

THE EFFECTS OF FOREIGN DIRECT INVESTMENT ON THE ECONOMIES OF CENTRAL AND EASTERN EUROPE COUNTRIES

Ec. CUCOȘ PAULA – ROXANA,
e-mail: paularoxana.cucos@yahoo.com

Abstract:

The present study aims to highlight the positive impact that foreign direct investments have on occupancy rate, on government revenue and economic growth of Central and Eastern Europe countries. The period of time that was analyzed is conducted from 1993 to 2012. Results have validated what the literature says, namely that FDI exerts a positive influence on economic growth in the FDI receiving countries.

Keywords: foreign direct investment, FDI effects, economic growth, revenues to the state budget, occupancy rate

JEL Classification: C50, C52, F21, F43

1.Introduction

The subject of this study is regarding the effects of FDI on the host countries' economies in Central and Eastern Europe. In the context of contemporary economy, characterized by globalization, studying foreign direct investment and their effects on the economies of the host countries, has a major importance as transnational corporations and the stock of FDI generated by them are the main forces that shapes globalization process. Foreign direct investment is also the key to sustainable economic growth in host countries, to modernize the economy through the transfer of advanced technology, know-how, by stimulating foreign trade operations and creating new jobs, through increase revenue to the state budget.

This study aims to highlight the impact of inflows of foreign direct investment on the considered economies. This objective appears as a practical and theoretical necessity, given the exponential evolution of the importance of foreign direct investment within each national economy. Thus, a number of variables of influence were considered over a period of 20 years, from 1993 to 2012 and the countries included in the panel are the following: *Bulgaria, Croatia, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Hungary.*

In terms of structure, this work comprises in three main parts. The first part is the critical review of the literature regarding FDI, expressing the relevance of the topic addressed. The second part is the research methodology used for macro-econometric analysis of the effects of FDI on the economy of Central and Eastern Europe countries. This analysis was performed using *STATA 12* software, econometric models were built using multiple linear regression formula. Third part presents the econometric models that were built and the results that were obtained from analysis.

Critical review of the theoretical and empirical literature regarding the effects of Foreign Direct Investment

The literature includes a wide range of theoretical and empirical studies on the effects of FDI on the host economy. International direct Investment is a type of transnational investment, made by a company resident of an economy (*direct investor*) to acquire a *sustainable interest* in an enterprise (*enterprise direct investment*) which is resident in another economy than that of the direct investor. The notion of *sustainable interest* implies a long-term relationship between direct investor and direct investment enterprise and also to exercise a significant influence over the company management.

FDI are part of the international capital market. The main forms of movement and placement of capital in this market are:

- Foreign Portfolio Investment (*Hot Money*);
- International loans represented by loans given by the private or public sector to economic operators from other countries (*Bank Lending*);
- FDI (*Foreign Direct Investment*).

Reddaway (Taylor, C., 2008) believes that FDI is not a zero-sum game. He is considering FDI as a beneficial activity as a whole, for country of origin and also for the host country. The main benefits for host countries highlighted by him are additional revenues to the state budget. However, Reddaway also focuses more on information and on

technical and managerial know-how, to which host countries have access, via these feeds input FDI. Also Reddaway believes that indeed, mergers and acquisitions (*Mergers & Acquisitions*) increase productivity and profitability in both economy countries (origin and host countries), but it manifests some doubt whether these acquisitions (*takeovers*) are bringing the same benefits that a *Greenfield* investment can bring.

Levine and Renelt (Kolstad, I., Villanger, E., 2008) consider that foreign direct investment supports and increases economic growth, improves living standards of the population and therefore they reduce poverty. Precisely because of this, knowledge of host countries in developing the factors that promote and attract FDI and actual improvement of the investment climate is vital.

