THE ROLE OF (ECONOMIC) INSTITUTIONS IN ATTRACTING FOREIGN DIRECT INVESTMENT IN BOSNIA AND HERZEGOVINA

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Abstract

In the context of encouraging economic growth and development, every country needs adequate financial resources, including Bosnia and Herzegovina (hereinafter BiH). One of the key mechanisms in the context of obtaining financial resources refers to foreign direct investment (hereinafter referred to as FDI). FDI can be a very important channel for technology transfer between countries or simply a way to promote international trade through greater access to foreign markets, while from the aspect of international economic integration it can create stable and long-term connections between countries. Attracting foreign investors requires an adequate investment environment in the country, so institutions are of crucial importance for creating a suitable environment for FDI. Attracting FDI requires an economically stable country with clearly defined directions of development. Considering the large number of studies that claim institutions are of crucial importance for economic development, the goal of this paper is to determine whether institutions in BiH contribute to its economic development, through one of the key mechanisms for accelerating economic development – FDI. The period of 20 years, i.e., 2002-2022, was analyzed. Correlation analysis confirmed a positive relationship between FDI and Voice and Accountability and a negative relationship between FDI and Rule of Law, while linear regression indicates that only Rule of Law has a statistically significant and positive impact on FDI in BiH. The findings of this research can serve the holders of economic power in BiH in designing strategies and policies for economic growth and development, i.e., strengthening economic institutions and attracting FDI.

Keywords: institutions, foreign direct investment, economic development, Bosnia and Herzegovina

JEL: O43, F21, F43

1. Introduction

Starting from the point of Voigt's statement ''institutions matter crucially for economic development'' (Voigt, 2013, p. 2), who in his work cited both affirmative and contradictory statements regarding the influence of institutions on economic development, the main goal of this paper is to determine whether institutions contribute to economic development of Bosnia and Herzegovina (BiH) through Foreign Direct Investment (FDI). Bosnia and Herzegovina (BiH) is a developing country (Upper Middle Income) struggling with a lot of economic issues, such as: high unemployment, low productivity, migrations of working population, foreign trade imbalance, low investment, low economic institutions. It also faces a lot of other issues such as political, social, and perhaps most importantly corruption and low transparency (both in the private and public sector). The question is always open of how to attract FDI so that it can boost economic growth and development.

In this paper, we started from stimulating institutions that create a suitable ground for FDI. Institutions are a key mechanism in creating a suitable environment for FDI, and an institutional framework that is stable and clear is one of the preconditions for attracting FDI. An efficient legal system that protects property rights, represents an appropriate framework for resolving disputes and ensures transparency, influences the attraction of FDI. In an attempt to define institutions, it is perhaps the simplest to start from the definition according to which institutions represent "the rules of the game in society, that is, limitations designed by people that shape interactions between people'' (North, 1990, p. 3). Thus, according to North, institutions include formal rules (constitution and laws) and informal rules and restrictions related to codes, norms of behavior and conventions, which are imposed by individuals or social groups (North, 1990, p. 36). Institutions are a broad term, and

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the focus of this paper is on economic institutions, which can be defined as "formally determined rules according to which economic interactions of economic subjects take place with the aim of reducing uncertainty in these interactions. The institutional structure or framework of an economic system consists of all the economic institutions that exist in that system" (translated from Halebić, 2009, p. 193).

Efficient institutions are reflected in economic growth and development through a stable political environment, strong economy of the country, and significant domestic and foreign investment. Inefficient institutions lead the country to political instability, economic backwardness and are a certain way to poverty and an increase in the inequality gap. There are many examples of the above, but perhaps the most obvious examples are North and South Korea, West and East Germany, China and Taiwan. Before the Second World War, these countries were on approximate development scales, but after the Second World War they had different development and institutional paths, which led to significant differences in their level of development at the end of the 1980s. These examples point to the importance and role of institutions as a fundamental source of economic development. Thanks to the various institutions formed by these countries, large development disparities occurred over a period of several decades.

In a multitude of different (groups of) institutions (e.g., they can be divided into economic, political, legal, and social (Jutting, 2003)), the focus of this research are economic institutions. Economic institutions according to Wiggins and Davis (2006) refer to institutions which perform economic functions in the framework of establishing and protecting property rights and facilitating economic cooperation and organization.

In the case when an enterprise (company) invests its funds in another enterprise (company) located in a foreign country, such an investment is said to be a foreign direct investment. A foreign direct investor (investor) is any entity that is a resident of one country and that has acquired, either directly or indirectly, at least 10% of the voting power of a company that is a resident of another country (OECD, 2018, p. 17). FDI can be

undertaken either by individuals or business entities. In general, FDI is undertaken to expand operations or to become more connected to other countries from which certain economic or other types of benefits are expected in the future. For the most part, the destination country of FDI is an open country, because in such a country the prospects for growth of investors are above average, as well as a country where tax regulation is weaker.

