

A comparative exploration of FDI inflows in Western Balkans and Eastern European nations: Identifying key factors

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Abstract. Foreign Direct Investments (FDI) play a crucial role in the strategic plan of developing countries and their outcomes have an important contribution to Sustainable Development Goals. This study aims to investigate the determinants of FDI inflows in host countries, with an emphasis on market size, economic stability, trade openness and institutional quality indicators. Additionally, the study considers the impact of covid-19 as a potential determinant of FDI inflows. Unlike the previous studies, this research conducts a comparative analysis between developing countries of different regions, specifically Western Balkan (WB) countries and Eastern European countries (EEC), to identify variations in host country characteristics influencing FDI inflows. The data cover the time span from 2009-2021 and are quantitative secondary data retrieved annually based on the official website of World Bank. The methodology employed descriptive statistics and multiple regression analysis of Random Effects model to capture the heterogeneity across countries and time, with FDI inflows as the dependent variable. The results indicate that GDP per capita and trade openness do not significantly affect FDI inflows in either region. Inflation positively impacts FDI inflows in WB but is insignificant in EEC. Institutional quality indicators show different effects between regions, with control of corruption and voice and accountability affecting FDI inflows in EEC, while political stability and absence of violence influence FDI inflows in WB. Governance Effectiveness does not impact FDI inflows in EEC. Lastly, the Covid-19 pandemic has negatively affected FDI inflows, particularly in EEC. This study's contribution lies in its comparative analysis between developing countries from distinct regions, providing insights into the different influences of host country characteristics on FDI inflows. Furthermore, by including the Covid-19 pandemic as a variable of interest, this research addresses a global challenge and its potential impact on FDI inflow.

Keywords: FDI inflows, determinants, WBC, EEC, Random Effect, Covid-19.

JEL classification: E01, E22, F21, O19, O57

1. Introduction

Capital inflows to developing countries, whether through foreign direct investment or a portfolio investment, has been a major topic of discussion from time to time due to its great importance as a key source for economic growth. FDI can provide a more stable external financing source compared to "hot" portfolio investments. The macro perspective on Foreign Direct Investment defines it (FDI) as a particular kind of capital flow that moves between countries, from the home country to the host one, which is tracked using the Balance of Payments Statistics. These flows lead to the creation of a specific type of capital stock in the host country, which represents the value of the home country's investment in entities (typically corporations), that are either owned or controlled by a home country investor, or in which a home country investor holds a certain percentage of the voting rights (Lipsej et al, 2001).

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Developed countries need foreign capital for sustainable development. On the other hand, developing countries require it for their growth and investment needs. Various theories from different periods and perspectives explain the importance of foreign direct investment (FDI). According to the traditional view, FDI refers to the movement of capital across countries with varying returns. Neoclassical economists believe that foreign capital is beneficial for economic development and trade openness. It also enhances the standard of living (Levine, 2001). In addition, outcomes of FDI inflows can contribute to achieving the Sustainable Development Goals of the United Nations as part of the 2030 Agenda for Sustainable Development. These include seventeen interconnected goals that were designed to help develop a more sustainable world. Henceforth, they recognize that actions in one area can influence those in other areas, and advancement must strike a balance between the environment, economic, and social sustainability (United Nations, n.d.). So, this overall economic development retrieved from FDI inflows led to job creation and increased productivity, as well contributing to the SDG 8 (Decent Work and Economic Growth). On the other hand, FDI by facilitating access to international markets for host countries' goods and services boosts trade openness and thereby contributing to SDG 17 (Partnerships for the Goals). In modern theory, FDI is not only beneficial for the transfer of capital but also provides various forms of sponsorship to a local firm. These include the transfer of technology, skilled personnel, and business techniques (Johanson & Mattsson, 1988). This technology transfer can enhance local capabilities, promote innovation, and contribute to SDG 9 (Industry, Innovation, and Infrastructure). Thus, Foreign Direct Investment is a crucial component of the implementation of the SDGs of the Union Nations (UNCTAD, 2022; Gherghina, 2019).

In this context, through a panel data analyze this study aims to provide a comparative analysis of the host country characteristics that determine FDI in Western Balkan and Eastern European Countries from 2009-2021 on an annual basis, as well as the impact of the COVID-19 pandemic on FDI inflows in these regions. The choice of selecting these two regions is motivated by the potential convergence of Western Balkans with the Eastern European Countries (Sanfey et al., 2016; Žuk & Savelin, 2018). The research will explore the similarities and differences in the FDI impacted by host country characteristics between these two regions and provide insights into the effects of the pandemic on FDI inflow. The findings of this study may be useful for policymakers and investors interested in these regions and contribute to the ongoing debate on the role of FDI in economic growth and development.

