

Inflation Impact on Foreign Direct Investment - Evidence from Western Balkan Countries



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ABSTRACT

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inflation, foreign direct investment, economic growth, gross domestic product, unemployment

The objective of this article is to explore the degree of relationship between inflation and foreign direct investments (FDI) and other macroeconomic indicators in Western Balkan countries. This is a quantitative empirical study relied on regression model, generalized method of moments (GMM) and other econometric measurements such as fixed effects model, random effects model and Pooled OLS model. The data on this empirical study is relied on 15 years observation of each of six Western Balkan countries. The study combines two types of variables with panel data from World Bank Open Data and KAS for the period 2008-2022. The results indicate a significant positive impact of inflation rate on FDI. A percentage rise in inflation rate is related with 0.30% short-term FDI growth, at an average of 5% ceteris paribus. Furthermore, the results indicate the statistically positive effect of inflation rate on GDP growth. A percentage increase in inflation rate is correlated with 0.17% increase in GDP. On the other hand, results revealed the inversely relationship between inflation rate and unemployment. A percentage change in inflation rate is associated by -0.168% reduction of unemployment in the short term. This intercourse will reduce unemployment and may provide conditions for increased employment in these countries. The results of the study confirm that the rate of inflation, FDI, GDP growth and unemployment rate over the years manifest an inelastic relationship among themselves. Based on our study findings we suggest some policy recommendations. Governments, through appropriate fiscal policies, can support local monetary policies to manage inflation. Initially, through policies that will enable the reduction of public expenditures and the reduction of high inflation rates. Secondly, Central banks, through appropriate policies, should manage inflation rates in their countries in order to ensure macroeconomic stability.

1. INTRODUCTION

Considering the importance of inflation rate for long-term investments, we are trying to investigate the degree of relationship between inflation and foreign direct investments (FDI) and other macroeconomic indicators in Western Balkan countries. The inflation is an important indicator of economic growth [1]. Among many factors influencing economic growth, inflation is considered to be one of the most important macro indicators [2]. Admittedly, the primary objective of the countries is to ensure sustainable economic growth. Numerous empirical studies emphasize the role of inflation in economic growth [3-9]. The relationship between money and inflation is old, the amount of money in circulation determines the price level in the economy. The causes which produce inflation are generally recognized. Among the most important ones that should be considered are; reduction of purchase power, excessive interest rates, reduction of economic growth. Irving Fischer's quantity theory [10] concluded that changes in the quantity of money cause changes in the price level. This theory was later supported by many economists [11, 12]. In this context, the first question is, who should be responsible for

causing inflation as a monetary phenomenon? Central banks are being considered responsible for inflation control and consumer price stability. It's known that price stability is an important factor for also the stability of other macroeconomic variables. Central banks have the ability to control the money supply, they do it by increasing the interest rate in order to increase the cost of credit to influence the decrease in demand. The opposite action of the central bank would inject money into the economy and as a result we will have an increase in inflation. However, it is quite important to reach a certain level of inflation in order to support economic growth [13], while, for sustainable economic growth, it is indispensable to determine a threshold level of the inflation rate [14]. In addition to inflation, an important macroeconomic segment in the economic growth is represented by FDI, through which the international movement of capital is enabled. FDI are important factors for a country's economy for promoting growth and development through access to technology as well as promoting exports and economic sustainability through the stimulation of savings and right fiscal policies [15].

The Western Balkan countries (Kosovo, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia)

indicate similar macroeconomic problems with a diverse and competitive economic structure. As countries in transition, their economies are composed of low and medium technology manufacturing sectors, including services, textiles and agriculture [16]. These countries are intended to be the following group to join the European Union [17], and they already signed the Stabilization and Association Agreement and also apply the regime of visa-free movement with the European Union.

Since the beginning of the war in Ukraine, macroeconomic performance of Western Balkan countries has experienced serious fluctuations. The rise in prices has mostly reflected in the electricity and food sectors. Inflation mostly affected the economy of Bosnia and Herzegovina, with 16.8%, followed by Montenegro 15%, Serbia, 13.2%, Kosovo 13%, North Macedonia 11.6% and Albania with 8%. Below, Figure 1 displays the macroeconomic variables applied in our present study.