According to the definition of UNCTAD (UN Trade and Development), FDI implies an investment that includes a long-term relationship and reflects the permanent interest and control of a resident entity in one country (foreign direct investor or parent company) in a company that is resident in a country other than that of the foreign direct investor (FDI company or affiliate or foreign affiliate) (UNCTAD, 2022, p. 3). FDI is a category of cross-border investments in which an investor resident in one country establishes a permanent interest and a significant degree of influence on an enterprise that is a resident of another country (OECD iLibrary, 2024). According to the IMF and OECD definitions, it can be said that FDI reflects the goal of acquiring a permanent interest of a resident subject of one economy (direct investor) in a company that is a resident of another economy (direct investment company), whereby permanent interest implies the existence of a long-term relationship between the direct investor and the company for direct investment, as well as the existence of a significant degree of influence on the management of the latter (Duce, España, 2003, p. 44).

Regarding the benefits of FDI in developing countries, we often come across conflicting opinions of authors. However, the fact is that FDI is an indispensable component of the developing economy, and a significant factor in the fight against poverty.

From a theoretical point of view, "investments are a generator of economic development, country's growth rate, development and economic stability, so the theoretically defined and empirically confirmed functional connection between investments and economic growth and development is not disputed, although it is difficult to define a unique form of such a functional connection" (translated from Ibreljić,

2006, p. 27). However, a high level of investment does not automatically mean economic growth and development. Nevertheless, there is no doubt that FDI contributes to economic development, and the country, through economic policy measures, needs to continuously work to create an environment that will be attractive to foreign investors.

From the aspect of FDI contribution to economic development, the best effects in this context were showed by greenfield investment (which brings new jobs, new methods of production, new products, *etc*.). Attracting FDI requires an economically stable country with clearly defined directions of development. It is very important for the country to have a certain sectoral structure of the FDI inflow of, that is, that, in accordance with the development goals, there are certain sectors in which these funds will be placed. Only then FDI contribute to the country's economic development in the long term.

2. Theoretical Background and Previous Research

2.1 Theoretical background

We tried to achieve the main goal of the research through the analysis of economic institutions through the governance indicators of the World Bank and basic indicators that show the movement of FDI in a country.

The World Bank through Worldwide Governance Indicators (WGI) project annually publishes indicators for six dimensions of management for member countries, namely: Voice and Accountability; Political Stability and Absence of Violence/Terrorism; Government Effectiveness; Regulatory Quality; Rule of Law and Control of Corruption, according to Kaufmann and Kraay (2023).

The description of dimensions of governance is given as follows:

Table 1. *The dimensions of governance*

Variable	Description
Voice and accountability	Voice and accountability capture perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and free media.
Political stability and absence of violence	It measures perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism.
Government effectiveness	In constructing this index, the authors combine responses on the quality of public service provision, the quality of bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies.
Regulatory quality	It is more focused on the policies themselves. It includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development.
Rule of law	It measures the extent to which agents have confidence in and abide by the rules of society and it includes perceptions of the incidence of crime, the effectiveness and the predictability of the judiciary, and the enforceability of contracts. These indicators measure the extent of protection of property rights and also the success of a society in developing an environment where fair and predictable rules form the basis of the economic and social interactions.
Control of corruption	It measures perceptions of corruption, conventionally defined as the exercise of public power for private gain. According to their definition, the presence of corruption represents a failure of governance.

Source: Kaufmann *et al*. (2004), Kaufmann and Kraay (2023)

For the purpose of this research, the mentioned dimensions were grouped into three groups and the quality of economic institutions in BiH was analyzed through: Government efficiency,

Regulation and Control of Corruption. The schematic representation of the research can be seen from the Figure 1:
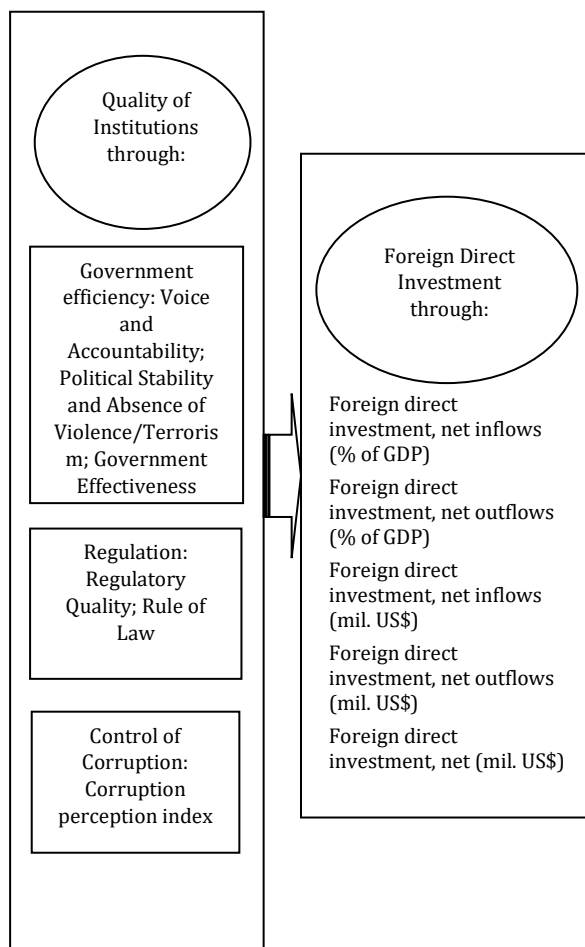

Figure 1. *Conceptual Framework of the Study*
Source: Authors' creation

The used indicators (of the World Bank) for the assessment of the quality of institutions range in intervals -2.5 to 2.5, where -2.5 means weak institutions, while 2.5 means strong institutions (governance performance).