2. Literature review

FDI is explained by several key theories, each offering unique insights into its dynamics. Below are the most prominent theories that form the foundation of FDI research:

a. Product Cycle Theory (Vernon, 1966): This theory outlines FDI as a process that progresses through innovation, growth, and maturity. Initially, firms create products for domestic markets but later export surplus production to foreign markets. As competition increases, firms invest in these foreign markets to maintain competitiveness.

b. Exchange Market Theory: This theory emphasizes the impact of exchange rates on FDI. Higher Real Exchange Rates (RER) reduce export competitiveness, making FDI more attractive as a way to serve foreign markets directly (Cushman, 1985).

c. Internationalization Theory (Hymer, 1972): Hymer's theory suggests that multinational enterprises (MNEs) invest abroad to reduce competition and exploit firm-specific advantages. FDI is viewed as a strategic decision driven by market imperfections, despite the adjustment costs associated with international expansion.

d. OLI (Ownership, Location, Internationalization) Framework (Dunning, 1977, 1980):

Dunning's OLI framework argues that firms engage in FDI when they possess certain advantages: Ownership advantages (firm-specific assets), Location advantages (favorable host country conditions), and Internationalization advantages (efficiency in managing operations internally rather than through partnerships or licensing). Dunning (1993) further categorizes FDI into three types: market-seeking, resource-seeking, and efficiency-seeking.

These theories provide a comprehensive understanding of why firms engage in FDI, with a particular focus on multinational enterprises and their strategies. However, the host countries' economic

characteristics, such as market size, economic stability, trade openness, and institutional quality, also play a crucial role in influencing FDI inflows.

In the following section, we will present the literature outcomes for FDI determinants, differentiating between developing and developed countries. This approach will highlight how the drivers of FDI inflows vary across countries with different economic structures and stages of development.

Evidence from Developing Countries

In 2009, Ahmad and Malik in a study on 35 developing countries from 1970-2003 identified six factors that influence foreign direct investment (FDI). These include the country's GDP, per capita income, domestic investment, exchange rate, education, and openness. The study found that the market size of a country had no significant effect. On the other hand, the authors noted that openness was very important, meaning that a small but open economy is a more attractive investment destination than a large, closed economy. The authors noted that a country's exchange rate has a significant and negative correlation. This implies that depreciation lowers the relative prices of various goods in a country. It makes it easier for multinational firms to establish their operations in that country.

Several studies considered the effect of exchange rates on FDI inflow into developing countries (Abbott et al., 2012; Ang, 2008). The findings show that countries with fixed exchange rate systems were more likely to attract FDI than those with flexible exchange rates. Other studies support the idea that exchange rate is a determinant of FDI inflows in host countries because results indicate that a country's currency depreciation can boost the inflow of foreign direct investment by reducing the cost of doing business in the country (Yu and Walsh, 2010; Demirhan et al., 2014).

Nevertheless, a distinctive investigation conducted by Jaiblai and Shenai (2019) found an unexpected result where inflation demonstrates a positive influence on FDI inflows in Sub-Saharan nations spanning the years 1990 to 2017, employing an ARDL methodology, contradicting conventional theories. On the other hand, several studies such as Shen and Faron (2015) found and support the idea that the country's inflation rate is negatively affected foreign direct investment (FDI). In the same way, the study conducted by Xaypanya in the same period into the ASEAN region over a period of 2000-2011 found that although there were positive effects of various factors such as the level of openness and infrastructure, the inflation rate was a negative influence. Contrary, the research conducted by Omankhanlen and Obiamaka, both in 2011 respectively found that inflation does not affect the flow of foreign investment. These results are supported also by the study of Demirhan and Yilmaz (2015). In addition, this study found that economic growth and openness have a positive impact on the flow of foreign investment (FDI) in Balkan countries (2002-2011). This study incorporated also the governance indicators (generated by the studies of Kaufmann et al. (2010)) and through the random-effect model resulted that, improving them is linked to the favorable FDI flow.

