FOREIGN DIRECT INVESTMENT LEGISLATION AND ECONOMIC GROWTH IN WESTERN BALKAN COUNTRIES: A PANEL ANALYSIS

Xhemazie IBRAIMI [ID][1], Besime Fekri ZIBERI [ID][2✉],
Nawaz AHMAD [ID][3,4], Jolita VVEINHARDT [ID][5]

[1] Faculty of Public Administration, AAB College, Pristina, Kosovo
[2] Faculty of Economics, AAB College, Pristina, Kosovo
[3] Shaheed Benazir Bhutto University, Nawabshah, Sindh, Pakistan
[4] GOVCOPP, University of Aveiro, Aveiro, Portugal
[5] Vytautas Magnus University, Kaunas, Lithuania

Abstract. Foreign direct investment (FDI) legislation plays a crucial role in fetching foreign investments. The objective of this study is to measure the impact of FDI on the Western Balkans countries (WBCs) and interpret the FDI law in the said countries. A panel data was obtained from the World Bank Indicators in order to conduct an empirical investigation. The sample is spread over twenty-eight years from 1995 to 2022. For econometric analysis, the study uses pooled ordinary least square (OLS), fixed effect (FE), random effect (RE), and Hausman test. The study also uses the Breuch and Pagan Lagrangian Multiplier test for Random Effect, the test for parameter constancy, the modified Wald test for groupwise heteroskedasticity, the Wooldridge test for autocorrelation, the test for serial correlation in residuals, and a test for normality. After a detailed analysis, the study concludes that FDI has a positive impact on the economic growth of WBCs. The study suggests that enforcing the rule of law on FDI will reduce the corruption index and create a favourable environment for WBCs to attract foreign investment.

1. Introduction

Foreign direct investment is a crucial for sustain economic growth and development. It is a type of investment made with the intention of earning long-term ownership in firms based outside the investor's home country (Islam & Beloucif, 2024).

Foreign direct investment (FDI) is considered a very important source of capital for developing countries (Opeyemi, 2020). FDI is considered a crucial factor for the opportunity to bring new knowledge and increase the productivity through new strategies in the case of the developing countries (Saidi & Ochi, 2023). The FDI is very important factor for innovation and new entries of technologies in the host countries (Kaddouri & Benelbar, 2024). Alongside the developing nations should take into account the innovation, especially those looking for opportunities in FDI (Tu, 2024).

In an effort to stimulate economic growth (ECG), all over the world nations have opened up their economies by creating advantageous circumstances to attract foreign investment, claim Mensah et al. (2024). Many economies have long sought to increase FDI particularly in emerging nations. Growth and income-related benefits have typically served as the foundation for the justification for FDI (Abor et al., 2024).

According to Ahn et al. (2023) a large number of the developing countries depend on foreign investors. Pollan (2006) shows the complexity of FDI in a globalized world. There also are changes in the legal frameworks of FDI in almost all countries at the past decade. Historically, WBCs have had legacy economies with numerous problems at the economic, political, law enforcement and judiciary levels. As a result, foreign capital is becoming increasingly attractive in compared to Balkan nations. The security of foreign capital is greatly influenced by the law and how it is applied; in this instance, it also has a major effect on the attraction of FDIs and ECG. Laws and regulations are important to attract FDI since it ensures control over the inflow of capital investment and contributes positively to ECG (Jasoum et al., 2021). The rule of law positively influences FDI; an open government, effective regulation enforcement, and absence of corruption are the key elements of the rule of law that favor FDI (Zhang & Liu, 2021).

Staats and Biglaiser (2012) stated that the key factors influencing FDI include the law enforcement. Perry (2000) finds that solid legal frameworks are not the only factors influencing FDI; political stability and ECG are two other important variables.

Ahlquist and Prakash (2010) point out the incentives that may actually determine the formal contractual setting. Their analysis highlights the importance of governance reforms for investment environments by explaining how the presence of institution safeguards and the reliability of contract administration may either induce or deter international investors.

According to Bauerle Danzman (2016), depending on the parties and the nature of the contracts, investment treaties have different effects on FDI. Furthermore, a persistent challenge to attracting FDI in developing countries is the weak enforcement of binding contracts, which undermines investor confidence and the effectiveness of such treaties.

FDI has a positive impact on both the microeconomic and macroeconomic levels for host countries (Nistor, 2024). Regarding Du (2024) the International Investment law mandates states to provide specific protection standards to foreign investors and establish dispute settlement mechanisms for their enforcement.

In this context, the function of FDI laws becomes particularly important for WBCs, whose entry into the global economy greatly depends on their ability to draw in and control FDI in order to promote stability and economic prosperity.

1.1. FDI law in the case of WBCs

The rules governing FDI in WBCs, such as Kosovo, North Macedonia, Montenegro, Albania, Bosnia, Serbia, and Herzegovina are presented in this section. All WB nations enforce the law on FDI, even in tiny nations; but, given EU regulations, much more has to be done to uphold the law and make the region more appealing to FDI.

The Law on Foreign Investments was approved by the Assembly of the Republic of Kosovo in accordance with Article 65 (1) of the Constitution of the Republic of Kosovo (Law No. 04/L-

220) (The Assembly of the Republic of Kosovo, 2014). The present law regulates the protection, encouragement, and promotion of foreign investments in the Republic of Kosovo by setting out the basic rights and guarantees of foreign investors regarding the protection of their investments and being treated fairly in accordance with recognized international best practices and standards (Law No. 04/L-220 on Foreign Investments) (The Assembly of the Republic of Kosovo, 2013).

The goal of FDI law in North Macedonia is to encourage, draw in, and establish the framework for executing strategic investments. Enhanced ECG, employment, and use of new inventions and technology; more competitive economic prospects; a rise in exports; a decrease in the trade deficit; and an improvement in the standard of living and well-being of the populace (Law on Strategic Investments in the Republic of North Macedonia) (The Assembly of the Republic of Northern Macedonia, 2020).

The legal framework of North Macedonia is comprised of the following laws: the law on investments, the law on technological industrial development zones (free economic zones), the law on trade companies, securities, profit taxation, customs, value-added tax (VAT), trade, acquisition of shareholding companies, payment operations, foreign exchange operations, foreign loan relations, privatization of investment funds, state-owned capital, labor, banking, and financial discipline (U.S. Department of State, 2023b).

The Law on Foreign Trade, the Law on Investments, the Law on Foreign Exchange Operations, the Law on Registration of Commercial Entities, the Law on Markets of Securities and other Financial Instruments, the Law on Banks and Other Financial Institutions, the Law on Construction and Planning, the Company Law on Financial Leasing, the Law on Concessions, and the Regulations on Conditions for Establishing and Operating Foreign Representative Offices in Serbia are among the laws governing foreign companies, business activities, and foreign investment in Serbia. Other relevant laws are those on income tax, value-added tax, corporate profit tax, real estate tax, and mandatory social contributions (U.S. Department of State, 2023a). In addition, Montenegro has enacted more than 20 other business-related regulations that conform to EU norms.

The country has also made great strides toward modernizing its investment-related laws to meet international standards and setting up the institutions required to draw foreign capital. However, much as in other transitioning nations, there still needs to be more uneven and lax application and enforcement of the law. Thus, in the case of Montenegro, 100% of a local firm may be owned by foreign corporations, and they are free to repatriate their profits and dividends. Moreover, there is no foreign investment screening in Montenegro. However, barriers to FDIs include organized crime, corruption, the politicization of justice, an imprecise and untrustworthy land register, and a slow bureaucracy (Lloyds Bank, 2024).