2.2 Previous research

Developing countries especially benefit much from FDI, because they need financing to a greater extent to expand their business internationally.

Based on FDI, funds are obtained to improve infrastructure, energy, water, as well as to fight against the negative effects caused by climate change, and at the same time, they also develop opportunities for developing trade agreements and integration with other countries. There is increasing empirical and theoretical literature related to (economic) institutions and FDI nexus, especially thanks to the increase in international capital flows.

Acemoglu *et al.* theoretically (with numerous historical examples) and empirically supported the idea that differences in economic institutions are the fundamental cause of differences in economic development.

In a broad explanation of the importance of economic institutions, the authors conclude that some societies are much poorer than others because they have "poor economic institutions" (Acemoglu *et al.*, 2005).

Daude and Stein (2007) investigated the importance of institutional variables in the context of FDI. They came to the conclusion that institutions are generally important in attracting FDI, but that some institutional aspects have primacy over others. So, for example, disincentives on the side of direct investment affect the unpredictability of laws, excessive regulatory burden, government instability, etc. Perhaps one of the main conclusions of their research is that "the effect of a one standard deviation improvement in the regulatory quality of the host country increases FDI by a factor of around" (Daude & Stein, 2007, pp. 317–344).

Brindusa (2005) argued that countries whose governments are positioned high according to various indices of institutional quality tend to attract foreign investment better. The results showed that bad institutions (measured according to different indices) negatively affect the investment of the direct party. It was proved that some aspects such as: political stability, protection of property rights, corruption control and government efficiency are always significant for FDI.

Bénassy-Quéré, Coupet and Mayer (2007) studied the determinants of FDI in developing countries, and examined the role of the quality of institutions on FDI independently of the general level of development. The Fraser Institute data for 52 developing countries were used. They concluded that for inward FDI, regardless of gross domestic product per

capita, it is necessary to have a wide range of institutions which are responsible for establishing the framework for flexible bureaucracy, better control of corruption, availability of information, functioning the banking sector and other institutions. In addition, the institutional connection outside the country of origin and the host country is also important. These results suggest that developing countries should increase their efforts to raise the quality of institutions to the level that exists in the countries of origin, and thus increase received FDI.

Ullah and Khan (2017) aimed to examine the determinants of FDI, focusing primarily on institutional and economic factors. The area of their research included the countries of the South Asian Association for Regional Cooperation (SAARC), the Association of Southeast Asian Nations (ASEAN), as well as the countries of Central Asia, and the research period was 2002–2014. The generalized method of moments (GMM) was used to analyze the influence of institutional quality on the inflow of FDI, where the control variables were the size of the market, the volume of domestic investments, and the labor force.

The research showed that there are big differences in the influence of institutional and economic variables on FDI in the observed regions. In the SAARC region, real GDP, domestic investments and the index of economic freedom have a positive influence on the inflow of FDI, while the management index and labor force have a negative influence on FDI. When it comes to the ASEAN region, only GDP has a negative relationship with FDI inflow. In Central Asia, real GDP, domestic investments and governance index have a positive relationship with FDI inflow, while the effect of the economic freedom index on FDI is negative, but also insignificant. The authors concluded that institutional factors play an important role in attracting FDI inflows to the ASEAN region, and this is greater than the case with their role in the regions of Central Asia and SAARC.

Cezar and Escobar (2015) studied the relationship between FDI and institutional distance. The spatial coverage was OECD countries. The theoretical results showed and empirically confirmed, that institutional distance reduces the probability that a company will invest in a foreign country, and at the same time, the volume of investments that this company will eventually undertake also decreases. The research concluded that companies from developing countries have a harder time adapting to institutional attachment than companies from developed countries.

Bergougui and Murshed (2023) examined the relationship between institutional quality and FDI. The research area was the MENA countries (that is, 10 countries of the Middle East and North Africa), while the research period was 1990–2018. FDI was observed at the sectoral level, that is, investment in the primary, secondary and tertiary sectors.

On the side of institutional quality, the authors looked at the index of the rule of law, property rights, the index of responsibility and the aggregate index of the quality of institutions. According to these authors, corruption plays a significant role in the rejection of FDI in the tertiary sector. In addition, they concluded that the quality of institutions is the key factor in attracting higher levels of FDI, especially in the manufacturing and service sectors.

Ali, Fiess and MacDonald (2010) tried to check which role institutions play in attracting FDI, both at the overall level and at the level of sectors within countries. They used panel analysis and a sample of 107 countries, and their research period was 1981–2005. The main conclusion is that FDI in the observed countries are mostly determined by the dimensions of the rule of law, property rights and expropriation risk. According to the authors, institutional quality is important for attracting FDI in production but it does not have a significant impact and role in the primary sector.

In his research, Wei (2001) tried to establish a connection between the structure of capital flows into a country and its level of corruption. He assumed a greater probability that a country where there is a lot of corruption will also have a greater tendency to become vulnerable and sensitive to sudden changes in capital flows. FDI and bank loans were

observed as capital flows in the research. He concluded that more corrupt countries have a relatively simple structure of FDI and a relatively complex structure of bank loans.

3. Methodology

The paper tried to determine how much the quality of (economic) institutions determines the inflows and outflows of FDI in BiH. Descriptive and inferential statistics was used, as well as different methods of scientific research, the most important of which are: induction and deduction, concretization, analysis and synthesis, as well as generalization and specialization.