Moreover, Minić (2021) explores the correlation between foreign direct investment (FDI) and indicators of institutional quality, specifically focusing on corruption control, political stability, and the rule of law, in the Western Balkans region. The research employs panel techniques, including unit root tests and causality analysis, over the period of 2002 to 2017. The findings suggest that corruption control, political stability, and the rule of law contribute to increased FDI inflows in the Western Balkans.

Later on, Demirhan and Masca (2016) through a cross-sectional empirical analysing on 38 developing countries concludes that openness, telephone main lines and growth rate per capita are the drivers of those developing countries as statistically positively significant. The tax rate and inflation rate are regarded as influencing in a negatively significant way. On the other hand, the cost of labor and the risk are not significant with respectively positive and negative signs.

Evidence from Developed Countries

Swain and Wang (1995) analyzed the factors that contributed to the inflow of foreign capital into China and Hungary. These included the size of the market, tariffs, exchange rates, economic growth, and labor costs. They utilized the ordinary least squares regressions to estimate their model's results and revealed that the size of the host country's market can influence the foreign capital flow into the country, while the cost of capital is inversely correlated with the inflow of capital. They did not find

sufficient evidence supporting the classical hypotheses regarding import variables and tariff barriers. Vijayakumar et al. (2010) looked into the factors that influence the flow of foreign direct investment (FDI) into BRICS countries from 1975 to 2007 (except for Russia, where the data starts to 1990). The panel data analysis revealed that size of the market, the labor cost, infrastructure, gross capital formation, and the currency value as significant factors while economic stability (inflation rate), growth prospects (industrial production), trade openness (ratio of total trade to GDP) are not a significant factor that can influence the FDI inflows.

In a study focused on advanced economies, Dellis et al. (2017) concluded that the quality of institutions and economic structures have a significant role. The results of our study confirm that the quality of institutions in euro area countries is more sensitive to foreign direct investment (FDI) inflows than in other OECD countries. This is because the magnitude of the correlation between driver factors is higher. The results provide additional evidence supporting the various other factors that include the size of the targeted market, the labor costs, the country's trade openness, and the tax rate on economic actors.

Additionally, the study conducted by Singhanian & Saini (2018) analyzed the factors that influence foreign direct investment (FDI) in 20 countries. They found that the main factors that influence the FDI decision-making process in 11 developed countries are GDP growth, trade openness, and freedom index. On the other hand, in 9 developing countries, influencing factors were efficiency variables, trade openness, and gross fixed capital formation.

When it comes to the OECD member nations (Australia, Belgium, Canada, France, Italy, Japan, Norway, Spain, the UK, and the USA) determinants FDI inflows from 1985 to 2009 throughout various factors such as: market size, labor cost, labor productivity, corporate tax rate, trade openness, political stability, real effective exchange rate, inflation, and infrastructure quality, findings revealed that market size, labor cost, and infrastructure quality had a significant impact concerning foreign direct investment (FDI) within the countries examined (Alam et al., 2013). Interesting findings from Agudze & Ibhagui, (2021) stand that in industrialized countries, inflation tends to reduce the FDI after reaching its threshold. On the other hand, in developing economies, inflation can have a negative impact on the FDI even before reaching its threshold. Another major factor that influences the FDI flow into different income-level economies is found to be the institutional quality of a country (Sabir et al., 2019.) The research utilized the GMM system and concluded that the quality of the country's institutional framework plays a greater role in developed countries compared to developing ones. In addition, the higher level of FDI is linked with political stability, control of corruption and some other governance indicators.

Although the literature extensively examined the factors influencing FDI inflows in host countries, there is a notable lack of comparative studies focusing on developing countries across different regions. What makes some countries better or more attractive than the others? What is the strategy or the improvement to be recommended for the others? Therefore, the research gap contribution of this study is to conduct a comparative analysis between Western Balkan countries and Eastern European Countries to identify the differences in host country characteristics that influence FDI inflows. The few existing studies that have compared the differences in FDI determinants between the Western Balkans and EU Europe have produced mixed results. For instance, some studies have shown that the size of the market and economic growth are more important for FDI in the Western Balkans, while institutional quality and labor market conditions are more important in EU Europe (Bartlett, Bukvic, & Cvijanovic, 2019; Hamzeh & Al-Omouh, 2020). However, other studies have found that the determinants of FDI are similar in both regions (Mladenovic & Cupic, 2018; Popovic, 2020).

