THE IMPACT OF FOREIGN DIRECT INVESTMENTS ON ECONOMIC GROWTH AND TRADE: A PANEL APPROACH OF SELECTED WESTERN BALKAN COUNTRIES

Predrag TRPESKI
Department of Economics, Faculty of Economics – Skopje, Ss. Cyril and Methodius University in Skopje, Republic of North Macedonia
predrag.trpeski@eccf.ukim.edu.mk

Marijana CVETANOSKA
Department of Economics, Faculty of Economics – Skopje, Ss. Cyril and Methodius University in Skopje, Republic of North Macedonia
marijana.cvetanoska@eccf.ukim.edu.mk

Kristijan KOZHESKI
Department of Economics, Faculty of Economics – Skopje, Ss. Cyril and Methodius University in Skopje, Republic of North Macedonia
kozeski@eccf.ukim.edu.mk

Abstract
According to recent trends, there is a focus on the interest in the Western Balkan economies to attract foreign capital in the form of foreign direct investment (FDI) as a source of external financing and economic recovery factor. In this paper, an attempt is made to analyze the movement and impact of FDI on economic growth and foreign trade on the example of the Western Balkans (North Macedonia, Albania, Serbia, Bosnia and Herzegovina, and Montenegro). This analysis aims to examine the correlation and causal relationship between FDI, economic growth and the foreign trade case of each individual Western Balkan country. The inflow of foreign capital in the form of FDI in the Western Balkan countries has a positive impact on GDP growth, exports and imports. From the results, it can be concluded that the inflow of FDI into the Western Balkan countries has a positive effect on the economic growth and the increase of foreign trade. The analysis showed that FDI has a statistically significant and positive impact on GDP in the Western Balkan countries, and is a key precondition for intensifying foreign trade. This study provides a promising step towards developing a more comprehensive empirical research by a dynamic estimation procedure.

Keywords: Export; Foreign Direct Investment; GDP; Import; Western Balkans;

1. INTRODUCTION

The role of foreign direct investment (FDI) has been a subject of debate among the academic community and economic policy makers, recently. Based on the prevailing issue of international capital movements, the focus of researchers has been on FDI in recent decades, specifically on problematizing the effects on other economic indicators in FDI host countries. Some economists claim that national economies do not have significant positive effects from the inflow of FDI, i.e. FDI does not produce spillover effects and has a low level of cooperation with domestic companies. However, despite the numerous controversies surrounding the effects of FDI, there is a consensus among economists that they represent a significant additional source of financial capital for each country, especially for countries with chronic capital shortages.

In this paper, an attempt is made to analyze the movement and impact of FDI on economic growth and foreign trade on the example of the Western Balkans (North Macedonia, Albania, Serbia, Bosnia and Herzegovina, and Montenegro). This analysis aims to examine the correlation and causal relationship between FDI, economic growth and the foreign trade case of each individual Western Balkan country. Such an analysis of the example of these countries is considered reasonable from several aspects. First, a significant part of the papers covering the Western Balkans countries is not noticed in the empirical literature on the impact of FDI. Second, starting from the 1990s, the Western Balkans countries were constantly faced with political and economic instability, caused primarily as a result of changes in the economic and political system, i.e. the transition from one to
in the long run, the influence of FDI on economies is much greater -
es counts more than 10 billion euros in the period 2013
y export
n Europe is the so
- etition for attracting
bject. The third part of the
decision to invest in FDI that enters the labor
- -
vels between countries do not show large
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
in the sample. Similarly, a strong evidence of bi-directional causality from GDP to exports and imports for all countries was evidenced, except for the Netherlands, for which only weaker evidence existed.

The research conducted in the case of Nigeria by Bolanle et al. (2015) examined the relationship between external debt, foreign direct investment and economic growth for the period 1990-2013. Applying the VECM approach, the results indicate a negative relationship between foreign direct investment, external debt and economic growth. The study concludes that FDI has a greater impact on economic growth compared to external debt whose impact is insignificant.

