Evaluation of Economic Indicators for Western Balkans Countries: Policy Recommendations for the Financial and Economic Growth

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Abstract

The purpose of this paper is to find out if selected determinants have any effect on the economic growth rate using the strong balanced panel data for the Western Balkan countries for the period 2001-2017, and the data used are on an annual basis, which in total there are 102 observation periods. For the realization of the paper, secondary data and an advanced dynamic approach were used, such as pooled OLS methods, fixed and random effects model, to test economic growth rate as dependent variable, and explanatory variables such as working remittances to GDP, exports to GDP, imports to GDP, foreign direct investment to GDP and inflation rate. From the generated outputs, it is true to say that working remittances to GDP, exports to GDP, and imports to GDP have an effect that influences economic growth, respectively GDP growth. Even though foreign direct investment to GDP and inflation rate does not have a significant effect on economic growth, respectively GDP growth. The recommendation from this study for policymakers and other researchers would be an added value to analyze with empirical approaches.

Key Words: Economic growth; macroeconomic factors; panel data

JEL Classifications: O47; O11; C23
Introduction

The history of the Western Balkans after the 1900’s, the economic development of those countries has undergone a transition period with various and not easy challenges, with a number of these countries still experiencing the difficulties of this transition. All these countries have the main aspiration to become part of the European Union. The European Union – [EU] is considered to be the most important economic partner for these countries, but to achieve this, they are obliged to carry out institutional and economic reforms in constant assistance from the European Union. The Western Balkan countries in recent years have made notable progress on the road to EU membership and they are converging towards EU member states (Siljak and Nagy, 2018). The whole of these countries have signed a Stabilization and Association Agreement - [SAA], and four of them have gained EU candidate standing, whereas only one of them, particularly Kosovo, isn't a candidate country and doesn't get pleasure from free visa-free travel inside the EU. According to a European Commission (2015) report, the SAA signatory countries have moderate capacity to cope with competition and market forces within the EU. However, due to political and economic problems, there remains a concern as to why this region is failing to grow faster, given the support of the EU members. In the period of overcoming the financial crunch, author Bartlett, (2008) found that the European Union countries suffered from a shock in economic growth, institutional reforms and social wellbeing, which in this respect could not be tolerated even in the Western Balkans.

Even after more than eleven years after the financial crisis, economies around the world but also in the Western Balkans still continue to struggle to recover. Among the countries most affected by this ongoing crisis were WB countries such as: Albania, Croatia, Bosnia and Herzegovina, Kosovo, Montenegro and Northern Macedonia. In order to compute a global sustainable development measure, many researchers uses composite index with an effort to summaries the goals noted in the sustainable development measure. This indicator approves summarizing complicated and multi-dimensional realities to guide decision-makers, it is simpler to interpret than overseas vary of extraordinary indicators, allows country evaluation and country evolution assessment over time, and helps conversation with the ordinary public (Nhemachena et al., 2018) and Hogan et al., 2018).

Many empirical studies and policy-making structures of governments following the recent financial crisis have begun with great care to analyze the factors that influence economic growth in the Western Balkans. The intent to distinguish these factors may support accepting, at what stage of development, these countries, their long-term expectations, and their process performance. As a result of the global financial crisis that has affected the economic process is the integration of their economies into the global economy; reduction of remittances; decline in foreign direct investment; limited access to money lending and various factors. The result of those indicators, which usually varies in some countries and is characterized by their specification.

Examination of macroeconomic determinants that influence economic growth or decline has been and is of specific attention for numerous researchers theoretically and empirically, but one fact can be concluded from these studies that they have not stretched a consensus on this issue. Based on the neoclassic theory of economic process, Solow (1956), additionally referred to as the exogenous model that advocates the accumulation of physical capital as a crucial issue distressing economic process within the short term, whereas the fast development of technology is thought to be a vital issue distressing economic process within the long-term. A number of researchers have applied several advanced econometric models to analyze and investigate a large number of factors that possibly will have an impact on economic growth, applying different explanatory variables through which they can come to conclusions on the influence on economic growth. As mentioned overhead in the Western Balkan countries, in the last 20 years there has been a lower development compared to other transition countries, which may be due to the tense political situation after the events 1990 -1999.