3. Methodology and data

This research uses a comparative case study of the Western Balkans (including Albania, Kosovo, Serbia, North Macedonia, Bosnia and Herzegovina and Montenegro) and Eastern European Countries (composed by Slovenia, Czech Republic, Slovak Republic, Estonia, Lithuania, Poland, Hungary, Latvia, Croatia, Bulgaria and Romania). These two regions were selected based on the studies of Sanfey et al. (2016) and Žuk & Savelin (2018), considering which highlighted that the average per capita income in the Western Balkans (WB) countries is only half of that in new EU member states

(NMS) and a quarter of the EU-15 level, when measured by purchasing power parity (PPP), indicating significant potential for income convergence. Panel data sets are secondary gathered from official sources, including the World Bank and World Development Indicators, between 2009 and 2021. The total number of observations collected annually for the Western Balkans is 72 observations and for the Eastern European Countries is 132. As for the method, it is used a quantitative one. Then to specify the multiple linear regression model there will be tested various assumptions with the help of the EViews10 software, to fully satisfy the equation and in the end to choose the most appropriate panel data method.

Hereunder is the summary table of all variables.

Table 1. Summary of variables

Variable and Abbreviation	Definition	Data Source	Supported Studies	The Sign of Expected Effect
Foreign Direct Investment (FDI) – Dependent variable	Foreign Direct Investments inflows as percentage of GDP	The World Bank	Mostly, FDI is chosen as a dependent variable (Alam et al., 2013; Demirhan & Yilmaz, 2015; Demirhan & Masca, 2016; Bukvic & Cvijanovic, 2019; Popovic, 2020 etc.)	N/A
GDP per capita (PGDP) – Independent Variable	per capita GDP (current US\$)	The World Bank	Bjelić et al., 2013; Phung, 2016	+
Macroeconomic Stability (INF) – Independent Variable	Inflation rate as annual % change in consumer prices	The World Bank	Subramanian & Satyanath, 2004; Demirhan & Yilmaz, 2015; Jaiblai et al.; 2019; Vijayakumar et al., 2010	-
Trade Openness (OPEN) – Independent Variable	Trade openness measured as export+ imports as a percentage of GDP	The World Bank	Globerman & Shapiro, 2002; Trintin, 2013; Demirhan & Yilmaz, 2015	+
Governance indicators (CC, GE, PV, VA) – Independent Variables	Control of Corruption (CC)	The World Development Indicators	Kaufmann et al., 2010; Demirhan and Yilmaz, 2015; Minović et al., 2021	+/-
	Government Effectiveness (GE)			
	Political Stability and Absence of Violence (PV)			
	Voice and Accountability (VA)			

Source: created by authors.

In this research the dependent variable is FDI as a percentage of GDP and the pool of the independent variables determining the FDI are: GDP per capita, inflation, trade openness, institutional quality indicators (Control of Corruption, Government Effectiveness, Voice and Accountability and Political Stability and Absence of Violence) and the covid-19 as dummy variable. The pool of independent variables will indicate the differences and similarities of characteristics of these regions that determine the FDI. Thus, secondary data retrieved from the official website from the World Bank, are selected based on the availability of data and the above literature review. Hereunder, the independent variables are briefly explained in relation to the dependent variable (FDI) and potential impacts they may have.

The three most common explanatory variables used in studies related to foreign direct investment (FDI) are market size, trade openness, and macroeconomic stability (Moosa, 2002; Bevan

et al., 2004; Brada et al., 2006; Demirhan and Yilmaz, 2015; Bayar, 2018; Imeraj, 2018). For return maximization purposes, the size of a potential consumer base is very important for market-seeking investors. For resource-seeking investors, on the other hand, the importance of an open trade policy is highly emphasized. Furthermore, all three types of investors consider macroeconomic stability to be a prerequisite in order to reduce the likelihood of volatility in their returns.

The two widely accepted proxies for market size, namely, GDP and GDP per capita, have been shown to be positive and statistically significant (Chakrabarti, 2001). The difference between these measurements is that the former refers to the overall size of the country's economy, whereas the GDP per capita indicates its consumer base. Based on the study's focus on developing countries, where the population size and GDP vary significantly, we determined that GDP per capita is a more accurate proxy for market size. Moreover, income levels, represented by GDP per capita are indicative of the purchasing power of citizens in the economy and are an indicator of what type of FDI investment is appropriate as an entry strategy for the market following the study of work of Bjelić et al., 2013; Phung, 2016.