In the case of the Bosnia and Herzegovina Law on Foreign Investment of Federation B&H, (No. 61/01) and two Laws on Changes and Amendments of the Law on Foreign Investments (No. 50/03 and 77/15), (Law on Foreign Investments of the Federation of Bosnia and Herzegovina, 2001) which are also based on the official report of the United States (U.S. Department of State, 2021) it is stated that Bosnia and Herzegovina have difficulty luring in outside capital. Investment is discouraged by convoluted labor and pension regulations, a fragmented economy, and insufficient legal and regulatory safeguards. Bosnia and Herzegovina (hence-

forth referred to as "the state") is split into two "entities," the Republika Srpska (RS) and the Federation of BiH (the Federation), under the BiH constitution, which was formed via the Dayton Accords that ended the 1990s conflict.

In Albania's case, the legal framework of Albania is aligned with international standards to protect and encourage the foreign investments. It also does not discriminate the foreign investors. The specific protections for foreign investors are outlined by the Law on Foreign Investments of 1993 that also allows 100% foreign ownership of companies in a few sectors.

Despite multiple extensions to its December 2018 deadline, the Law on Strategic Investments, which was adopted in 2015 and aimed to encourage both foreign and domestic investments in strategic areas, failed to draw in substantial foreign investments. Until December 2023, the law will remain in effect. Domestic investors dominate the roughly 50 approved projects, the most of which are in the tourism industry (U.S. Department of State, 2023c).

The main aim of this study is to investigate the relationship between foreign direct investment (FDI) impact on the economic growth in the case of the Western Balkan countries. The study further interprets the FDI Law enforcement towards attractiveness of the FDI in the case of developing countries.

1.2. Research objectives

1. To interpret the FDI legal framework in WBCs.
2. To analyze the trend of FDIs in the respective countries for the period 1995–2022.
3. Estimating the impact of FDI on economic growth in WBCs.

1.3. Research questions

1. Has the legal framework of FDI changed within the period under review in the case of WBCs?
2. What are the reasons for the decline of FDIs in the case of WBCs?
3. Does political instability affect the withdrawal of foreign capital in the respective states under analysis?

On the basis of the main aim of this study and the literature review presented in this section, the following hypothesis is proposed:

H1: *FDI positively impacts the economies of six WBCs.*

H2: *Savings, employment, and Gross Fixed Capital Formation (GFCF) positively impact the economic growth of WBCs.*

H3: *Inflation, corruption, and unemployment negatively impact the economic growth of WBCs.*

The significance of this study is large because it depicts the law that governs FDI in WBCs, estimating the impact of FDI on the economic growth of Western Balkan countries. It is important for the period under investigation as the period under investigation is long period including 1995–2022 and the methodology used is panel data estimation techniques**.**

1.4. Structure of the study

This study is organized in the following sequence: the Section 1 presents the scope of the study, its importance, and its contribution. Section 2 is the literature review. Section 3 discusses the methodology of research, the data, and the source. Section 4 present the results of the study, while Section 5 presents the conclusions.

2. Literature review

The researcher's interest in FDI and its impact on sustainability and ECG is great. Various studies have analysed the impact of FDI on the importance it holds for ECG. In research regarding the relationship between ECG and FDI, there are many factors considered.

Shah et al. (2023) find that unfavorable FDI influx increases waste production. However, FDI's influence is less significant than that of industrialization and ECG. Pegkas (2015) investigate the link between of FDI and ECG Eurozone for 2002–2012 using panel data techniques. It concludes that FDI and ECG are positively cointegrated in long-term. The GDP elasticity concerning FDI is calculated via the fully modified dynamic OLS (DOLS) and OLS (FMOLS) techniques, which are 0.147% and 0.054%, respectively. The results signify a favourable impact of FDI stock on ECG in Eurozone members states.

Ciobanu (2020) conducted an empirical investigation on the impact of FDI on ECG and the causality between GDP, labour force participation, trade openness, and FDI in Romania. By using the estimation of ARDL to analyze the long-run relationship between FDI, trade, labor, and ECG, the study deduces that the labor force, trade openness, and FDI are the significant determinants of Romania's long-run ECG. Furthermore, increasing GDP, exports, imports, and the labor force support long-run FDI.

The relationship between FDI and economic growth is also investigated by Abbes et al. (2015) and find out that the labor force, trade openness, and FDI are the significant determinants of Romania's long-run ECG. Kurtishi-Kastrati (2013) explores the influence of foreign direct investment (FDI) on economic growth, highlighting key theories and empirical research on this relationship.

Foreign Direct investment and economic growth relationship is also studied by Basu et al. (2003) in case of developing countries. The study comes in conclusion that for more open economies, the cointegrating vectors show a bidirectional causal relationship between GDP and FDI, suggesting that FDI and growth are not equally reinforcing under investment restrictions and trade.

Sağlam (2017) investigate the relationship between economic development and FDI using data from 14 European transition economies for period 1995–2014. According to the study's results, the series shows heterogeneity and cross-sectional dependence. The results reveal that, contrary to theory, FDI have a negative impact on ECG in European transition countries, whereas control factors have a favorable effect. Asghar et al. (2011) finds cointegrated relationship between FDI and economic growth in the case of Asian countries.

Jun (2015) uses modern panel cointegration testing and estimation approaches to measure FDI's impact on production growth in the case of the South Asian nations. The study uses panel data including into analysis eight South Asian Association for Regional Cooperation (SAARC) for period 1960–2013. The study concludes that government consumption, financial

development, human capital, and FDI are the regressors that have the biggest beneficial effects on output growth.

Acar and Çelik (2020) investigate the relationship between ECG and technology transfer in ten Eurasian countries using panel data analysis. The study uses as variables the gross domestic product, foreign direct investment and the current balance account for period 2000–2018. The study suggests that gross domestic product and current balances account are related to foreign direct investments causally. FDI, reduces carbon emission and also aids in transferring greener technology across the nations of SAARC along with the rise in population density and consumption of energy (Yousaf et al., 2016). In the case of developing countries, the impact of foreign direct investments varies and it is more effective in open economies (Nair-Reichert & Weinhold, 2001).

2.1. Empirical literature review in the case of WBCs

Research into the relationship between foreign direct investment and its impact on economic growth, including the force of law in attracting foreign investment, is the subject of a considerable number of empirical studies that use different variables, data, and empirical models for their analysis. In order to highlight any gaps and provide a foundation for our examination of the WBCs, this section summarizes the key conclusions from these studies Ercegovac and Beker Pucar (2022) estimate the correlation between Greenfield FDI and GDP in the case of WBCs. To highlight the importance of FDI for sustainable economic development, this study compared the WBCs in the Visegrad States. The period under investigation used was from 2003–2020. In order to attract FDI, the study further suggests that governments address additional enhancements to the integrity of public institutions and establish conducive investment environments. Malovic et al. (2018) examine the characteristics of FDI inflow in WBCs for period 2004–2014. The study econometric tests suggest that, in contrast to popular belief, FDI inflows have, at most, no effect or, in fact, a statistically significant negative effect on the growth rates of GDP and GNP (cumulatively) in the case of WBCs.

Redzepagić and Richet (2008) reported that the dynamic nature of developing countries, such as WBCs, can result in swift fluctuations in investment conditions and costs.

