

MODELING THE RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENTS AND ECONOMIC GROWTH – EVIDENCE FROM CENTRAL AND EASTERN EUROPEAN COUNTRIES

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Abstract

The internationalization and globalization of economical problems, industrial manufacturing, and the movement of financial capital, determine the investment activities to become a global one, with implications for all the national and world wide economies. As a result, the foreign direct investments, throughout their economical constitution and substance, form a part of the economical relationships and international cooperation, which bring an essential contribution to the economical growth, creating work places, optimize the allocation of resources, enabling technology transfer and stimulate trading. Foreign Direct Investments have presently become the most important source of external funding for all the countries, regardless of their level of development. This kind of investments proved to be a more stable and used source of funding than the portfolio investments or the bank loans, as they are less affected by the financial crisis. Against this background, global direct financial investments flows remain one of the main manifestations of globalization, which is easily demonstrated if we reflect on the fact that currently over 50% of everything that happens in the world, be it product or services, is carried out by subsidiaries of transnational corporations, namely companies resulting from direct financial investments. It is estimated that the volume, structure and geographical distribution of foreign direct investments will be "patterned" in the proportion of 50% by the international economic situation, the implications of the crisis on the global financial system.

Keywords: panel data, output, inflation, risk and uncertainty.

JEL Classification: E22, E31, E43, F21, G32.

1. Introduction

Foreign investments are especially desirable in developing countries, as they are seen as a driving factor of economic growth, a complement to domestic investments and an important funding source for the current account deficit. The stake of their attraction is not justified, however, by the direct effects, but it is built around indirect effects of Foreign Direct Investments (FDI), which may arise in the local economy. We refer here, among others, to the technological externalities, the fostering of human capital formation and access to foreign markets, which appear in the new theory of growth as driving forces of economic growth in the long – run. As a consequence, we can argue that FDI is an important element of the economical development of any country and its' functioning on market principles.

Since developing countries in general and those in Central and Eastern Europe in particular, have competed in measures to attract foreign investors, the international experience shows that improving the investment climate is the main condition for attracting foreign investors.

If we refer to emerging countries, foreign direct investments have great importance to strengthen and modernize the economy by implementing advanced technologies, know-how's, the most powerful machine, the new standards by switching to a higher type of growth and their integration into the world economy.

The transition of the former soviet countries in Central and Eastern Europe to market economies, more or less functional has occurred amid foreign direct investment expansion in the region. The experience of some emerging countries (i.e. Poland, Czech Republic, Hungary) shows that FDI contributed to the radical modernization of their economies by using new technology, and the most modern business management methods to reduce the enormous handicap of competitiveness that separates economies of the new Member States of the European Union to those of developed countries.

The perception of universal *panacea* for solving the problems of transition and the miracle solution for economical growth made the FDI flows to be particularly encouraged. As a result, in 2007, when global FDI flows peaked, emerging countries are the second favorite destination for foreign investors after emerging countries from Asia.

In its economic relations, Romania turned consistently to gain trade and cooperation relations with the West part of the continent. Romania's political and economic interests are intertwined with those of all Europe. Romania has the advantage of its geopolitical position, the importance of present and future economy, and that it is at the crossroads of major trade routes. Given that over 50% of its foreign trade is conducted in relation to Western European countries, Romania needs the European market, and conversely the European Market needs the potential of Romania.

The incentive measures for investment in sectors with innovative measures for fiscal laxity will be strong arguments in the next period, both in terms of Romania's ability to attract foreign direct investment, and the power to persuade foreign investors to develop a business profitable in Romania than in their country of residence.

From the macroeconomic point of view, Romania has managed to impede the economy in 2011, and it will strengthen its return to normal operation during the period 2012 – 2014. Although there are short-term reasons for optimism in terms of increased investment inflows of FDI's, we consider that on the medium and long term, Romania can achieve and maintain leadership in south-eastern Europe and in the most favorable situation, even the whole of Central Europe.

In the post-crisis, the region could become more attractive to foreign direct investments due to competitive labor costs and increased productivity. Another attractive pint for Romania may result from further integration in the European single market, which gives real opportunities for sustainable growth. In this

context, Romania's advantage is the high degree of economical openness to a global level.

This fact can be perceived as a "threat" to local producers, but it can also be an opportunity to increase foreign investment flows, hence the ability to cover the financing needs of domestic deficits through external sources of capital, the growth of bilateral flows labor forces with other EU countries, the revenue streams of production factors, labor productivity in the Romanian economy, even in less developed areas (such as agriculture), under transfer of technology and information flows, and structural funds for development.