Inflation's rate (based on the consumer price index) is a proxy for the degree of economic stability. Unbridled inflation is one of the main symptoms of the loss of monetary or fiscal control. When inflation rates rise, the benefits of investing decrease as it diminishes the purchasing power of consumers in the host country. The gradual rise in the price level leads to a decrease in the value of domestic assets and an increase in risk, which is also reflected in the exchange rate. Consequently, inflation is expected to have a negative impact on the inflow of foreign direct investment (FDI). In addition, the fluctuations in prices can be distorted by consumers and producers, which can lead to macroeconomic instability (e.g., Subramanian & Satyanath, 2004). Also, since investors prefer stable economies with low unpredictability, it is expected that inflation will have a negative impact on FDI (Demirhan and Yilmaz, 2015). However, it should be mentioned that the literature review provides mixed results towards the impact of inflation on FDI.

Trade openness can be considered as a stimulus to foreign direct investment (FDI) as helps reduce the costs of doing business by increasing the flow of products and services, reinforced by the literature presented (Boateng et al., 2015; Kinuthiaa and Murshed, 2015; Hunady and Orviska, 2014). The study employs trade openness as the sum of export and imports as a percentage of GDP (Globerman and Shapiro, 2002; Trintin, 2013; Demirhan & Yilmaz, 2015) and expects a positive significant relationship with FDI inflows.

The study uses six institutional quality indicators to analyze how they influence the flow of foreign investment into two regions. The indicators are political stability, control of corruption, regulatory quality, government effectiveness, voice and accountability and rule of law.

The concept of corruption refers to the misuse of public position/image for private gain, and it encompasses various human activities. Due to the long-term nature of FDI, political stability is also very important to ensure its inflow. Every type of threat can prevent multinational companies from investing in unstable regions due to their high risk (Meier, 2006). Conversely, inward FDI is encouraged by the rule of law. It enables countries to adopt their own regulations and safeguard their future returns (Hoff and Stiglitz, 2005). The rule of law helps minimize risk and prevents countries from adopting market-unfriendly policies.

In addition to political stability, regulatory quality can also boost the flow of foreign direct investment (FDI). It can be achieved through the introduction of market-friendly regulations such as free movement of capital, price controls and government intervention (Fazio and Talamo, 2008).

The relationship between voice & accountability with FDI is positive because the presence of a higher range of voice and accountability enables freedom of expression and media and plays a role in maintaining a risk-free environment for investors. Also, citizens are also capable of rejecting corrupt governments if they elect their representatives (Inter-American Development Bank, 2001; Saadatmand and Choquette, 2012). The governance indicators used in this study are derived from the World Governance Indicators, which range from -2.5 to 2.5. A higher value indicates that a country has good governance (Kaufmann et al., 2010; Demirhan & Yilmaz, 2015; Minović et al., 2021). The aforementioned study noted that various institutional factors can affect the FDI flow and emphasized that improvements in government effectiveness, accountability, and regulatory quality can help boost a country's FDI. Based on the robustness checks of this study, the variables control of corruption, voice

and accountability, government effectiveness and political stability and absence of violence will be taken in the consideration. The descriptive statistics tables for the two groups of countries are provided in the Annex.

4. Research results and comments

The study has performed the tests of assumptions required for the model and all the results are detailed in the Appendix. It is crucial to confirm that the assumptions of regression are met to ensure the model's accuracy, reliability and relevance. Additionally, the Hausman test is used to decide between Fixed and Random Effect models. The results indicate that the Random Effect model can be applied in both equations. Also, to avoid issues of serial correlation and heteroskedasticity, it is necessary to apply the White cross-section method when running the Random Effect model.

Based on the tests it is assumed the stationary regression equation for each region:

$$FDI_{EU\text{EEC}} = \beta_0 + \beta_1 * d(GE)_{i,t} + \beta_2 * INF_{i,t} + \beta_3 * OPEN_{i,t} + \beta_4 * d(\log PGDP)_{i,t} + \beta_5 * d(VA)_{i,t} + \beta_6 * d(CC)_{i,t} + \beta_7 * COVID_{\text{Dummy}t-1} + \mu$$

$$FDI_{WB} = \beta_0 + \beta_1 * INF_{i,t} + \beta_2 * d(PV)_{i,t} + \beta_3 * OPEN_{i,t} + \beta_4 * d(\log PGDP)_{i,t} + \beta_5 * COVID_{\text{Dummy}t-1} + \mu^3$$

Following all the above assumptions that were satisfied and in the end the result that came from the Hausman Test, it is run the regression equation throughout the Random Effect Model for each region to derive the conclusions. Firstly, we selected the same pool of explanatory variables but based to the unit root test results, sample size and the different characteristics the regression equation stands as below:

While the hypothesis is as below:

H₀: All independent variables are equal with 0.