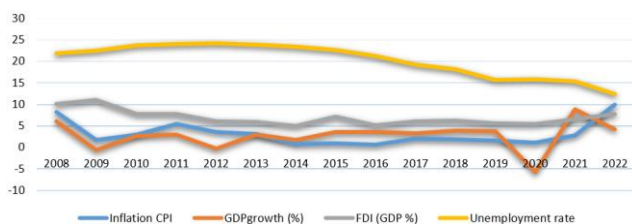


Figure 1. Macroeconomic variables in WBC

Source: Own elaboration based on World Bank Open Data [18, 19].

This study is the limited one that examines the relationship between inflation rate and FDI, tries to fill this gap in context of Western Balkan countries. The study determines the appropriate policy measures to avoid the negative effects of rising inflation on FDI and other macroeconomic variables. The intention of this study is to achieve these objectives: i) To bring out the interaction between inflation rate and FDI on six Western Balkan countries during 2008-2022. ii) To explore the effect of raised inflation rate over the macroeconomic indicators (GDP growth, and unemployment rate) during 2008-2022. Consequently, the study determines the appropriate actions of policymakers to avoid the negative effects of rising inflation on FDI and other macroeconomic indicators. The study's approach is based on the econometric models based on panel data for the period 2008-2022, and is organized in this line. The initial section of the study presents the role of inflation rate and its impact on the Western Balkans countries. The second section of the study presents the relevant literature on the impact of inflation rate on macroeconomic variables in different countries. The third section of the study introduces the research methodology and variable representation. The fourth section of the study presents empirical results and discussions, and the fifth section presents findings and conclusions.

2. LITERATURE REVIEW

The relationship between inflation and macroeconomic indicators continues to be the subject of discussions and empirical research in different countries by many authors. In the broadest term, inflation means significant and permanent increases in the common price scale over a long period of time [20] and is measured by consumer price index. The

relationship between inflation rate, economic growth, GDP, unemployment rate and interest rate has been researched by many authors through quantitative empirical researches, where the results show different effects of inflation depending on the economic structure of the countries. However, no common conclusions have been reached regarding the role of inflation on different macroeconomic factors.

The literature review includes studies from various countries and countries from Southeast Europe, with focus on measuring the effects of inflation and its threshold on macroeconomic indicators. Most of the literature deals with inflation threshold effects on economic growth, the financial sector and investments, since the detriment of inflation beyond the threshold are manifested in many macroeconomic variables.

The literature review is categorized into three groups: studies that show the positive influence and negative influence of inflation rate in economic growth [21-23], studies that show the positive influence and negative influence of inflation in the financial sector [24-26], and studies that revealed the inflation role on the investment [27-29].

Kasidi and Mwanemela [22], highlighted the negative influence of inflation rate on economic growth. By using correlation and co-integration technique on series of data on period 1990-2011, study revealed cointegration lack between inflation and economic growth in Tanzania.

Aydın et al. [23] have explored on how inflation influences the five Turkish Republics economic growth (Kazakhstan, Uzbekistan Azerbaijan, Turkmenistan and Kyrgyzstan). Using dynamic panel threshold model for the period 1992-2013, study indicate the not linear relationship among inflation rate and economic growth. The study revealed that exceeding an inflation threshold above 7.97% can have negative effects on economic growth, while positive effects are seen in economic growth below this threshold of inflation rate. Furthermore, Ekinci et al. [21] investigated the intercourse between price stability and economic growth. Study findings revealed the significant effect of inflation on economic growth above the threshold 4.18%. The study found nonlinear intercourse between inflation rate and economic growth. Ezako [30] conducted the investigation on finding the threshold of inflation influence on economic growth in Burundi. Using the ARDL approach and CLS method for the sample of data for the period 1990-2020, the results shows that the inflation threshold above 13% can harm the economic growth by 3.7%.

On the opposite to these studies, Kryeziu and Durguti [31] found significant positive effect of inflation rate on economic growth. They investigated the influence of inflation rate on GDP growth by using panel data over the time period 1997-2017, for Eurozone countries, by performing the multiple linear regression, Durbin-Watson test and Breusch-Pagan test for heteroskedasticity. Similarly, the paper by Weintraub [32] found also positive influence of inflation rate on economic growth during the COVID-19 period 2019-2021. Using a panel data for 45 countries for the period 2010-2021, by performing the OLS method, fixed effects and random effects models they found that apart from the negative effects of inflation, it also has a positive influence on economic growth in these countries.

