

**Professor Stelian STANCU, PhD**  
**The Bucharest University of Economic Studies**  
**Centre for Industrial and Services Economics**  
**Academy of Science, Romania**  
**E-mail: stelian\_stancu@yahoo.com**  
**Assistant Professor Oana Madalina POPESCU, PhD**  
**The Bucharest University of Economic Studies**

## **INTERNATIONAL MIGRATION: THE ANALYSIS OF ECONOMIC IMPACT IN THE GLOBALIZATION CONTEXT**

**Abstract.** *Migration is one of the consequences of globalization, alongside production internationalization, the new global division of labor and the markets globalization. Economic and social impact of migration is significant and Romania has faced and continues to face the negative consequences of migration of young educated people, and social problems due to families where one or both parents are working abroad and children remain in the care of relatives.*

*The authors analyze the economic impact of migration at European Union level, by using statistical regression models to allow decision-makers to take the most appropriate measures in the context of globalization. The main indicators that were used are the net remittances of workers and the Gross Domestic Product (GDP) per capita.*

*The main conclusion of the research is that the net remittances of workers and the Gross Domestic Product (GDP) per capita are moving proportionally, therefore a positive net remission is a prerequisite to improve the economic performance, and the negative net remittances of labor, have negative effects on the economic performance. By connecting this result with the analysis of migration flows which affect Romania, the authors reached the conclusion that the negative economic impact of migration on the*

**Keywords:** *migration, remittances of labor, gross domestic product, gravity model, regression analysis.*

**JEL Classification:** J61, C01, C02

## **Introduction**

Migration is one of the consequences of globalization, alongside production internationalization, the new global division of labor, the new competitive environment, the state internationalization and the markets globalization. The migration means the movement of a person or groups of people from one region to another. When the migration phenomenon occurs beyond the national borders of a state, it is an international migration. Migrants are immigrants, emigrants or tolerated, depending on the circumstances, perspective and historical conditions.

The main migration types are the following: daily commute, seasonal migration (usually related to agriculture and tourism), permanent/definitive migration, local/regional/ international migration, rural-urban migration (due to industrialization and the emergence of new opportunities for work), urban-rural migration (usually, in developed countries, in order to avoid the high cost of living in urban areas).

Migratory movements can be: cyclical movements (such as: commuting movements, seasonal movement and nomadism), periodic movement (including labor migration, of persons in military service and shepherds transhumance) and migration movements that includes permanent streams, such as rural-urban movements.

The both migration directions (emigration and immigration) affect, with varying degrees of intensity, any state in the world, regardless of their economic development.

Migration generates positive and negative effects both on the origin and destination countries, and for this reason the migration phenomenon should be seriously addressed through government policies.

There are many factors that lead to the manifestation of migration phenomenon: the gap between rich and poor population of developed and developing countries, differences in the standard of living, income, poverty and quality of life, the wars, the ethnic cleansing etc. The most common factor is the gap in economic development and income gap between countries, but they are not sufficient conditions for the phenomenon, requiring additional stimuli, which have generally a subjective character.

At the macroeconomic level, there is a security/safety migration dimension (natural disasters, conflicts, threats to personal safety, political situation) and an economic dimension (the poor economic situation of the individual or the market).

Classical theories on the determinants of migration identified two categories of factors: the „push factors” (economic, political, cultural and environmental), that lead people to want to leave the origin country/place and being a cause of individual

anxiety and „the pull factors” (economic, political, cultural and environmental), that attract migrants, being perceived as benefits.

As „push factors”, we can mention: the lack of employment opportunities on the labor market in the country of origin, "primitive" political, economic or social conditions, desertification, drought, famine, political persecution or fear of them, political and legal abuses, ethnic cleansing, genocide, war, death threats, poor sanitary systems, loss of wealth, natural disasters, slavery, pollution, homelessness, problems with the owners that live rent, blackmail, little chance of identifying a life partner, family reunification, avoiding arrest / judgment etc.

As „pull factors” factors, we can mention: existence of labor market opportunities, better living conditions, freedom of religion and politics, pleasure rides for the site, access to higher education, a good health system, education, family ties, individual security, increased opportunities to identify a life partner.

