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FOREIGN DIRECT INVESTMENT AS A FACTOR OF ECONOMIC GROWTH IN THE CENTRAL AND EASTERN EUROPEAN COUNTRIES

The article investigates the impact of foreign direct investment (FDI) in economic growth in Central and Eastern European countries (CEECs). The author has substantiated the role of FDI as an additional source of funding for investment in the CEECs. The analysis has revealed correlations between inward foreign direct investment and economic growth in the region. To serve the purpose of this study, the researcher has shed some light on factors impeding the use of FDI as an effective tool to stimulate economic growth in the CEECs.

Key words: *foreign direct investment, transition economies, CEECs, economic growth, gross fixed capital formation.*

Statement of the problem. Over the past twenty years, foreign direct investment in Central and Eastern Europe (CEE) has become the most common type of capital movements. At the beginning of the transition period the most important economic reason for attracting FDI was to promote privatization and restructuring of the planned economy. Later, when the processes of privatization and restructuring were slowed down, the main reason for attracting FDI was the maintenance of sustainable economic growth. Throughout that period the growth rate of FDI significantly exceeded aggregate investment growth. This allows us to assume that it was precisely FDI that underpinned strong economic growth and substantially accelerated innovative renovation of the CEE economies.

Review of related literature. According to some researchers, FDI has been one of the most important factors behind the accelerated economic development and improved standards of living in many emerging economies. Thus, H. Hansen and J. Rand argue that foreign direct investment inflow is positively correlated with economic growth rate providing that host countries have reached a minimum level of technological development, education development and infrastructure development [4]. Examples of this are South Korea, Singapore and Taiwan which have greatly benefited from foreign direct investment and integration into the world economy. In recent years China and India have also managed to achieve a significant progress in attracting foreign direct investment and implementing technological innovations.

Empirical studies examining the impact of foreign direct investment on the host country's economy have justified the role of FDI as an important source of capital along with private domestic investment. Moreover, FDI has been generally associated with the creation of new jobs and acceleration of the rate of international technology transfer which can also contribute to economic growth in host countries [3].

The relationship between FDI and economic growth has motivated a variety of empirical studies both in developed and developing countries. For example,

a number of studies have shown that FDI had a strong and positive impact on economic growth in China, Russia and the United States [1; 2; 5].

The overall benefits of FDI for the CEECs have been widely studied in the literature. Many authors have concluded that the CEE national economies have had positive FDI-related effect from a macroeconomic point of view since FDI normally increase domestic capital, enhance productivity and employment and are often accompanied by the introduction of new technologies and new marketing-management techniques. However, the analysis of the available literature on FDI indicates that there have been very few studies whose findings on the nature and degree of FDI influence on economic growth are corroborated by empirically proven results. Therefore, the aim of the publication is to perform quantitative and qualitative analysis of the relationship between FDI and economic growth in the CEECs.

Main body. FDI plays a more significant role in gross fixed capital formation in transition economies than in developed and developing countries since it makes up for lack of domestic savings and envisages establishment of many startups and effective restructuring of already existing companies which, in turn, contributes to economic growth. Therefore, a high share of FDI in gross fixed capital formation is not surprising in these countries (table 1).

Table 1

Inward foreign direct investment flows, percentage of gross fixed capital formation