Konya (2006) investigated the possibility of Granger causality between the logarithms of real exports and real GDP in 24 OECD countries from 1960 to 1997. A panel data approach has been applied based on SUR systems and Wald tests with country specific critical values. Results indicated one-way causality from exports to GDP and one-way causality from GDP to exports in most of the analysed countries (24 OECD countries). Also, two-way causality between exports and growth and no evidence of causality between the variables had been detected.

Majeed and Ahmad (2007) determined the relationship between exports and FDI using a sample of panel observations for 49 developing countries over the period 1970–2004 with data derived from the World Development Indicators. They showed that GDP, economic growth and exports positively affect FDI and provided an evidence for a significant complementary relationship between FDI and exports with causation in both directions.

Does FDI in transitional economies promote their exports? Could transitional economies become export platforms? These questions have been analysed in Xuan and Xing (2008) in the case of Vietnam where they have examined the causality between FDI and exports. It has been showed that FDI has substantially enhanced Vietnam’s exports to its source countries. A 1 percent increase in FDI could be expected to give rise to 0.13 percent increase in exports to the FDI source countries.

Using a panel data set for 27 transition economies over the period 1991–2004 as well as a methodology of panel cointegration and causality tests in order to examine the relationship of FDI and economic growth for certain transition economies, Apergis et al. (2008) show that foreign direct investment does exhibit a significant relationship with economic growth, at least for those transition countries that are characterized by high levels of income and have implemented successful privatization programs. The relationship between FDI and GDP within the region of Economic Cooperation Organisation (ECO) is analysed in this study by means of panel causality method. The results showed that FDI inflow has an utmost importance for the region for the period 1995-2011. There are applied two causality tests and the results of the two causality tests notified a strong positive relation from FDI inflow to GDP and any strong causality relation from GDP to FDI inflow has not been observed.

Çetintaş and Barişik (2009) analyzed the relationship between export, import and economic growth for the 13 transition economies by employing panel unit root, panel cointegration and panel causality tests. Panel cointegration tests verified the existence of a relationship in the long run between economic growth, import and export. While there was a causality from growth to export between economic growth and export, their findings did not support the existence of a reverse causality. A bidirectional causality relationship was found between import and growth, which in return showed that import and economic growth relate with each other.

In the study of Pelinescu and Radulescu (2009), FDI in Romania needs more time to induce GDP growth or exports growth and the influence is greater on export growth. Therefore, the direct FDI influence has been still at the low level, but the indirect influence has been greater and more significant in the Romanian economy. Also, the Romanian exports seemed to be influenced positively only by external trade and at some extent, by GDP growth.

Considering the controversial results that have been caused by the use of cross-country or time-series investigations Hudea and Stancu (2012) employed panel data, conquering the evolving country differences. The study not only exposed a direct and positive influence of foreign direct investments on gross domestic product, both in the short and in the long-run, but they also represented a reverse causality running from GDP to FDI.
Ahmed et al. (2013) investigated relationship between FDI and current account (CA) in Pakistan using the Johansen-Juselius cointegration technique and the Granger causality test in order to examine the long run and the short run dynamic. Results indicated that FDI and CA are cointegrated and thus there is a reliable long run relationship. Furthermore, the causality between FDI and CA is uni-directional. According to their study, there has been only one-way long run causality from FDI to CA and, no long run causality has been found in opposite direction. Also, there has not been short run causality from FDI to CA and vice versa.

Almfraji and Almsafir (2014) have reviewed an amount of cases which are examining the relationships between FDI and economic growth. They have analyzed the effects of FDI on economic growth from 1994 up to 2012. The authors have found that in most cases, FDI have significant positive impact of economic growth. On the other side, authors have found that in few cases the relationship between FDI and economic growth is negative or even null.