Estrin and Uvalić (2016) point out the impact of FDI on economic growth in the case of the Western Balkan highlighting different factors as a basis for limited impact of FDI on economic growth such as economic and political and further concludes that that these factors are crucial for their prolonged economic transition. Western Balkan countries because of their more open external positions and propensity to provide information, are transparent to FDI from abroad; however, they are not as likely to be apprehensive about privatization, institutional reform, and bank sector dominance as would Central and Eastern European countries (Botrić, 2010). Bucevska and Naumoski (2023) highlighted in their study that the South East European Countries depends on FDI and remittances and consider them as external financing sources. On the other hand Rahman and Alan (2021) suggests that all economies require policies that reduce trade disputes, optimize energy use, foster human capital formation, and encourage appropriate foreign direct investment.

In addition to this, Perić and Stanišić (2020) carried out another research which clarified the importance of FDI in WBCs based on employment. For this purpose, this study analyzes

the potential impacts of FDI from 2003 to 2017 over the employment rate and average net incomes in WBCs. Moreover, this research found that, in case of the WBCs, the inflows of FDI positively affected the employment rate and average net incomes.

Ganić and Mamuti (2016) find that WBCs are in the early stages of financial integration; portfolio investments are less volatile than the ratios of loans to GDP and FDI flows to GDP. Another study by Krasniqi et al. (2022) stated that policymakers in the case of WBCs should focus primarily on fostering backward spillovers by facilitating connections between local small and medium–sized enterprise (SME) supplier firms and the recently arrived multinational corporations embedded into global value chains to continue benefiting from the success of trade liberalization and FDI.

Savićević and Kostić (2020) analyze the effects of FDI inflows on exports in WBCs and some Central and Eastern European nations with comparable political and economic histories. These nations served as the foundation for analyzing and contrasting data about the WBCs. The study used fixed effect estimation and concluded that FDI has a statistically significant beneficial effect on the export development of WBCs. Merko and Muço (2020) find that increased FDI net inflows in WBCs result from lower corporate tax rates, lower total tax and contribution rates, higher real GDP rates, and higher tax income.

Table 1. Empirical evidence in the case of the WBCs (source: the data in the table are based on literature analysis from multiple sources)

Nr.	Author/year	Method	Findings
2	Topi and Xhepa (2023)	Least squares (GLS) method	High-quality institutions are crucial for determining ECG and drawing in FDI
3	Ercegovac and Beker Pucar (2022)	Pearson correlation, Descriptive statistics	Enhancements to public institutions' quality and the development of welcoming investment environments to draw in FDI
4	Ziberi and Alili (2021)	Panel data techniques	In recent years, WBCs have seen declines in FDI overall as well as in technology and expertise, which are thought to be the primary avenues via which FDI positively impact the economic growth in the case of Western Balkan Countries
5	Shkodra et al. (2021)	Fixed effects Random effects Linear regression Poled data (GLS)	GDP growth is significantly impacted by FDI
6	Topalli et al. (2021)	Panel estimation techniques	FDI has significantly reduced poverty in WBCs
7	Minović et al. (2020)	Panel methodologies (unit root testing and causality)	In the case of WBCs, FDI is influenced by political stability, law, and corruption
8	Sucubasi et al. (2021)	Panel data analysis	FDI and ECG positively impact domestic investments in WBCs
9	Pavlović et al. (2021)	Polynomial regression	FDI and ECG verified the pollution haven theory
10	Svrtinov et al. (2017)	Linear mixed-effects models (LMMS)	FDI and GDP, employment, and exports have a moderate relationship, but in practically all WBCs, there is a significant correlation with current account deficits

Each author's methods and key conclusions are given in the above Table 1, showcasing the various ways they approached the subject and the outcomes that added to the body of existing knowledge.

3. Methodology

This section presents the research methodology, research methods and data used. A broad literature is used mainly about the laws of FDIs in the case of WBCs. Because of their protracted periods of transition and desire to join the European Union, WBCs have been selected as the study's focus. Even if they offer a favorable business climate, developing nations lack the rule of law which makes it challenging to attract FDI. Accordingly, to our study, most studies have been conducted about WBCs using small panel data as the result of the validity of data. For panel data analysis, these studies usually employ econometric models such Hausman-Taylor techniques, fixed effects, and random effects, which offer insights into the region's potential and limitations (Fetai et al., 2016; Ziberi & Alili, 2021; Trpeski et al., 2021; Domazet & Marjanovic, 2017; Topxhiu & Radoniqi, 2018).

Most of the studies to date have usually used econometric models for panel data analysis, including pooled OLS, fixed effects (FE), random effects (RE), and Hausman-Taylor, to shed light on the region's potential and limitations. Following a broadly international literature review presented in the above section, the study raised the research objectives and questions and developed the study's hypotheses.

Using panel data and relevant literature on FDI law and its effects on ECG, this paper develops an econometric model. The data used cover the period of 1995–2022 and are obtained from the World Bank Indicators including into analysis the WBCs such as: Kosovo, North Macedonia, Albania, Montenegro, Bosnia, Herzegovina and Serbia.

To estimate the impact of FDI on ECG, this study uses empirical estimation for panel data. The econometric techniques used for panel data that are generally used and adopted in this study are pooled OLS, fixed effects, random effects, and the Hausman test. To measure the validity of the estimated panel data econometric models, several diagnostic panel data tests are also used. The study also uses tests for panel data, such as the Breusch and Pagan Lagrangian multiplier test for random effects, test of parameter constancy, modified Wald test for groupwise heteroskedasticity, Wooldridge test for autocorrelation in panel data, test for serial correlation in residuals, test for significance of fixed effects, skewness/kurtosis tests for normality and other panel data estimation tests.

3.1. Econometric model specification

$$Y_{it} = \beta_0 + \beta_1 X_{it} + e_{it},\tag{1}$$

where – Y is the dependent variable in our model, GDP; i is the country in our case of analysis refers to the 6 WBCs, including Kosovo, North Macedonia, Albania, Montenegro, Bosnia and Hercegovina and Serbia; t – mean time period; thus, in our case of analysis, the time period under investigation is 1995–2022; β_0, β_1 mean parameters; X represents the independent variable in our model.

The independent variables used are as follows:

1. FDI,

2. Inflation,

3. Employment,

4. Unemployment,

5. Savings,

6. GFCF and

7. Corruption – corrind.

Hausman-Taylor:

$$\gamma_{it} = x_{it}\beta + \gamma_{it}. \tag{2}$$

Fixed effects and random effects:

$$\gamma_{it} = x_{1i}\beta_1 + x_{2i}\beta_2 + Z_{1i}\lambda_1 + Z_{2i}\lambda_2 + c_i + \mu_{it}. \tag{3}$$

The econometric results obtained with Stata are presented in the following section, followed by a proper discussion of the tables.

4. Results

This section presents the econometric results obtained from the pooled OLS, fixed effect estimation, and random effect estimation. It follows with descriptive statistics, a correlation matrix, and econometric tests for panel models, specifically the Hausman test results, as the Hausman test is usually used in panels to distinguish the appropriate model for hypothesis testing.