Increased access to EU structural funds will undoubtedly give Romania the opportunity to provide a more balanced development of the regions (with an enhancement in the rural environment), to modernize transportation and environmental infrastructure, leading to an increased interest in foreign partners for the national economy.

At level of the analytic and decisional bodies one must, however, take into account the new challenges that will be faced by Romania in the attraction of foreign direct investments: since the privatization process is almost completed, this form of input FDI's will decrease to negligible levels.

Possibilities of attracting foreign investors in Romania lie in the new investments type called *greenfield* investment and *brownfield* investments, in which the investor buys the company, but replaces almost all equipment, labor and production line. As a normal trend, seen in all developed countries, also in Romania they will increase significantly as a role and value of international mergers and acquisitions.

The sectors to which we aspire for the future foreign direct investments will be significant for the automotive and auto parts sector, building materials, wood processing, pharmaceuticals, consumer goods and electronics industry. Another area with potential for absorption of foreign capital is service, particularly in the IT and telecommunications domain, banking and insurance.

2. Literature review

International investment implies the existence of at least two economical undertakings: trader issuer and trader receiver located in different national spaces. According to the established investment issuer and receiver, there are two categories of international investment: foreign direct investment (FDI) and foreign portfolio investment (FPI) (Anghelache et. al 2012).

Undoubtedly, foreign direct investment (FDI) is an alternative source of financing the national economy for many countries still developing, as the global flows of FDI have known a remarkable growth in recent years.

Foreign direct investments (FDI) are defined as the direct or indirect ownership of a foreign entity to own at least 10% of voting shares in a company. A foreign direct investment can mean a purchase, a merger, a new factory plant expansion or absorption.

As defined by UNCTAD, the foreign direct investment (FDI) involves a long-term relationship, reflecting a lasting interest and control of a resident entity in one economy (natural or legal) on a legal entity resident in another economy.

The foreign investor control is the particularity which distinguishes investment portfolio, that are not directly controlled by the investor and the direct control exercised by the investor for FDI (Bonciu, 2005).

For the purposes of specific legislation (Article 3 of the O.U.G. no. 85 of 24 June 2008 on investment incentives, approved by Law no. 78 of 1 April 2009), the investment means the use of capital for:

- the acquisition of tangible and intangible assets in connection with the creation of a new establishment, the extension of an existing establishment, diversification of the output of an establishment into a new one, fundamental change in its manufacturing process in an existing establishment and acquisition of capital assets directly linked to the unit when the it is closed or would have closed had it not been purchased, and the assets are bought by an independent investor;
- funding the research, development and innovation;
- creating new jobs and / or training of employees;
- funding projects for harnessing renewable energy resources, environmental protection and sustainable development.

Alongside a number of other factors, such as the development of markets, labor training, level of education or regulations related to intellectual property, it is approached more often, as a factor with great influence, as a state of the development of the financial system. It can be noticed that a strong financial system determines the chances of the success of local businesses, affecting the efficient allocation of financial resources and how reliable the investment projects are. In this context, it becomes a relevant degree of development in the banking system and financial markets', particularly important is the ability of financial intermediaries and specialized actors from the market, to reduce risks usually higher for these investments.

It can be argued that FDI, financial markets, banking and financial system in general are complementary elements in the implementation and dispersion of new technologies as a basis for the economical growth. The functionality of the financial mechanism as a way of carrying out monetary financial flows in the economy, through the interdependence objective of conducting actual flows compete or conversely inhibits economic development (Bonciu, 2012).

Although foreign direct investments may generate a number of positive effects on the country implantation, the possibility of a negative impact on a macroeconomic and sectoral level is not excluded (Carangiu et. al 2008). Some of these effects are inherent and manifest generally short, their appearance is closely related to the implementation of investment and / or its effectiveness, eg:

- increase in imports reflect negatively on the trade balance, which is due to the import of machinery and equipment funded by foreign investors, without which the implementation of the investment would not be possible. In the long term, to the extent that rehabilitation work is focused on increasing productivity and

competitiveness can record a reduction in the trade deficit, mainly when the foreign investor is predominantly export oriented or an import substitution;