Therefore, a revision of the macroeconomic constituents affecting economic outgrowth might be a contribution to recognizing particular that affect or obstruct economic outgrowth in the Western Balkan state. Based on the (WBRER, 2019), economic process within the Western Balkans is slowing after a transitory revival in investment in previous years. At the end of 2019, giving by the World Bank Group - [WBG], the economic growth within the Western Balkans is projected to succeed in 3.2 %, down from 3.9 % in 2018.
Aside from Kosovo and North Macedonia, wherever growth has continuing to recover once significant retardation, growth is anticipated to be less than in 2018 altogether other countries. In order to check the hypotheses presented in our study, we applied advanced multivariate analysis such as: pooled OLS, fixed and random effect model using panel data which data contains more information about changes of time series. The study to achieve the objectives set out has followed the methodology of realization as follows: presenting a specific introduction to the developments in the countries involved in the analysis, the second part presents the data and methodology of the research, in the third part the findings and results are analyzed and in the last part the conclusions are presented.

**Literature Review**

Through the literature review, we have noted that there is a large number of studies conducted in this area, focused on determinants that have an impact on economic growth, explicitly GDP growth. An enormous number of those studies concentrated on investigating the association between economic growth and determinants that have an effect on economic growth in industrialized and unindustrialized countries though studies on WB [Western Balkan Countries] are more various, limited and in the main published by the employees of the International monetary fund-(IMF). The economic process could be a complicated economics development, and therefore even nowadays it cannot be fully explained what determinants, in what measure and in what approach contribute to growth. Theoretical investigation realized by numerous authors from the historical point of view of economic growth results have shown that each of the theories mentioned above with one or more determinant factors indicate which are the main factors for economic development. Classic theory distinguished natural resources, particularly "soil and labor", neo-classicists theory "capital and technology", and also the new theory of growth stressed human potentials.

As stated earlier, the purpose of this study is to investigate whether defined variables such as remittances to GDP, exports to GDP, imports to GDP, foreign direct investment to GDP, and inflation rate have a significant impact on economic growth, respectively GDP growth. Based on the well-defined variables, the explicit literature for each variable was analyzed as well as their impact on economic growth, respectively gross domestic product - [GDP] growth for the Western Balkan. Particular researchers in this field have attempted to identify some of the factors that hinder or limit economic growth, as the Western Balkan countries continue to meet some of the criteria set by the European Union in the field of political and economic reform. Authors Murgasova et al., (2015), in the "Special Report on Regional Economic Issues - IMF" have analyzed the factors that drive economic growth in the Western Balkan countries. Their findings were that capital accumulation and overall productivity factors were the major drivers of economic growth. (Fetai et al, 2017), in their study "An Empirical Analysis of the Determinants of Economic Growth in the Western Balkans", analyzed the factors that influence economic growth by applying the pooled OLS technique, fixed, random-effects model and Hausman -Taylor model. The outcomes of this research were that foreign direct investment, gross savings and domestic credit in the private sector have a confident influence on economic growth, while a negative confident influence has: the initial level of per capita growth, level of corruption, unemployment rate, and overall final government consumption.

During the twenty century the phenomena of working remittances has become quite challenging field for the scientist, since working remittances are thought-about a strong injection of economic support to their relatives directly, however indirectly will increase the money potential of the recipient country of those remittances. Regarding the relative of working remittances to the economic process, mixed results predominate and that they may be divided into 3 groups (Fajnzylber and Lopez, 2008); (Chami et al, 2003). The first group of authors who have claimed that a positive relationship exists between working remittances and economic growth; second group advocates of a negative or neutral link between working remittances and economic growth; and third group those who argue that working remittances have an effect on the level of economic development. Analyzing the results of these empirical studies, our research expectations with the advanced empirical analysis approach for the WBC [Western Balkan Countries] are that working remittances have a positive impact on the economies of the countries included in the analysis. These expectations can be further supported by knowing that these countries have high migration rates. The authors Fullerton et al., (2012), have analyzed the relationship between export, import, and economic growth in Mexico for the period 1980–
2007, using the causality test and the vector error correction method, and their results show that imports play a more critical role than exports in economic growth. Given the importance of imports, there are many arguments and contra arguments about their impact on economic growth rates. A study conducted by the authors (Saaed & Hussain., 2015), on the Tunisian economy for the period 1977 to 2012 in relation to the impact of imports and export and their findings argue that the level of import and export have unilateral impacts.