Economy	1995	2000	2003	2005	2007	2008	2009	2010	2011	2012
World	4,99	19,05	7,32	9,51	15,11	12,48	9,09	9,72	10,32	7,76
Developing countries*	7,82	16,16	10,04	12,09	14,32	13,30	10,09	10,23	9,80	9,10
Transition economies*	3,48	8,73	14,88	15,45	21,84	22,03	17,91	15,02	16,46	13,58
Developed countries*	4,21	20,01	6,30	8,36	15,18	11,46	7,97	8,99	10,35	6,07
CEECs	14,78	22,00	17,03	25,96	27,20	21,48	13,61	14,33	16,91	15,98
Belarus	0,43	4,52	4,06	3,83	12,72	10,81	10,62	6,41	17,58	7,04
Bulgaria	4,52	49,91	53,17	52,69	102,55	56,60	24,14	14,01	16,03	12,61
Croatia	3,47	25,77	23,27	16,48	31,65	31,20	22,00	4,01	12,05	12,53
Czech Republic	14,03	29,37	8,17	34,57	21,34	10,64	6,00	12,55	4,43	17,51
Estonia	17,12	26,75	29,84	64,30	34,75	24,04	44,69	44,24	6,39	26,86
Hungary	54,19	24,46	11,40	30,68	13,33	18,90	7,61	9,31	25,55	64,49
Latvia	26,33	21,63	11,08	14,29	23,80	12,72	1,68	8,64	24,13	17,15
Lithuania	5,32	17,45	4,55	17,17	18,16	16,28	-0,22	13,32	18,53	9,90
Poland	14,83	23,21	11,59	18,56	25,68	12,58	14,17	14,86	19,78	6,46
Romania	5,29	15,05	17,16	27,56	19,25	21,33	12,06	7,22	5,32	6,07
Russian Federation	2,44	6,15	9,96	11,25	20,48	20,20	13,60	13,09	13,40	11,33
Serbia	–	–	–	–	–	30,75	31,23	27,51	40,29	9,60
Slovakia	53,29	51,52	36,03	24,42	20,41	20,79	-0,03	9,65	15,74	15,38
Slovenia	3,37	2,54	4,34	6,48	11,52	12,47	-5,80	3,89	10,68	-0,74
Ukraine	2,35	9,64	13,76	41,19	25,15	22,95	22,32	26,26	23,70	23,53

*According to the UN classification.

Source: author's own compilation and calculation based on UNCTAD database [7].

It should be noted that the discrepancy between the values of indicators across the CEECs is significant. The share of FDI in gross fixed capital formation in the phase prior to the crisis of 2008-2009 exceeded significantly the regional average level in Bulgaria and was much lower in Belarus, Hungary and Slovenia. The crisis changed the situation. The recession and the credit crunch that ensued after the crisis were matched with a sharp downturn of capital inflows.

As for the countries of Eastern Europe, FDI patterns are also different here. In Belarus, FDI does not play a significant role as a source of financing of economic development compared with other countries of the region. Foreign direct investment measured on a cumulative stock basis as a percentage of gross domestic product amounted only to 23% in 2013 [6]. FDI in Russia differ from investments in other countries of the region, as it goes mainly in the fuel and energy complex. In Ukraine the share of FDI in gross fixed capital formation is quite high, but the ongoing Ukraine's political crisis will inevitably lead to flight of foreign capital.

Could foreign direct investment form the basis for high economic growth (at 10.8%) and a significant acceleration of innovative renovation of the CEE economies in the pre-crisis phase? First of all, it must be assumed that the acceleration of FDI growth has been recently one of the main characteristics of the intensified processes of globalization of the world economy and transnationalization of the international financial system. Moreover, it should be borne in mind that FDI growth rate has been significantly higher than growth rate of total (domestic and foreign) investment, which is an important indicator of internationalization of reproduction processes. Whereas in the 70-ies of the XX century, the world average FDI share in total investment was around 2%, in the 80ies – 3%, in the 90-ies – 8%, in 2010 it reached 9.5%. This trend is fully intrinsic to the CEECs (fig. 1).

Fig. 1. Dynamics of FDI share in gross fixed capital formation in the CEE region

Source: Author's own calculation based on UNCTAD database [7].