- increase in the level of unemployment due to restructuring of privatized enterprises with a rapid streamline business. It is obvious that in this case, one can decrease the number of jobs in privatized enterprises. In our opinion, on a long term, this disadvantage is not significant if the restructured enterprises benefits from increased efficiency and competitiveness of business, in which case, the spillover effects may generate new jobs (through the development of upstream activities or downstream);

- negative impact on the budget because, on one hand, tax incentives granted to foreign investors (policy incentives) that have the immediate effect of reducing revenues. On the other hand, increasing the number of unemployed as a result of privatization and restructuring of state enterprises, that generate additional budget expenses as labor force restructured sectors is not readily absorbed by the activities of under development. In the long – run, as investments mature, it may be an increase in revenue to the state budget through taxes paid by new payers (firms and workers).

Efforts to attract FDI should be directed to those investments which favor economic growth. It requires an improvement of the performance of financial markets, the concern to ensure the availability of labor skilled work, to develop institutional network and promote a policy of openness to international trade (Halimi & Dumiter, 2012).

Therefore, the impact of FDI on host economy is different from one country to another, depending on the existing concrete economic, social and politic conditions and the degree of penetration of foreign capital (IMF, 2013).

At the microeconomic level, the implications of FDI are multiple.

Bidirectional relationship between FDI and economic growth is due on the one hand to the impact on the economic environment in each country and on the other hand to the positive influences that sustained economic growth and sustainable development has on foreign capital inflows perceived (Dumiter et. al 2012).

According to specialists, for a given country, periods of intense growth are characterized by attracting inflows of foreign direct investments (Dumiter et. al 2013).

Therefore, in the context of globalization and materialized economic integration, mainly, in the internationalization of production, foreign investments support growth, in more or less, depending on the concrete conditions in each country (Matei, 2004). However, in the context of state's involment in the economy there are several underlying problems that Radu (2013) highlights regarding the "path of state's corporal government" and it's role in the public administration: greed, planned obsolescence and physical attrition.

Macroeconomic studies – using aggregate data for FDI flows for a wide range of countries have suggested, in general, a positive role of FDI in generating economic growth, especially in certain circumstances. However, generally without any doubt, is that FDI generates and develops business, helps and develops business helps

stimulate the level of employment. Consequently, the benefits can be felt only for a part of the population, while the employment and trainings will be offered to those with a higher education, elites, or those in urban areas, leading to a salary differentiation (the existence of a dual economy) more pronounced.

The most important role of FDI is made by the action of multinational companies in the host country. This is due to situations where 'parent' companies support their subsidiaries ensuring adequate human resources and infrastructure. In particular, Greenfield investments into new business areas can stimulate the development of new infrastructure and technologies in the host economy.

For developing countries, emerging economies and transition countries, FDI has become a source of increasingly important for economic development and modernization, income growth and employment (Moldoveanu et. al 2012).

Transnational corporations support the economic restructuring of the host country, both directly and indirectly. Direct effects are due to: the introduction of new technologies and / or upgrade existing ones, in their own interest, development of new activities, stimulating local suppliers to a vertical integration in the corporate system. The indirect impact is caused by increased competition between foreign and domestic firms (Mottaleb & Kalirajan, 2010). Thus, in order to compete with foreign manufacturers, domestic firms are interested to restructure and modernize the activities. Based on the level at which the restructure is done, literature identifies the following types:

- inter-sector restructuring: partly reflects the revolution on information and consists in the restructure of all sectors of the economy, the trend is to increase the share of services at the expense of agriculture;
- intra-sector restructure: involves passing, within each sector, from activities that are characterized by low productivity (intensive in labor) to highly productive activities that are generating high value added, knowledge-intensive and technology;
- company restructuring: through the use of new technologies and modern, development of high added value generating activities.

Experts say that one of the most important contributions of foreign direct investments is the technology transfer of new knowledge and lead to the creation of new production capacities that will enhance economic development, an important role in this regard have the transnational corporations.

Literature which addresses to economic growth highlights the importance of new technologies, growing networks of less developed countries, proved to be highly dependent on the adoption and implementation (Pirtea & Miloş, 2009). Therefore, new technologies with advanced production capabilities and management techniques, initially used, only of multinational foreign companies that invest are considered to be later adopted by domestic enterprises (through imitation, through training or competition), being a factor of propulsion of the economy.