According to this study, the economic process in Tunisia is driven by associate import growth strategy, and imports by authors are seen as a source of the economic process. In recent years, there has been a wealth of discussion and studies on the importance of foreign direct investment in euro area countries. This was not surprising, as foreign capital played an important role in many countries during the transition period of the market economy. A large number of studies have analyzed the main features of FDI-(foreign direct investment) in Eastern Europe, by their volume, form, origin, economic activity destination and case studies (Lankes and VenaBles, 1996); Estrin (2009); Bartlett, (2008); Hunya, (2011, 2012), as well as FDI components based on econometric research (Bevan and Estrin, 2004). The other determinant that is considered important enough to have an impact on economic growth is the inflation rate. The authors Kryeziu and Durguti, (2019) in their study "The impact of inflation on economic growth - for eurozone countries" investigated the inflation rate and its impact on economic growth using panel data for the period 1997-2017. The econometric results obtained of this analysis through multiple regression toward the mean show that the inflation rate contains an important positive impact on economic process. As a result of analyzing the data for the countries specified in the analysis, it is worrying that foreign investment is in constant decline, or that some of it is oriented to capital investment, namely residential housing. Therefore, we consider that this study will be a guide for government policy-making in these countries to create the conditions and facilities for foreign investment.

Research and Methodology

The methodology used is the consideration of documents stating to the exact literature in the field of macroeconomics, the comparative method, examining how the selected determinants affect the economic growth in the Western Balkan countries at different periods of time. In over-all, there are some sorts of data that are appropriate when dealing with quantitative analysis for resolving economic problems, the most important are: time series data, cross-sectional data and panel data. The data used in our research are secondary data defined as panel data, which are defined as a combination of the two previous groups; the data consist of cross-sectional datasets observed over two or more time periods (Hill, Griffiths, & Lim, 2011). The data applied to the economics model through multivariate analysis are provided by Eurostat. The time period we cover is from 2001 to 2017, totaling 102 observations. Factors that will be applied in our multivariate analysis are expressed in percentage on an annual basis and the table below shows the selected variables, definition and description of financial indicators.

Table 1: Data definition and description

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Defining variables</th>
<th>Indicators expressed in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPgrowth</td>
<td>Gross domestic product growth</td>
<td>Annual GDP growth rate (%)</td>
</tr>
<tr>
<td>WR_GDPrate</td>
<td>Working remittance to GDP</td>
<td>Annual WR to GDP rate (%)</td>
</tr>
<tr>
<td>EXP_GDPrate</td>
<td>Export to GDP</td>
<td>Annual EXP to GDP rate (%)</td>
</tr>
<tr>
<td>IMP_GDPrate</td>
<td>Import to GDP</td>
<td>Annual IMP to GDP rate (%)</td>
</tr>
<tr>
<td>FDI_GDP rate</td>
<td>Foreign direct investment to GDP</td>
<td>Annual FDI to GDP rate (%)</td>
</tr>
<tr>
<td>INFrate</td>
<td>Inflation rate</td>
<td>Annual inflation rate (%)</td>
</tr>
</tbody>
</table>

Source: Authors’ specification

Regression analysis is one of the foremost important tools of economic science modeling. Normally, multivariate analysis is employed to outline and analyze the connections between a given variable and several other variables. If the multivariate regression covers only one experimental variable, this regression...
is named simple regression, whereas if a regression is predicated on over one experimental variable, this regression is named multiple regression. The simple regression model expressions are like this:

\[ y = \beta_0 + \beta_1 x + \epsilon \]

Currently, according to (Brooks, 2008), the dependent variable cannot be explained by an independent variable alone, but more independent variables must be applied to give effects. And as a result, it is necessary to include more independent variables within the equation to extend the equation from simple regression to multiple regression.

\[ y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k + \epsilon \]

By adding more independent variables to the model, the factors that are included as error factors are now included as independent variables within the model. The parameters, or coefficients, which determine the effect that the independent variables have on the dependent variable. Each coefficient next to an independent variable gives an average change in the dependent variable in a unit set of the independent variable when all other independent variables are held constant.