Also, according to Fosfuri, Mansfield, Romeo and Dunning (Nicolini, M., Resmini, L., 2010) FDI can generate an increase in competition in the national market of the host country, which can stimulate local firms to use resources in a more efficient way and adopt new technologies in order to be able to maintain market share and thus to cope with foreign competition. Also, local firms can benefit from the advantage generated by the mobility of employees who have been trained/coached by multinational companies, a fact that not only facilitates access to new technologies but also the possibility to copy and reproduce technologies. All these aspects mentioned above represent positive effects of FDI inflows for receiving countries (host countries).

Turkcan, Duman and Yetkiner (Temiz, D., Gokmen, A., 2013) achieved in another study, an analysis of the relationship between FDI inflows and economic growth of recipient countries, using a data set panel for 23 OECD countries from 1975 to 2004 timeframe. Following the analysis, they stated that the two elements are dependent and determined by each other, namely an increase in inflows of FDI causes economic growth in the host country and economic growth recorded in a host country gets more new inflows of FDI. Moreover, the authors argue that at least in statistical terms, a high level of exports determines economic growth.

Also Helpman, Krugman and Dicken (Pantulu, J. Poon, J. P. H., 2003) support the claim that raise of incoming and outgoing FDI generates overall positive effects on international trade. Multinational companies doesn't have to be seen only as representing actors supporting the globalization process through investments made by them abroad, but also as some agents that have a major role in terms of world trade via global networks of supply and distribution, that are created also by multinationals.

Kojima (Pantulu, J. Poon, JPH, 2003) was the first who proposed an approach of FDI and international trade based on a development perspective, exactly an approach which considers that FDI flows are developing international trade operations. The author noted that if the FDI is made in a sector in which the host country has a comparative advantage, then FDI is complementary to exports.

Authors like de Mello and Sinclair (de Mello, L., R., Jr., 1999) believe that the impact of FDI inflows effects on the economy of host countries are positive, primarily due to the transfer of capital within recipient countries of FDI and secondly, due to the transfer of knowledge, managerial and organizational practices. Also, according to the mentioned authors, FDI support and promote innovation and technological development, which has resulted in productivity growth in the host countries and not least, foreign investors can be considered as a catalyst for increased investment volume of domestic/national and technological progress.

Many studies emphasize that the effectiveness of FDI depends on the stock of human capital in host country. In this regard, Boreinsztein and his collaborators (Boreinsztein, E., De Gregorio, J., Lee, JW, 1998) tested the effect of FDI on economic growth by using the regression technique on panel data for a sample of 69 countries developing from 1970 to 1989. They concluded that FDI have a positive effect on economic growth but insignificant. Their results suggested that FDI have a strong effect on human capital. In addition, the results of the study show that FDI are more productive than domestic investment only if the host country has a minimum stock of human capital.

Bengo and Sanchez-Robles (Moraru, C., 2013) argue that foreign direct investments are positively correlated with economic growth, but they raise in discussion the fact that host countries require human capital, economic stability and liberalized market to benefit on long-term from the effects of FDI inflows. Alfaro (Moraru, C., 2013) reinforces the hypothesis that FDI promotes economic growth in economies that have sufficiently developed financial markets.

2.The methodology used for macro-econometric analysis of the effects of FDI on host countries

Starting from the influence variables encountered in theoretical and empirical on FDI literature, but taking into account also the criterion of statistical data availability in the online databases, we have built several hypotheses which were used subsequently in the empirical approach.

Also, in order to answer the questions raised in this paper, namely, identifying the effects of FDI on the host countries, we used panel data. In the empirical economic literature, panel data are used because of the advantages they offer. They have a dual dimension, which allows to take into account the dynamic behaviour and the possible heterogeneity of data, which is not possible when the analysis is performed on time series. Moreover, the size of the dual panel data can be interpreted as a dual dimension to the available information, namely: an individual dimension,

because every country from the built sample differs from another and a temporal dimension because the situation in each country varies from period to period.

The research hypotheses developed in this article are the following:

I_1 : FDI has a positive influence on economic growth;

I_2 : FDI helps to increase state budget revenues;

I_3 : Between occupancy rate and FDI there is a positive relationship and the same effect (increased inflows of FDI increases employment rate).