From the point of the recipient country, the technology transfer through FDI's has many advantages, among which the most important are:

- use of new technologies, the implementation of which involves improving the knowledge and skills of workers;
- the diffusion of technology, knowledge and capabilities that positively influence the economic agents and state enter into business relations (suppliers, subcontractors, competitors), reflected on the cost and quality of goods and services that are provided;
- the development of relations between state and local institutions (research institutes, universities, standardization and quality control, training centers)
- stimulating the competition and boosting the domestic companies to direct their efforts towards technologies activity
- by attracting state employees by local companies there appear a dispersion of technological and managerial practices.

3. Research methodology

In this article we have addressed to the role and effects of foreign direct investment and the need for Romania and other countries in Central and Eastern Europe for tracking FDI's, which has a great influence on the modernization of our economy.

The significance of foreign direct investment and its' impact on the economic development of a national economy is undeniable, and the aspects that influence the decision to place capital in the form of foreign direct investments in sectors of national economy of a country have been investigated in various positions in many international centers and national economic and financial research.

We have proposed in this paper to express more clearly, why the foreign capital is needed, the methods of attracting foreign direct investment and which are mismatches in the system and how they can be solved, given the importance of direct foreign investments in the recovery of the economy of a country and its alignment to the European standards.

From this perspective, in this paperwork are treated issues about the opportunity and need for FDI in public or private, to respect the relevant legal framework, issues relating the rigor imposed by the investment planning based on technical and economic determined indicators.

The purpose of research is to determine the positioning of Romania compared to other countries of Central and Eastern Europe, European Union member states with regard to foreign direct investment and impose the following objectives:

- approaching specific aspects of internationalization investment process;
- the examination of theories and models of FDI, including modern models to attract them;
- the incentives provided by the host country to foreign investors;
- the evolutionary trends in foreign direct investment in terms of worldwide;
- the particularities of the investment model and the place of Romania in international investment flows;
- the contribution of FDI's to economic growth in Romania.

The research objective of this paper is represented by the direct foreign investment, particularly as a result of the process of internationalization of the investment

process. A special attention is paid to development of FDI globally and nationally, giving new dimensions to them.

The paper analyzes also the methods related to attracting foreign direct investments incentives that may be given to foreign investors and institutions implementing specific policies to attract foreign investment, their functions and powers and not least the contribution of FDI to a long – run and stable economic growth.

In order to determine the impact of FDI flow and FDI stock on economic growth in conditions of risk and uncertainty we consider necessary the econometric estimation. Thus, we considered particularly important for our study five macroeconomic variables:

- FDI Flow – Foreign Direct Investment Stock – data collected from UNCTAD.
- FDI Stock – Foreign Direct Investment Stock – data collected from UNCTAD.
- Inflation – Harmonized Consumer Price Index – data is collected from the database of the International Monetary Fund.
- GDP in current prices – data are collected from the International Monetary Fund database.
- GDP per capita – data are collected from the International Monetary Fund database.
- Exchange rate – Purchasing Power Parity (PPP) - data collected on the International Monetary Fund database.

3.1 Pool Data – Least Square Method

The econometric estimation that we wanted to achieve includes the time series for 2004 – 2013 period, was developed for a four emerging countries group of Central and Eastern Europe countries like: Romania, Hungary, Bulgaria and Slovenia, and the method of analysis used is the modeling econometrical software package using Eviews 5.0. The software allows data analysis in system "panel", which involves the development of combinations of time series and the corresponding data based on a regressive model Pool Data – Least Squared. Ordinary least squares method is the method in which each country, the observations are not successive correlated for countries over time; the traditional interpretation of test validation the estimates are achieved by sectional analysis in conjunction with the type of time series data in a structure panel.

$$FDIF_{it} = \alpha + \beta_1 x INF_{it} + \beta_2 x PPP_{it} + \beta_3 x GDPC_{it} + \beta_4 x GDPCP_{it} + \varepsilon_{it} \quad (1)$$

Relative,

$$FDIS_{it} = \alpha + \beta_1 x INF_{it} + \beta_2 x PPP_{it} + \beta_3 x GDPC_{it} + \beta_4 x GDPCP_{it} + \varepsilon_{it} \quad (2)$$

Where:

α – free coefficient.

ε_{it} = regression error.

FDIF – Foreign Direct Investments – Input Flow.

FDIS – Foreign Direct Investments – Stock.

INF – Inflation.

PPP – Exchange Rate – Purchasing Power Parity.

GDPC – Gross Domestic Product per capita.

GDPCP – Gross Domestic Product in current prices.