Bilalli and Sadiku [25] identified the inflation impact on financial industry performance in Western Balkan countries. By using OLS method, Fixed effects method, Random effects method and GMM with data over the time period 2022-2021. Their findings show positive correlation among inflation and

domestic credit of the private sector, while negative correlation appears between inflation and broad money. Moreover, Adu et al. [24] have investigated the determinable threshold of inflation impact on financial sector on Ghana. They performed the Pooled, random effects and GMM on panel data from Ghanaian banks over the period of 2004-2013. The study concluded that an inflation level above 15% will harm the economy and the growth of the financial sector. Zermeño et al. [18], explored the inflation role on the conditional distribution of financial development by using panel data of 84 countries over the period 1980-2010. By performing the Fixed effects model and reject cross-sectional dependence, they found a negative and non-linear impact of the increase in prices on financial variables; with the emphasis being statistically substantial in developing countries and unsubstantial in developed countries. The paper by Batayneh et al. [33], examined the inflation impact on the financial sector on the Jordanian economy over the period 1993-2018. By using auto-regressive distributed lag they found significant negative long and short-period effect of inflation on the financial industry while there appeared the positive significant influence of economic growth on the financial sector on short and long period.

In the study done by Mason and Vracheva [26], inflation is examined in 27 nations with panel data over the period 1996-2012. Based on the regression analysis study revealed four perspectives of inflation role: 1) The inflation targeting has positive effects on boosting FDI; 2) This attraction is further significant in developed countries than in developing countries; 3) This attraction is more significant for lower-middle income developing nations compared with higher-middle income developing nations; 4) While the relation among imports/exports and FDI is that of a substitute. In the same manner, Tsaurai [17] explored the inflation role on foreign direct investment and financial growth as a determinant of inflation's influence on foreign direct investment in Southern Africa. Based on the pooled OLS method study found a significant negative influence of inflation on FDI in Southern Africa, while based on fixed effects model study found non-significant positive influence of inflation on FDI, while under random effects model they found non-significant negative impact of inflation on FDI. Kamasa et al. [27] explored the inflation uncertainty on domestic investment, by using conditional variance generated (CGARCH) model over the period 1970-2020. Study results show that inflation uncertainty coupled with commodity price volatility seriously restrain domestic investment in Ghana. In addition, Nworah et al. [28] studied the role of inflation rate on real estate industry performance investments. By using regression method and Pearson correlation analysis on exchange rate on period of data 2005-2022, they found significant influence of inflation rate the real estate investment rise, high inflation rates discourage real estate investments.

Literature review emphasizes the role and negative effects of inflation beyond the threshold defined in different countries in many macroeconomic indicators. Generally, the literature results can be introduced in this perspective: i) Exceeding an inflation threshold has a negative influence on economic growth, ii) Inflation has a negative non-linear influence on financial sector, iii) Inflation has a significant influence on real estate investment and FDI.

As outcome, in this study we propose to develop and test the following three hypotheses:

H1: The increase of inflation rate significantly effects the foreign direct investment in WBC.

H2: The increase of inflation rate stimulates GDP growth in WBC.

H3: The increase of inflation rate significantly effects unemployment rate in WBC.

3. RESEARCH METHODOLOGY

Our research is based on regression model relied on generalized method of moments (GMM) widely estimated model advanced by Hansen [34], later advanced by Arellano and Bond [35], and also other econometric measurements like fixed effects model, random effects model and OLS model. The GMM is useful to estimate unknown parameters of models, when strong distribution assumptions of the data may not be valid. The GMM in regression model allows the modelling of relationships between explanatory variables and scalar reply. GMM in contrast to OLS is more flexible and suitable for models with fewer assumptions, while OLS makes more specific assumptions.

For this purpose, GMM, Pooled OLS model, Fixed Effects model, Random Effects model are performed of its high estimation accuracy, to examine the inflation impact on foreign direct investment in Western Balkan countries.

The GMM fundamental regression function is introduced by:

$$Y = \alpha Y_{it-1} + \beta x_{it} + \omega_i + \epsilon_i \quad (1)$$

where, Y is independent variable and βx_{it} are dependent variables. The main purpose of this regression function is to examine the intercourse between independent variables and dependent variables. The advanced regression function is performed using current model:

$$Y_{it} (\text{InflationCPI } it) = \alpha Y_{it-1} + \beta_1 (\text{FDI}it) + \beta_2 (\text{GDP}growth \text{ } it) + \beta_3 (\text{Unemprate } it) + \omega_i + \epsilon_i \quad (2)$$

where, Y_{it-1} is regressor indicator; ω_i is stochastic component; $\beta_0, \beta_1, \beta_2, \beta_3$ indicate current output indicator; α indicates elasticity indicator; ϵ_i indicates residuary standard error.