Table 2. Descriptive statistics (source: authors' contribution)

Variables	N	mean	sd	min	max
Id	168	3.5	1.713	1	6
Year	168	2,009	8.102	1,995	2,022
Gdp	150	4.388	8.639	−15.31	88.96
Fdi	112	5.045	2.817	0.0622	12.66
Corrind	66	38.71	3.862	31	46
Savings	145	3.744	8.707	−25.47	20.5
GFCF	130	5.655	13.9	−28.9	79.78
Employment	157	47.21	9.61	22.49	62.26
Unemployment	158	23.44	9.47	9.01	57
Inflation	128	7.251	15.82	−2.41	95.6
_est_fe	168	0.238	0.427	0	1
_est_re	168	0.238	0.427	0	1
Residuals	40	2.62	1.967	−2.531	5.889
Number of ID	5	5	5	5	5

Table 2 presents the descriptive statistics of the variables used in the panel data estimation techniques. The table presents the ID, which represents the country. In our case of analysis, we have six IDs for each WBCs used as a sample. The variable year presents the period under investigation in our case, 1995–2022. The variables included in the analysis are GDP, FDI, corruption, savings, GFCF, employment, unemployment and inflation. The minimum number of cases present is one, and the maximum is 6; thus, the total number of observations is 168.

Table 3. Econometric results, pooled OLS, fixed effect, random effect (source: authors' contribution)

Variables	Pooled OLS	Fixed effect	Random effect
FDI	0.803***	0.522*	0.803***
	−0.238	−0.262	−0.238
Corruption	0.0863	0.103	0.0863
	−0.136	−0.146	−0.136
Savings	0.178**	0.480***	0.178**
	−0.082	−0.16	−0.082
GFCF	0.160***	0.137***	0.160***
	−0.0535	−0.0481	−0.0535
Employment	−0.117*	0.527**	−0.117*
	−0.0653	−0.233	−0.0653
Unemployment	0.123	0.731***	0.123
	−0.111	−0.227	−0.111
Inflation	0.0631	0.00738	0.0631
	−0.157	−0.157	−0.157
Constant	−4.453	−49.16***	−4.453
	−6.13	−14.43	−6.13
Observations	40	40	40
R-squared		0.605	
Number of id	5	5	5
Fixed effect		YES	NO
Random effect		NO	YES

Note: Robust standard errors in parentheses *** $p < 0.1$, ** $p < 0.1$, * $p < 0.1$.

Table 3 presents the findings obtained from the econometric models for the panel data. The models used in this study are pooled OLS, fixed effect and random effect. On the basis of the results obtained from the Hausman test (prob > chi^2 = 0.03), the fixed effect model was chosen as the appropriate model in the study circumstances.

On the basis of the fixed effect estimation results (also see Appendix, Table A1), the model's significant variables that meet the p-value less than condition of alpha level less than 0.05 are: The variable FDI, with a p-value of 0.05 and a beta coefficient of 0.52. The variable Savings has a p-value of 0.006 and a beta coefficient of 0.49. GFCF has a p-value of 0.008 and a beta coefficient of 0.14, employment has a p-value of 0.03 and a beta coefficient of 0.53. Unemployment has a p-value of 0.00 and a beta coefficient of 0.73.

The variables that are not significant are corruption and inflation. Thus, we do not discuss these variables further in our analysis, as they are not important in our model estimation.

The Breusch and Pagan Lagrangian multiplier test for random effects (also see Appendix, Table A2, resulted in chibar^2(01) = 0.00, Prob > chibar^2 = 1.0000. Test of parameter constancy: chi^2(16) = 86.24, Prob > chi^2 = 0.0000. The modified Wald test for groupwise heteroskedasticity in the fixed effect regression model H0: sigma(i)^2 = sigma^2 for all I chi^2 (5) = 3.00 resulted in Prob > chi^2 = 0.7007. Wooldridge test for autocorrelation in panel data H0: no first-order autocorrelation F (1,3) = 0.435 resulted in Prob > F = 0.5566. Skewness/kurtosis tests for normality resulted in Prob > chi^2 0.6349.

In our analysis, the number of observations was small even though the panel covers the period 1995–2022 and considers six WBCs. The small number of observations results from a lack of data during the investigation period for some variables included in the analysis.

Table 4. Correlation matrix (source: authors' contribution)

Variables	1	2	3	4	5	6	7	8	9	10
1	1									
2	0.013	1								
3	−0.148	0.203	1							
4	−0.25	0.26	0.263	1						
5	0.567	−0.176	−0.07	−0.361	1					
6	0.274	0.569	0.049	0.121	0.117	1				
7	0.195	0.285	0.48	0.053	0.196	0.152	1			
8	0.182	0.401	−0.188	0.446	0.191	0.634	0.026	1		
9	−0.107	−0.639	0.048	−0.675	0.111	−0.533	−0.08	−0.82	1	
10	0.325	0.171	−0.047	0.15	0.08	0.068	−0.05	0.245	−0.28	1

Table 4 presents the correlation matrix of variables such as GDP, FDI, the Corruption Index, Savings, GFCF, Employment, Unemployment, and Inflation for panel data used in the case of six WBCs from 1995–2022.

The variables are as follows:
1. Id represents the ID number for each country.
2. Year.
3. GDP.
4. FDI.
5. Corruption Index.
6. Savings.
7. GFCF.
8. Employment.
9. Unemployment.
10. Inflation.

The correlation matrix indicates that FDI is positively related to GDP, with a coefficient of 0.263. The positive correlation refers to the fact that FDI helps expand production capacities and improve technology, contributing to ECG. Corruption index is negatively associated with GDP (0.070) and FDI (0.361). Corruption hinders ECG by decreasing the efficiency of economic resource use and eroding investor confidence; on the other hand, foreign investors steer clear of nations with high levels of corruption because of the high risks and unanticipated expenses. This is why negative values of the corruption index with GDP and FDI have been determined.

Savings are positively associated with GDP (0.049) and FDI (0.121). GFCF is positively associated with GDP, FDI, savings and the corruption index. Employment has an inverse relationship with GDP and a positive relationship with FDI, savings, GFCF, and the Corruption Index. Moreover, unemployment is positively associated with GDP and negatively associated with FDI and savings. Employment is negatively associated with GDP but positively associated with FDI, savings, GFCF, and the corruption index, while variable unemployment has a positive relationship with GDP and a negative relationship with FDI and savings.

On the contrary, unemployment is positively associated with the GDP and inversely associated with FDI and savings. Moreover, employment is inversely associated with GDP and positively associated with FDI, savings, GFCF, and corruption Index.

Inflation is negatively related to GDP, GFCF and unemployment but positively related to FDI, savings, corruption and employment. Savings encourage ECG by having a beneficial effect on GDP and investment. Financial stability brought upon by domestic deposits draws in overseas investment. Technology and infrastructural investments increase productive capacities. Nonetheless, waste in public investments may be reflected in the corruption index. There are both positive and negative interrelationships between employment and unemployment; high unemployment reduces the attractiveness of savings and investment. Whereas moderate inflation attracts investors who seek higher returns in volatile markets, inflation hurts GDP and fixed capital.

In the management of economic policy, corruption is frequently linked to inflation.