Regarding the equation coefficients, these will have the following path:

$$FDIF_{it} = \alpha - 0,04 \times INF_{it} + 0,78 \times PPP_{it} + 0,03 \times GDPC_{it} - 2,68 \times GDPCP_{it} + \varepsilon_{it} \quad (3)$$

$$FDIS_{it} = \alpha - 0,23 \times INF_{it} + 0,21 \times PPP_{it} + 0,26 \times GDPC_{it} - 1,02 \times GDPCP_{it} + \varepsilon_{it} \quad (4)$$

3.2 Two Stage Least Square Method

Pool Date – Two Stage Least Squares' Method (2SLS) is used to determine the correlation between FDI Flow, FDI Stock and the economic growth, in which the first stage of variables regression, within the model of the instrument will run separately for each equation.

In order to test the impact of the FDI flow, FDI Stock and the economic growth we have considered necessary to develop a model of gravitational panel in which we will have as main variable the economic growth represented by the following indicators: inflation rate, exchange rate, GDP per capita and GDP in current prices and with the following indicators as dependent variables: FDI flow and FDI stock; the model was tested on a sample of four emerging countries of Central and Eastern: Romania, Bulgaria, Hungary and Slovenia, the time series were for the period 2004 – 2013, and the regression equations are:

$$FDIF_{it} = \alpha_1 + \beta_1(INF_{it}) + \varepsilon_{it} \quad (5)$$

$$FDIF_{it} = \alpha_2 + \beta_2(PPP_{it}) + \varepsilon_{it} \quad (6)$$

$$FDIF_{it} = \alpha_3 + \beta_3(GDPC_{it}) + \varepsilon_{it} \quad (7)$$

$$FDIF_{it} = \alpha_4 + \beta_4(GDPCP_{it}) + \varepsilon_{it} \quad (8)$$

$$FDIS_{it} = \alpha_1 + \beta_1(INF_{it}) + \varepsilon_{it} \quad (9)$$

$$FDIS_{it} = \alpha_2 + \beta_2(PPP_{it}) + \varepsilon_{it} \tag{10}$$

$$FDIS_{it} = \alpha_3 + \beta_3(GDPC_{it}) + \varepsilon_{it} \tag{11}$$

$$FDIS_{it} = \alpha_4 + \beta_4(GDPCP_{it}) + \varepsilon_{it} \tag{12}$$

Where:

α – free coefficient.

ε_{it} = regression error.

FDIF – Foreign Direct Investments – Input Flow.

FDIS – Foreign Direct Investments – Stock.

INF – Inflation.

PPP – Exchange Rate – Purchasing Power Parity.

GDPC – Gross Domestic Product per capita.

GDPCP – Gross Domestic Product in current prices.

4. Empirical results

Table1

The results of econometric tests of FDI Flow impact on economic growth throughout Pooled Least Square Method

Dependent Variable: FDIF				
Method: Pooled Least Squares				
Date: 05/21/14 Time: 18:58				
Sample: 2004 2013				
Included observations: 10				
Cross-sections included: 4				
Total pool (balanced) observations: 40				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1466.723	1515.379	0.967892	0.3397
INF	-0.048623	0.068931	-0.705394	0.4852
PPP	0.784696	0.079500	9.870326	0.0000
GDPC	0.036064	0.017319	2.082267	0.0447
GDPCP	-2.688420	0.865200	-3.107282	0.0037
R-squared	0.978054	Mean dependent var		21564.43
Adjusted R-squared	0.975546	S.D. dependent var		32805.18
S.E. of regression	5130.022	Akaike info criterion		20.04008
Sum squared resid	9.21E+08	Schwarz criterion		20.25119
Log likelihood	-395.8015	F-statistic		389.9542
Durbin-Watson stat	1.649878	Prob(F-statistic)		0.000000

Table 1 shows the results of econometric tests of the impact of FDI Flow on economic growth in the Central and Eastern European countries through the Ordinary Least Square Method. Analyzing the data in Table 1 we can draw the following conclusions:

- The values of the standard coefficient errors of the regression function is less than the coefficient, which means that this coefficient is correctly estimated, actually supported by minimum values of probability.
- With a value of 97.80% the correlation coefficient reveals a strong significant positive statistical connection between FDI Flow and economic growth, which means that changes in FDI flows generate changes in growth of 97.80%.
- The Durbin-Watson test, with a value close to the optimum of 2 indicates that the residual variables are insignificant autocorrected.