Secondary data taken from the official website of one of the world's most important financial institutions (the World Bank) were processed. The observation area was BiHand the research period was the period from 2002 to 2022.

The research included the correlation between the selected indicators, and the regression analysis established the connection between the selected indicators of the dependent variable (FDI) and the indicator of the independent variable (institutions).

Table 2. *Abbreviated names and data sources for the indicators used*

Indicator	Code	Source
Voice and Accountability	va	World bank
Political Stability and Absence of Violence/Terrorism	psavt	World bank
Government Effectiveness	ge	World bank
Regulatory Quality	rq	World bank
Rule of Law	rol	World bank
Control of Corruption	coc	World bank
Foreign direct investment, net inflows (% of GDP)	fdii	World bank
Foreign direct investment, net outflows (% of GDP)	fdio	World bank
Foreign direct investment, net inflows (BoP, current mil. US$)	fdiic	World bank
Foreign direct investment, net outflows (BoP, current mil. US$)	fdioc	World bank
Foreign direct investment, net (BoP, current mil. US$)	fdin	World bank

Source: Authors' creation

To analyze the data in the regression model, the variable that we believe has the greatest impact on economic growth than others, which is the inflow of FDI as a % of GDP, ceteris paribus, was used. Based on the obtained results, it was concluded which of the indicators of the independent variable had the greatest influence on the inflow of FDI in BiH in the observed period. The data were processed in the STATA software package.

4. Results and Discussion

It is very difficult to say which dimension of institutional quality is more important than other. Figure 2 represents the observed institution indicators in BIH.

As can be observed, all the indicators varied over time. Only Voice and Accountability had a positive value during 2002-2009. All the other indicators had negative values in the observed period, which means that BiH had bad institutions or low efficient institutions. Government Effectiveness has the worst values during time.
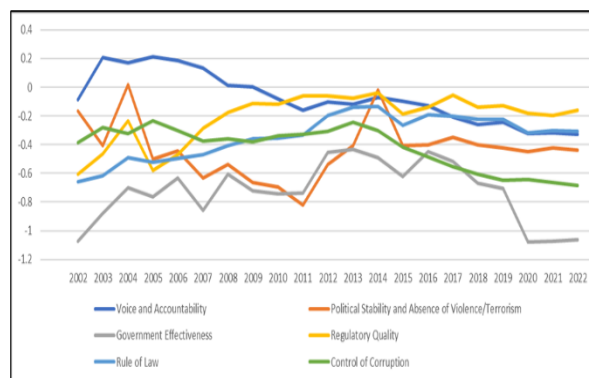

Figure 2. *Institutional indicators of BiH in the period 2002–2022*
Source: Authors' creation

Net inflows and outflows of FDI in the period 2002–2022 in BiH is presented in Figures 3 and 4. As can be seen from the figures below, the movement of inflows and outflows of FDI in the total amount, *i.e.*, in millions of US$, was monitored with the movement of FDI expressed as a % of GDP. Inflows of FDI in BIH reached their highest value in 2007, while outflows of FDI reached their highest value in 2004 (for FDI outflows in 2002 and 2003, no data are presented because we do not have

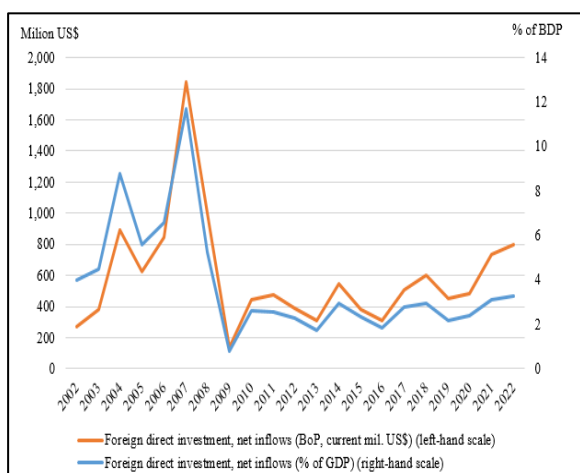available data for those periods, but it is assumed that outflows were zero).

Figure 3. *FDI net inflows in BIH (mil. US$ and % of GDP)*
Source: Authors' creation

BiH had the lowest value of both inflows and outflows of FDI in 2009, which can be linked to the consequences of the global financial crisis. In that period, that is, after the onset of the global financial crisis, many countries, including BiH, which was more dependent on the export or import of goods, services, capital or even labor force, felt the consequences of the crisis primarily through the drop in prices of exported goods and services, reduction of employment, reduction of investments, as well as reduction of global trade.