The simple and multifactor regression should contain a constant term, \( \beta_0 \), which is unaffected by any explanatory variable. The constant term denotes the estimated value of the dependent variable if all explanatory variables take the importance equal to zero, (Brooks, 2008). The regression approach stayed to look at the relative importance of every explanatory variable on the dependent variable. The p-value coefficients term of the explanatory variables to check the hypotheses within the model are ranged 1%, 5%, and 10% significance level. To evaluate the appropriate of the model we have a tendency to applied pooled OLS, fixed and random model. Moreover, in our working papers we have a tendency to use the Hausman test in order to create decision between a fixed and random effect model.

The regression model for economic growth is GDP growth = f (working remittance to GDP, export to GDP, import to GDP, foreign direct investment to GDP, inflation rate).

In the following we will make a specification on choosing the most appropriate model that would be appropriate for our analysis to analyze the factors that affect economic growth. Based on the formula specified above, the pooled OLS regression model in our case can be expressed in the following equation:

\[ GDP_{it} = C + \beta_1 WR_{GDP_{it}} + \beta_2 EXP_{GDP_{it}} + \beta_3 IMP_{GDP_{it}} + \beta_4 FDI_{GDP_{it}} + \beta_5 INF_{it} + \epsilon_{it} \]

Where: \( i \) = assigned location, \( \epsilon \) = residual error estimation variable in period \( t \).\( t = 2001-2017 \), \( C \) = constant for each variable.

In the following, we are going to present the fixed and random effect model formulas. Fixed effects model throughout the development of this model we've got outlined the relationships between dependent variables and independent variables that are the same for all countries. In our examination we have Western Balkan countries measured for the period 2001 to 2017 with a total of 102 observations. Grounded on the general multifactor regression and adapting to fixed effect model, our current study specifies the following form of equation:

\[ GDP_{it} = C + \beta_1 WR_{GDP_{it}} + \beta_2 EXP_{GDP_{it}} + \beta_3 IMP_{GDP_{it}} + \beta_4 FDI_{GDP_{it}} + \beta_5 INF_{it} + \epsilon_{it} \]

The random effect model recognizes the fact that each country within the analysis has individual specifics, that is, the constant term for each country is random. As well, the term constant of every explanatory variable within the model is the equivalent for all countries. The model has the form of the equation as follows:
GDP growth\(_{it}\) = C + \(\beta_1\)WR\(_{GDP}\)\(_it\) + \(\beta_2\)EXP\(_{GDP}\)\(_it\) + \(\beta_3\)IMP\(_{GDP}\)\(_it\) + \(\beta_4\)FDI\(_{GDP}\)\(_it\) + \(\beta_5\)INF\(_it\) + \(\varepsilon_{it}\) + \(\mu_i\)

\(\mu_i\) Random effect of the country, and for \(\varepsilon_{it} + \mu_i = \delta_{it}\) the model is as follows:

GDP growth\(_{it}\) = C + \(\beta_1\)WR\(_{GDP}\)\(_it\) + \(\beta_2\)EXP\(_{GDP}\)\(_it\) + \(\beta_3\)IMP\(_{GDP}\)\(_it\) + \(\beta_4\)FDI\(_{GDP}\)\(_it\) + \(\beta_5\)INF\(_it\) + \(\delta_{it}\)

To make the selection of which model is most appropriate within our analysis we used Hausman test, which test can be used in many econometric problems. In our research, the hypotheses tested give us instructions regarding the choice between fixed and random effects models.

We have tested = \{H\(_o\): the adequate model is random effects model
H\(_a\): the adequate model is fixed effects model\}

The result generated by the Hausman test argues that we must reject the basic hypothesis, and accept the alternative hypothesis for the existence of the fixed effect. The result of the Hausman test is: \(\text{chi2} (5) = (b-B) [((V_b-V_B) \cdot (-1)) (b-B)] = 0.94, \text{Prob> chi2} = 0.9674\). And grounded on this outcome we can settle that the most appropriate model is the fixed effects model compared to the other models analyzed.

**Data Analysis and Results**

The outcomes produced by the multivariate analysis include chronologically starting from descriptive statistics, correlation analysis, diagnostic tests and finally regression analysis according to fixed effect model. In the descriptive statistics, movements on the number of observations, minimum value, maximum value, mean value, standard deviation, and variance coefficient were analyzed. In the research, we present descriptive statistics, where the movements on the number of observations, minimum value, maximum value, mean value, standard deviation and coefficient of variance are analyzed.