Figure 1 presents the GDP fluctuations in case of WBCs during period 1995–2022. Due to reliance on specific economic sectors, a lack of diversification, and sensitivity to outside influences, GDP variations are more noticeable in developing economies, such those in the WBCs. Over the last couple of decades, Albania's GDP growth has been highly volatile and reflects the impact of both internal and external economic policy. The strong 13.3% GDP growth in 1995 for Albania was indicative of recovery in the early years of economic transition from a centralized to a market economy. Lewis (1954) states that developing nations entering in new phases of their development's grow rapidly by utilizing the potential that was left over from the preceding era. However, in 2000, the GDP fell back to 6.946%, reflecting a slowing growth due to the fact that economy had stabilized and Albania has begun to confront other challenges such as unsuitable economic structure and lack of FDI after the country transitioned into a market economy. The convergence theory, states that the rich countries may grow slower compared to developing countries, which often have the ability to experience rapid growth (Barro, 1991).
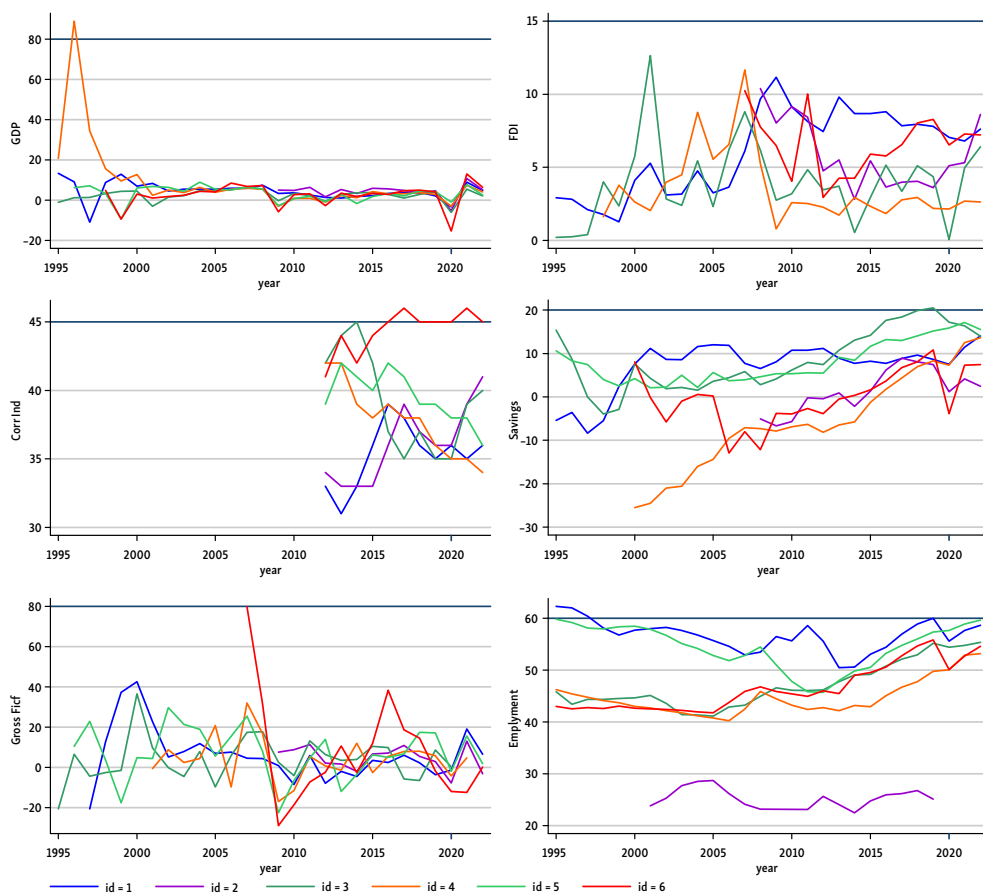
Figure 1. Panel data graphs, tendencies of the variables during the period under investigation from 1995–2022 in the case of WBCs (source: author's contribution)

GDP for Albania grew by 8.29% in 2001, showing both the effect of new economic policies that could have raised investment and demand, as well as a recovery from the difficult period. But it experienced a significant decline of 3.3% in 2021, due to exogenous factors such as global instability and worldwide issues that reduced the economic activities of the nation. Albania also experienced a strong rebound with 8.9% GDP growth in 2021, reflecting the success of monetary and fiscal policies put in place to boost the economy during the post-crisis years. This is in line with the theories of economic recovery, that, if proper stimulus measures are put in place, then economies can grow rather quickly following a recession (Schumpeter, 1936). However, it decreased to 4.86% in 2022, showing that the Albanian economy still has various internal and foreign obstacles, such as slowing demand and changes in the global market. For this decrease, the concept of business cycles can be applied, stating that periods of stabilization and decline often follow periods of sustained growth (Schumpeter, 2012).

All things considered, this cycle of GDP growth and decrease highlights the necessity of sound governance and prudent economic management in order to guarantee balanced and

sustainable growth. GDP growth in the case of Kosovo decreased to –5.3. In 2021, there was a sharp increase when the GDP reached 10.7, but in 2022, the GDP decreased to 5.22.

North Macedonia in 1995 had a negative GDP of –1.1. In 2000, the GDP was 4.5 following 2009, the GDP decreased to –0.3 points in 2019, and the GDP increased to 3.4. In 2020, GDP decreased to (6.1) points. However, as a result of countries' fiscal and monetary policies, which responded to the economic crisis caused, GDP increased to 5.5%, but in 2022, GDP markedly decreased to 2.

In the case of Bosnia and Herzegovina in 1995, the GDP signed of 20.8 points. In 2009, GDP decreased to (3.0). In 2009, GDP growth was 2.89 points, followed by a decrease of (3.0) points. In 2021, there was a positive trend of 7.4, and after that, in 2022, the GDP decreased to 4.1. In the case of Montenegro, the GDP was negative of (9.3). In 2009, GDP growth in the case of Montenegro was also negative, signed (5.7). In 2020, the GDP decreased to –15.3, and in 2021, it sharply increased to 13.0. In 2022, the GDP decreased to 6.4.

In the case of Serbia, the GDP growth in 1999 was –9.4, whereas in 2009, it was –2.73. In 2019, the GDP was 4.33, whereas in 2020, it decreased to –0.9. In 2021, there was a positive increase in GDP of 7.72. In 2022, the GDP was 2.5.

The theory of business cycles explains that economies often undergo periods of contraction due to internal or external factors affecting economic activity. This theory justifies the cyclical fluctuation in GDP, which, in the case of WBCs, can be occasionally decreasing and occasionally increasing based on the Keynesian theory referred to above, emphasizing the importance of economic policies to manage economic fluctuations. In 2022, there were some striking differences in FDI between WBCs. Montenegro and Kosovo have the highest FDI with 14 and 8.62, respectively, indicating that they are very attractive to investors. Albania and Serbia also recorded similar scores of 7.62 and 7.22, respectively, which indicates their ability to attract foreign investment. Bosnia and Herzegovina 2.64 and North Macedonia 6.42, on the other hand, remain at low levels and need to enhance their attractiveness to foreign investors. It also shows how supportive policies and stability in the economy contribute much to increasing FDI in the region.

5. Discussion

This Section presents a discussion of the estimation and results of the econometric model. As noted in the previous section, the fixed effect model for small panels suggested by the Hausman test is the best model. The fixed effect estimation results allow for testing the hypothesis raised in this study; thus, on the basis of the significance of the variable FDI, we can conclude that FDI positively impacts the ECG of WBCs. We accept the study's hypothesis and conclude that FDI positively impacts the ECG of WBCs. On the basis of the results of other macroeconomic factors selected as additional variables that influence ECG in WBCs, we can accept the second hypothesis of the study and conclude that savings, employment, unemployment and GFCF have an impact on ECG, even though we can separate the variable unemployment, which has a positive beta coefficient and contradicts the theory that a one per cent increase in unemployment should lead to a decrease in GDP. Our results reveal that a one-percent increase in unemployment will also increase GDP. This is also a new area for

further research because WBCs are also known as countries with substantial administrative workers and political employment; it may also explain why, in some cases, unemployment can cause an increase in GDP.