The most frequently applied strategies for mitigating the consequences of the global financial crisis included a reduction in interest rates or an increase in government spending, and in this way an effort was made to strengthen the domestic economy.
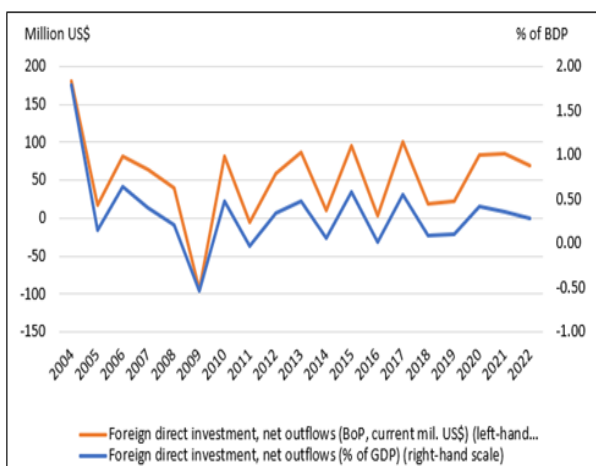

Figure 4. *FDI net outflows in BIH (mil. US$ and % of GDP)*
Source: Authors' creation

If the net flows of FDI are observed as the difference between outflows and inflows of FDI (Figure 5), it can be concluded that in BiH the net amount of direct investment was negative for the entire observed period. The lowest value was achieved in 2007 and amounted to 1,777.37 million US$. For all other periods, the net amount of FDI ranged from 200 to 800 million US$.

However, the negative values of the net flows of FDI are presented in this way due to the need for the accounting method of expressing the value of inflows and outflows of FDI in the balance of payments, where inflows are recorded with - and outflows with +.
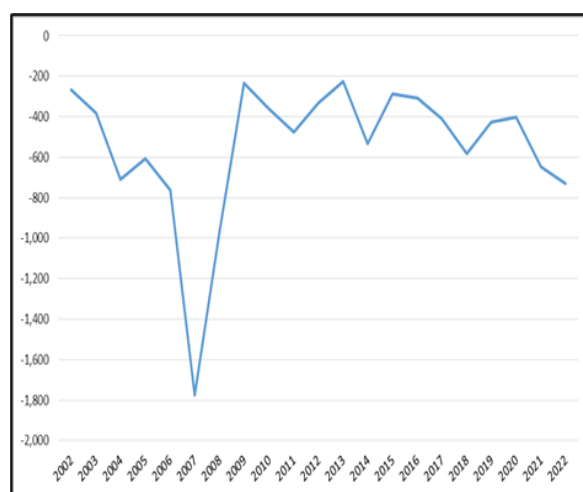

Figure 5. *Foreign direct investment in BIH, net (BoP, current mil. US$)*
Source: Authors' creation

Table 3 shows descriptive statistics for all the observed indicators and years.

As can be seen, when it comes to institutions, the Government Effectiveness indicator reached the lowest value (-1.08 in 2020), followed by the Political Stability and Absence of Violence/Terrorism indicator (-0.82 in 2011). The highest value was reached for the

Voice and Accountability indicator (0.21 in 2003 and 2005). What can be easily observed is that the values of the indicators of institutions were in the vast majority of cases negative for BiH. If we look at the inflows of FDI, we can see that the smallest amount of

Table 3. *Descriptive Statistics*

Variable	Obs	Mean	Std. Dev.	Min	Max
Year	21	2012	6.205	2002	2022
Va	21	-.076	.177	-.33	.21
Psavt	21	-.432	.2	-.82	.02
Ge	21	-.726	.212	-1.08	-.43
Rq	21	-.213	.172	-.61	-.04
Rol	21	-.344	.152	-.66	-.13
Coc	21	-.422	.15	-.68	-.23
Fdii	21	3.809	2.576	.79	11.67
Fdio	21	.303	.434	-.53	1.78
Fdiic	21	591.943	362.063	138.51	1841.97
Fdioc	21	47.601	56.253	-93.49	181.28
Fdin	21	-544.341	345.051	-1777.37	-227.03

Source: Authors' creation

Table 4. *Pairwise correlations*

Var	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) va	1.000										
(2) psavt	0.060	1.000									
	(0.797)										
(3) ge	0.198	0.059	1.000								
	(0.391)	(0.800)									
(4) rq	-0.572*	-0.163	0.449*	1.000							
	(0.007)	(0.479)	(0.041)								
(5) rol	-0.635*	-0.011	0.547*	0.868*	1.000						
	(0.002)	(0.962)	(0.010)	(0.000)							
(6) coc	0.801*	-0.024	0.435*	-0.281	-0.328	1.000					
	(0.000)	(0.919)	(0.049)	(0.217)	(0.146)						
(7) fdii	0.633*	0.145	-0.183	-0.470*	-0.576*	0.284	1.000				
	(0.002)	(0.530)	(0.428)	(0.031)	(0.006)	(0.212)					
(8) fdio	0.199	0.441*	0.075	-0.003	-0.078	0.079	0.500*	1.000			
	(0.387)	(0.046)	(0.746)	(0.989)	(0.736)	(0.733)	(0.021)				
(9) fdiic	0.294	-0.062	-0.186	-0.145	-0.252	-0.007	0.869*	0.364	1.000		
	(0.196)	(0.789)	(0.419)	(0.530)	(0.270)	(0.975)	(0.000)	(0.104)			
(10) fdioc	-0.027	0.348	0.012	0.085	0.068	-0.091	0.383	0.937*	0.373	1.000	
	(0.906)	(0.122)	(0.959)	(0.715)	(0.769)	(0.696)	(0.087)	(0.000)	(0.096)		
(11) fdin	-0.313	0.122	0.197	0.166	0.276	-0.007	-0.849*	-0.230	-0.988*	-0.228	1.000
	(0.168)	(0.598)	(0.391)	(0.471)	(0.226)	(0.976)	(0.000)	(0.317)	(0.000)	(0.319)	

*** p<0.01, ** p<0.05, * p<0.1

Source: Authors' creation

inflow was US$ 138.51 million (in 2009) and the largest was US$ 1,841.97 million (in 2007).