Table 1. Variable representation

Variable Representation		
Independent Variable	Unit	Source
Inflation (Consumer Price Index)	% annual	WB
Dependent Variable		
Foreign direct investment	Annual net inflows (% of GDP)	WB
Gross domestic production _{growth}	% annual	WB
Unemployment _{rate}	% annual	WB, SAK

Hypothesis testing will allow to understand important significant differences in function between the variables, Y_{it} (Inflation it), $\beta_1, \beta_2, \beta_3$. In general, as long as β_0 , and β_1 get values higher than 1, subsequently the inflation rate will have

a significant influence on the macroeconomic indicators. α is the persistence coefficient, $0 < \alpha < 1$. A significant α confirms the dynamic character of the model. Through GMM regression model we will estimate the parameters of model Y_{it-1} and β_1 , β_2 , β_3 . Model does this by allowing the number of moments conditions which are instrumental variables in the model to exceed number of parameters making the estimators more efficient. Main benefits of GMM model are that allows to control endogeneity, heteroscedasticity, serial correlation and unobserved heterogeneity. Table 1 presents the structure of the representative variables.

The data on this empirical study is relied on 15 years examination of each of six Western Balkan countries (Kosova, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and Serbia). The study combines two types of variables with instrument panel data from World Bank Open Data and KAS for the time-period 2008-2022 [18, 36].

4. RESULTS AND DISCUSSION

Prior to the regression analysis we run the descriptive statistics for our sample countries presented in Table 2. Descriptive statistics are useful for parametric and non-parametric tests, they are also essential for quantitative and

qualitative research. They show the sample distribution and also indicates the outliers in data. Through our descriptive statistics we provide information about central tendency and measures of dispersion; mean, std dev. min, max. etc. The mean value for Western Balkan countries of inflation is 3.12 from the sample, standard deviation is 2.74, and the lowest level of value is 0.70 while the max value is 9.93. The mean value of FDI is 6.87, standard deviation is 1.77, and the lowest level of value is 5.00 while the max value is 11.08. The mean value of GDP is 2.73, standard deviation is 3.23, and the lowest level of value is -5.66 while the max value is 8.88. While the mean value of Unemployment is 20.28, standard deviation is 3.87, and the lowest level of value is 12.488 while the max value is 24.27.

Table 3 presents variable correlation matrix for six Western Balkan Countries. The correlation matrix allows us to detect linearity between variables by understanding their strength and direction [1]. Correlation matrix structure shows us, there is a low positive correlation among inflation and FDI (0.48). Also, there is a low positive correlation between inflation and GDP (0.33). Whereas, matrix shows a low negative correlation among inflation and unemployment rate (-0.20). Obviously, the matrix's shows a low positive correlation among FDI, GDP (0.11) and unemployment rate (0.16). The boost of FDI positively encourage the rise of GDP growth.

Table 2. Description statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Inflation CPI	90	3.12600	2.74664	0.70215	9.9308
FDI	90	6.87708	1.77855	5.00960	11.0855
GDP _{growth}	90	2.73456	3.23834	-5.66307	8.88687
Unemployment _{rate}	90	20.2845	3.87804	12.4841	24.2716

Table 3. Correlation analysis

	Inflation CPI	FDI	GDP _{growth}	Unemployment _{rate}
Inflation CPI	1.0000			
FDI	0.4877	1.0000		
GDP _{growth}	0.3337	0.1154	1.0000	
Unemployment _{rate}	-0.2066	0.1643	-0.1400	1.0000

Table 4. Regression result of pooled OLS model, fixed effects model and random effects model

Variables	Pooled OLS				Fixed Effects Model				Random Effects Model			
	Coeff.	t-stat.	P > t	P. > F	Coeff.	t-stat.	P > t	P. > F	Coeff.	t-stat.	P > t	P. > F
Inflation CPI	0.249*	1.58	0.118		0.343**	2.97	0.004		0.344*	2.99	0.003	
FDI	0.112*	1.58	0.118	0.051	0.183**	2.52	0.053	0.002	0.217*	2.67	0.008	0.000
GDP _{growth}	0.158*	1.71	0.090		0.286**	5.04	0.004		0.177*	4.68	0.000	
Unemployment _{rate}	-0.059*	-1.10	0.274		-0.067**	-0.65	0.544		-0.056*	-0.84	0.402	
Constant	3.128	2.23	0.029		2.028	1.01	0.360		2.286	2.26	0.024	
Rho					0.237				0.182			
					Adj R-squared							0.0537
					Hausman test							2.57
					Lagrange multiplier test							2.78

Notes: (1) * and (2) **denote statistical significance at 1% and 5% levels

The regression model outcomes are outlined in Table 4. There are performed four econometric models, Pooled OLS model, Fixed Effects model, Random Effects model and GMM model.