The third hypothesis to be tested is rejected regarding the WBCs in our study, as the inflation and corruption negatively affect ECG, in our conditions of fixed effect estimation since in our model, those became nonsignificant variables. Moreover, we may say that corruption and inflation negatively impact the economy and also fosters economic growth although no significance of our panel estimation does not allow us to interpret their beta coefficient and p values. From an economic theory point of view, corruption is a barrier to FDI and maintains ECG for each country, especially when considering small countries such as the WBCs.

Supporting our results, Shkodra et al. (2021) find that FDI significantly affects the ECG in the WBCs. However, growth determinants differ significantly between regional countries. Furthermore, Minović et al. (2020) establish that FDI in WBCs is higher when there is a sounder institutional framework, such as a system for political stability, corruption control, and rule of law. FDI inflow has a statistically significant effect on the ECG of the WBC. However, only the trade openness measure shows a favorable trend (Popović et al., 2020). While our findings present a very different case, the study by Malovic et al. (2018) suggests that FDI inflows into WBCs may insignificantly affect GDP and GNP growth rates or even negatively, so the common assumptions need to be revised, along with ideas on what sparks growth. FDI has had effects on the ECG of WBCs, but significant identification of horizontal spillover effects cannot be ascertained due to the restrictions of data (Estrin & Uvalić, 2016).

Consistent with our findings, additional research has reached same conclusions, including Topi and Xhepa (2023), Ercegovac and Beker Pucar (2022), Ziberi and Alili (2021), Shkodra et al. (2021), Topalli et al. (2021), Minović et al. (2020), Sucubasi et al. (2021), Pavlović et al. (2021), Svrtinov et al. (2017).

The paper also has several limitations due to the lack of data for selected macroeconomic factors related to FDI and its impact on GDP growth, which were chosen for panel data estimation in case of WBCs. The small number of observations is the main limitation of this study. This study raises several critical factors for further investigations, such as a deep measurement of the impact of law on the attractiveness of FDI and administrative contracts, in the countries of WBCs.

6. Conclusions

The law on FDI is highly important for FDI attractiveness in WBCs. FDI inflows play a crucial role in sustaining these countries' ECG. The main aim of this study was to interpret the legal framework of FDI in the case of WBCs and estimate the impact of FDI on WBCs for the period of 1995–2022.

The study employs panel data and goes further with panel data econometric techniques for estimation. The study employs pooled OLS, fixed effect and random effect econometric models for panel data estimation. This study uses panel data for the period 1995–2022 for the Western Balkan countries. Using econometric analyses of panel data, the study includes the econometric models fixed effect random effect and Hausman test. The study also uses

other diagnostic tests for the importance of econometric models based on each key, the fixed effect model was chosen as the most appropriate model for testing the hypotheses. The study concludes that foreign direct investment has a positive impact on the economic growth of the Western Balkan countries. Based on the results of the econometric model, the macroeconomic variables included in the analysis suggest that savings, employment and gross fixed capital formation positively affect the economic growth of the Western Balkan countries. On the other hand, unlike economic theory, the study concludes that unemployment positively affects economic growth, while corruption and inflation in the case of the study in question are statistically insignificant variables.

The Western Balkan countries have created Special Economic Zones with the aim of attracting foreign direct investment and thus creating genuine strategies towards sustainable economic growth. In this regard, it is important that the Western Balkan countries create favorable policies towards attracting foreign direct investment, implementing the law and strengthening the judiciary, striving towards the creation of regional partnerships and co-operation, removing barriers to market penetration, thus promoting regional cooperation and political stability in the region. The goal of the Western Balkan countries is to create a favorable climate for attracting foreign direct investment and easy and transparent access to information.

Based on the detailed analysis of theoretical and empirical research, as well as econometric testing and findings presented in this study, the study further recommends that the Western Balkan countries should promote the implementation of the law on foreign direct investment, create a favorable climate for doing business, attempt to absorb foreign capital through various partnerships, attempt to absorb investments in relevant profitable industries while increasing employment and reducing unemployment, create sustainable economic growth and political stability, these factors will enable the absorption of FDI and the economic growth of the Western Balkan countries.

Author contributions

BZ, XHI, NA and JV conceived the study and were responsible for the design and development of the data analysis. XHI, BZ and NA were responsible for data collection and analysis. JL and NA were responsible for data interpretation. XHI and BZ, wrote the first draft of the article.

Disclosure statement

Authors declare there are no competing financial, professional, or personal interests from other parties.

References

Abbes, S. M., Mostéfa, B., Seghir, G. M., & Zakarya, G. Y. (2015). Causal interactions between FDI, and economic growth: Evidence from dynamic panel co-integration. *Procedia Economics and Finance*, *23*, 276–290. https://doi.org/10.1016/S2212-5671(15)00541-9

Abor, J. Y., Dwumfour, R. A., Agbloyor, E. K., & Pan, L. (2024). Foreign direct investment and inclusive finance: Do financial markets and quality of institutions matter? *Empirical Economics*, *67*, 773–815. https://doi.org/10.1007/s00181-024-02567-2

Acar, T., & Çelik, İ. E. (2020, September 2–4). Panel data analysis on technology transfer and economic growth: The case of Eurasian economies. In *Proceedings of the International Conference on Eurasian Economies* (pp. 124–129). Baku, Azerbaijan. https://doi.org/10.36880/C12.02379

Ahlquist, J. S., & Prakash, A. (2010). FDI and the costs of contract enforcement in developing countries. *Policy Sciences*, *43*, 181–200. https://doi.org/10.1007/s11077-009-9093-3

Ahn, J., Habib, A., Malacrino, D., & Presbitero, A. F. (2023). Fragmenting foreign direct investment hits emerging economies hardest. *IMF Blog*. https://www.imf.org/en/Blogs/Articles/2023/04/05/fragmenting-foreign-direct-investment-hits-emerging-economies-hardest

Asghar, N., Nasreen, S., & Rehman, H. (2011). Relationship between FDI and economic growth in selected Asian countries: A panel data analysis. *Review of Economics & Finance*, *2*, 84–96.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, *106*(2), 407–443. https://doi.org/10.2307/2937943

Basu, P., Chakraborty, C., & Reagle, D. (2003). Liberalization, FDI, and growth in developing countries: A panel cointegration approach. *Economic Inquiry*, *41*(3), 510–516. https://doi.org/10.1093/ei/cbg024

Bauerle Danzman, S. (2016). Contracting with whom? The differential effects of investment treaties on FDI. *International Interactions*, *42*(3), 452–478. https://doi.org/10.1080/03050629.2016.1121451

Botrić, V. (2010). Foreign direct investments in the Western Balkans: Privatization, institutional change and banking sector dominance. *Economic Annals*, *55*(187), 7–30. https://doi.org/10.2298/EKA1087007B

Bucevska, V., & Naumoski, A. (2023). Remittances, FDI and economic growth: The case of South-East European countries. *Post-Communist Economies*, *35*(2), 179–209. https://doi.org/10.1080/14631377.2023.2169520