Although there are many informational and procedural advantages related to the pushing and attracting factors theory, there are still a significant number of drawbacks: the theory emphasizes the obvious, for example: people in poor countries tend to emigrate to developed countries. But it does not explain the occurrence of the migratory flows: if only push factors and attracting matter, why a mass permanent phenomenon does not occur and why all the poor people isn't moving in developed countries? This theory does not also explain the stability of the migration flows. Once the migration flow is established between two countries, it will be active for a longer period of time than the duration of the factors that triggered the respective streams.

The migrant workers, particularly those highly skilled, are seen as alternatives to the decrease of local aging workforce (see Table 1). The trend of attracting and keeping highly qualified immigrants manifest more strongly in Europe, the most used system is that of granting points to immigrants, which leads to the selection of the high human capital immigrants. Demetrios et.al (2007) showed that the main criteria for migrants' selection are the following: education, profession, work experience, age, while the secondary selection criteria are focused mainly on the existence of an offer of employment, previous salary, country of origin, characteristics partner, relatives and previous experience in the destination country.

**Table 1: Evolution of European Union population by age groups (percentage of the total population)**

	<b>2004</b>	<b>2025</b>	<b>2050</b>
<b>0-14 years</b>	16.40%	13.30%	12.20%
<b>15-64 years</b>	67.20%	62%	55.40%
<b>Over 65 years</b>	16.40%	24.70%	32.40%

**Source:** Eurostat and authors' processing

The present paper begins with introductory aspects focused on the content of the topic and continues with the Knowledge Stage in the application of gravitational models for analyzing the international migration flows. The method used - the application of gravitational models in the analysis and forecast of migration flows between Romania and a number of European countries, Results and Discussion - The impact of net labor remittances on Gross Domestic Product at market prices (standard purchasing power per capita) at EU level and ending with Conclusions and Future Discussions and also with the Bibliographic References.

### **1. Literature Review on Gravitational Models for International Migration Analysis**

Most economic studies on immigration, such as those developed by Friedberg and Hunt (1995), Card (2001) and Borjas (2003), are using a standard model of labor market in which migrant workers react at wage differences between countries, although there are many other factors influencing immigration.

In the framework of human capital migration approach, Sjaastad (1962) renounced at the assumption of homogeneous labor. Depending on the skill levels, the human capital value of individuals is calculated for each region or country. Each individual assess their costs in a different way, so that migration in a country can be useful for some people and not for others. As a result, the analysis of the migration flows should not be done only by using aggregate labor market variables (such as wages and unemployment gap) but also taking into account the individuals heterogeneity.

The scientific literature on occupational mobility is limited compared with the literature on geographic mobility, one reason being the difficulty to define and

measure occupations (Mesnard, 2000). However, there are a series of analyzes on decades of the professional migration phenomenon (Katz and Stark, 1986; Green, Deller and Marcouiller, 2006; Hatton and Williamson, 2010).

Based on an analogy from physics and Newton's idea of gravity, the gravitational model applied in economics was developed by Lewis (2005) and it was extended to various economic variables to represent the effects of push and pull. Gianmarco and Peri (2007) and Cortes (2008) show that estimates of the gravity model are likely to be affected by errors generated by standard groups when some variables in the model only applies to one of the two countries.

In relation to the economic theory, which serves to understand migration decisions, the gravitational models have proven their usefulness in statistical modeling and forecasting of the migratory flows aggregates. Development of gravitational models are based on the physics of universal gravitation, which states that the force of attraction between two bodies is directly proportional to the mass and inversely proportional to the square of the distance that separates them.

The classic gravity model for the migration analysis, one flow from location  $i$  to location  $j$  is considered to be proportional to the population of origin and destination and inversely proportional to the distance between the two locations:

$$K_{ij} = G \cdot P_i \cdot P_j \cdot f(d_{ij}) \quad (1)$$

where:

$G$  - represents a constant associated with overall mobility;

$P_i$  and  $P_j$  - represents the population of origin and destination country;

$f(d_{ij})$  - represents the inverse function of the distance between two locations.