However, we cannot disregard the regularity brilliantly reasoned by Wesley Clair Mitchell in the first half of the twentieth century according to which foreign

capital neither could be an essential part of gross capital formation nor play the role of "booster" in the investment accumulation. In the context of the accelerated internationalization of the economy, it makes sense for a country to rely on large-scale FDI, only if the national capital has achieved high level of investment activity. The role of foreign capital in the CEECs has been always considered to be rather dubious. Over the last decade, despite high rates of economic growth many countries of the region reached the critical level of unemployment, external debt and balance of payments deficit. Not in all cases structural changes and technological innovations had a favorable effect on the economy of the recipient countries. A god example of an active FDI policy in CEECs would be the Czech Republic, which even in its earliest stages of the EU joining developed an effective system of fiscal incentives for foreign investors who complied with the conditions put forward by the government.

However, in recent decades, FDI in CEECs has been characterized by high growth dynamics and therefore has played an increasingly important role in the economy of the region. The ratio of accumulated foreign direct investment to GDP, which is used to assess the impact of FDI on the economy, exceeds 50 % in half of the CEECs. In this connection, it seems appropriate to carry out a quantitative analysis of the impact of foreign capital on economic development of the CEECs.

We used Excel to determine the extent to which selected indicators of foreign direct investment and economic growth are related. We analyzed the maximum period of time for which there reliable statistics on all the countries concerned are available (fig. 2).

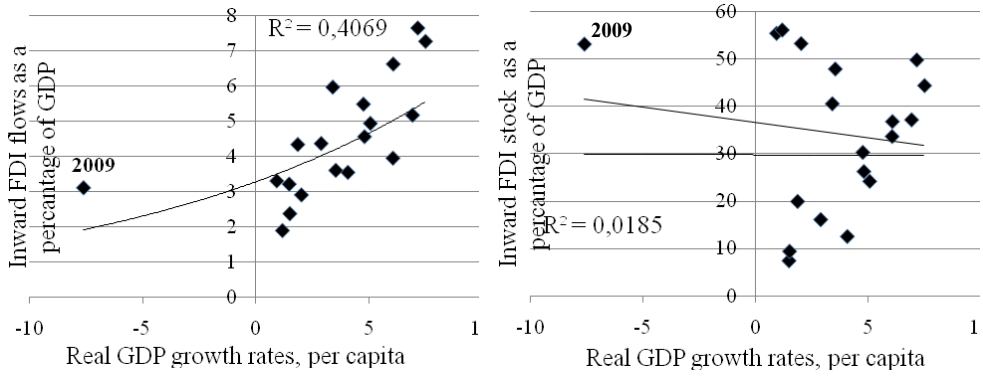

Fig. 2. The relationship between the growth rate of FDI and GDP in the CEE region for the period 1995–2013

Source: author's own compilation and calculation based on UNCTAD database [7].

Coefficients of determination 0.406 and 0.018 show that regressions explain respectively only 40.6% and 1.8% of deviations from the mean which can be explained by the high spread in values for 2009. Having excluded data for 2008-2013, as non-distinctive due to the economic crisis, we can see that the relationship between FDI growth rate and economic growth rate tends to be more linear on average across the CEECs.

The 1995-2007 period is remembered for an unprecedented rise in FDI inflows in the region. Especially rapid growth could be observed in the years before the crisis of 2008 – FDI inflows into CEECs, compared to 2003, increased 5.2 times, reaching $155 billion in 2008. The simultaneous growth of GDP and FDI inflows in the region during this period of tome may indicate the presence of a positive relationship between these two indicators.

The next step of the research is to carry out a correlation analysis with the help of STATISTICA 6.0 software package to measure the relationship between an inward FDI (both flows and stock) growth rate and economic growth rate (real GDP per capita growth rate) for the period 1995-2007 (table 2).

The analysis revealed weak correlations between economic growth and FDI in most countries. The only exceptions are Russia and Ukraine, where the correlation coefficients are significant in almost all cases. In Poland and Bulgaria a statistically significant positive correlation was reveled between GDP growth rate and FDI growth rate, in Latvia – between GDP growth rate and FDI inward stock.

