The Impact of Foreign Direct Investments and the COVID-19 Pandemic on the Economic Growth in Central and Eastern European Countries

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Abstract

The aim of the article is to analyse the impact of foreign direct investments on GDP growth and the link between the COVID-19 pandemic and the economic growth of Central and Eastern European countries. The study has shown us that there is a positive impact between foreign direct investment inflows and GDP growth, and that variables such as exports, labour productivity and unemployment rate also positively influence the development of the countries under analysis. We used a panel regression model with fixed effects, which showed us the correlation between FDI inflows and GDP growth, from which we can see that the decreases in FDI caused by the pandemic, led to a decrease in the GDP growth rate and thus in the economic development of the Central and Eastern European countries.

Key words: FDI, COVID-19, CEE Economies, GDP
J.E.L. classification: H12, F21

1. Introduction

Foreign direct investments are an important source of external financing, contributing in particular to the growth of the economies of countries under development. As they do not generate debt, they are considered stable financial resources that are accessible even in times of financial crisis.

These investments involve capital flows from one country to another to establish or expand business operations such as factories, offices or other corporate infrastructures by creating jobs, transferring technology and know-how, increasing competitiveness, accessing new markets, developing infrastructure and diversifying the economy.

The COVID-19 pandemic has had a significant impact on FDI globally, leading to a considerable drop in FDI and having considerable effects on the economies of the countries under development. Major economic uncertainty has caused investors to become more cautious and to postpone or cancel investment projects. International investments have become more risky due to volatile financial markets and increased risks, and quarantines and travel restrictions have disrupted supply chains dependent on imports and exports.

The aim of this article is to show whether foreign direct investments have a significant impact on economic growth and whether variables such as exports, education, labour productivity or unemployment rates influence the development of Central and Eastern European countries, as well as to identify the impact that the COVID-19 pandemic has had on the economies of CEE countries. The article is structured as follows: section 2 presents the relevant specialized literature, section 3 describes the database on which the article is based, section 4 analyses the results obtained from the application of the model, and the last part is about the conclusions.

2. Literature review

Foreign direct investments are one of the factors that boost a country's economic growth. The impact of these investments may be influenced by a country's level of development, global economic conditions, political, economic and social stability, legal regulations on foreign direct investment and the degree of digitisation of a country. Any change in any of the above areas can have a major impact on FDI flows in a country or region.

Moraru (2013) believes that foreign direct investments are the ones that stimulate economic growth, and the increased attention they receive is due to the fact that they are those types of investments that do not generate external debt.

Following the analysis conducted on Central and Eastern European countries by Ciobanu, Șova and Popa (2020), two conclusions on the impact of FDI can be drawn. On the one hand, attracting foreign capital is beneficial to an economy, helping the recipient country to develop by adopting new technologies and managerial ideas. The study shows that FDI inflows have an important say over the period 2009-2018, influencing GDP growth through changes that have occurred as a result of globalisation, the contribution of technology, innovation, know-how and capital. On the other hand, the COVID-19 crisis, has created a problem, FDI have experienced a decline, this leading to economic decline and in some cases recession. In an effort to protect member countries during the pandemic, the European Union warned member states to pay more attention to FDI in key areas of industry in the country. In order to preserve, adapt and attract new FDI, measures can be taken to increase the absorptive capacity of the economy and implement strategies to attract foreign investors.

Giofre (2022), through his study, points out that economically advanced countries have not been affected to the same extent by COVID-19 as countries under development.

Vintilă and Mocanu (2024) point out that the impact of FDI is influenced by the degree of development of a country. FDI does not have such a large impact in the case of developed countries, as they have an already balanced economy, but for developing countries, FDI largely supports the economy, providing a multitude of development opportunities.