The multiple regression analyzes causal relationship between a dependent variable called endogenous or two or more independent features and exogenous. Analysis of the linear relationship between the dependent variable and one or more independent variables meant to explain and forecast the variance of the dependent variable based on independent variables. Robustness and compatibility of the results is assessed according to the sign and size of estimated parameters. The statistical significance of parameters resulting from ensuring that the dependent variable variation is not due to chance but is the result of the variation of one or more independent variables.

The general formula of the multiple linear regression is as follows:

$$y = \beta_0 + \beta_1 * x_1 + \beta_2 * x_2 + \dots + \beta_n * x_n + \varepsilon \quad (1) \text{ where,}$$

y = is the dependent variable;

β_0 = is the constant term (intercept);

$\beta_{1,2,\dots,n}$ = is the independent variable parameter (slope);

$x_{1,2,\dots,n}$ = is the independent variable;

ε = is the error term of the equation.

The robustness of the parameters and thus the accuracy of the models are reflected through the logarithm process of the variables of influence, so that distribution data from panel folds the normal probability distribution. The motivation for this transformation is represented by the fact that variables can be properly and adequately modeled if they are normally distributed. On this concern, for the developed models, we used logarithm of variables to estimate more precisely the parameters and the influence of different independent variables (*explanatory*) on the dependent variable. Also, macro-econometric analysis was performed using *STATA 12* software. In this study the empirical models that were built are based on a general linear regression model and parameter estimation was performed by linearization, based on a logarithmic function:

$$\log Y = \beta_0 + \beta_1 * \log X_1 + \beta_2 * \log X_2 + \dots + \beta_n * \log X_n + \varepsilon \quad (2)$$

The terms of the above equation have the same meaning as those in the general multiple regression equation (1), except that they were subjected to logarithm process.

The coefficient of determination (*R-squared*) indicates the proportion of the total variation of the dependent variable based on the influence/variation of independent variables and is always positive, with values in the range [0, 1]. For values that tend towards 1, we can speak of the existence of a strong correlation between dependent and independent variable. For values close to 0, the correlation between them is weak.

The following is a brief description of the variables used in the econometric models that were built:

- **GDP_cap** = Gross domestic product per capita, current prices, nominal value, expressed in US dollars, 1993-2012;
- **FDI_cap** = Stocks entry of Foreign Direct Investment per capita, expressed US dollars, current prices, 1993-2012;
- **Export_cap** = Exports per capita, expressed in US dollars (USD), current prices, range 1993-2013, own processing on the basis of UNCTADstat data;
- **Open_tr_deg** = Openness Trade degree with formula calculation (Exports + Imports) / GDP, expressed in percentage, 1993-2012, own processing based on UNCTADstat data;
- **R&D_exp_GDP** = proportion of expenditures (public and private) on research and development in gross domestic product, expressed in percentage, 1996-2011;
- **Gross_capf_GDP** = Gross capital formation to GDP, expressed in percentage, 1993-2012, where gross fixed capital formation represents the value of durable goods acquired by resident units in order to be used later in the production process;
- **Tertiary_edu** = Population with tertiary education, aged 25-64 years, expressed as a percentage, 2000-2012;
- **Exp_edu_GDP** = proportion of public spending in GDP on education, expressed in percentage, 1993-2010;

- **Occupancy_r** = Occupancy rate, aged 25-64 years, in percentage, 1999-2012;
- **Budget_rev** = Total revenue to the state budget, in million US dollars (USD), 1993-2012;

3. Empirical analysis on the effects of FDI on host countries

Developed econometric models to analyze the effects of FDI on the host countries' economies

In this regard, for analyzing the effects of FDI on the host countries' economies, it will be presented only twelve macro-econometric models, because for those we obtained the most relevant results from statistical point of view. The first five built models are to analyze the influence of FDI on economic growth. The following three models are for analyzing the effects of FDI on the employment rate. Finally, the last four models highlight the impact of FDI on state budget revenues.