Table 2

The results of the correlation analysis of the relationship between economic growth and FDI inflows into CEECs during the period of 1995-2007

Country	Correlation between real GDP per capita growth rate and:			Inward FDI stock as a percentage of GDP in 2007
	Inward FDI flow as a percentage of GDP	Inward FDI stock as a percentage of GDP	The average annual rate of growth of inward FDI stock	
Belarus	0,29	0,20	0,47	26,7
Bulgaria	0,53	0,55	0,85	90,1
Croatia	-0,46	-0,11	0,38	75,9
Czech Republic	-0,08	0,44	0,16	62,3
Hungary	-0,15	0,20	0,06	70,1
Latvia	0,35	0,83	0,05	37,8
Lithuania	0,07	0,41	0,04	38,3
Estonia	0,23	0,14	-0,12	76,2
Poland	0,33	-0,16	0,58	42,0
Russian Federation	0,59	0,76	0,60	37,8
Romania	0,26	0,47	0,48	36,9
Slovakia	0,10	0,45	0,22	57,0
Slovenia	0,06	0,42	0,18	30,4
Ukraine	0,39	0,76	0,59	26,7

Correlations highlighted in bold are significant at $p < 0.05000$.

In order to answer the question of whether there is a relationship between FDI and economic growth with one year lag, we calculated the correlations by sliding the rows in such a way that each value of GDP corresponded to the previous year's value of FDI. More significant correlation was found in Poland, Bulgaria, Romania and Slovakia. Thus, in most CEECs change in the volume of FDI,

despite its considerable share in GDP, had an insignificant effect on economic growth. Conducting reverse calculations (when each value of FDI corresponded to the previous year's value of GDP) also did not give more significant results in any country of the region. This suggests that FDI dynamics was not effected by GDP dynamics.

Despite a significant activation of investment processes in the last few years before the 2008 crisis, the value of the coefficient of correlation between FDI and GDP, calculated for the period 2001-2007, remained unchanged. Significant improvement was observed only in Bulgaria and Romania where the linear correlation coefficient for the given period constituted 0.8 and 0.7 respectively.

A possible explanation for insignificant role of FDI in economic growth across the region, despite its significant contribution to GDP, may lie in a low quality of foreign investment. Actually, FDI can positively contribute to economic growth providing that FDI projects are not of speculative nature and lead to the creation of new jobs.

A positive impact of FDI on the economy and foreign economic activity of the region was normally associated with the improved opportunities for the development of export-oriented high-tech industries. In practice, however, these expectations have not been met. Investment was not always accompanied by industrial restructuring and improvement of product competitiveness. Most of the FDI was directed at the acquisition of objects under privatization while the level of FDI per capita was determined not so much by the size of the economy as by the expected benefit from the participation in the privatization. This mainly explained the change of regional leaders in the struggle for FDI. Thus, opening of the domestic markets, a broad liberalization of foreign trade and short-term benefits of TNCs became the base point for foreign investors in the CEE region.

Besides, the reorientation of the developed donor countries in favor of offshore investment and certain shadowization of the FDI sector in the CEECs also contributed to the weakening of the link between FDI inflows and economic growth in the economies of the region.

The analysis of the sectoral structure of FDI in the region revealed the most attractive sectors for foreign investors. The main recipients of investment in the region are the real estate sector, mining, transportation, and alternative energy sectors [6]. The existing structure of FDI is unfavorable for the region's economy: such important industries as automotive, electronics, machinery and chemical industry receive minimum investments. At the same time, FDI in real estate is often speculative.

As for foreign direct investment in the financial sector of the economy of the region, its share in total FDI was quite tangible. In 2013 the regional average share of financial intermediary sector in FDI stock was over 20 %t (fig. 3).

However, a significant volume of FDI in the financial sector across the region can hardly be indicative of positive tendency, due to the fact that banks often use foreign capital and loans to finance consumption in the form of mortgages and retail consumer credit instead of investing in the manufacturing sector, R&D sector or modernization of the infrastructure.