By performing the Fixed Effects model, we can examine the commuted variables within the given period. While the Random Effects model show us variation across entities and correlation with independent variable. In our study we perform four econometric models, Pooled OLS model, Fixed Effects

model, Random Effects model and GMM model and then we run Hausman test or Durbin Wu Hausman test. Hausman test developed by James Durbin, De-Min Wu and Jeny Hausman, allow us to check whether the estimator of unknown parameter is consistent or not. Also, it helps to evaluate if statistical model correspondents to the data. In our panel data analysis, Hausman test helps us to consider to choose between Fixed Effects model and Random Effects model. By focusing in the results of Hausman test we determine where there are

significant differences in the coefficients. Our significant Hausman test (2.57) allows to confirm null hypothesis by suggesting Fixed Effects model as relevant and avoiding the role of Random Effects model. By using Lagrange multiplier test result (2.78) we are convinced of avoiding Random Effects model part in result production. In order to correct endogeneity, improve efficiency of the model and to avoid the functional errors in the fixed effects model, admittedly, the GMM model contributes more reasonably to the interpretation of results.

Table 5. Regression result of GMM model

Variables	GMM Model			
	Coeff.	z-stat.	P > t	P > F
Inflation CPI	0.339**	3.17	0.002	
FDI	0.300**	3.41	0.001	
GDP _{growth}	0.177**	2.53	0.011	0.000
Unemployment _{rate}	-0.168**	-3.03	0.002	
Constant	2.827	2.18	0.029	
	Hausman test			2.57
	Lagrange multiplier test			2.78

Notes: (1) * and (2) **denote statistical significance at 1% and 5% levels

In Table 5, we perform GMM model regression. Based on the GMM model results, F-test in our model is 0.000, this shows whether all the coefficients in the model are different from zero that indicates that our model is good. The GMM coefficient regressors results indicate how much (y) it changes as (x) rises by a value. Admittedly, based on the obtained results the inflation impact on FDI is positive and significant with p-value 0.001. As outcome, a percentage rise in inflation rate is related with 0.30% increase of FDI at the short period, under the 5% significant ceteris paribus average. This result is not in harmony with Mustafa [37], who found inversely relationship between inflation and FDI. Indeed, the outcome indicate the statistically positive effect of inflation rate on GDP growth with p-value 0.011. A percentage increase in inflation rate is correlated with 0.17% increase in GDP. This result is in line with Impin and Kok [38], who found the positive influence of inflation rate on economic growth. Furthermore, the results indicate a negative effect of inflation rate on unemployment rate with the coefficient of p-value 0.002. A percentage change in inflation rate is associated with -0.168% drop of unemployment at the short period, under the 5% significant ceteris paribus average.

In Table 6, we perform robustness checks to validate the findings and to ensure that the results are not sensitive to our model choice. Through robust regression we can limit assumption violations effects of the underlying data on regression estimates. Robust estimation is very useful when there is concern of heteroscedasticity and presence of outliers in data.

Table 6. Robust standard errors regression

Variables	Robust Standard Errors Regression			
	Coeff.	Std. Err.	z-stat.	P > t
Inflation CPI	0.339**	1.10712	3.04	0.004
FDI	0.300**	0.08815	3.43	0.002
GDP _{growth}	0.177**	0.06996	2.39	0.018
Unemployment _{rate}	-0.168**	0.05574	-2.97	0.005
Constant	2.827	1.29614	2.02	0.031

So, we have robust regression that has been run to check heteroscedasticity and presence of outliers in data. The only

difference between GMM regression model and robust regression is the estimation of standard errors. In this case the standard error is 1.10, for the slope coefficient, this means that there is not any concern about heteroscedasticity and outliers in data in our results. In this particular data set, there is no evidence of violation of the assumptions concerning constant variances or homogeneity variances.

The study results reveal the opposite intercourse between inflation rate and unemployment. This intercourse outcomes between variables shows possibility for negative relationship between unemployment rate and inflation and perception of job thriving. The result confirms Omran and Bilan [39], who revealed the negative effect of inflation rate on unemployment rate. Certainly, study outcomes confirm non-elastic intercourse between inflation rate, FDI, GDP growth and unemployment rate.