Table 2

The result of econometric tests of the impact of FDI Stock and economic growth throughout Pooled Least Square Method

Dependent Variable: FDIS				
Method: Pooled Least Squares				
Date: 05/21/14 Time: 18:59				
Sample: 2004 2013				
Included observations: 10				
Cross-sections included: 4				
Total pool (balanced) observations: 40				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21340.72	5321.187	4.010519	0.0003
INF	-0.234329	0.242047	-0.968113	0.3396
PPP	0.217074	0.279163	0.777589	0.4420
GDPC	0.268495	0.060816	4.414862	0.0001
GDPCP	-1.023609	3.038112	-0.336923	0.7382
R-squared	0.528707	Mean dependent var		32578.50
Adjusted R-squared	0.474845	S.D. dependent var		24857.81
S.E. of regression	18013.85	Akaike info criterion		22.55214
Sum squared resid	1.14E+10	Schwarz criterion		22.76325
Log likelihood	-446.0428	F-statistic		9.815948
Durbin-Watson stat	0.142635	Prob(F-statistic)		0.000020

Table 2 highlights the results of econometric tests of the impact of FDI Stock on economic growth in the Central and Eastern European countries throughout the Ordinary Least Square Method. Analyzing the data in Table 2 we can draw the following conclusions:

- Standard error values of the coefficient of the regression function, is less than the coefficient, which means that the coefficient is correctly estimated, actually supported by the minimum values of probability.
- With a value of 52.87% the correlation coefficient reveals a significant positive statistical link between FDI Flow and economic growth, which means that changes in FDI Flow generate changes in growth of 52.87%.
- The Durbin-Watson test, with a much lower value than the critical level of 2 indicates, unfortunately, that the residual variables are highly autocorrected.

Table 3

Econometric test results of FDI Flow impact on economic growth throughout Two Stage Least Square Method

Dependent Variable: FDIF				
Method: Pooled IV/Two-stage Least Squares				
Date: 05/21/14 Time: 19:03				
Sample: 2004 2013				
Included observations: 10				
Cross-sections included: 4				
Total pool (balanced) observations: 40				
Instrument list: @cxinst c inf(-1) rts(-1) pib(-1) pibpc(-1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RO--C	23346.66	357667.0	0.065275	0.9486
SL--C	641601.4	474462.6	1.352270	0.1914
UN--C	-318220.2	2572495.	-0.123701	0.9028
BG--C	26543.41	95661.79	0.277471	0.7843
RO--INFRO	125.8603	4393.429	0.028647	0.9774
SL--INFSL	-4.992023	3.628204	-1.375894	0.1841
UN--INFUN	3915.247	23102.46	0.169473	0.8671
BG--INFBG	-1048.157	3136.757	-0.334153	0.7417
RO--PPPRO	-36489.91	585850.2	-0.062285	0.9510
SL--PPPSL	-55.72279	42.79063	-1.302219	0.2076
UN--PPPUN	593276.8	4899755.	0.121083	0.9048
BG--PPPBG	-15205.95	112117.7	-0.135625	0.8935
RO--GDPCRO	0.184846	3.087466	0.059870	0.9529
SL--GDPCSL	568902.3	428773.6	1.326813	0.1995
UN--GDPCUN	11.89934	83.33928	0.142782	0.8879
BG--GDPCBG	5.486721	40.82724	0.134389	0.8944
RO--GDPCPRO	-383.7232	8276.222	-0.046365	0.9635
SL--GDPCPSL	0.992041	6.148453	0.161348	0.8734
UN--GDPCPUN	-107715.7	780202.2	-0.138061	0.8916
BG--GDPCPBG	-115881.7	890099.6	-0.130190	0.8977
R-squared	0.931041	Mean dependent var	21564.43	
Adjusted R-squared	0.865531	S.D. dependent var	32805.18	
S.E. of regression	12029.68	Sum squared resid	2.89E+09	
Durbin-Watson stat	2.495629	Instrument rank	20.00000	

Table 3 highlights the results of econometric tests of the impact of FDI Flow on economic growth in Central and Eastern European countries using Two Stage Least Square Method. Analyzing the data in Table 3 we can draw the following conclusions:

- Standard error values of the coefficient of regression function, is less than the coefficient, which means that the coefficient is correctly estimated, actually supported by the minimum values of probability.
- With a value of 93.10% correlation coefficient reveals a statistically significant strong positive link between FDI Flow and economic growth,

which means that changes in FDI Flow generate changes in growth of 93.10%

- The Durbin-Watson test, with a much lower value than the critical level of 2 indicates that the residuals variables are not autocorrected.