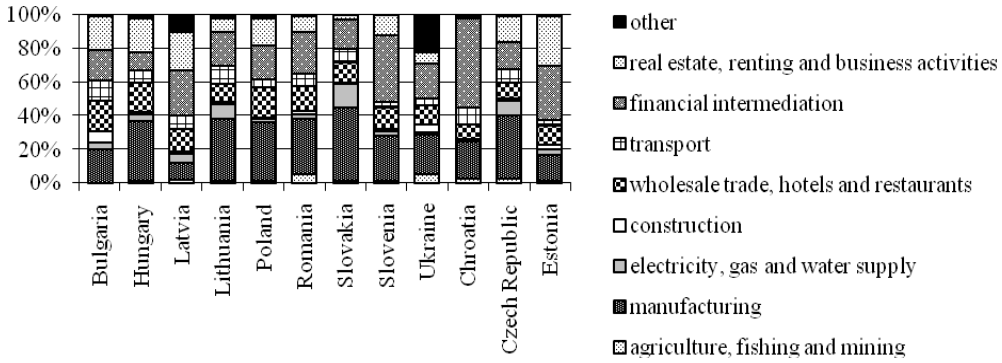

Fig. 3. The sectoral structure of FDI in CEECs, 2013

Source: Author's own compilation and calculation based on UNCTAD database [7].

According to many researchers, foreign direct investment inflows to the world's poorest countries does not make any significant impact on their economic development due to the so-called ceiling level of external influence [3, p. 11; 4, p. 5]. It is obvious that the ability of developing countries to benefit from a foreign presence in their capital markets depends on whether they have reached a certain level of development of institutional environment, infrastructure and financial markets. These factors not only do not allow a country to take full advantage of the benefits of FDI, but also impede economic growth in general. In view of this, the trends identified in the article require a revision of methods and principles of the regulation of FDI by the CEECs, their gradual transition from quantitative changes to qualitative ones.

Conclusions. In conclusion, it should be noted that within the CEE region there are several subgroups of countries sufficiently differentiated in terms of income, quality of life and efficiency of FDI. However, it is an undoubted fact that in all CEE economies, at one stage of transformation or another, FDI played a key role in the development of market relations, and in many countries of the region FDI became a major factor of the successful European economic integration. The analysis showed that the mechanisms for attracting foreign capital to the CEECs lost their effectiveness and requires revision. Governments of the countries should reflect not only on the revision of approaches to improving investment climate, but also on the establishment of reinvestment mechanisms. Thus, further research is needed to determine an effective strategy for state regulation of foreign direct investment in the CEE region.

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В статье освещаются вопросы влияния прямых иностранных инвестиций (ПИИ) на экономический рост в странах Центральной и Восточной Европы (ЦВЕ). Обоснована роль ПИИ как важного источника капиталовложений в странах ЦВЕ. Проведен корреляционный анализ взаимосвязи между основным показателями прироста иностранных инвестиций и темпами экономического роста в странах региона. Исследованы факторы, препятствующие использованию ПИИ в качестве эффективного инструмента стимулирования экономического роста в странах ЦВЕ.

Ключевые слова: *прямые иностранные инвестиции, транзитивная экономика, регион ЦВЕ, экономический рост, валовое накопление основного капитала.*

У статті висвітлюються питання впливу прямих іноземних інвестицій (ПІІ) на економічне зростання в країнах Центральної та Східної Європи (ЦСЄ). Обґрунтовано роль ПІІ як важливого джерела капіталовкладень у країнах ЦСЄ. Проведено кореляційний

аналіз взаємозв'язку між основним показниками приросту іноземних інвестицій та темпами економічного зростання в країнах регіону. Досліджено фактори, що перешкоджають використанню ПІІ як ефективного інструмента стимулювання економічного зростання в країнах ЦСЄ.

Ключові слова: *прямі іноземні інвестиції, транзитивна економіка, регіон ЦСЄ, економічне зростання, валове нагромадження основного капіталу.*

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