5. CONCLUSION

The general view of our study was to figure out the state and relationship between the inflation rate, foreign direct investment, GDP growth and the unemployment rate in the Western Balkan countries. The study is ground on instrument panel data provided from the World Bank Open Data and KAS. As an econometric methodology due to its evident construction and simple evaluation, GMM regression model, Pooled OLS model, Fixed Effects model and Random Effects model has been performed. Furthermore, to verify the assumptions we perform Hausman test and Lagrange multiplier test.

The part of our analyzes are six Western Balkan Countries (Kosova, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia). Whereas, the Western Balkan countries have not yet passed the full economic transition, these countries indicate similar macroeconomic problems with a diverse and competitive economic structure and the ambition to join of the European Union. The risk of macroeconomic indicators in these countries have been curbed thanks to the supporting role of foreign direct investments and also external finances through the loans and remittances.

Based on the empirical results, inflation rate, FDI, GDP growth and unemployment rate confirm non-elastic intercourse in all Western Balkan countries. According to matrix coefficients, a low positive correlation appears between inflation and FDI (0.48) and GDP growth (0.33). Furthermore, an inelastic low negative relationship has been revealed between inflation and the unemployment rate (-0.20). Naturally, there is low positive correlation among FDI, GDP (0.11) and unemployment (0.16). The rise of FDI obviously indicate the boost of GDP growth. The regression outcome appears the positive important influence of inflation rate on FDI in all Western Balkan countries. A percentage increase in inflation rate influences 0.30% increase in FDI. Moreover, the outcomes found the positive significant effect of inflation rate on GDP growth. A linear relationship appears among inflation and GDP growth. A percentage rise in inflation rate is correlated with 0.17% increase in GDP. On the other hand, a significant negative effect of inflation rate appears on unemployment rate. A percentage change in inflation rate cause -0.168% drop of unemployment rate in the short run. Finally, the empirical outcome confirms that inflation rate, FDI, GDP growth and unemployment rate demonstrate an inelastic intercourse in short run. Governments, through

appropriate fiscal policies, can support local monetary policy to manage inflation. One of the most practical and productive forms already known is the reduction of public expenditures in countries struggling with inflation. On the other hand, Central banks, through appropriate policies, should manage inflation rates in their countries in order to ensure macroeconomic stability. The low and manageable inflation rates attract foreign investors and the financial market for long-term investments in the country. But we should not forget the fact that a little inflation can alert a thriving economy. Based on our findings, the macroeconomic indicators, unemployment and inflation operate in such a way that when unemployment falls, inflation turn to rise. Inversely, when inflation falls, unemployment goes to rise. In this case, the Western Balkan Countries, through monetary policies, should stimulate or hold back the need for commodities and services in the economy, in order to keep inflation under control. In cases where the demand for goods and services is cut in relation to the capacity of the economy, unemployment as an indicator attempts to increase and inflation attempts to decrease. Inversely, when demand for goods and services strengthens, unemployment may fall and inflation may increase. Western Balkan countries through monetary policies, must stabilize these macroeconomic indicators, by increasing or decreasing interest rates to provide low unemployment and low inflation rates.

As for the limitations, our study was initially delimited by the lack of data presented in the panel data, a part of which for several years could not be obtained from the World Bank or EU Eurostat database. This lack of data was filled through reports received from the statistical agencies of these countries. Secondly, our empirical results have revealed the correlation between variables but not their causality. For future research on this subject, we suggest increasing the number of variables in the regression model as well as expanding the sample data with other countries with different financial and macroeconomic characteristics and addressing the non-causality of the observed correlations and exploring potential causal relationships. Relatedly, we suggest exploration of non-linear relationships and inflation thresholds, which may provide additional perception into the complicated dynamics between inflation and FDI.