Table 4

Econometric tests results for the impact of the FDI Stock on economic growth throughout Two Stage Least Square Method

Dependent Variable: FDIS				
Method: Pooled IV/Two-stage Least Squares				
Date: 05/21/14 Time: 19:02				
Sample: 2004 2013				
Included observations: 10				
Cross-sections included: 4				
Total pool (balanced) observations: 40				
Instrument list: @cxinst c inf(-1) rts(-1) pibl(-1) pibpc(-1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RO--C	43144.15	367898.2	0.117272	0.9078
SL--C	38523.25	488034.9	0.078935	0.9379
UN--C	-723811.7	2646082.	-0.273541	0.7872
BG--C	-44447.66	98398.24	-0.451712	0.6563
RO--INFRO	1688.352	4519.105	0.373603	0.7126
SL--INFSL	-0.341501	3.731991	-0.091506	0.9280
UN--INFUN	5291.045	23763.31	0.222656	0.8261
BG--INFBG	997.7442	3226.486	0.309236	0.7603
RO--PPPPO	-231238.1	602608.7	-0.383728	0.7052
SL--PPPSL	-3.032752	44.01468	-0.068903	0.9458
UN--PPPUN	1333860.	5039915.	0.264659	0.7940
BG--PPPBG	14077.81	115324.8	0.122071	0.9041
RO--GDPCRO	-1.443970	3.175785	-0.454681	0.6542
SL--GDPCSL	32456.78	441038.8	0.073592	0.9421
UN--GDPCUN	28.70446	85.72324	0.334850	0.7412
BG--GDPCBG	-1.294927	41.99512	-0.030835	0.9757
RO--GDPCPRO	9675.320	8512.967	1.136539	0.2692
SL--GDPCPSL	-1.036537	6.324332	-0.163897	0.8715
UN--GDPCPUN	-247548.2	802520.2	-0.308464	0.7609
BG--GDPCPBG	37506.53	915561.3	0.040966	0.9677
R-squared	0.872929	Mean dependent var	32578.50	
Adjusted R-squared	0.752212	S.D. dependent var	24857.81	
S.E. of regression	12373.79	Sum squared resid	3.06E+09	
Durbin-Watson stat	2.582033	Instrument rank	20.00000	

Table 4 highlights the results of econometric tests of the impact of the FDI Stock on economic growth in Central and Eastern European countries using Two Stage Least Square Method. Analyzing the data in Table 4 we can draw the following conclusions:

- Standard error values of the coefficient of the regression function, is less than the coefficient, which means that the coefficient is correctly estimated, which is sustained by the minimum values of probability.
- With a value of 87.29% the correlation coefficient reveals a statistically significant strong positive link between FDI Stock and economic growth which means that changes in FDI Stock generate changes in economic growth of 87.29%.
- The Durbin - Watson test, with a value which is very close to the optimal level of 2, indicates that the residuals are not autocorrected.

5. Discussion

The UNCTAD forecasts on medium term, based on macro-economic indicators continue to show that FDI flows grow with a moderate rate but stable, reaching 1.8 trillion in 2014 to 1.9 trillion in 2015, preventing macroeconomic shocks.

The context of the crisis amplified the two-way relationship between globalization and foreign direct investments as it became clearly that FDI are also one of the causes / factors that stimulate the deepening of globalization, and one of the effects / manifestations in an economic plan of the globalization.

The debates about foreign direct investments, both in academic environment and in the political and public environment, associates these capital flows with a series of benefits for host countries.

The main economic benefits of FDI on host countries we can mention:

- creating or maintaining jobs in better working conditions and more modern methods of work organization;
- increased growth capital investments in the country with the advantage that capital is not interest bearing and is used in a efficient way;
- increase local budget incomes which is achieved by paying taxes (payroll taxes, income taxes);
- access to modern technology because of the fact that the investors are competing with similar producers and are interested in obtaining the highest possible productivity;
- access to modern management methods through experience that brings the investor, but also due to the relationship between the subsidiary and the parent company;
- stimulating domestic investment both for competitors and for supplier companies;
- access to markets and increase exports. Foreign investors are not only producing for the local market but also for export. In this situation, they will sell those products through its own network of stores or dealers that already have in their countries of origin;
- raising skill levels of the labor force is made either in the foreign-owned company or by hiring professional companies;
- support for privatization or, where appropriate, restructure the economy. Participation of foreign investment in privatization is particularly

happening in the emergent countries, and participation in restructuring, especially in developed countries with a consolidate market economy. By restructuring aims to change of their activities in an economy or their share;

- increasing the efficiency and competitiveness of local firms and improving the business environment in that certain country.