Dritsaki and Stiakakis (2014) examined the dynamic causal relationship among foreign direct investments, exports, and economic growth for Croatia in the period 1994-2012 using the ARDL model for the existence of the long run relationship, while the direction of causality was tested with VECM. They showed that foreign direct investments did not lead to growth in Croatia, either in the short run or in the long run period. The results of causality revealed that there was strong bidirectional, short and long run causal relationship between the variables of growth and exports and that foreign direct investment did not have the expected positive impact on the economic growth.

Bedir and Soydan (2016) empirically analyzed relationship between FDI and current account in a group of developing countries that witnessed high levels of capital inflows in the last years by using a panel Granger causality framework with data on FDI, exports and imports. They showed that some of the countries in the panel had unidirectional causality, whereas two of them had bidirectional causality for the FDI-exports and FDI-imports relationships, respectively. However, most of the countries in the panel did not seem to have any association between FDI and exports and imports for the period of analysis.

The relationship between exports, imports, and economic growth in Panama has been investigated in Bakari and Mabrouki (2017). Annual data for the periods between 1980 and 2015 were tested using the Johansen cointegration analysis of Vector Auto Regression Model and the Granger-Causality tests. It was determined that there was not relationship between exports, imports and economic growth in Panama. On the other hand, they found a strong evidence of bidirectional causality from imports to economic growth and from exports to economic growth which provided an evidence that exports and imports were seen as the source of economic growth in Panama.

3. DATA AND METHODOLOGY

The data on all the variables used in this empirical study is based on World Bank Development Indicators. Countries which are subject of analysis are the Western Balkan countries: North Macedonia, Albania, Serbia, Bosnia and Herzegovina, and Montenegro. For the purposes of this analysis, panel data for the period 2006-2019 on the annual level is used. The variables which are subject of analysis in the model are: gross domestic product, export and import of goods and services, foreign direct investment and net inflows.

In order to investigate the dynamic causal relationship between these variables, a VAR analysis is performed. Firstly, Levin, Lin & Chu tests are used to test the level of stationarity of time series. Akaike information criterion (AIC), Schwarz information criterion (SC), Hannan - Quinn information criterion (HQ), and Final prediction error (FPE) are consulted for choosing the number of lags of the VAR. In order to test the stability of the VAR model we analyzed the roots of the characteristic polynomial. For the properties of the residuals, the LM test (to see if there is any auto – correlation), the Cholesky - Lutkepohl test (to check distribution of residuals), and heteroscedasticity test are used.

Based on the stability and residuals test, a VAR model is applied. Furthermore, in order to investigate the causality and causal relationship between the variables, the granger causality test and impulse-response function are applied. Impulse - response functions are useful for studying the interactions between variables in a vector autoregressive model. They represent the reactions of the variables to shocks hitting the system. On
the other hand, the Granger causality test will help to determine whether one-time series are useful in determining (forecasting) another.

VAR system considers of the following simple model:

\[
\Delta \text{FDI}_t = \alpha + \text{FDI}_{t-1} + \text{FDI}_{t-2} + \Delta \text{GDP}_{t-1} + \Delta \text{GDP}_{t-2} + \Delta \text{Export}_{t-1} + \Delta \text{Export}_{t-2} + \Delta \text{Import}_{t-1} + \Delta \text{Import}_{t-2} + e_{1t}
\]

\[
\Delta \text{GDP}_t = \alpha + \text{FDI}_{t-1} + \text{FDI}_{t-2} + \Delta \text{GDP}_{t-1} + \Delta \text{GDP}_{t-2} + \Delta \text{Export}_{t-1} + \Delta \text{Export}_{t-2} + \Delta \text{Import}_{t-1} + \Delta \text{Import}_{t-2} + e_{2t}
\]

\[
\Delta \text{Export}_t = \alpha + \text{FDI}_{t-1} + \text{FDI}_{t-2} + \Delta \text{GDP}_{t-1} + \Delta \text{GDP}_{t-2} + \Delta \text{Export}_{t-1} + \Delta \text{Export}_{t-2} + \Delta \text{Import}_{t-1} + \Delta \text{Import}_{t-2} + e_{3t}
\]

\[
\Delta \text{Import}_t = \alpha + \text{FDI}_{t-1} + \text{FDI}_{t-2} + \Delta \text{GDP}_{t-1} + \Delta \text{GDP}_{t-2} + \Delta \text{Export}_{t-1} + \Delta \text{Export}_{t-2} + \Delta \text{Import}_{t-1} + \Delta \text{Import}_{t-2} + e_{4t}
\]