H_a: At least one variable is different from 0.

Table 2. One Way Random Effect Model

One Way Random Effects for Eastern European Countries

Dependent Variable: FDI
 Method: Panel EGLS (Cross-section random effects)
 Sample (adjusted): 2010 2021
 Periods included: 12
 Cross-sections included: 11
 Total panel (balanced) observations: 132
 Swamy and Arora estimator of component variances
 White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DCC	10.82446	5.956842	1.817148	0.0716
DGV	12.65099	9.830106	1.286964	0.2005
DLPGDP	-20.73328	17.22168	-1.203906	0.2309
DVA	-42.63752	21.75330	-1.960048	0.0522
INF	0.557448	0.785117	0.710018	0.4790
OPEN	0.044136	0.032277	1.367402	0.1740
COVID	-8.360984	1.997547	4.185625	0.0001
C	-3.460180	4.358745	-0.793848	0.4288
R-squared	0.697821			
Adjusted R-squared	0.468920			
F-statistic	1.920720			
Prob(F-statistic)	0.071659			

Source: authors' calculation.

³ $i=1...N$; $t=1...T$; N and T represent the country and time dimensions of the panel, respectively; β_0 -represents the constant term and μ -serially uncorrelated term.

The results of the first model are explained based on the 10% significant level since we have a large sample size of 132, while for the case of the Western Balkan countries the significant level is taken as 5%. Also, to prevent exponential trends of growth, GDP per capita variable is logged.

Based on the results of our regression analysis, inflation has a positive impact on FDI for the case of WB in contrast with the expected negative sign and on the other hand inflation is insignificant for EEC. Thus, if inflation is increased by 1% point causing an increase in FDI by 0.283863 % points, *ceteris paribus*. From a theoretical view, the positive effect of inflation can be justified as an increase in prices helps boost the economy and provides investors with adequate returns, so attracting FDI inflows. However, it is also argued that high inflation can negatively affect the prospective and existing FDI flows. This is because it can reduce the expected returns on investment and lead to macroeconomic instability. (Sayek, 2009; Nnadi & Soobaroyen, 2015; Emenuga, 2019). Overall, the results are consistent with the literature review (Jaiblai et al., 2019; Vijayakumar et al., 2010).

Following with the institutional quality indicators, for EEC case it seems that the control of corruption is positively significant ($p\text{-value}=0.0716<0.10$), meaning that if the control of corruption level is increased with one score it will affect the increase of FDI by 10.82446 units, *ceteris paribus*. This result suggests that investors are more likely to invest in countries where corruption is controlled effectively, as it provides a stable and transparent business environment, reducing investment risks. The governance effectiveness has no impact for this group of countries, while VA is negatively affecting the FDI inflows. The results indicate that if voice and accountability is increased with one score it affects the decrease of FDI by 42.63752 units, *ceteris paribus*, reflecting that when citizens are empowered to voice their concerns, they may demand stricter regulations or impose additional compliance requirements on businesses. While these measures may be necessary for social and environmental reasons, they can increase the cost of doing business and reduce the attractiveness of a country for foreign investors.

In the WB case, the negative coefficient of PV variable indicates that political instability and violence have a detrimental effect on FDI of decreasing it with 2.508681 units, *ceteris paribus*. This aligns the argument that political stability is crucial for attracting foreign investors as otherwise uncertainty and unrest can increase the perceived risk and lower the expected returns for investors (Kaufmann et al., 2010; Brenton et al., 1998; Bevan et al., 2004; Popovici & Calin, 2013).

In addition, in the years of health crisis, it's of covid-19 pandemic, it can be concluded from the results that despite in WB that it has no impact, in EEC it is statistically negatively significant. Thus, in presence of covid the FDI decreased by 8.360984 units, *ceteris paribus*. Thus, the pandemic did not have the same impact in either region whereas the negative impact to EEC can be linked with the fact that this region relies on manufacturing and exports, particularly within the European Union. Hence, pandemic disrupted global supply chains, leading to a decline in demand for their exports, which could have impacted FDI inflows in these countries.

Conversely from what we expected, GDP per capita and trade openness variables were insignificant towards FDI in both regions. However, their insignificance stands in line with the studies of Ahmad et al. (2009) and Vijayakumar et al. (2010), respectively.