Similarly, it is considered that the interaction between the two zones is directly proportional to the size of the area and inversely proportional to the distance separating them (typically high power). This relationship can be written as following:

$$K_{ij} = G \cdot \frac{P_i \cdot P_j}{d_{ij}^b} \quad (2)$$

where:

$K_{ij}$  - represents the interaction between  $i$  and  $j$  areas;

$P_i, P_j$  - represents the population size for areas  $i$  and  $j$ ;

$d_{ij}$  - represents the distance between the area  $i$  and  $j$ ;

$G$  - represents the proportionality factor;

$b$  - represents a power determined (selected) by the decider.

The novelty of the approach is to include the investments at regional level, the control migrant networks and other qualitative variables on the economic, political and social characteristics of the area.

**Emigration.** As the dependent variable is considered the logarithm of the gross rate of migration inter-region (inter-country) ( $\log(K_{ij})$ ), calculated as the amount of migration from/to the region (country)  $i$  to/from region (country)  $j$ , divided by the migration of the overall inter-regions (inter-country) from region (country)  $i$ :

$$\begin{aligned} \log K_{ij} = & \beta_0 + \beta_1 \log d_{ij} + \beta_2 \log N + \beta_3 \log I_{ji} + \beta_4 \log J_{ji} + \beta_5 (\log I_{ji})(\log J_{ji}) + \\ & + \beta_6 \log Y_{ji} + \beta_7 \log E_i + \beta_8 \log E_j + \beta_9 \log u_i + \beta_{10} \log u_j + \beta_{11} \log O_{ji} + \\ & + \beta_{12} \log U_{ji} + \beta_{13} \log M_{ji} + \beta_{14} \log T_{ji} + \varepsilon_{ij} \end{aligned} \quad (3)$$

where:

$d_{ij}$  - is the distance by rail (km) from the capital of region (country)  $i$  and the capital of region (country)  $j$ ;

$N$  - is the size of the migrant community living in the region (country)  $j$  who migrated from the region (country)  $i$ , measured as the migration of the past flow rate;

$I_{ji}$  - is the ratio of actual foreign direct investment per capita in the region (country)  $j$  and actual foreign direct investment per capita in the region (country)  $i$ ;

$J_{ji}$  - is the ratio of actual domestic investment of fixed assets per capita in the region (country)  $j$  and the actual domestic investment of fixed assets per capita in the region (country)  $i$ ;

$Y_{ji}$  - is the ratio of real income per capita in the region (country)  $j$  and the real income per capita in the region (country)  $i$ ;

$E_i, E_j$  - is the level of education in the region (country)  $i$  and  $c j$ ;

$u_i, u_j$  - represent the unemployment rates in the week preceding the implementation of the census in the region (country)  $i$  and that the region (country)  $j$ ;

$O_{ji}$  - is the ratio of the employment in the manufacturing sector in the region (country)  $j$ , according to the share of employment in the manufacturing sector in the region (country)  $i$ ;

$U_{ji}$  - is the ratio of urban population of the region (country)  $j$  and the urban population of the region (country)  $i$ ;

$M_{ji}$  - is ratio of the minority population in the region (country)  $j$  and the proportion of minority population in the region (country)  $i$ ;

$T_{ji}$  - is the ratio of average annual temperature in the capital region (country)  $j$  and the average annual temperature in the capital region (country)  $i$ ;

$\mathcal{E}_{ij}$  - is the error term.

**Immigration.** The labor market immigration model suggests that the power of attraction of immigrants between source and destination countries, depends on the difference between work income in the two countries. Population size is sometimes an obstacle to immigration: most people are likely to migrate to a country with a large population. Also, migration costs are likely to be correlated with physical distance between countries. These considerations suggest migration of the gravitational equation of the form:

$$R_{ij} = \alpha_0 + \alpha_1(P_i - P_j) + \alpha_2 w_{ij} + \alpha_3 d_{ij} + \eta_{ij} \quad (4)$$

where:

$R_{ij}$  - is the logarithm of the number of immigrants from the country  $i$  to the destination  $j$ ;

$P_i, P_j$  - represent the population of country  $i$  and  $j$ ;

$w_{ij}$  - is the rate per capita income in the country of destination.

$d_{ij}$  - is rail distance (km) from the capital region (country)  $i$  to that of the region (country)  $j$ ;

$\eta_{ij}$  - is the error term.