4. DISCUSSION OF RESULTS

Given that this empirical analysis is based on time series data, the problem of stationarity is the underlying segment which has to be examined. Levin, Lin & Chu t* tests are used to determine the integrative characteristics of the variables that are the subject of this analysis. The results of the tests are given in Table 1.

![Table 1 - Levin, Lin & Chu t* Tests Results for the Order of Integration](source: Authors’ calculation)

<table>
<thead>
<tr>
<th>Order of integration</th>
<th>FDI</th>
<th>GDP</th>
<th>EXPORT</th>
<th>IMPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the tests show that, with the exception of FDIs which are stationary at the level, the other variables are integrated at first level, i.e. become stationary in their first differentiation and in this level they will be used in the further analysis in the paper.

In order to obtain an indicative picture of correlation between individual variables it is considered useful to present the results of the correlation analysis. Table 2 provides the results of the correlation analysis between GDP, FDI, Export and Import. It can be concluded that the degree of correlation between GDP and FDI is 0.57 and the correlation between GDP and Export and Import is 0.61 and 0.79, respectively. The degree of correlation between FDI and Export and Import is 0.40 and 0.37, respectively. In this respect, it should be concluded that at the 95% significance level all the coefficients are statistically significant.

![Table 2 - Correlation Analysis](source: Authors’ calculation)

<table>
<thead>
<tr>
<th>Correlation (Probability)</th>
<th>EXPORT</th>
<th>GDP</th>
<th>IMPORT</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPORT</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.617512</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.000000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMPORT</td>
<td>0.664722</td>
<td>0.79778</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(0.000000)</td>
<td>(0.000000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>0.402796</td>
<td>0.57953</td>
<td>0.37749</td>
<td>1</td>
</tr>
<tr>
<td>(0.0014)</td>
<td>(0.000000)</td>
<td>(0.0029)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculation

Table 3 presents the results of the information criteria for selecting the number of time lags that should be consulted in the VAR model. In the model most of the information criteria indicate that the variables in the model should be taken on second order.

![Table 3 - VAR Lag Order Selection Criteria](source: Authors’ calculation)

<table>
<thead>
<tr>
<th>Lag</th>
<th>LogL</th>
<th>LR</th>
<th>FPE</th>
<th>AIC</th>
<th>SC</th>
<th>HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-4323.74</td>
<td>NA</td>
<td>1.78E+70</td>
<td>173.1097</td>
<td>173.2626</td>
<td>173.1679</td>
</tr>
<tr>
<td>1</td>
<td>-4258.58</td>
<td>117.2888</td>
<td>2.50E+69</td>
<td>171.1432</td>
<td>171.908</td>
<td>171.4345</td>
</tr>
<tr>
<td>2</td>
<td>-4203.46</td>
<td>90.40446*</td>
<td>5.30e+68*</td>
<td>169.5782*</td>
<td>170.9549*</td>
<td>170.1025*</td>
</tr>
</tbody>
</table>

* indicates lag order selected by the criterion

Source: Authors’ calculation
The stability conditions of the VAR model indicate that the roots of the matrix coefficients are in the circle which means that the model stability conditions are satisfied. The stability of the model suggests that the shocks are periodic and they will disappear after a certain period (Figure 1).

In order to investigate the existence of serial autocorrelation in the model, the LM test has been applied (Table 3).

Based on the results (Table 3), at 95% significance level there is no autocorrelation in the model.

Furthermore, in order to maintain the stability of the VAR model and to obtain relevant results, the existence of the heteroskedasticity problem in the model (Table 4).