In addition, the insignificance of trade openness is influenced by the fact that those regions despite being part of the Central European Free Trade Agreement (CEFTA), individual countries have charged bilateral tariffs among them for all types of traded goods. Moreover, the absence of standardized production norms and mutually agreed customs procedures has further hindered intra-regional trade by creating additional barriers and constraints (Ilahi et al., 2019).

In the final part, the model's goodness-of-fit can be assessed using the R-squared. The R-squared value of 0.697821 and 0.571620 respectively suggest that approximately 69.78% for EEC and 57.16% for WB countries of the variation in FDI can be explained by the explanatory variables included in the model.

As for the overall significance of the regression models, for the first case (EEC) since the $p\text{value}=0.071659$ the overall model is statistically significant at 10 % significance level while in the second case (WB) the Prob(F-statistic) is 0.026334, which is below the conventional threshold of 0.05, overall model is statistically significant at 5 % significance level.

The impact of EU membership on FDI inflows is significant, particularly for the Eastern European Countries (EEC), where joining the EU brought political stability, improved governance, and

access to a larger market, making these countries more attractive to foreign investors. However, while institutional factors like control of corruption positively influenced FDI, increased voice and accountability introduced regulatory burdens that may have deterred investment. In contrast, many Western Balkan countries, still in the EU accession process, face challenges like political instability, which negatively impacts FDI. The COVID-19 pandemic had a strong negative effect on FDI in EEC due to disruptions in global supply chains and export-oriented industries, whereas its impact on the Western Balkans was insignificant, likely due to the region's slower FDI growth and isolation from global manufacturing networks.

5. Conclusion

This research investigates the determinants of FDI inflows in host countries, focusing on market size, economic stability, trade openness and institutional quality indicators. Unlike previous studies, it compares developing countries from different regions – WBC and EEC from 2009 to 2021, including the impact of the COVID-19 crisis as a dummy variable. The empirical analysis, utilizing a Random Effects Model, reveals that GDP per capita and trade openness do not affect FDI inflows in either region. However, inflation positively impacts FDI in WBC but is insignificant in EEC. The institutional quality indicators show that in Eastern Europe FDI inflows are impacted from the control of corruption and voice & accountability, while in WBC political stability and absence of violence are more impactful. Governance Effectiveness stands to not have an impact at all in EEC. Lastly, the pandemic seems to have had an impact only in EEC, yet negatively one.

Moreover, the key finding of institutional quality variables leads to the conclusion that the host country's institutional environment plays a significant impact on FDI inflows and therefore an improvement should be made towards voice and accountability and government effectiveness in EEC in one hand and in the other to political stability and absence of violence in WB.

The limitations of this research stand on empirical analysis of assumptions testing and the results from the Random Effects Model the study came up with two specifications related to the institutional quality indicators of two selected regions in one hand with GV, VA and CC for ECC and in the other it was included PV since the region of WB has been characterized by the political instability.

For further research, there is a room on extending the time frame under consideration, including the years coming to gain a better analysis of the trends and differences between the regions including infrastructure, credit facilities available to the domestic sector and financial development variables.

When considering all the explanatory variables under study that had an impact on FDI inflows, we suggest some recommendations. Thus, Western Balkan countries should aim to maintain a moderate level of inflation to attract foreign investors while avoiding macroeconomic instability. Implementing effective monetary and fiscal policies to control inflation can help create a favourable investment climate and also to prioritize political stability and security to attract foreign investment that could be achieved through effective governance, conflict resolution and promoting an environment conducive to investment by addressing underlying political challenges.

On the other hand, policymakers should implement strategies to mitigate the effects of the pandemic on FDI, such as providing support to affected industries, improving healthcare systems, and enhancing confidence in the investment climate in Eastern European Countries. More importantly, the negative impact of the crisis on the inflow of foreign direct investment over time has highlighted the insufficiency of solely focusing on attracting FDI through policy measures. It has become equally crucial to integrate these efforts into a broader strategy aimed at stabilizing and strengthening local economies, thus enhancing their resilience against external shocks and crises. Such resilience will foster the prosperity of both foreign and domestic investments. Consequently, the crisis experience has underscored the need to incorporate and customize FDI attraction strategies within a wider endeavour to support and enhance the long-term self-reliance of local economies, rather than promoting short-term economic growth that excessively relies on foreign capital.