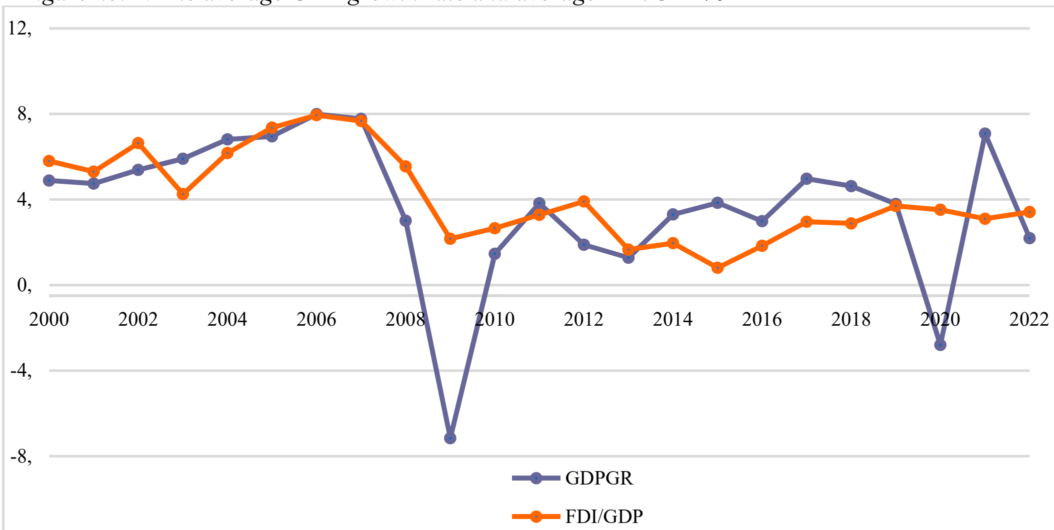
3. Research methodology

Analysis of foreign direct investment is important to determine its impact on the country's economic growth.

In our analysis we used data from EUROSTAT and UNCTAD for the period 2000-2022 for 10 Central and Eastern European countries, namely Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia and Slovenia. To determine the factors influencing GDP growth we analysed both the influence of foreign direct investment on GDP and the effects of exports, education, labour productivity and unemployment rate using a panel regression model with fixed effects.

In the following figure we present the share of FDI in GDP compared to the GDP growth rate as an average over the period 2000-2022.

Figure no. 1: The average GDP growth rate and average FDI/GDP%



Source: EUROSTAT and UNCTAD

Detailed descriptive statistics for all variables included in the empirical analysis are given in the table below (Table 1). The average GDP growth rate over the period 2000-2022 in the 10 countries analysed was 3.69%, with a minimum value of -14.47% in 2009 in Estonia, as an effect of the economic crisis that started in 2008, and a maximum value of 13.46% in Latvia in 2006. The average share of FDI in GDP is 4.11%, with a minimum of -11.61% in Hungary in 2015 as a result of the withdrawal of foreign investment that took place in the country and a maximum of 27.88% in Bulgaria in 2007, the year of the country's accession to the European Union. The average share of exports of goods and services in GDP is 61.03%, with a minimum of 21.59% in Romania in 2000 and a maximum of 99.36% in Slovakia in 2022. Expenditure on education differs from country to country, the minimum being 2.32% while the maximum is 7.84%. The average labour productivity rate is 3.03%, with a minimum of -7.8% in 2009 in Lithuania due to the economic crisis and a maximum of 17.7% in Romania in 2002, closely linked to the country's export growth at that time. Unemployment rate has an average value of 9.05% in the 10 countries analysed, the minimum being recorded in the Czech Republic in 2019, of only 2.02%, and the maximum of 19.92% being recorded in Bulgaria in 2001.

Table no. 1: Descriptive statistics of the determinants of GDP growth

	AVERAGE	MEDIAN	STANDARD DEVIATION	MIN	MAX
GDPGR%	3,69	3,93	4,17	-14,47	13,46
FDI/GDP%	4,11	3,17	4,08	-11,61	27,88
EXP/GDP%	61,03	61,61	18,57	21,59	99,36
EDU/GDP%	4,61	4,66	0,81	2,32	7,84
PROD%	3,03	3	3,38	-7,8	17,7
UNEMPL%	9,05	7,65	4,22	2,02	19,92

Source: Author's own analysis

Table 2 represents the correlation matrix that includes both the model dependent variable and the model independent variables to determine the relationship between them.