Also, on each of the twelve models that were built, foreign direct investment per capita is the independent variable. Gross domestic product per capita (indicator used to measure economic growth), employment rate and income to the state budget are dependent variables. Of course, in the econometric models were included also other independent variables to correlate the effects of FDI with the influence of other factors and consequently, to attempt to understand and provide explanations as relevant as possible. The following are multiple linear regression equations that underpin the building of these models:

The effects of FDI on economic growth:

Model 1: $\log GDP_cap = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Export_cap + \varepsilon;$

Model 2:

$$\log GDP_cap = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Gross_capf_GDP + \beta_3 * \log Export_cap + \varepsilon;$$

Model 3:

$$\log GDP_cap = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Export_cap + \beta_3 * \log Open_tr_deg + \varepsilon;$$

Model 4: $\log GDP_cap = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log R \& D_exp_GDP + \varepsilon;$

Model 5:

$$\log GDP_cap = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log R \& D_exp_GDP + \beta_3 * \log Tertiary_edu + \varepsilon;$$

The effects of FDI on employment rate:

Model 6: $\log Occupancy_r = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Tertiary_edu + \varepsilon;$

Model 7:

$$\log Occupancy_r = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log R \& D_exp_GDP + \beta_3 * \log Tertiary_edu + \beta_4 * \log Exp_edu_GDP + \varepsilon;$$

Model 8: $\log Occupancy_r = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Gross_capf_GDP + \varepsilon;$

The effects of FDI on revenue to the state budget:

Model 9: $\log Budget_rev = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Export_cap + \varepsilon;$

Model 10: $\log Budget_rev = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Open_tr_deg + \varepsilon;$

Model 11:

$$\log Budget_rev = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Export_cap + \beta_3 * \log Gross_capf_GDP + \varepsilon;$$

Model 12:

$$\log Budget_rev = \beta_0 + \beta_1 * \log FDI_cap + \beta_2 * \log Open_tr_deg + \beta_3 * \log Gross_capf_GDP + \varepsilon;$$

Results on the effects of FDI on the host countries' economies

Bellow is the first summary table which highlights the effects of FDI inflows on economic growth in the countries included in the panel data.

Table no. 3.1: Table summarizing the econometric models on the effects of FDI on economic growth;

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4	Model 5
log FDI_cap	0.064*** (0.02)	0.037* (0.02)	0.032*** (0.01)	0.483*** (0.01)	0.553*** (0.02)
log Export_cap	0.681*** (0.03)	0.717*** (0.03)	0.940*** (0.01)		
log Gross_capf_GDP		0.167*** (0.04)			
log Open_tr_deg			-1.015*** (0.03)		
log R&D_exp_GDP				0.566*** (0.07)	0.269** (0.09)
log Tertiary_edu					0.336** (0.11)
Constant	2.814*** (0.14)	2.202*** (0.20)	5.668*** (0.10)	5.324*** (0.10)	3.680*** (0.25)
R-squared	0.963	0.965	0.995	0.927	0.942
F	2427.410	1665.765	11484.453	925.430	565.653
N observations	200.000	195.000	200.000	157.000	118.000
*p<0.05, **p<0.01, ***p<0.001					

Source: own processing, based on results from STATA 12 software;

To build the first econometric model, we included as independent variables, FDI per capita and exports per capita. It can be seen that the parameters related to these variables are different from zero and positive, as expected, more precisely between these two independent variables and economic growth, there is a positive relationship and the same sense. Built model is statistically validated, since p-value is less than 0.05, evidenced also by the three stars that the independent variables included in the model were marked with. So it can be said that foreign direct investment and exports exert a positive influence on economic growth.

Under the second model, we included another independent variable which is gross capital formation as a share of GDP. Gross capital formation refers to value of tangible assets acquired by resident units in order to be used later in the production process. It is noted that this independent variable correlated with FDI per capita and exports per capita, also exerts a positive influence on economic growth in the host countries, whereas the coefficient obtained is different from zero and positive, according expectations. The model is validated statistically, since all independent variables included records a p-value less than 0.05.