When it comes to FDI outflows, the smallest realized amount was -93.94 (in 2009) and the largest was US$ 181.97 million (in 2004).

The correlation between the observed indicators of the dependent and independent variables is presented in Table 4. The following values were used to determine the strength of the relationship expressed using the correlation
coefficient (Zahirović & Okičić, 2021, p. 69):
o Correlation coefficient 0.10–0.29 low strength of connection
o Correlation coefficient 0.30–0.49 medium strength of connection
o Correlation coefficient 0.50–1.00 high strength of connection.

Negative values of the correlation coefficients would mean that there is an opposite relationship between the indicators, that is, an increase in one indicator causes a decrease in the value of another indicator from the observed correlation matrix. The same would apply in the case of a decrease in the value of one indicator, i.e., a decrease in the value of one would cause an increase in the value of the other indicator.

Positive values of correlation coefficients mean that there is a direct connection between the observed indicators, i.e., that an increase in one causes an increase in the other, and the same is true in the case of a decrease in value.

A statistically significant correlation exists for the indicators of Foreign direct investment, net inflows (% GDP) with Voice and Accountability, Regulatory Quality and the Rule of Law, as well as for the indicator Foreign direct investment, net outflows (% GDP) and Political Stability and Absence of Violence/Terrorism (Table 4).

For most of the observed coefficients, there is a small and positive correlation.

The medium negative strength of the relationship is present in the indicators of Foreign direct investment, net inflows (% of GDP) and Regulatory Quality.

This happens in cases when investments "flee" to a country where the quality of regulation is worse, but in any case, one should be careful when proposing measures because "some countries will be suited to policies that reduce regulations. For other countries, policies to improve the security of property rights could work better" (Brindusa, 2005, p. 30).

The medium negative strength of the relationship is also present in Foreign direct investment, net (BoP, current million US$) and Voice and Accountability.

As the value of Voice and Accountability is higher, the value of net FDI (calculated as the difference between outflow and inflow of FDI) will be lower.

In order for the value of net FDI to be lower, net investment inflows would have to be higher. This implies that the greater the Voice and Accountability, the greater the inflow of FDI into the country, and the medium positive strength of the relationship is present between the indicators Foreign direct investment, net outflows (% of GDP) and Political Stability and Absence of Violence/Terrorism, and Foreign direct investment, net outflows (BoP, current mil. US$) and Political Stability and Absence of Violence/Terrorism.

The most related are Foreign direct investment, net inflows (% of GDP) and Voice and Accountability with a positive connection in the amount of 0.633 and Foreign direct investment, net inflows (% of GDP) and Rule of Law with a negative connection in the amount of 0.576.

To examine the connection and the strength of the connection between the percentage share of FDI inflows in GDP with the selected indicators used to represent the quality of (economic) institutions in the country, the simultaneous multiple linear regression model was used (the estimated multiple linear regression model is represented by Equation 1).

The results of the obtained model are presented in Table 5.

We checked the normality of the model error distribution based on Skewness/Kurtosis tests for Normality, and the test results are showed in Table 6.

Table 5. *Linear regression model*

fdii	Coef.	St.Err	t-value	p-value	[95% Conf	Interval]	Sig
va	18.124	6.723	2.70	.017	3.704	32.544	**
psavt	1.639	2.325	0.70	.492	-3.348	6.626	
ge	-4.647	4.816	-0.97	.351	-14.976	5.681	
rq	4.064	5.387	0.75	.463	-7.489	15.617	
rol	.679	9.738	0.07	.945	-20.208	21.566	
coc	-7.817	5.615	-1.39	.186	-19.86	4.226	
Const	.326	2.333	0.14	.891	-4.679	5.33	
Mean dependent var	3.809	SD dependent var		2.576			
R-squared	0.597	Number of obs		21			
F-test	3.449	Prob > F		0.026			
Akaike crit. (AIC)	93.248	Bayesian crit. (BIC)		100.560			

*** p<.01, ** p<.05, * p<.1
Source: Authors' creation

$$\hat{Y}_i = b_0 + b_1 x_{1i} + b_2 x_{2i} + b_3 x_{3i} + b_4 x_{4i} + b_5 x_{5i} + b_6 x_{6i}$$
(Equation 1)

Where the symbols in Equation 1 are:

$\hat{Y}$ – dependent variable (Foreign direct investment, net inflows (% of GDP))
x_1, x_2, x_3, x_4, x_5 i x_6 – independent variables (x_1 - Voice and Accountability,
x_2 - Political Stability and Absence of Violence/Terrorism,
x_3 - Government Effectiveness,
x_4 - Regulatory Quality,
x_5 - Rule of Law,
x_6 - Control of Corruption)
i – time period 2002-2022
b_0 – constant
b_1, b_2, b_3, b_4, b_5 i b_6 – regression coefficients of independent variables.

Since we created an assumed linear regression model, it was necessary to check whether the key assumptions for using this type of model are met.

This means that it is necessary to check whether the model error is normally distributed, and whether there is a problem of heteroskedasticity or multicollinearity.