**Table 2: Summary statistics**

<table>
<thead>
<tr>
<th></th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Obs</td>
</tr>
<tr>
<td>GDP(_{growth})</td>
<td>102</td>
</tr>
<tr>
<td>WR(_{GDP}) rate</td>
<td>102</td>
</tr>
<tr>
<td>EXP(_{GDP}) rate</td>
<td>102</td>
</tr>
<tr>
<td>IMP(_{GDP}) rate</td>
<td>102</td>
</tr>
<tr>
<td>FDI(_{GDP}) rate</td>
<td>102</td>
</tr>
<tr>
<td>INF rate</td>
<td>102</td>
</tr>
</tbody>
</table>

Valid number of observations 102

Source: Authors’ calculations

Table 3 presents the correlation matrix which allows us to summarize the correlations between all variables. Based on the correlation matrix, we can see that there is a positive correlation between economic growth with remittances, imports, foreign direct investment and unemployment rate, while export has a negative correlation.
Table 3: Correlation analysis

<table>
<thead>
<tr>
<th></th>
<th>GDPgrowth</th>
<th>WR_GDPrate</th>
<th>EXP_GDPrate</th>
<th>IMP_GDPrate</th>
<th>FDI_GDPrate</th>
<th>INFrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPgrowth</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WR_GDPrate</td>
<td>0.009**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXP_GDPrate</td>
<td>-0.311**</td>
<td>-0.306**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMP_GDPrate</td>
<td>0.168</td>
<td>0.093</td>
<td>0.756**</td>
<td>0.347**</td>
<td>1</td>
<td>-0.027</td>
</tr>
<tr>
<td>FDI_GDPrate</td>
<td>0.046</td>
<td>0.035</td>
<td>0.188</td>
<td>0.347**</td>
<td>1</td>
<td>-0.027</td>
</tr>
<tr>
<td>INFrate</td>
<td>0.066</td>
<td>-0.221*</td>
<td>-0.071</td>
<td>-0.070</td>
<td>-0.027</td>
<td>1</td>
</tr>
</tbody>
</table>

**. significant at the 0.01 level
*. significant at the 0.05 level

Source: Authors’ calculations

Based on the generated results, it can be seen that the economic growth has a positive correlation with remittances, but a low correlation with a significant level since the correlation coefficient is .009 **, with a confidence level of 99.9 percent. Economic growth has a negative correlation with the export variable in relation to GDP with a coefficient of -0.311 ** at the significance level of 99.9 percent, which results in any decrease in the export level having a direct impact on economic growth. The ratio of import to GDP has a positive correlation with economic growth with a coefficient of .168, which implies that any increase in the level of imports has a positive impact on economic growth. But the correlation of imports with GDP growth is not statistically significant at both levels of data testing at 0.01 and 0.05 percent of significance. The explanatory variable of foreign direct investment with GDP has a low correlation with economic growth with a coefficient of .046 and this correlation is not at the level of significance at 1 or 5 percent level. And finally, the inflation rate variable does not have any specific weight on economic growth since the correlation coefficient is .066.

In this research, a number of diagnostic tests were carried out to check the suitability and robustness of the model. The applied tests are presented in the table below in terms of normal distribution, heteroskedasticity, homoscedasticity, and huasman test.

Table 4: Diagnostic tests

<table>
<thead>
<tr>
<th>Problem</th>
<th>Test statistics</th>
<th>Results/ Probability</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normality</td>
<td>[Jarque-Bera]</td>
<td>13.000 [0.0000]</td>
<td>Normality distribution</td>
</tr>
<tr>
<td>Serial correlation</td>
<td>[Durbin Watson]</td>
<td>1.933</td>
<td>No serial correlation</td>
</tr>
<tr>
<td>Heteroskedasticity</td>
<td>[Breusch-Pagan / Cook-Weisberg]</td>
<td>40.94 [0.0038]</td>
<td>No Heteroskedasticity</td>
</tr>
<tr>
<td>Homoscedasticity</td>
<td>White’s test</td>
<td>56.26 [0.0000]</td>
<td>No Homoscedasticity</td>
</tr>
<tr>
<td>Model specification</td>
<td>[Fixed Effect Model]</td>
<td>2.19 [0.617]</td>
<td>Correctly Specified</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