In the third model, besides FDI per capita and exports per capita, which we have shown that exert a positive influence on economic growth (independent variables marked with three stars), we included another independent variable and namely the degree of trade openness. The coefficient for this variable is negative, therefore we observe, surprisingly, there is a negative relationship, opposite, between this and gross domestic product per capita. Specifically a 1% increase in the level of trade opening causes a decrease of 1.02% of GDP per capita. Since the composition of the openness trade degree is including exports and imports volume, a possible explanation for this could be represented by the fact that imports are higher than exports, an unfavorable situation that translates into existence of a negative trade balance of analyzed countries. The model is validated statistically, as all independent variables entered were marked with three stars (p-value shows a value smaller than 0.05).

In model no. 4 we included as independent variables FDI per capita and expenditure (public and private) on R & D as a share in GDP. Coefficients obtained for these two variables are different from zero and positive, as expected, which means that between the new independent variable that was added in the model and economic growth, there is a positive relationship. Namely a 1% increase in FDI per capita, exerts an increase of 0.48% of GDP per capita and a 1% increase in the share of R & D expenditure in GDP, increases the GDP capita of 0.57%. The coefficient of determination shows that 93% of the variation in GDP per capita can be explained on account of the variation of the two independent variables included in the model.

years, along with foreign direct investment and the share of expenditure on R & D in GDP. It seems that also between the new variable that was introduced and GDP per capita, there is a positive relationship and the same sense, as the sign of the coefficient obtained is positive, as expected. The model is validated statistically, since the variables were scored with two or three stars.

We can also see that in the analysis of the effects of FDI on economic growth in the host countries included in the panel, the coefficient of determination (*R-squared*) does not vary greatly from an econometric model built to another (it is around 0.96) which means that between variables included in these models, there is an inverse causal relationship, determining one another. Specifically, gross domestic product per capita and hence, economic growth cannot be explained solely in terms of export volume, or only in terms of the openness trade degree of the analyzed countries, but these variables should be viewed together, correlated, as a whole unit with effective influence on economic growth.

Regarding the effects of foreign direct investment per capita on the employment rate in the analyzed countries, in all econometric built models, the coefficient of FDI is different from zero and positive, as expected, meaning that between them and rate employment there is a positive relationship and the same sense. Specifically, a 1% increase in foreign direct investment per capita, determines an increase in the employment rate by 0.04% (*model no. 6*), 0.06% (*model no. 7*) and 0.02% (*model no. 8*).

Table no. 3.2: Table summarizing the econometric models on the effects of FDI on employment rate;

	Model 6 b/se	Model 7 b/se	Model 8 b/se
log FDI_cap	0.042*** (0.01)	0.064*** (0.01)	0.021*** (0.00)
log Tertiary_edu	-0.082*** (0.03)	-0.163*** (0.04)	
log R&D_exp_GDP		0.015 (0.03)	
log Exp_edu_GDP		-0.124** (0.04)	
log Gross_capf_GDP			0.097*** (0.02)
Constant	4.116*** (0.05)	4.368*** (0.11)	3.743*** (0.06)
R-squared	0.342	0.486	0.385
F	30.160	20.088	37.282
N observations	128.000	99.000	131.000
*p<0.05, **p<0.01, ***p<0.001			

Source: own processing, based on results from STATA 12 software;

In the model 6 it can be seen that we introduced as the independent variable also the share of population with higher education in addition to FDI per capita. The coefficient for this new variable is negative, contrary to expectations. Normally, an increase in the share of population with higher education level in the total population of a country, implies at least in theory, the existence of a population with a higher degree of education and qualification and thus it can easier for them to find a job. But in the econometric built model, a 1% increase in the share of population with higher education in the total population of a country, results in a lower employment rate by 0.08% (*model 6*) and a decrease of 0.16% (in the *model 7*). Moreover, the results are validated statistically, whereas the independent variable was marked with two (*model6*) and three stars (*model 7*). One explanation for this could be the fact that people with higher education in Central and Eastern Europe migrate to more developed countries in search of better paid job.