These few considerations show that immigration is larger when the language and culture of the destination country are familiar. In these circumstances, the immigration equation becomes:

$$R_{ij} = \alpha_0 + \alpha_1(P_i - P_j) + \alpha_2 w_{ij} + \alpha_3 d_{ij} + \alpha_4 P_j + \alpha_5 L_{ij} + \alpha_6 C_{ij} + \alpha_7 D_{ij} + \eta_{ij} \quad (5)$$

where:

$P_j$  - the number of the native population of the country of destination  $j$ ;

$L_{ij}$  - the degree to which the language of the destination country is familiar;

$C_{ij}$  - the degree to which the culture of the destination country is familiar;

$D_{ij}$  - the degree to which developed relations with the country of destination.

In the regression model (5), each variable is bilateral, meaning that it applies in both countries  $i$  and  $j$ . However, some researchers want to test only influence immigration through unilateral variables that reflect only the characteristics of country of origin or the country of destination.



The effects of education level of immigrants are assessed using the following equation:

$$R_{ij} = \alpha_0 + \alpha_1(P_i - P_j) + \alpha_2 w_{ij} + \alpha_3 d_{ij} + \alpha_4 P_j + \alpha_5 L_{ij} + \alpha_6 C_{ij} + \alpha_7 D_{ij} + \alpha_8 E_i + \eta_{ij} \quad (6)$$

where:

$E_i$  - is the education level at home country,  $i$ .

A positive coefficient for the level of education in the country of origin indicates that the probability of more educated people to emigrate is greater (Carrington and Pedro, 1996; Maydos, 2005). It also reflects the preference of the host countries for educated immigrants. This result suggests that improving education in countries of origin serves to increase the brain drain.

In 1997, Lucas developed a model with a slightly different point of view regarding the correlation between age and migration, based on Rogers-Castro curve. According to Rogers - Castro curve, the migration peak occurs in early adult years and falls sharply after twenty years, which is contrary to the behavior of human capital.

The relevance of the gravitational models for the analysis and forecasting of the migration flow is raised in relation to two aspects, namely:

- determining the gross migration between two areas;
- determination of population and/or labor flows between home and destination areas.

## **2. Used method – the application of gravitational model for analyzing and forecasting the migratory flows between Romania and several European countries, by taking into account the impact of the net remittances of workers**

Taking into consideration the total movements, as gross migration, between area  $i$  and  $j$ , depends on the size of the population of the two areas, the distance between the two areas and a factor of proportionality, we will analyze migration phenomenon between Romania and France, Italy, Spain, Germany, Hungary, Greece, Great Britain and Portugal.

Based on the gravitational model, we determine the migration intensity. The data are for year 2016. It is a static analysis, based on the simulation of different pairs of values for  $G$  and  $b$ .

We start from the relation:

$$K_{ij} = G \cdot \frac{P_i \cdot P_j}{d_{ij}^b} \quad (7)$$

where:

$K_{ij}$  - is all movements of the area  $i$  and  $j$  (gross migration);

$P_i, P_j$  - represent the population size in the area  $i$  and  $j$ ;

$d_{ij}$  - is the distance between  $i$  and  $j$  areas;

$G$  - is a proportionality factor;

$b$  - represents a power determined (selected) by the decider.

After that, different scenarios for  $G$  and  $B$  parameters are generated. Table 2 shows the partial results, calculated based on the relation (7), using the Eurostat data for population (number of inhabitants on January 1, 2016) for different countries ( $j$ ) and the distance in kilometers between capitals of the countries  $i$  (Romania) and different countries selected for this analysis. According to Eurostat, at 1 January, 2016 the Romania's population, needed to calculate  $K_{ij}$ ) was 19,760,314 inhabitants.

**Table 2: Gravitation model results, for the migration flows**

Country $j$	$P_j$ (1 January 2016)	$d_{ij}$ (in km)	$G$	$b$	$K_{ij}$
France	66,759,950	2294	1	1	2.11554E+11
			1	2	77826494074
			...	..	
			1	10	26107880.22
			2	1	4.23109E+11
			2	2	1.55653E+11
			...	...	...