Finally, the insignificance of the trade openness stands as an alarm signal for the policymakers to enforce trade policies that prioritize investor attraction for example by enhancing their integration with global value chains (GVCs) and expanding the scope of services exports.

Authors Contribution: *Introduction, E.I; Literature Review, E.I; Data and Methodology, E.I & E. M.; Empirical Analysis, E.M. Conclusion, E.I & E. M.*

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Appendix

Descriptive Statistics

Eastern European countries Descriptive Statistics

	FDI	DLPGDP	DCC	DGE	DVA	INF	OPEN	COVID
Mean	4.530139	0.035602	0.013575	0.005225	-0.005833	1.943026	131.1882	0.166667
Median	3.106435	0.038097	0.009793	-0.000494	0.000639	1.999269	135.8257	0.000000
Maximum	106.6026	0.219581	0.263228	0.308153	0.146637	6.091417	189.8040	1.000000
Minimum	-40.08660	-0.152114	-0.207012	-0.385043	-0.195563	-1.544797	69.83323	0.000000
Std. Dev.	12.32757	0.082277	0.083697	0.094389	0.057261	1.757392	31.35840	0.374098
Skewness	5.163713	-0.370155	0.049483	-0.195807	-0.370530	0.092842	-0.220407	1.788854
Kurtosis	42.79319	2.694066	3.487200	5.079862	4.318356	2.250481	1.990795	4.200000
Observations	132	132	132	132	132	132	132	132

Western Balkan Countries Descriptive Statistics

	FDI	DPV	DLPGDP	COVID	INF	OPEN
Mean	6.174966	-0.004315	0.036772	0.166667	1.993170	94.74177
Median	5.250784	0.010629	0.044931	0.000000	1.808277	91.39185
Maximum	18.30191	0.672459	0.209426	1.000000	11.13740	148.4690
Minimum	0.062229	-1.475331	-0.166281	0.000000	-1.584100	59.95175
Std. Dev.	3.681422	0.266964	0.090460	0.375293	2.181189	17.56323
Skewness	1.035097	-2.060029	-0.337522	1.788854	1.517041	0.669445
Kurtosis	4.211519	14.90042	2.613924	4.200000	6.812486	3.224874
Observations	72	72	72	72	72	72

Unit Root Test

Unit Root for Eastern European Countries

Variable		Philips-Perron Fisher test	Statistic	Prob.**
FDI	Level	PP - Fisher Chi-square	77.9671	0.00
GE	First difference	PP - Fisher Chi-square	78.4338	0.00
INF	Level	PP - Fisher Chi-square	31.7827	0.04
OPEN	Level	PP - Fisher Chi-square	102.184	0.00
logPGDP	First difference	PP - Fisher Chi-square	72.6916	0.00
VA	First difference	PP - Fisher Chi-square	74.6191	0.00
CC	first difference	PP - Fisher Chi-square	82.8249	0.00

Unit Root for Western Balkan Countries

Variable	Prob.**	Philips-Perron Fisher test	Statistic
FDI	Level	PP - Fisher Chi-square	72.2195 0.0000
INF	Level	PP - Fisher Chi-square	27.3972 0.0068
PV	First difference	PP - Fisher Chi-square	71.8259 0.0000
OPEN	Level	PP - Fisher Chi-square	29.8064 0.0030
logPGDP	First difference	PP - Fisher Chi-square	104.241 0.0000

Correlation Analysis

Correlation Analysis for Western Balkan Countries

	DPV	INF	OPEN	COVID	DLPGDP
DPV	1				
INF	-0.006879	1			
OPEN	0.017378	-0.072191	1		
COVID	0.019010	-0.060682	0.090896	1	
DLPGDP	0.051309	0.230606	0.136811	0.195030	1

Correlation Analysis for Eastern European Countries

	DLPGDP	DCCORR	DDGVEFFEC	DACC	INF	OPEN	COVID
DLPGDP	1						
DCCORR	-0.097643	1					
DDGVEFFEC	-0.004061	0.098929	1				
DACC	-0.110431	0.330478	0.20999	1			
INF	0.4321845	-0.18355	0.053822	-0.08127	1		
OPEN	0.055544	-0.09105	-0.02904	-0.04328	0.006242	1	
COVID	0.2057739	-0.00684	-0.04061	0.196604	0.197626	0.008026	1

Hausman Test

Hausman Test for Western Balkan Countries

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.**
Cross-section random	0.000000	5	1.0000

Hausman Test for Eastern European Countries

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.**
Cross-section random	0.000000	7	1.0000