In the model no. 8 we added as the independent variable also gross capital formation as a share of gross domestic product, along with foreign direct investment per capita. The coefficient for gross capital formation as a share of GDP as expected, is different from zero and positive, which means that between this variable and the employment rate there is a positive relationship and the same sense. Specifically, a 1% increase in gross capital formation as a share of GDP, exerts an increase of 0.1% in the employment rate. The results are statistically validated as independent variables and by default the econometric model were marked with three stars.

It can be also observed that for the models regarding the effects of FDI on the employment rate in host countries, the coefficient of determination (*R-squared*) does not vary greatly from an econometric model to another (is around value of 0.4, which means that 40% of the variation in the employment rate can be explained

on account of the variation of these variables included in models). This means that between these variables

included in the regressions, there is an inverse causal relation, are determined by each other. Specifically, the growth of employment rate, cannot be explained solely in terms of the share of public spending in GDP, or only in terms of share of expenditures on research and development in gross domestic product of the examined countries, but these variables should be viewed together, correlated, as a whole which work towards increasing the employment rate.

Regarding the effects of foreign direct investment per capita on revenue to the state budget of the analyzed countries, in all econometric models that were built, the coefficient of FDI is different from zero and positive, as expected, meaning that between them and the revenue budget there is a positive relation and the same sense. Specifically, a 1% increase in foreign direct investment per capita, means an increase of budget revenues by 0.18% (*model 9*), 0.37% (*model 10*), 0.15% (in the *model 11*) and 0.36% (*model 12*). Moreover, the results are statistically validated, whereas the independent variable was marked with three stars in all econometric built models (*p-value* is smaller than 0.05).

Table no. 3.3: Table summarizing the econometric models on the effects of FDI on State budget revenues;

	Model 9 b/se	Model 10 b/se	Model 11 b/se	Model 12 b/se
log FDI_cap	0.182*** (0.02)	0.366*** (0.01)	0.149*** (0.02)	0.357*** (0.01)
log Export_cap	0.351*** (0.04)		0.389*** (0.04)	
log Open_tr_deg		0.133 (0.10)		0.115 (0.10)
log Gross_capf_GDP			0.224*** (0.04)	0.137* (0.06)
Constant	5.372*** (0.16)	6.221*** (0.40)	4.629*** (0.21)	5.949*** (0.45)
R-squared	0.941	0.909	0.947	0.910
F	1306.534	828.062	937.970	537.287
N observations	177.000	177.000	172.000	172.000
*p<0.05, **p<0.01, ***p<0.001				

Source: own processing, based on results from STATA 12 software;

In model no. 9 and 11 was also included as an independent variable, exports per capita. The coefficient for this variable is zero and positive, as expected, implying a positive relation and the same sense. Specifically, a 1% increase in exports per capita, exerts an increase of budget revenues by 0.35% (see *model 9*) and 0.39% (see *model 11*). The results are statistically validated, whereas the independent variable (exports per capita) was marked with three stars in all econometric built models (*p-value* is smaller than 0.05).

Also in model no. 11 and model no. 12, we analyzed the influence gross capital formation as a share of GDP on budget revenues. The parameter of independent variable is different from zero and positive, as expected. In other words, a 1% increase in gross capital formation as a share of GDP, determines an increase of budget revenues by 0.22% (*model 11*) and 0.14 (*model 12*). The results are statistically validated, since the recorded value of *p-value* for the independent variable is less than 0.05 in both macro-econometric models. In model 11 the independent variable was marked with three stars (*p-value* is smaller than 0.05), model 12 with a star (*p-value* is smaller than 0.05).

If we take a look at the coefficient of determination, we note again that it does not vary greatly from one to another econometric model (it is around 0.9, which means 90% of the variation in budget revenues could be explained in terms of statistically, due to variation in these variables included in regressions). Thus, between the variables included in these models, there is an inverse causal relation, are determined by each other. Specifically, the increase of budget revenues cannot be explained solely in terms of the openness commercial degree of analyzed countries, or solely in terms of exports, but these variables should be viewed together, correlated, as one who acts to increase revenues.