			2	10	52215760.45
			..	..	..
			10	1	2.11554E+12
			10	2	7.78265E+11
			---	...	...
			10	10	261078802.2
Italy*	60,665,551	1880	ibidem	ibidem	
Spain*	46,445,828	3345	ibidem	ibidem	
Germany*	82,175,684	1700	ibidem	ibidem	
Hungary*	9,830,485	830	ibidem	ibidem	
Greece*	10,783,748	1164	ibidem	ibidem	
UK*	65,382,556	2553	ibidem	ibidem	
Portugal*	10,341,330	3898	ibidem	ibidem	

\*in order not to increase the size of the table on the last column, the values for all countries except France were calculated, but they were not entered in the table.

**Source:** Authors' processing

By applying the gravitational model, we have reached the following conclusions: movements between Romania and Italy are more intense than movements between Romania and France; comparing the movements between Romania and Italy with the movements between Romania and Spain, those between Romania and Italy are more intense; movements between Romania and Germany are more intense than movements between Romania and Hungary; comparing the movements between Romania and Greece and the movements between Romania and UK, the movements between Romania and UK are more intense; movements between Romania and UK are the most intense, and movements between Romania and Portugal are the least intense.

### **3. Results and discussions - Economic Impact of Net Remittances of Workers on the Gross Domestic Product (GPD) at Market Prices (Purchasing Power Standard per Person) at European Union Level**

To analyze the economic impact of migration in the European Union, we were used two sets of data: Gross Domestic Product (GDP) per capita and net remittances of workers. Data sets include monthly values of these indicators in the period 1990-2016. The main data source was the Eurostat database.

Considering that *the gross domestic product (GDP) per capita* and *net remittances of workers* are normally distributed series for a significance level of 1% and 5%, we will use them in order to assess the impact of the net remittances of workers on the Gross Domestic Product (GPD) at market prices (Purchasing Power Standard per Person). The data sets are not both stationary. These observations should be confirmed by stationary tests. The most common stationary tests are: ADF (Augmented Dickey-Fuller) and PP.

For *GDP at market prices*, ADF has the value -4.431734 and the associated p-value is 0.0006. If the test is greater than the critical value, the null hypothesis is not rejected, the series has a unit root (is unsteady). In our case, the null hypothesis is rejected, the series is stationary. Using p-value, we conclude that null hypothesis is not accepted (the series is stationary), for a certain level of relevance, as the probability p is less than that level of relevance in this case for a significance level of 1% and 5%.

For *Net remittances of workers*, ADF has the value -2.346741 and the associated p-value is 0.1602. In this case, the null hypothesis is not rejected, meaning that the series is non-stationary. Using the p value, the null hypothesis is accepted (the series is unsteady) for a certain level of relevance, whenever the probability p is greater than that level of relevance, in this case for a significance level of 1% and 5%.

The second part of the test shows the estimated equation, on which ADF test was calculated. To determine the integration order of the series (as many differences needed to obtain a stationary series), the stationarity of differences of order 1 (d(net remittances of workers)) will be tested.

By applying the ADF test for d(net remittances of workers), we can conclude that the series is stationary, meaning that the value of t-statistic for Augmented Dickey-Fuller test statistic (-11.31377) is less than the critical test values for each of the two levels of 1% and 5% (-3.513344, and -2.897678, respectively).

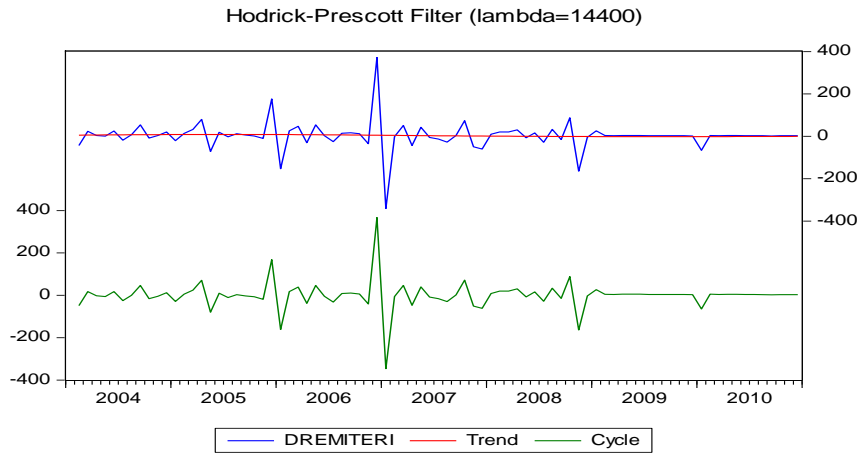
The regression equation for the impact of d(net remittances of workers) on GDP at market prices per person is the following:

$$\begin{aligned}
 PIB_{loc} = & 1.01205d(\text{Remiteri\_nete\_muncitori}) + 1627.519; R^2 = 0.553470 \quad (8) \\
 & (0.100387) \qquad \qquad \qquad (37.49135)
 \end{aligned}$$

Assuming that the relevance level is 5%, because the statistical t-test attached probabilities are not below this level, the coefficients are considered statistically insignificant. Using Durbin Watson (DW) test in order to identify the serial correlation of errors, the calculated value is 1.005367, meaning that there is a serial correlation of errors. The analysis of the auto-correlation and partially correlation coefficients of *GDP at market prices per person* series shows that in this case we can try a model AR (1), AR (2) or AR (3). By applying Q-Statistic, according to the achieved results, the series *GDP at market prices per person* exhibit autocorrelation at least until lag 4.

A similar analysis is done for the series *d(net remittances of workers)*. The conclusion is that Coefficients analysis auto-correlation and correlation coefficients part of the series, in terms of d (Referrals net workers) shows that in this case we could also apply model AR (1), AR (2) or AR (3).

In order to estimate a long-term component of the time series (the trend), we use Hodrick-Prescott filter, which is a statistical method, which extracts a part of the smooth time series "penalizing" frequencies at which fluctuations. For the series *d(net remittances of workers)*, the trend and deviation from the trend are shown in figure 1.



**Figure 1: Hodrick-Prescott(source: authors' calculation)**

Source: Authors' processing

The most common stability tests are: CUSUM Tests, CUSUM of Squares Tests, and Recursive Coefficients. By applying the CUSUM test, we conclude that the coefficients of the equation (8) are stables.

Based on the stable coefficients of the equation (8) and by assuming the following two scenarios:

- a further increase of  $d(\text{net remittances of workers})$  with 0.05% per month;
  - a further decrease of  $d(\text{net remittances of workers})$  with 0.05% per month;
- we obtained the results of the GDP per capita forecast in European Union for the following six months. The results are presented in Table 3.

**Table 3: The forecasted values of GDP per capita at European Union level**

Year-Month	<i>d(net remittances of workers)</i>	<i>d(net remittances of workers)</i>	<b>GDP, in</b>	<b>GDP, in</b>
	<b>Scenario: Increase of <i>d(net remittances of workers)</i> with 0,05%</b>	<b>Scenario: decrease of <i>d(net remittances of workers)</i> with 0,05%</b>	<b>Scenario: Increase of <i>d(net remittances of workers)</i> with 0,05%</b>	<b>Scenario: decrease of <i>d(net remittances of workers)</i> with 0,05%</b>
2017-M04	3.35	2.75	1638.707	1636.423
2017-M05	3.3395	2.7485	1632.866	1637.299
2017-M06	3.472295	2.578155	1634.034	1633.152
2017-M07	3.696419	2.493319	1635.209	1624.942
2017-M08	3.823805	2.325363	1636.394	1628.888
2017-M09	4.025237	2.255296	1638.588	1625.761

**Source:** Authors' processing

In the case of defined scenarios, we conclude that a decrease of  $d(\text{net remittances of workers})$  with 0.05% monthly will imply a similar decrease of the GDP at market prices per person. In the same time, an increase of  $d(\text{net remittances of workers})$  with 0.05% monthly lead to a similar increase in GDP at market prices per person. The evolution of the GDP per capita at European Union level is virtually in tandem with the evolution of  $d(\text{net remittances of workers})$ .

#### **4. Conclusions and further discussions**

By applying the gravitational model for the analysis and forecasting of the migration flows, we have reached the following conclusions:

- Movements between Romania and Italy are more intense than movements between Romania and France;
- Comparing the movements between Romania and Italy with the movements between Romania and Spain, those between Romania and Italy are more intense;
- Movements between Romania and Germany are more intense than movements between Romania and Hungary;
- Comparing the movements between Romania and Greece and the movements between Romania and UK, the movements between Romania and UK are more intense;
- Movements between Romania and UK are the most intense, and movements between Romania and Portugal are less intense.