The outcomes in the summary table of the models show the outcomes of R and R^2 as properly as the standard error. The results acquired from multiple regression evaluation argue that the variable economic growth rate has a robust correlation with explanatory variables with a coefficient of .381 or expressed as a proportion of 38.1 percent. Whereas R^2 in accordance to our estimation is with a coefficient of .245, which shows that 24.5 percentage of economic growth rate variables are explained by using the variables that are applied in the model as control variables. Hausman test take a look at and serial correlation had been used in our evaluation for model consistency verification.
The Durbin-Watson correlation value can be between of zero to four [4], if the Durbin-Watson test assessment is approximated to zero [0], then the serial correlation confirmations that the data in the model have an excessive progressive influence among the residual values. If the Durbin-Watson correlation is provided to the value four [4], it indicates that the records have a adverse serial correlation. The model can be noticed stable while the Durbin-Watson outcomes are close to the two [2] value range. The Durbin-Watson test is viewed to have no serial correlation inside the range of one point five [1.5] to two point five [2.5], indicating that the residual price has no serial correlation or there is no auto correlation between the residual values. Therefore, based on this interval, the findings in our analysis exhibit that Durbin-Watson is well worth 1.933, which is within the interval value, and hence it follows that the model is stable.

Below we present the effects generated for all three models, beginning from pooled OLS, fixed effect model and random effect model as properly as the modifications for each of these models.

Table 5: Regression results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pooled OLS model</th>
<th>Random effect model</th>
<th>Fixed effect model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff</td>
<td>P-Value</td>
<td>Coeff</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0690</td>
<td>0.000</td>
<td>0.0689</td>
</tr>
<tr>
<td>WR_GDP_rate</td>
<td>0.1346</td>
<td>0.050***</td>
<td>0.1346</td>
</tr>
<tr>
<td>EXP_GDP_rate</td>
<td>-0.2022</td>
<td>0.001***</td>
<td>-0.2019</td>
</tr>
<tr>
<td>IMP_GDP_rate</td>
<td>0.0812</td>
<td>0.048***</td>
<td>0.0812</td>
</tr>
<tr>
<td>FDI_GDP_rate</td>
<td>-0.0223</td>
<td>0.696</td>
<td>-0.0226</td>
</tr>
<tr>
<td>INF_rate</td>
<td>-0.0035</td>
<td>0.923</td>
<td>-0.0035</td>
</tr>
<tr>
<td>Observation</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>R</td>
<td>0.381</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.2453</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-test</td>
<td>2.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi 2</td>
<td>16.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>Poled OLS</td>
<td>Re model</td>
<td>Fe model</td>
</tr>
</tbody>
</table>

Dependent variable: GDP growth, explanatory variables are tested at three significance levels with 1%***, 5%** and 10%* reliability.
Source: Authors’ calculations

The results section will present the hypotheses of this research as well as their impacts with the expected results. The first hypothesis put forward is: working remittances to GDP have a significant impact on economic growth. Based on the results generated by the fixed effect model regression model, it is clearly seen that the variable working remittances to GDP has a positive impact on economic growth and a significant level of 99.0 percent since the value is statistically significant at P-value (P = 0.047). This result confirms the hypothesis that working remittance to GDP has a positive impact on economic growth. This result gives us indications that the increase in remittances has direct implications for economic growth. The results of our multivariate analysis remain fully in mark with the findings of (Faini and Ang, 2002; 2006) where in their studies they found that working remittances are positively related to economic growth. (Faini, 2002) argues this positive link in that remittances outweigh the imperfections of the capital market and enable families who receive financial means to create additional wealth.