According to the results from the conducted testing for the existence of heteroskedasticity in the model, it can be concluded that, at a 5% error level, the model has homoskedasticity.

The results (Table 5) indicate the normality of the residuals in the model. The assumption of normality is not going to be a problem, with the errors in the model being normally distributed.
The conducted tests of the stability of the VAR model, as well as the diagnostic tests performed on the existence of normality, homoscedasticity and the lack of autocorrelation in the model allow the VAR model to be constructed.

The results of the VAR model\(^1\) estimation indicate a well-adjusted VAR model, with individual coefficients of determination ranging from 0.26 - 0.78 for individual oscillations, indicating that the variability in individual variables is due to the change in the value of the other variables which are subject to the analysis. The VAR model with 2 lag times indicates a stable relationship and a statistically significant influence between individual variables.

Table 6 summarizes the results of the VAR Granger Causality / Block Exogeneity Wald Tests where the results in all individual estimates indicate significant causality between individual variables. In the first case, analyzing the causal relationship between FDI as a dependent variable and GDP, net Export, and net Import as variables that have a granger effect on determining the FDI movement, it can be concluded that, with the exception of GDP, the individual impact of the other variables is statistically significant and positive. From the same estimation, it can be concluded that the variables statistically significantly cause the value of foreign direct investment. This indicates that exports, imports and general economic activity have a positive impact on the inflow of foreign capital into the selected Western Balkan countries.

If we analyze the second equation of the VAR Granger Causality tests which analyzes the relation between GDP as a dependent variable and FDI, net Export, and net Import as variables having granger causes on GDP, it can be concluded that export, import and FDI granger causes GDP.

The analysis of the third causal link is between the value of Export as a dependent variable, and the values of GDP, Import, and FDI as variables that have a granger effect on value of export. The results show that the values of the variables have a granger effect on the value of export.

The analysis of the last estimation of the Granger Causality test is represented by the value of Import as a dependent variable and the values of the other variables as determinants that cause a Granger effect on value of import. The results show that there is a statistically significant, positive impact on the value of imports caused by the values of other variables.

### Table 5 - VAR Residual Normality Tests.

<table>
<thead>
<tr>
<th>Component</th>
<th>Skewness</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td></td>
<td>6.250812</td>
<td>4</td>
<td>0.1812</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Kurtosis</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td></td>
<td>4.296235</td>
<td>4</td>
<td>0.3674</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Jarque-Bera</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td></td>
<td>10.54705</td>
<td>8</td>
<td>0.2287</td>
</tr>
</tbody>
</table>

Source: Authors' calculation

### Table 6 - VAR Granger Causality/Block Exogeneity Wald Tests.

<table>
<thead>
<tr>
<th>Dependent variable: FDI</th>
<th>Dependent variable: GDP</th>
<th>Dependent variable: EXPORT</th>
<th>Dependent variable: IMPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluded</td>
<td>Chi-sq</td>
<td>df</td>
<td>Prob.</td>
</tr>
<tr>
<td>GDP</td>
<td>3.670604</td>
<td>2</td>
<td>0.1596</td>
</tr>
<tr>
<td>EXPORT</td>
<td>15.5357</td>
<td>2</td>
<td>0.0004</td>
</tr>
<tr>
<td>IMPORT</td>
<td>5.742881</td>
<td>2</td>
<td>0.0566</td>
</tr>
<tr>
<td>All</td>
<td>52.58739</td>
<td>6</td>
<td><strong>0.0000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Excluded</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>10.1353</td>
<td>2</td>
<td>0.0063</td>
</tr>
<tr>
<td>GDP</td>
<td>9.73221</td>
<td>2</td>
<td>0.0077</td>
</tr>
<tr>
<td>IMPORT</td>
<td>6.72655</td>
<td>2</td>
<td>0.0346</td>
</tr>
<tr>
<td>All</td>
<td>61.74397</td>
<td>6</td>
<td><strong>0.0000</strong></td>
</tr>
</tbody>
</table>

Source: Authors' calculation

\(^1\) See Appendix 2
At the end of this section, the results of the impulse - response function\(^2\) will be elaborated. By applying this function an attempt is made to analyze the variability in time series as a consequence of a certain shock that has some degree of influence on the particular variable, thus transmitting the influence to the other variables in the system.