Table no. 2: Correlation matrix

	GDPGR	FDI	EXP	EDU	PROD	UNEMPLY
GDPGR	1					
FDI	0,2675	1				
EXP	-0,1581	-0,1647	1			
EDU	-0,0854	-0,1354	0,1720	1		
PROD	0,7896	0,2201	-0,3420	-0,1016	1	
UNEMPLY	-0,0427	0.0845	-0,1783	0,1637	0,1221	1

Source: Author's own analysis

4. Findings

In this part of the article, we will examine the hypothesis that foreign direct investments have a significant impact on GDP growth. The study is based on data taken from EUROSTAT and UNCTAD for 10 Central and Eastern European countries for the period 2000-2022. We used a panel regression model with fixed effects. Due to the fact that the effects of foreign direct investments cannot be observed in the year they were made, and the results will appear in later years, we determined the values of the variables with time effects.

The following table (Table 3) presents the information obtained from applying the model to the existing data. Each independent variable is shown with the associated coefficient value and in parentheses with the standard error value. The symbols *, **, *** refer to the significance levels of 10%, 5% and 1%.

Table no. 3: The model estimated results

INDEPENDENT VARIABLES	(1)	(2)
FDI	0.139*** (0.045)	0.092** (0.041)
EXP	0.034** (0.017)	0.024** (0.010)
EDU	-0.487 (0.332)	0.004 (0.229)
PROD	1.009*** (0.051)	1.044*** (0.052)
UNEMPLY	-0.017*** (0.048)	-0.131*** (0.042)
R-SQUARED	0.6504	0.6630
PROB >F	0.0269	
NUMBER OF OBSERVATION	230	220
NUMBER OF COUNTRIES	10	10

Source: Author's own analysis

The obtained results show that foreign direct investment flows have a positive effect on GDP. According to the specialized literature, a hypothesis is launched confirming that FDI positively influences economic growth, in other words, the higher the amount of FDI, the more the economy of the beneficiary country will grow, in our model, the variable has a significance level between 1% and 5%.

Foreign direct investments are important for Central and Eastern European countries. These investments have contributed to the economic transformation and integration of these economies into the global market. Among the effects that investment has had on economic growth, we list: Capital growth, FDI brings new capital into the recipient country's economy, which enables the financing of infrastructure projects, upgrading of technologies and expansion of production capacity, with a direct effect on GDP growth; creating jobs through foreign companies investing in the country and often creating new jobs, the significance level of the unemployment rate being 1%; transfer of technology and know-how that improve productivity, both in the sector in which they are invested and in the local companies that adopt them, and human capital plays an important role in this process, the model showing us a significant link between the two variables, with labour productivity having a significance level of 1%; access to new markets, by facilitating access to new markets and international partnerships, so that exports are strongly related to GDP growth.

As a social factor, education plays a key role in a country's economic development, although our model did not show a significant impact on GDP growth, education is one of the fundamental pillars of long-term development.

As we can see from the results obtained, there is a strong connection between foreign direct investment from CEE countries and GDP growth. Considering the fact that the COVID-19 pandemic was declared in 2020, there have been decreases in FDI and thus decreases in GDP in most countries.

5. Conclusions

Considering the results obtained, the conclusions we reached are that attracting foreign direct investment is seen as an important component of a country's economic development and that the Covid-19 pandemic has negatively influenced FDI flows.

The study confirms that foreign direct investments bring numerous benefits to host economies, contributing to economic growth, creating new jobs, transfer of technology and know-how, infrastructure development, improved competitiveness and access to international markets, bringing long-term benefits and contributing to their integration into the global economy.

Foreign direct investments play a key role in stimulating GDP growth and economic development, and the COVID-19 pandemic has significantly reduced these types of investments by slowing down the economic activity, travel restrictions and social dislocation, financial market volatility and falling demand, thereby recording declines in GDP and implicitly in the economic growth of recipient countries.

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