4. Conclusions

In conclusion, after analysis that was performed, it can be said that the objectives of this paper were fulfilled, as the results obtained in the econometric models validated the assumptions we started initially and furthermore, these results are consistent with economic literature FDI.

Regarding the effects of inflows of foreign direct investment on the economies of host countries, as we have seen, they exert a positive influence on growth, employment rate and income to the state budget, concluding on confirming the existence of the causal relation FDI -economic growth.

Specifically, the presented models have shown that an increase in foreign direct investment linked with the influence of other explanatory variables such as education and trade operations, has the effect of economic growth, higher employment rate and income to the state budget. In other words, there is a positive relationship between these variables.

A 1% increase in foreign direct investment causes economic growth of 0.064% (Model 1), 0.037% (Model 2), 0.032% (Model 3) 0.48% (Model 4) and 0.55% (Model 5).

Also, a 1% increase in foreign direct investment increases the employment rate of 0.042% (Model 6), 0.064% (Model 7) and 0.021% (Model 8).

In terms of revenue to the state budget, an increase with 1% of foreign direct investment causes an increase of revenue of 0.182% (Model 9), 0.366% (Model 10), 0.149% (Model 11) and 0.357% (Model 12).

Given the theoretical aspects presented in the literature review, but also the practical results that were obtained by applying multiple regression models to the data from the panel, it can be said that the impact of foreign direct investments has a major importance in the current context. FDI represent also an essential part of the economic growth and development policy of the analyzed countries from Central and Eastern Europe.

5. Bibliography

- [1]. **Boreinsztein, E., De Gregorio, J., Lee, J.W.**, How does foreign direct investment affect economic growth?, 1998;
- [2]. **Doltu, C.**, Investițiile străine directe și influența lor asupra modernizării economiei în tranziție, Editura Arc, Chișinău, 2008;
- [3]. *****www.epp.eurostat.ec.europa.eu**, Eurostat, Statistic Database, 2016;
- [4]. **Hobday, M.**, East Asian latecomer firms: learning the technology of electronics, 1995;
- [5]. **Kolstad, I., Villanger, E.**, Foreign Direct Investment in the Caribbean, 2008;
- [6]. **Li, X., Liu, X.**, Foreign direct investment and economic growth: an increasingly endogenous relationship, 2005;
- [7]. **Luiz R. de Mello, Jr.**, Foreign Direct Investment – led growth: evidence from time series and panel data, 1999;
- [8]. **Moraru, C.**, Investițiile străine directe și creșterea economică în România, Economie teoretică și aplicată, Academia de Studii Economice din București, 2013;
- [9]. **Nicolini, M., Resmini, L.**, FDI spillovers in new EU member states, 2010;
- [10]. **Nițu, R.**, Multinational companies, 2014;
- [11]. **Noja, G.**, Foreign Direct Investment, 2014;
- [12]. **Ozturk, I.**, Foreign direct investment – growth nexus: a review of the recent literature, 2007;
- [13]. **Pantulu, J., Poon, J. P. H.**, Foreign Direct Investment and International Trade: evidence from the US and Japan, 2003;
- [14]. **Son, L.**, Foreign Direct Investment, 2014;
- [15]. **Taylor, C.**, Foreign direct investment and the euro: the first five years, 2008;
- [16]. **Temiz, D., Gokmen, A.**, FDI inflow as an international business operation by MNCs and economic growth: An empirical study on Turkey, 2013;
- [17]. *****www.data.worldbank.org**, The World Bank, Data, Indicators, 2016;
- [18]. *****www.unctadstat.unctad.org**, United Nations Conference on Trade and Development, Statistics, 2016;
- [19]. **Yasemin Yalta, A.**, Revisiting the FDI-led growth Hypothesis: The case of China, 2013.