In the first case, if there is some exogenous shock to GDP, it can be concluded that the other variables, which are a significant component of GDP, follow its movement. Growth in GDP in the first and second periods, though slower, was followed by an increase in FDI in the same period, but after the third period the intensity declined. The movement of net export value as a consequence of the negative GDP shock is almost identical to the movement of GDP to the second period, and starting from the third period there are positive changes in the movement of both variables with increased net export dispersion. In the net import movement as a consequence of the GDP shock, it can be seen that the value of net import follows the GDP movement, however, with greater dispersion.

In the second case, when there is some exogenous shock to the FDI, the graph shows that although recording different intensity and value of GDP, it has the same direction of movement, while net import and net export value has almost the same intensity of movement like FDI. This is a result of the fact that FDI in the Western Balkan countries accounts for most of the foreign trade.

In the third and fourth cases, an exogenous shock is assumed in the value of net Export, and net Import. Here it is important to emphasize the FDI movement as a consequence of some shock in these two variables. From the graphs, we can see that FDI has the same direction of movement with different intensity, hence it can be concluded that the degree of FDI's relation with international trade in the Western Balkan countries is quite high. Furthermore, the response of GDP as a consequence of a certain shock in net Export and net Import is not to a large extent synchronized with the trajectory of the impulse variables movement.

5. CONCLUSIONS

The flow of Foreign direct investment (FDI) is an objective process driven by transnational companies. Economists and policymakers around the world are attaching increasing importance to this type of foreign capital. FDI is the basis for dynamic economic growth, changing the economic structure and increasing external competitiveness.

It can be concluded that FDI is considered to be the most significant source of additional capital. However, countries differ in attracting FDI. For example, the countries of Central and Eastern Europe completed the transformation of their economic and political systems much earlier and thus cumulatively gained a significant amount of foreign capital. In contrast, Southeast European countries, also known as "backward reforms" in the transition process, have attracted less foreign capital. One of the main reasons for the low level of FDI in the Balkan countries is the political instability that had implications throughout the region.

The inflow of foreign capital in the form of FDI in the Western Balkan countries has a positive impact on GDP growth, exports and imports. It can be concluded that the inflow of FDI into the Western Balkan countries has a positive effect on the economic growth and increase of foreign trade. The analysis showed that FDI has a statistically significant and positive impact on GDP in the Western Balkan countries, and is a key precondition for intensifying foreign trade.

The causal relationship of GDP, exports of goods and services, and FDI, acquires particular meanings from one country to another, depending on its level of economic and social development, competitiveness, in a broad and narrow sense, the micro and the macro-economic and structural peculiarities of the respective economies, levels of technological, territorial, spatial distribution and endowment with natural factors of production. Causality results in this analysis indicate bidirectional causality between GDP and FDI, and unidirectional causality from GDP and FDI to exports in the short-run.

Foreign direct investments are an important factor in the economic development of Western Balkan countries. Today, almost all of these countries rely on the accumulated stocks and the annual flows of capital to develop

\(^2\) See Appendix 1
their specializations, deepen their economic transformation in order to keep up with the most advanced economies of the EU. Also, in these countries, at the beginning of the transformation, there has not been clear vision of the role of FDI. Recently, as many other countries in the world, the following countries, in its economic development policy have also attracted larger amount of foreign direct investment.

Considering that this is the first attempt of establishing a relationship between FDI, GDP, exports, and imports for this set of countries, the findings are crucial for the current discourse for this region as they underpin the importance of regional and international trade related development. In spite of the limited size of the sample, the models perform well for this analysis. However, we contend that our study provides a promising step towards developing a more comprehensive empirical research by a dynamic estimation procedure.

REFERENCES