Table 6. *Skewness/Kurtosis tests for Normality*

Variable	Residuals
Obs	21
Pr (Skewness)	0.810
Pr (Kurtosis)	0.009
adj_chi2(2)	6.240
Prob>chi2	0.044

Source: Authors' creation

Based on the value from Prob>chi2 = 0.0044 which is less than 0.05, it means that the model errors are normally distributed. Heteroskedasticity was checked based on the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity.

Based on the obtained value Prob>chi2 = 0.0004, which is less than 0.05, it is concluded that there is no problem of heteroskedasticity. Multicollinearity was checked based on the Variance inflation factor.

The test results are showed in Table 7.

Table 7. *Variance inflation factor*

	VIF	1/VIF
rol	11.481	.087
va	7.422	.135
ge	5.43	.184
rq	4.509	.222
coc	3.721	.269
psavt	1.132	.883
Mean VIF	5.616	.

Source: Authors' creation

The values from the VIF column show that there is a problem of multicollinearity of the data for the Rule of Law variable, whose value is greater than 10, *i.e.* which is 11.481.

We solved the mentioned problem by omitting the Rule of Law variable and re-creating the regression model.

The new regression model, which meets the necessary assumptions, is presented in Table 8.

A statistically significant impact was determined for the independent variable Voice and Accountability in the amount of 17.834, where p=0.003 < 0.05 on the share of FDI inflows in GDP. Government Effectiveness and Control of Corruption have a negative impact on FDI, which is not statistically significant either.

Based on the obtained data, the estimated model will have the following value:

$$FDII = 0.289 + 17.834*va + 1.662*psavt - 4.399*ge + 4.272*rq - 7.853*coc \quad \text{(Equation 2)}$$

Based on the estimated linear regression model, it can be determined how FDI inflows hange as a percentage of GDP, depending on the selected indicators of institutions in BiH. Only one coefficient is statistically significant.

This means that in BIH, the percentage of FDI in

Table 8. *New linear regression model*

fdii	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
va	17.834	5.1	3.50	.003	6.964	28.703	***
psavt	1.662	2.225	0.75	.467	-3.08	6.403	
ge	-4.399	3.125	-1.41	.18	-11.06	2.262	
rq	4.272	4.335	0.99	.34	-4.968	13.511	
coc	-7.853	5.403	-1.45	.167	-19.369	3.662	
Const	.289	2.198	0.13	.897	-4.395	4.974	
Mean dependent var	3.809	SD dependent var	2.576				
R-squared	0.596	Number of obs	21				
F-test	4.432	Prob > F	0.011				
Akaike crit. (AIC)	91.255	Bayesian crit. (BIC)	97.522				

*** p<.01, ** p<.05, * p<.1

Source: Authors' creation

The coefficient of determination R^2 is 0.596, which means that 59.6% of the variability of the dependent variable, *i.e.*, of the percentage share of FDI in GDP is explained with changes in the selected independent variables, which represent the quality of institutions in the country, in our case BiH.

The population determination coefficient is not equal to 0, *i.e.* p=0.011<0.05. This means that the statistical significance of the evaluated model and its suitability for further explanation and interpretation were confirmed.

relation to GDP will increase if Voice and Accountability increases, because only this variable has a statistically significant positive influence.

For all the other variables, it cannot be claimed with statistical significance that they have an influence on the increase or decrease of FDI as a percentage of GDP in BiH.

5. Conclusions and Research Opportunities

With increased globalization in the world financial markets, there has been an increase in the importance and role of FDI, as a key determinant for the transfer of technological knowledge from developed countries to less developed countries.

Essentially, only institutionally strong countries could attract high levels of permanent direct investment, offering such investors high returns on their invested funds. However, there are some cases when FDI goes to a country where certain elements of institutional quality are weak, such as corruption control, rule of law or government efficiency.

In this way, there are speculative movements and efforts to avoid certain business rules. For this reason, this paper investigated whether the institutions in BiH have any connections with FDI, as one of the most important components necessary for the economic development of the country.

In addition, an effort was made to determine the basic indicators of institutions that had a positive and negative effect on FDI in this country in the period from 2002 to 2022.

The analysis of individual indicators of institutions showed that in the observed period, only Voice and Accountability had a positive value, and that in the period 2003–2009 all other indicators were below zero for the entire observed period.

When it comes to FDI, it is important to note that the highest value was achieved in 2007 for fFDI inflows and in 2004 for FDI outflows.

Comparing the inflows of FDI in BiH with the inflows of FDI in the countries of the Western Balkans, it can be concluded that BiH lags behind certain countries, especially Albania, Slovenia or Serbia, observing the net inflows of FDI.

Correlation analysis showed that the most related were Foreign direct investment, net inflows (% of GDP) and Voice and Accountability with a positive connection in the amount of 0.633 and Foreign direct investment, net inflows (% of GDP) and Rule of Law with a negative connection in the amount of -0.576.

This means that with an increase in Voice and Accountability in BIH, greater inflows of FDI can be realized as a % of GDP. The value of this indicator in 2022 was -0.33, which would mean that there are possibilities for its increase to at least some positive values that were before 2009.

On the other hand, the results showed that the rule of law, which is not at an enviable level, can act as a factor that attracts foreign investors and their investments.

The value of this indicator has been decreasing since 2016 and has been constantly negative. Linear regression determined a statistically significant influence for the independent variable Voice and Accountability on FDI in the amount of 17.834.