Regarding the impact of  $d(\text{net remittances of workers})$  on *GDP at market prices per person (Purchasing power standard per person) EU*, we conclude that In the case of defined scenarios, we conclude that a decrease of  $d(\text{net remittances of workers})$  with 0.05% monthly will imply a similar decrease of the GDP at market prices per person. In the same time, an increase of  $d(\text{net remittances of workers})$  with 0.05% monthly lead to a similar increase in GDP at market prices per person.

The main conclusion of the research is that the net remittances of workers and the Gross Domestic Product (GDP) per capita are moving proportionally, therefore a positive net remission is a prerequisite to improve the economic performance, and the negative net remittances of labor, have negative effects on the economic performance. By connecting this result with the analysis of migration flows which affect Romania, the authors reached the conclusion that the negative economic impact of migration on the Romania's economy will increase in the future if the migration flows will keep their current features.

## REFERENCES

- [1] **Barrie, A. (1995)**, *The Global System, Economics, Politics and Culture*; St. Martin Press, New York;
- [2] **Borjas, G. (2003)**, *The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market*; *Quarterly Journal of Economics*, 118(4): 1335-1374;
- [3] **Card, D. (2001)**, *Immigrant Flows, Native Outflows and the Local Labor Market Impacts of Higher Immigration*; *Journal of Labor Economics*, 19(1): 22-64;
- [4] **Carrington, W., DeLima, P. (1996)**, *The Impact of 1970s Repatriates from Africa on the Portuguese Labor Market*; *Industrial and Labor Relations Review*, 49: 330-347;
- [5] **Cindy Fan, C. (2005)**, *Modeling Interprovincial Migration in China, 1985–2000*; *Eurasian Geography and Economics*, 46, No. 3, pp. 165-184;
- [6] **Cortes, P. (2008)**, *The Effects of Low-Skilled Immigration on US Prices: Evidence from CPI Data*; *Journal of Political Economy*, 116(3): 381-422;
- [7] **Demetrios, G. Papademetriou, J., Batalova, W. Somerville, A. (2007)**, *Selecting and Integrating Skilled Migrants*, Berlin;
- [8] **Friedberg, R., Hunt, J. (1995)**, *The Impact of Immigrants on Host Country Wages, Employment and Growth*; *Journal of Economic Perspectives*, 9: 23-44;
- [9] **Gianmarco, O., Peri, G. (2007)**, *The Effects of Immigration U.S. Wages and Rents: A General Equilibrium Approach*; Mimeo;
- [10] **Green, G., Deller, S., Marcouiller, D. (2006)**, *Amenities and Rural Development Theory, Methods and Public Policy*; Northampton, MA: Elgar;
- [11] **Hatton, T., Williamson, J. (2010)**, *Are Third World Emigration Forces Abating?* *World Development*, 39, 20–32;
- [12] **Katz, E., Stark, O. (1986)**, *Labor Migration and Risk Aversion in Less-developed Countries*. *Journal of Labor Economics*, 4, 131–149;
- [13] **Lewis, E. (2005)**, *Immigration, Skill Mix and the Choice of Technique*; Federal Reserve Bank of Philadelphia Working Paper No. 05-08;
- [14] **Lucas, R.E.B. (1985)**, *Migration amongst the Batswana*; *The Economic Journal*, 95: 358-382;
- [15] **Mesnard, A. (2000)**, *Temporary Migration and Capital Market Imperfections*. Mimeo, University of Toulouse;
- [16] **Mayda, A.M. (2005)**, *Who Is Against Immigration? A Cross-country Investigation of Individual Attitudes towards Immigrants*; *Review of Economics and Statistics*, 88(3): 510-530;
- [17] **Rogers, A., Castro, L.J. (1984)**, *Model Migration Schedules*, in: A. Rogers (ed.), *Migration, urbanization, and spatial population dynamics*, West view Press, Boulder, CO;
- [18] **Sjaastad, L. (1962)**, *The Costs and Returns of Human Migration*; *Journal of Political Economy*, 70, 80–93.