objectives, theirs orientation and limitations by time criterion.

Strategic level is stated by decisions on logistic system that are hard to cancel, had influence on all organization, oriented on final goal of enterprise, can be changed due to market trends and the horizon of planning is generally more than one year. The effect of theirs implementation has usually great effort on scientific and technical progress. The typical tasks at this level are network definition solution, optimum balance between cost minimization and profit maximization.

The set of tools on the next tactical level has its objective to make flexible decisions and to create a connection between functional links of enterprise − logistic functions of each part of company's production stage. The object of planning is usually determined, limited by time criterion for one year and directed to investment processes. These level tasks involve solving problems in fulfillment policies, material flow organizing and control.

**Table 2 - Enterprise logistic system management levels and key-components**

Management key-components	Logistic system management levels		
	Strategic	Tactical	Operational
Management target	Logistic system (LS)	Logistic functions (LF)	Logistic flows
Types of decisions	Hard to cancel	Flexible	Short-term
Range of influence	Wide-range, all organization	Connection between functional links	One specified functional link
Oriented to	Final goal	Instruments that help reaching the goal	Continuity of function at a specified period of time
Object of planning	Variable	Determined	Determined
Time criterion	More than a year	One year	A day, a week, a month
Economic phenomena direction	Scientific and technical progress	Investment process	Production and resources distribution
Software	-	APS-advanced planning and scheduling	ERP – enterprise resourse planning SCE – supply chain execution
Problem Classification	Location allocation problem (LAP), Network allocation problem (NLP)	Multi-echelon inventory disctribution fulfillment system	Dynamic location allocation problem (LAP)
Objective	Network definition, cost minimization-profit maximization	Determination of fulfillment policies, material flow management, control of the bull-whip effect	Logistic requirement planning (LRP)

Sourse: combined by authors by Le rapport par le PIRAME (2009), Lambert Cooper *et al.* (1998), Christopher (2005), Manzini and Gamberini (2008), SAID (2009)

Operational level of decisions is presented by logistic flows maintainance and short-term objectives. The task of this level usually faces production and resources problems determined by one specified functional link, which connected to logistic requirement planning.Each of described levels represent the decisions on logistic flows, functions and company's logistic system in general.

The general scheme of LS components (figure 1) from the point of view of production process and organizational functional structure of enterprise based upon "cost-output" production model, includes relations with external market (suppliers, customers), enterprise information flow and its analyse, supply, distribution management and production maintenance, financial flow that provides the appropriate level of material flow due to cooperation strategy between supply and distribution channels and company's production strategy.

Figure 1 - Enterprise logistic system management components
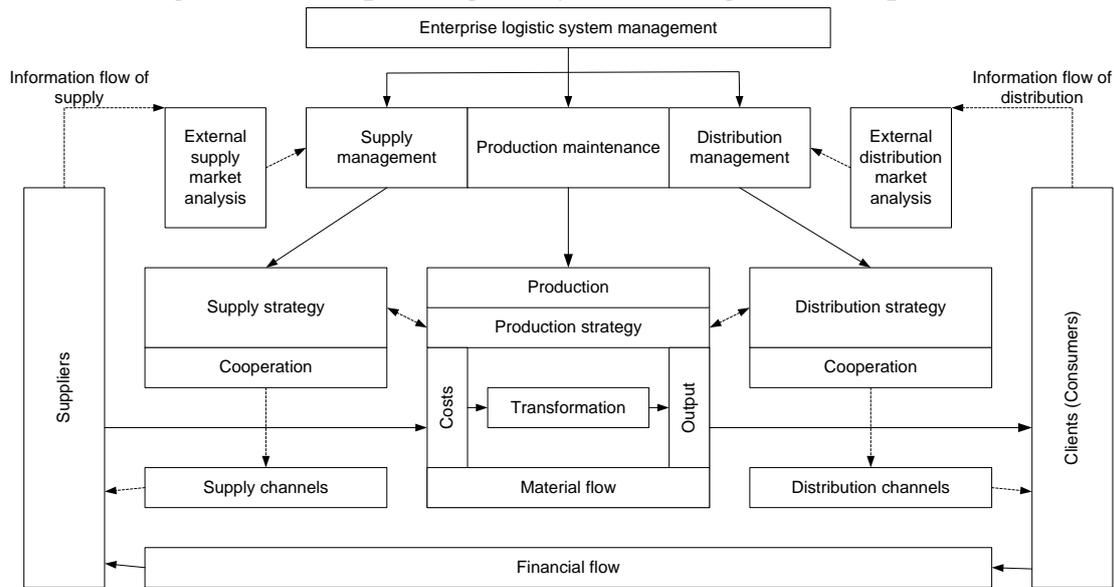
Source: Mykhaylyk, 2005

According to the presented scheme the only cooperation strategies can be applied with existing supply and distribution channels. At the same moment to improve this description, the relations between competitors have to be taken into consideration as well. Due to company's life-cycle its market positioning towards its competitors might be (Ansoff, 1988; Le rapport par le PIRAME, 2009) - cooperation, competition or coexistence.

3. Enterprise logistic system adaptive management

Generally, the enterprise adaptive management consists of active and passive adaptation that stands for provoking external market changes or answering for ones already existed.

To describe place and role of enterprise logistic system adaptive management (ELSAM) authors suggest its conceptual model (figure 2).

Due to it, ELSAM is a part of enterprise adaptive management and it has three levels of decisions and activities to implement.

On strategic level active adaptation is presented by choosing and creating the criterion of LS development. Due to company's life-cycle this level is presented also by designing an adaptive regulator and establishing enterprise LS basics.

Figure 2 -Enterprise logistic system adaptive management in general enterprise management


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┌──────────────┐      ┌──────────────┐      ┌──────────────────┐
│ Enterprise   │─────▶│ Enterprise   │─────▶│ Enterprise       │
│ management   │      │ adaptive     │      │ logistic system  │
│              │      │ management   │      │ adaptive         │
│              │      │              │      │ management       │
└──────────────┘      └──────────────┘      └──────────────────┘
```

Strategic level, enterprise mission and goals development

Active adaptation: designing an adaptive regulator that might provoke external environment changes

Defining and allocating criterion of its development
_____
Key-component: life-cycle

Tactical level, tasks forming and instruments development for its implementation

Passive adaptation: enterprise reaction, self-organizing adaptive systems

Logistic function development correction
_____
Key-component: strategy on the market

Operational level, calendar planning, tasks implementation

Collecting information provision about enterprise behavior, system parameters

Logistic flow level maintenance
_____
Key-component: Market feedback

Source: authors combinarion by Ansoff (1988), Voznenko (2009)

Tactical level as a medium term decisions implementation characterizes by passive adaptation: choosing the appropriate strategy to react on competitors' actions and on market tendencies. This scope is described by LF evaluation and corrections of theirs development.

Operational level is defined by collecting necessary information about external bifurcations and optimum logistic flow support.

Conclusions

The suggested survey revealed the role and the place of enterprise logistic system adaptive management in the general company's management structure. It shows the necessity to design adaptive regulator for its active adaptation to enviroment and create self-organizing adaptive system upon collected information about company's behavior. The best practice-used set of tools has to take into consideration the pecularities of company's life-cycle, the field of enterprise activities, relations between suppliers and distributors and the state of its logistic flows. The future research is to make an enterprise economic mechanism that coordinates and controls enterprise logistic system internal and external flows within all mentioned criteria.

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