Second hypothesis: export to GDP has a negative impact on economic growth. The additional explanatory variable applied to the model is Export to GDP, which based on the generated outcomes is statistically important with a confidence level of 99.0 percent with an adverse sign, since the P-value (P = 0.012). This result tells us that increasing export levels consumes a negative influence on economic growth, and this result also confirms the second hypothesis. Our results are in mark by Darrat's (1986) study, which tested the impact among export and economic growth in the four countries [Korea; Taiwan; Hong Kong; and Singapore] including the 22-year period, and found that export does not support economic growth. Third hypothesis: imports to GDP have a positive significant impact on economic growth. The import to GDP is substantial with a confidence level of 99.0 percent with a positive indication, since the P-value (P = 0.055) also, this result verifies the hypothesis presented, which is in line with the expected results. This result shows...
that the expand in the level of imports has a progressive influence on economic growth. Results from many relevant studies yield results mixed with positive or negative indications, and those results give us some confusion about getting a clear picture about the impact of this ratio. The outcomes of our study are in fully accordance with Andrews, (2015), study which evaluated the relationship among import, export and economic growing. The study confirmed the presence of a two-way effect among import and economic development as well as the cause of the association between export and import. The outcomes from this revision disclosed that exports have an adverse impact, whereas the ratio of imports to GDP has a positive mark in the long run. To further argue the results that import has a positive impact and export has no influence on economic growing, the authors Kim et al, (2007), in their study investigated the connection among export, import and economic growing using data on quarterly bases for the period 1980-2003 for the Republic of Korea. Results point out that imports have a substantial positive impact on productiveness boom however exports do not. Furthermore, evidence reveals that the productivity-enhancing effect of imports is due to aggressive pressures springing up from consumer items imports and technological transfers embodied in capital items imports from developed countries. The four hypothesis: foreign direct investment to GDP has a significant positive impact on economic growth. While the variable within our analysis FDI with GDP is not statistically significant, since the value (P-value = 0.679). Based on these effects we refuse the insignificant hypothesis and approve the choice hypothesis due to the fact the P-value is greater than zero $P>0$ Our results are inversely related to studies by (Lankes and VenaBles, 1996); Estrin (2009); Bartlett, (2008); Hunya, (2011, 2012).

And the last hypothesis: the inflation rate has no significant impact on economic growth. The unemployment variable is no longer statistically important, because the (P-value = 0.978). According, to these consequences we refuse the insignificant hypothesis and the alternative hypothesis remains accepted due to the fact the value of $P = value$ is larger than zero $P>10$. The results of this analysis are identical, if compared with the study conducted by (Kryeziu & Durguti, 2019), within the study of the impact of inflation on economic growth - evidence for Eurozone countries as well as the period 1997-2017, even within the Eurozone countries, the inflation rate consumes one important influence on economic development.

Conclusion

In the outline of the economic process, we are able to accomplish that economic process theory could be a complex and challenging advancement that has been estimated for many years. We have analyzed some of the key factors that can determine the economic outflow by analyzing working remittances to GDP; export to GDP; import to GDP; foreign direct investment to GDP, and inflation. Importantly, many researchers utilize many factors that have been refined and distinguished using advanced models and approaches to measure the impact of these indicators on economic growth. The paper is analyzed from two aspects: theoretical and empirical view, where multifactorial regression was applied using panel data for 2001-2017. This statement is additionally within the excellent consistency of the reviewed literature on whether or not these factors are interconnected and that their impacts on the growth or decrease of the economic process in the Western Balkan countries. The examination deals with "2 perspectives", initial in terms of reviewing the distinctive collected works on the factors of the economic process, severally, in theory, moreover as second, this study relies on a panel data regression model. This revision tries to observe the relationship among working remittance to GDP; export to GDP; import to GDP; foreign direct investment to GDP and inflation rate, using secondary data on annual basis for the period under review. Superior consideration has also been paid to the choice of the most appropriate model to match the data, ranging from checking out of normal records distribution, serial correlation, heteroskedasticity, and white test for homoscedasticity.

The outcomes of this study show that remittances to GDP, exports and imports to GDP have a considerable have an effect on economic growth. Surprisingly, the FDI to GDP has not shown a considerable impact on economic growth. Surprisingly, many discussion tables have alluded to the fact that this report has an impact on economic growth, but even these results are very easily argued by analyzing these investments in which economic activities are carried out on the one hand and these countries have obvious roots in recent years. As regards to the inflation rate, the conclusions in our examination claim that this ratio does not have an
important influence on the economic growth rate. Our results are inversely related to the study conducted by the authors (Kryeziu & Durguti, 2019). In their observed paper "The Impact of Inflation on Economic Growth - for Eurozone countries". The econometric verdicts show that the inflation rate has a noteworthy confident influence on economic growth for the euro area countries. And as a general conclusion of this study, it turns out that further studies in this field should be undertaken, including other potential factors that may have an impact on economic growth. And finally, as an added contribution to this paper is that it clearly outlines the factors that should be carefully considered by decision-making authorities to take appropriate action to eliminate barriers and apply sustainable policies that will reflect on economic growth.

References