According to the mentioned model, Government Effectiveness and Control of Corruption have a negative impact on FDI, but statistically insignificant.

In the context of accelerating economic growth and development, for economically, politically, socially and religiously very complex, small and open countries such as BiH, one of the key challenges in the future is certainly the more significant attraction of FDI.

Without adequate, efficient, transparent and corruption-free institutions, this will not be possible. There are many macroeconomic problems that this country faces, and the strengthening of institutions in this context should perhaps be the imperative.

The main limitations of the research refer to the absence of all data for a longer period of time, based on which the research could provide better and more useful results.

Recommendations for future research are to consider other countries of similar economic status as BiH, to examine the existence of certain differences in terms of their

institutional quality, or to consider some more developed countries, and compare the results obtained by this research.

It would certainly be very useful to analyze the quality of institutions in the countries of the Western Balkans or Southeastern Europe and, based on panel analysis, draw certain conclusions about the importance of the quality of institutions for attracting FDI and thus their contribution to the economic development of the countries.

References

1. Acemoglu, D., Johnson, S. & Robinson J. A. (2005*). Institutions as a Fundamental Cause of Long-Run Growth*. Chapter 06 in Handbook of Economic Growth. North-Holland. 1(A), pp. 385–472.

2. Ali, F., Fiess, N. & MacDonald, R. (2010). Do Institutions Matter for Foreign Direct Investment*. Open Economies Review*. Springer. 21(2), pp. 201–219.

3. Bénassy-Quéré, A., Coupet, M. & Mayer T. (2007). Institutional Determinants of Foreign Direct Investment. *The World Economy*. 30 (5), pp. 764–782.

4. Bergougui, B. & Murshed, S. M. (2023). A sectoral analysis of institutional quality and foreign direct investment in Mena countries: does sector type matter. *Review of World Economics*, (Weltwirtschaftliches Archiv). Springer; Institut für Weltwirtschaft (Kiel Institute for the World Economy). 159(4), pp. 987–1012.

5. Brindusa, A. (2005). *Do Institutions Affect Foreign Direct Investment?*. International doctorate in economic analysis. Universidad Autónoma de Barcelona, Retrieved from https://www.academia.edu/download/45470074/Do_institutions_affect_foreign_direct_in20160509-9732-1i5ucq1.pdf, Accessed: 19.06.2024.

6. Cezar, R. & Escobar, O. R. (2015). Institutional distance and foreign direct investment. *Rev World Econ*. 151, pp. 713–733, Retrieved from https://doi.org/10.1007/s10290-015-0227-8, Accessed: june 2024

7. Daude, C. & Stein E. (2007). The Quality of Institutions and Foreign Direct Investment. *Economics and Politics*. 19(3), pp. 317–344.

8. Duce, M. & España, B. D. (2003). *Defnitons of Foreign Direct Investment (FDI): a methodological note*. Banco de España. 6(2), pp. 43–49.

9. Halebić, J. (2009). Ekonomske institucije u nacionalnim i globalnim razmjerama. *Znakovi vremena*. pp. 184–196. Retrieved from https://www.ibn-sina.net/wp-content/uploads/2009/12/184_JASMIN_HALEBIC.pdf, Accessed: june 2024.

10. Ibreljić, I. (2006). *Investicije I: Teorija, projekti, evaluacija.* Harfograf. Tuzla

11. Jutting, J. (2003). *Institutions and Development: A Critical Review.* No. 210. OECD.

12. Kaufmann, D. & Kraay, A. (2023). *Worldwide Governance Indicators*, 2023 Update (www.govindicators.org), Accessed: june 2024.

13. Kaufmann D., Kraay A. & Mastruzzi M. (2004). *Governance Matters: Governance Indicators for 1996–2002*. The World Bank

14. North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

15. OECD. (2018). *Benchmark Definition of Foreign Direct Investment*. Fourth edition; Retrieved from: https://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf, Accessed: june 2024.

16. OECD iLibrary. (2024), Retrieved from: https:// www.oecd-ilibrary.org /finance-and- investment/ foreign-direct-investment-fdi / indicator-group/ english_9a523b18-en, Accessed: june 2024.

17. Ullah, I. & Khan, M.A. (2017). Institutional quality and foreign direct investment inflows: evidence from Asian countries. *Journal of Economic Studies*. 44 (6), pp. 1030–1050.

18. UNCTAD. (2022). *Methodological note.* World Investment Report 2022 – International tax reforms and sustainable investment; Retrieved from https://unctad.org/system/files/official-document/wir2022_chMethodNote_en.pdf, Accessed: june 2024.

19. Voigt S. (2013). How (not) to measure institutions. *Journal of Institutional Economics*, Retrieved from https://www.academia.edu/65733680/How_Not_to_measure_institutions?email_work_card=view-paper, Accessed: june 2024.

20. Wei, S. J. (2001). Domestic Crony Capitalism and International Fickle Capital: Is There a Connection?. *International Finance.* 4 (1), pp. 15–45.
21. Wiggins, S. & Davis, J. (2006). Economic Institutions. DFID. *IPPG Briefing Paper*, No. 3, pp. 1–4.
22. Zahirović S. & Okičić J. (2021.). *Primijenjena multivarijantna analiza*. Off-set. Tuzla