Ciobanu, A. M. (2020). The impact of FDI on economic growth in case of Romania. *International Journal of Economics and Finance*, *12*(12), 81–88. https://doi.org/10.5539/ijef.v12n12p81

Domazet, I., & Marjanovic, D. M. (2017). Foreign direct investment in the function of economic development-example of selected countries in the Western Balkans. *International Letters of Social and Humanistic Sciences*, *79*, 1–15. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3120276

Du, M. (2024). International investment law and the rule of law: The case of China. *Washington International Law Journal*, *33*(2), 315–344. https://digitalcommons.law.uw.edu/cgi/viewcontent.cgi?article=1936&context=wilj

Ercegovac, D., & Beker Pucar, E. (2022). The analysis of greenfield FDI and economic growth in Western Balkans and Visegrad States. In *Proceedings of the 27th International Scientific Conference Strategic Management and Decision Support Systems in Strategic Management* (pp. 494–501). https://doi.org/10.46541/978-86-7233-406-7_252

Estrin, S., & Uvalić, M. (2016). Foreign direct investment in the Western Balkans: What role has it played during transition? *Comparative Economic Studies*, *58*, 455–483. https://doi.org/10.1057/ces.2016.10

Fetai, B., Koku, P. S., Caushi, A., & Fetai, A. (2016). The relationship between exchange rate and inflation: The case of Western Balkans countries. *Journal of Business Economics and Finance*, *5*(4), 360–364. https://doi.org/10.17261/Pressacademia.2017.358

Ganić, M., & Mamuti, A. (2016). Developments, trends and features of financial integration in the Western Balkan region – Cross-country comparisons. *International Journal of Management Economics and Business*, *16*, 1–11.

Islam, M. S., & Beloucif, A. (2024). Determinants of foreign direct investment: A systematic review of the empirical studies. *Foreign Trade Review*. *59*(2), 309–337. https://doi.org/10.1177/00157325231158846

Jasoum, B. H., Younus, N. M., & Hussein, F. F. (2021). Analysis of the reality of foreign direct investment and measuring its impact on economic growth for the period (2000–2017) Algeria as a model. *Muthanna Journal of Administrative and Economic Sciences*, *11*, 165–175. https://doi.org/10.52113/6/2021-11/165-175

Jun, S. (2015). The nexus between FDI and growth in the SAARC member countries. *East Asian Economic Review*, *19*, 39–70. https://doi.org/10.11644/KIEP.JEAI.2015.19.1.290

Kaddouri, N., & Benelbar, M. H. (2024). The impact of foreign direct investment on economic growth: Empirical evidence. *Financial Markets*, *Institutions and Risks*, *8*(1), 123–132. https://doi.org/10.61093/fmir.8(1).123-132.2024

Krasniqi, B., Ahmetbašić, J., & Bartlett, W. (2022). Foreign direct investment and backward spillovers in the Western Balkans. *Southeastern Europe*, *46*, 1–22. https://doi.org/10.30965/18763332-46010001

Kurtishi-Kastrati, S. (2013). Impact of FDI on economic growth: An overview of the main theories of FDI and empirical research. *European Scientific Journal*, *9*(7), 56–77.

Law on Foreign Investments of the Federation of Bosnia and Herzegovina. (2001). *Official Gazette of Federation B&H*, No. 61/01, 50/03, 77/15. https://track.unodc.org/uploads/documents/BRI-legal-resources/BiH/11_-_Law_on_Foreign_Investments_of_the_Federation_Bosnia_and_Herzegovina.pdf

Lewis, W. A. (1954). Economic development with unlimited supplies of labour. *The Manchester School*, *22*(2), 139–191. https://doi.org/10.1111/j.1467-9957.1954.tb00021.x

Lloyds Bank. (2024). *Foreign direct investment* (*FDI*) *in Montenegro*. https://www.lloydsbanktrade.com/en/market-potential/montenegro/investment

Malovic, M., Özer, M., & Zdravković, A. (2018). Misunderstanding of FDI in the Western Balkans: Cart before the horse and wheels without suspension. *Journal of Balkan and Near Eastern Studies*, *21*(4), 462–477. https://doi.org/10.1080/19448953.2018.1506285

Mensah, E., Mensah, R. O., & Danquah, D. A. (2024). Threshold effects of inflation on the FDI–growth nexus: Evidence from inflation-targeting countries in sub-Saharan Africa. *Economic Research-Ekonomska Istraživanja*, *37*(1), Article 2299991. https://doi.org/10.1080/1331677X.2023.2299991

Merko, F., & Muço, K. (2020). Tax incentives and the location of FDI. Evidence from a panel data in Balkan countries. *Journal Transition Studies Review*, *27*(2), 3–12. https://doi.org/10.14665/1614-4007-27-2-001

Minović, J., Stevanović, S., & Aleksić, V. (2020). The relationship between foreign direct investment and institutional quality in Western Balkan countries. *Journal of Balkan and Near Eastern Studies*, *23*, 40–61. https://doi.org/10.1080/19448953.2020.1818038

Nair-Reichert, U., & Weinhold, D. (2001). Causality tests for cross-country panels: A new look at FDI and economic growth in developing countries. *Oxford Bulletin of Economics and Statistics*, *63*(2), 153–171. https://doi.org/10.1111/1468-0084.00214

Nistor, P. (2014). FDI and economic growth, the case of Romania. *Procedia Economics and Finance*, *15*, 577–582. https://doi.org/10.1016/S2212-5671(14)00514-0

Opeyemi, A. F. (2020). Impact of foreign direct investment and inflation on economic growth of five randomly selected countries in Africa. *Journal of Economics and International Finance*, *12*(2), 65–73. https://doi.org/10.5897/JEIF2020.1031

Pavlović, A., Njegovan, M., Ivanišević, A., Radišić, M., Takači, A., Lošonc, A., & Kot, S. (2021). The impact of foreign direct investments and economic growth on environmental degradation: The case of the Balkans. *Energies*, *14*(3), Article 566. https://doi.org/10.3390/en14030566

Pegkas, P. (2015). The impact of FDI on economic growth in Eurozone countries. *The Journal of Economic Asymmetries*, *12*(2), 124–132. https://doi.org/10.1016/j.jeca.2015.05.001

Perić, M., & Stanišić, N. (2020). FDI inflow effects on Western Balkan area's labour markets. *European Journal of Applied Economics*, *17*, 147–160. https://doi.org/10.5937/EJAE17-25663

Perry, A. (2000). Effective legal systems and foreign direct investment: In search of the evidence. *International and Comparative Law Quarterly*, *49*, 779–799. https://doi.org/10.1017/S0020589300064654

Pollan, T. (2006). *Legal framework for the admission of FDI*. Eleven International Publishing.

Popović, G., Erić, O., & Stanić, S. (2020). Trade openness, institutions and economic growth of the Western Balkans countries. *Montenegrin Journal of Economics*, *16*(3), 173–184. https://doi.org/10.14254/1800-5845/2020.16-3.14

Rahman, M. M., & Alam, K. (2021). Exploring the driving factors of economic growth in the world's largest economies. *Heliyon*, *7*(5), Article e07109. https://doi.org/10.1016/j.heliyon.2021.e07109

Redzepagić, S., & Richet, X. (2008). The attractiveness of the Western Balkans for the FDI. *Economic Analysis*, *41*(1–2), 48–59. https://www.library.ien.bg.ac.rs/index.php/ea/article/view/49

Sağlam, Y. (2017). FDI and economic growth in European transition economies: Panel data analysis. *Journal of Yaşar University*, *12*(46), 123–135.