REFERENCES

- [1] Abdurrahmani, E., Deva, N. (2024). The impact of decarbonization tax on economic growth - Evidence for Western Balkan countries. *International Journal of Sustainable Development and Planning*, 19(9): 3653-3660. <https://doi.org/10.18280/ijstdp.190933>
- [2] Çanakci, M. (2021). Does inflation affect economic growth? A case of Turkey and U.S. *International Journal of Economics and Financial Issues*, 11(3): 45-54. <https://doi.org/10.32479/ijefi.11379>
- [3] Benhabib, J., Spiegel, M.M. (2009). Moderate inflation and the deflation-depression link. *Journal of Money, Credit, and Banking*, 41(4): 787-798. <https://doi.org/10.1111/j.1538-4616.2009.00232.x>
- [4] Cameron, N., Hum, D., Simpson, W. (1996). Stylized facts and stylized illusions: Inflation and productivity revisited. *The Canadian Journal of Economics/Revue Canadienne D'Economique*, 29(1): 152-162. <https://doi.org/10.2307/136156>
- [5] Fischer, S. (1993). The role of macroeconomic factors in growth. *Journal of Monetary Economics*, 32(3): 485-512. [https://doi.org/10.1016/0304-3932\(93\)90027-D](https://doi.org/10.1016/0304-3932(93)90027-D)
- [6] Ghosh, A., Phillips, S. (1998). Warning: Inflation may be harmful to your growth. *IMF Staff Papers*, 45(4): 672-710. <https://doi.org/10.2307/3867589>
- [7] Kremer, S., Bick, A., Nautz, D. (2013). Inflation and growth: New evidence from a dynamic panel threshold analysis. *Empirical Economics*, 44(2): 861-878. <https://doi.org/10.1007/s00181-012-0553-9>
- [8] Mallik, G., Chowdhury, A. (2001). Inflation and economic growth: Evidence from South Asian countries. *Asian Pacific Development Journal*, 8(1): 123-135. <https://www.unescap.org/sites/default/files/apdj-8-1-ResearchNote-Mallik-and-Chowdhury.pdf>
- [9] Abdurrahmani, E., Doğan, Z. (2021). Creative accounting and its influence on corporate performance and financial reporting: A case study of Kosovo. *Problems and Perspectives in Management*, 19(4): 385-394. [https://doi.org/10.21511/ppm.19\(4\).2021.31](https://doi.org/10.21511/ppm.19(4).2021.31)
- [10] Fisher, I. (1922). *The making of index numbers*. Boston and New York: Houghton Mifflin Company. (3rd ed., 1927).
- [11] Friedman, M. (1968). The role of monetary policy. *American Economic Review*, 58(1): 1-17. <https://www.aeaweb.org/aer/top20/58.1.1-17.pdf>
- [12] World Bank. (2022). *State and trends of carbon pricing 2022*. World Bank, Washington, DC. <https://doi.org/10.1596/978-1-4648-1895-0>
- [13] Bublyk, Y., Korablin, S., Shapoval, Y. (2023). On the effectiveness of the interest rate channel within inflation targeting in Ukraine: A VAR approach. *Banks and Bank Systems*, 18(4): 293-306. [https://doi.org/10.21511/bbs.18\(4\).2023.24](https://doi.org/10.21511/bbs.18(4).2023.24)
- [14] Siljak, D., Nagy, G.S. (2019). Convergence and transition of the eastern partnership countries towards the European Union. *Entrepreneurial Business and Economics Review*, 7(3): 221-235. <https://doi.org/10.15678/EBER.2019.070312>
- [15] Binatli, A.O., Sohrabji, N. (2019). Factors influencing foreign direct investment flows into Turkey. *Entrepreneurial Business and Economics Review*, 7(2): 159-174. <https://doi.org/10.15678/EBER.2019.070209>
- [16] Ceko, E., Cakrani, E. (2023). Environmental tax reform in Western Balkan countries. *Taking on Climate Change Through Green Taxation*, 5(1), 101-153. <https://doi.org/10.4018/978-1-6684-8592-7.ch005>
- [17] Tsurai, K. (2018). Investigating the impact of inflation on foreign direct investment in Southern Africa. *Acta Universitatis Danubius. (Economica)*, 14(4): 597-611.
- [18] Zermeño, A.M., Martínez, V.F., Preciado, T.H.V. (2018). Effects of inflation on financial sector performance: New evidence from panel quantile regressions. *Investigación Económica*, 77(303): 94-129. https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-16672018000100094
- [19] World Bank Open Data. (2023). Dataset. <https://databank.worldbank.org/home.aspx>
- [20] Durguti, E., Tmava, Q., Kunoviku, D.F., Krasniq, E. (2021). Panel estimating effects of macroeconomic determinants on inflation: Evidence of Western Balkan. *Cogent Economics & Finance*, 9(1): 1-13. <https://doi.org/10.1080/23322039.2021.1942601>
- [21] Ekinci, R., Tüzün, O., Ceylan, F. (2020). The