Economic effects mentioned are only potential (not automatic) and not fully manifested for each investor.

Conclusions

In the context of European Union it is believed that its expansion will affect the "rules of the game" in the race to attracting foreign direct investments among the 28 member states, in the conditions under which the EU is a single market, but is still far from being a single jurisdiction.

Romania is a destination more and more attractive to foreign investors since joining the European Union, the adoption of the *acquis communautaire* and the low price of highly qualified labor force, as compared to old and new members of the European Union.

Joining the EU is associated with increased FDI by increasing the predictability, legislative stability and not least important by continuing to reduce the cost of financing.

In the position with the highest economic and social differences to other Europeans, GDP / capita, labor productivity, exports, average salary in Romania are among the lowest in the European Union, and as a result, the efforts of Romania's economic should not decrease, but rather to be amplified.

In the following years is expected an increase of the flow of foreign capital to the regions lagging behind in this regard, even more, from the accession of Romania to the European Union till today, the funds allocated have been supplemented to improve infrastructure and environmental protection, which will have the impact of reducing the gap between the regions of Romania.

As a normal trend found in all developed countries, since the first years after accession to European structures in Romania began to appear *greenfield* investment, which involves investment started from scratch and *brownfield* investments, in which the investor buys the company but replaces almost all the factory, the equipment, labor work and production line, also the value of cross-border mergers and acquisitions and/or international have a significantly increased role.

In terms of improving the business environment, Romania is already an attractive target for foreign investment. Attracting large foreign investments will provide quick and direct access to efficient management of modern technologies as well as new market segments. The key factor that could lead to increased FDI inflows in both Romania and other CEE countries lies in the speed and successful implementation of the market economy. Successful schemes for privatization and restructuring of the economy as part of the successful transition as a result from

better economic performance would certainly increase any type of investment, including foreign direct investment.

The consequences of competition for attractive locations for foreign direct investment in the context of achieving a low level of taxation, while reducing the cost advantages of labor translates into reduced facilities provided by host countries.

The analysis of FDI flows to Romania in the last 15 years have led us to the conclusion that the economic policies, legal and institutional stability, as well as providing incentives can influence the decision of foreign investors. We also found that the use of financial incentives or tax is not a substitute for a legal incentive but in some cases may be considered as a supplement to an already attractive investment framework or a compensation for market imperfections that can not be solved otherwise.

Also an important role in attracting foreign investors have the specialized institutions in attracting foreign investment - foreign investment promotion agencies.

Among the factors that attracted foreign investors in Romania are primarily growth, and the closer integration into European structures. The main factor that negatively influenced the attraction of direct foreign capital was the increased cost of labor, followed by the instability of the exchange rate.

The directly entering of the foreign capital inflows into Romania in the period under review was characterized by a strong polarization, some areas or regions attracting most foreign investment. Overcoming this situation will depend largely on the work of local authorities. Very important for attracting foreign direct investment to the regions of the country that have not benefited from the high values of foreign capital is the local policy. They may provide State aid to foreign investors as low-cost land and connection to utilities.

As the penetration of foreign capital in Central and Eastern European countries takes place not only in the context of transition to a market economy and closer ties with the European Union, but also in the broader context of globalization can be said that this phenomenon occurs and will occur anyway, the advantaged but those countries participating in/and negotiates aware this phenomenon to those who have a rather passive attitude.

It can be said that foreign direct investment are the means by which is complemented the lack of equity, but also the access path to modern technologies, management methods and markets outlets, otherwise inaccessible.

In the context of globalization, the importance of foreign direct investment far exceeds the transition to a market economy and ultimately refers to the place it will occupy for several decades from now the countries of Central and Eastern Europe in the global division of labor.

In conclusion the econometric modeling of the relationship between FDI and economic growth in Central and Eastern European countries we can sustain that FDI constitutes throughout form and economic content, a form of economic relations and international cooperation, which make an essential contribution to

economic growth, creates jobs, optimize resource allocation, enables technology transfer and stimulates trade.

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