Saidi, Y., & Ochi, A. (2023). Estimating relationships among foreign direct investment, governance quality, and economic growth in developing countries using the threshold auto-regressive model. *Regional Science Policy & Practice*, *15*(2), 403–424. https://doi.org/10.1111/rsp3.12654

Savićević, M., & Kostić, M. (2020). The impact analysis of foreign direct investment on export: The case of the Western Balkan countries. *Economic Themes*, *58*(2), 171–186. https://doi.org/10.2478/ethemes-2020-0010

Schumpeter, J. A. (1936). [Review of *The general theory of employment, interest and money*, by J. M. Keynes]. *Journal of the American Statistical Association*, *31*(196), 791–795. https://doi.org/10.2307/2278703

Schumpeter, J. A. (2012). [Review of the theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle, by A. Croitoru]. *Journal of Comparative Research in Anthropology and Sociology*, *3*(2), 137–148. https://www.ceeol.com/search/article-detail?id=58275

Shah, W. U. H., Yasmeen, R., Sarfraz, M., & Ivascu, L. (2023). The repercussions of economic growth, industrialization, foreign direct investment, and technology on municipal solid waste: Evidence from OECD economies. *Sustainability*, *15*, Article 836. https://doi.org/10.3390/su15010836

Shkodra, N., Sopi, X., & Krasniqi, F. X. (2021). The impact of foreign direct investment in the Western Balkan countries – A panel data analysis. *International Journal of Sustainable Development and Planning*, *16*(6), 1185–1190. https://doi.org/10.18280/ijsdp.160619

Staats, J., & Biglaiser, G. (2012). Foreign direct investment in Latin America: The importance of judicial strength and rule of law. *International Studies Quarterly*, *56*, 193–202. https://doi.org/10.1111/j.1468-2478.2011.00690.x

Sucubasi, B., Trenovski, B., Imeri, B., & Merdzan, G. (2021). The effects of FDI on domestic investments in Western Balkans. *SHS Web of Conferences*, *92*, Article 07059. https://doi.org/10.1051/shsconf/20219207059

Svrtinov, D., Gjorgieva-Trajkovska, D., & Koleva, D. (2017). The effect of foreign direct investment in Western Balkan economies for the period 2005–2015. *ILIRIA International Review*, *7*, 9–20.

The Assembly of the Republic of Kosovo. (2013, December 12). *Law No. 04/L-220 for Foreign Investments*. https://investmentpolicy.unctad.org/investment-laws/laws/211/kosovo-law-on-foreign-investment

The Assembly of the Republic of Kosovo. (2014, January 9). *Law No. 04/L-220 for Foreign Investments*. Official Gazette of the Republic of Kosovo. https://gzk.rks-gov.net/ActDocumentDetail.aspx?ActID=8982

The Assembly of the Republic of Northern Macedonia. (2020). *Law on strategic investments in the Republic of North Macedonia*. De.Jure. https://dejure.mk/zakon/ligj-per-investime-strategjike-ne-republiken-e-maqedonise-se-veriut#

Topalli, M., Papavangjeli, M., Ivanaj, S., & Ferra, B. (2021). The impact of foreign direct investments on poverty reduction in the Western Balkans. *Economics*, *15*, 129–149. https://doi.org/10.1515/econ-2021-0008

Topi, K., & Xhepa, S. (2023). Quality of institutions, foreign direct investments and economic growth: Empirical evidence from Balkan economies. *Economicus*, *22*, 43–52. https://doi.org/10.58944/suvu3944

Topxhiu, R. M., & Radoniqi, D. K. (2018). Foreign direct investment and economic growth: Empirical evidence from the West Balkan countries. *Journal of Academic Research in Economics*, *10*(2), 315–334.

Trpeski, P., Cvetanoska, M., & Kozheski, K. (2021). The impact of foreign direct investments on economic growth and trade: A panel approach of selected Western Balkan countries. *Management Research & Practice*, *13*(3), 21–31.

Tu, N. A. (2024). Innovation and foreign direct investment attraction in developing countries. *Cogent Economics & Finance*, *12*(1), Article 2312386. https://doi.org/10.1080/23322039.2024.2312386

U.S. Department of State. (2021). *2021 investment climate statements*: *Bosnia and Herzegovina*. https://www.state.gov/reports/2021-investment-climate-statements/bosnia-and-herzegovina

U.S. Department of State. (2023a). *2023 investment climate statements*: *Serbia*. https://www.state.gov/reports/2023-investment-climate-statements/serbia/#:~:text=A%20foreign%20investor%20is%20guaranteed,%20be%20the%20subject%20of%20expropriation

U.S. Department of State. (2023b). *2023 Investment climate statements*: *North Macedonia*. https://www.state.gov/reports/2023-investment-climate-statements/north-macedonia/

U.S. Department of State. (2023c). *2023 Investment climate statements*: *Albania*. https://www.state.gov/reports/2023-investment-climate-statements/albania/

Yousaf, A., Erum, N., & Bibi, F. (2016). Economic growth, foreign direct investment and the environment: An empirical investigation for SAARC countries. *Global Strategic & Security Studies Review*, *1*(1), 1–12. https://doi.org/10.31703/gsssr.2016(I-I).01

Zhang, X., & Liu, W. (2021). The rule of law and foreign direct investment. *Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry* (*ICEMCI 2021*), 118–122. Atlantis Press. https://doi.org/10.2991/assehr.k.211209.019

Ziberi, B., & Alili, M. Z. (2021). Economic growth in the Western Balkans: A panel analysis. *South East European Journal of Economics and Business*, *16*(2), 68–81. https://doi.org/10.2478/jeb-2021-0015

APPENDIX

Statistical outputs

Table A1. Fixed effect

Variable	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval] Lower	[95% Conf. Interval] Upper
FDI	0.5216951	0.2623344	1.99	0.057	–0.0156725	1.059063
Corruption Index	0.1030297	0.1457739	0.71	0.486	–0.1955746	0.4016341
Savings	0.4804655	0.1603249	3	0.006	0.1520548	0.8088763
GFCF	0.1367569	0.0481184	2.84	0.008	0.0381908	0.235323
Employment	0.5265761	0.2326732	2.26	0.032	0.0499667	1.003185
Unemployment	0.7307804	0.2272905	3.22	0.003	0.265197	1.196364
Inflation	0.0073826	0.1573335	0.05	0.963	–0.3149006	0.3296658
_cons	–49.15788	14.42751	–3.41	0.002	–78.71128	–19.60447
Statistic	Number of observations	Number of groups	R-sq (within)	R-sq (between)	R-sq (overall)	F-statistics (7, 28)
Value	40	5	0.6048	0.0021	0	6.12
Prob > F	corr(u_i, Xb)	sigma_u	sigma_e	rho (fraction of variance due to u_i)	F test that all u_i = 0	Prob > F (u_i = 0)
0.0002	–0.9264	6.6758199	1.9176092	0.9237783	3.57	0.0178

Test for random effects (RE)

Table A2. Breusch and Pagan Lagrangian multiplier test for random effects (RE)

Component	Var	sd = sqrt (Var)	Test Details	Value	Prob
GDP	7.858268	2.80326	/	/	/
e	3.677225	1.917609	/	/	/
u	0	0	Test: Var(u) = 0	chibar2(01) = 0.00	Prob > chibar2 = 1.0000