- relationship between inflation and economic growth: Experiences of some inflation targeting countries. Romanian Academy, National Institute of Economic Research (INCE), "Victor Slăvescu" Centre for Financial and Monetary Research, 24(1): 6-20. <https://hdl.handle.net/10419/231692>.
- [22] Kasidi, F., Mwakanemela, K. (2013). Impact of inflation on economic growth: A case study of Tanzania. *Asian Journal of Empirical Research*, 3(4): 363-380. <https://repository.tia.ac.tz/handle/123456789/80>.
- [23] Aydın, C., Esen, Ö., Bayrakc, M. (2016). Inflation and economic growth: A dynamic panel threshold analysis for Turkish Republics in transition process. *Procedia - Social and Behavioral Sciences*, 229(1): 196-205. <https://doi.org/10.1016/j.sbspro.2016.07.129>
- [24] Adu, D.T., Domfeh, K.O., Denkyirah, E.K. (2016). Is inflation a threat on financial sector performance? *European Journal of Business and Management*, 8(33): 59-71. <https://core.ac.uk/download/pdf/234627614.pdf>.
- [25] Bilalli, A., Sadiku, M. (2023). The impact of inflation on financial sector performance: Evidence from Western Balkan countries. *SEEU Review*, 18(2): 74-89. <https://doi.org/10.2478/seeur-2023-0071>
- [26] Mason, L.R., Vracheva, V. (2017). The impact of inflation targeting on attracting foreign direct investment. *Journal of Applied Business and Economics*, 19(4): 79-94. http://www.na-businesspress.com/JABE/MasonRL_Web19_4_.pdf.
- [27] Kamasa, K., Efua, E.E., Kpodo, Bonuedi, I., Forson, P. (2022). Does inflation uncertainty hurt domestic investment? Empirical evidence from Ghana. *Cogent Economics & Finance*, 10(1): 1-17. <https://doi.org/10.1080/23322039.2022.2115673>
- [28] Nworah, J., Idu, E., Ogbuefi, J. (2023). The impact of inflation on real estate investment performance and effective investment decisions. *Journal of Law and Sustainable Development*, 11(12): 1-33. <https://doi.org/10.55908/sdgs.v11i12.1625>
- [29] Vu, B.D., Truong, Q.A., Nguyen, T.M.U., Hoang, T.T., Nguyen, T.L., Le, H., Nguyen, T.T. (2023). Inflation and its effects on economic growth - Evidence from 45 countries. *International Conference on Emerging Challenges: Smart Business and Digital Economy*, 11(1): 83-98. https://doi.org/10.2991/978-94-6463-348-1_9
- [30] Ezako, J.T. (2023). Analyze of inflation and economic growth relationship in Burundi. *Cogent Economics & Finance*, 11(1): 1-18. <https://doi.org/10.1080/23322039.2023.2210914>
- [31] Kryeziu, N., Durguti, E. (2019). The impact of inflation on economic growth: The case of Eurozone. *International Journal of Finance & Banking Studies*, 8(1): 1-9. <https://doi.org/10.20525/ijfbs.v8i1.297>
- [32] Weintraub, S. (1960). The Keynesian theory of inflation: The two faces of Janus? *International Economic Review*, 1(2): 143-155. <https://doi.org/10.2307/2525293>
- [33] Batayneh, K., Salamat, A.W., Momani, M.Q.M. (2021). The impact of inflation on the financial sector development: Empirical evidence from Jordan. *Cogent Economics & Finance*, 9(1): 1-15. <https://doi.org/10.1080/23322039.2021.1970869>
- [34] Hansen, P.L. (1982). Large sample properties of generalized method of moments estimators. *Econometrica*, 50(4): 1029-1054. <https://doi.org/10.2307/1912775>
- [35] Arellano, M., Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2): 277-297. <https://doi.org/10.2307/2297968>
- [36] Kosovo Agency of Statistics (KAS). (2024). Dataset. <https://ask.rks-gov.net/>.
- [37] Mustafa, A.M.M. (2019). The relationship between foreign direct investment and inflation: Econometric analysis and forecasts in the case of Sri Lanka. *Journal of Politics and Law*, 12(2): 44-52. <https://doi.org/10.5539/jpl.v12n2p44>
- [38] Impin, A.D.P., Kok, Ch. S. (2021). The effect of inflation rate, interest rate and unemployment rate on the economic growth of Malaysia. *Malaysian Journal of Business and Economics*, 8(1): 125-140. <https://doi.org/10.51200/mjbe.vi.3322>
- [39] Omran, M.A.E., Bilan, Y. (2021). The impact of inflation on the unemployment rate in Egypt: A VAR approach. *SHS Web of Conferences*, 107(1): 1-5. <https://doi.org/10.1051/shsconf/202110706009>