

# Export and Economic Growth in the West Balkan Countries

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## *Abstract*

The aim of this paper is to explore the effects of exports and other variables (foreign direct investment, remittances, capital formation, and labour force) on economic growth in West Balkan countries (Albania, Kosovo, Macedonia, Montenegro, Bosnia and Herzegovina and Serbia). This study utilizes a strongly balanced panel data over the 2005-2015 period for Western Balkan countries using the ordinary least squares method (OLS), ie Pooled regression model to evaluate the parameters.

The relationship between export and economic growth has turned to be statistically significant and positively related for the countries under the study. Results also indicate the statistically significant positive relationship between economic growth and other variables included in the model such is remittances, capital formation, and labor. The relationship between economic growth and foreign direct investment has turned out to be statistically insignificant and negatively related.

*Keywords:* Export, Economic Growth, West Balkan Countries.

*JEL Classification:* F10, F43, O57

## 1. Introduction

The real GDP growth rate shows how much an economy of the country is expanding and is an important indicator for expressing the differences in the balance of economic powers between countries. Rapid economic growth over the years can transform poor countries into rich countries as it has been with other countries such as Hong Kong, South Korea, Taiwan and some other Asian economies (Parkin, 2008, p.168). However, as a consequence of the ups and downs in economic growth, unemployment rates vary from year to year (Baumoll & Blinder, 2010, p. 25).

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Significant components of GDP that directly affect economic growth are net exports along with other components such as consumption, investment and government spending.

Increase in export of goods and services covers demand for products inside and outside the country, leads to increase technological innovations resulting in greater capacity utilization and economic growth. Internal and external competitions in the export sector provides a price mechanism which enables the optimal allocation of economic resources and their efficient use by stimulating economic growth and in addition, increase in employment. This impedes the development of monopolies and oligopolies as well as inefficient and non-profitable activities (Ghartey, 1993).

Since GDP is one of the key macroeconomic indicators to measure economic growth, some data from the Central Bank of Kosovo (CBK) and World Bank Group (WBG) are presented in relation to this indicator for 2015 and 2016.

In 2014 Western Balkan countries had a decline in net exports and a slow growth of the domestic demand, which has affected negatively the economic activity in these countries. The situation has begun to change in a positive way during 2015 and in this recovery of economic activity have affected investment growth and demand growth. Sectors that have been characterized by higher growth were the sector of construction, manufacturing, industry and transportation, and these have further affected the growth of exports to the Western Balkan countries (CBK, 2016).

According to the Macroeconomic Development Report of Central Bank of Kosovo (2016, p. 18) in 2015 in the Western Balkans, real GDP growth is estimated at about 2.4% compared to 1% in 2014. Based on IMF data presented in the same report it is argued that in 2015 the highest growth was recorded by Montenegro and Macedonia with a real annual GDP growth of about 3.2%, while the lowest real GDP growth rate was in Serbia with 0.5. Meanwhile in other Western Balkan countries the situation is as follows: Kosovo with 3.0%, Albania with 2.7%, Bosnia and Herzegovina with 2.1%.

Even in 2016, compared to 2015, the countries of the Western Balkans have had an acceleration of economic growth. According to the World Bank Group Report (2017, p.2), the acceleration of growth in Albania and in Serbia has offset the weaker growth in Macedonia and FYR Macedonia and the slowdown in Kosovo's growth.

Viewed by country, in Kosovo in 2016 it is estimated to be higher by 3.6%, in Albania, economic growth was 3.2%, in Bosnia and Herzegovina 2.8%, in FYR Macedonia at 2.4%, in Montenegro by 2.1%. In Serbia is estimated to be 2.8 percent as the highest growth since 2008 (WBG, 2017).

Economic growth in most West Balkan Countries affected job creation and improving labor market outcomes, but unemployment remains still problem for Western Balkan countries.

Although there is a positive growth trend in West Balkan Countries, net exports have triggered a slowdown in economic growth in these countries. The deterioration of the level of trade deficit in Montenegro and also in Kosovo in some way offset the impact of positive export performance in Serbia and Bosnia and Herzegovina.

According to the World Bank database (WB, 2017), the share of export of goods and services as a percentage of GDP for Western Balkan countries is presented in the table below.

**Table 1**

**Exports of goods and services (% of GDP) in West Balkan Countries  
(2006-2016)**

Year	Country					
	Albania	Bosnia and Herzegovina	Kosovo	Macedonia, FYR	Montenegro	Serbia
2006	24.93	35.02	12.62	37.79	49.37	36.42
2007	28.08	27.1	15.47	44.11	44.39	28.36
2008	29.59	26.86	15.66	43.22	39.47	29.12
2009	29.6	25.02	17.05	32.8	32.12	26.84
2010	32.44	29.71	19.84	39.78	37.04	32.93
2011	34.01	32.06	23.77	47.12	42.35	33.98
2012	33.35	32.38	23.35	45.37	43.67	36.93
2013	35.45	33.79	21.9	43.4	41.34	41.2
2014	28.23	34.14	22.5	47.66	40.14	43.38
2015	27.26	34.58	21.94	48.8	42.46	46.67
2016	28.74	/	22.49	49.24	42.23	50.91
Country average (2005-2016)	30.15	31.06	19.69	43.57	41.32	36.97
The West Balkan average (2005-2016):				33.83		

Source: World Bank, World Development Indicators, 2017.

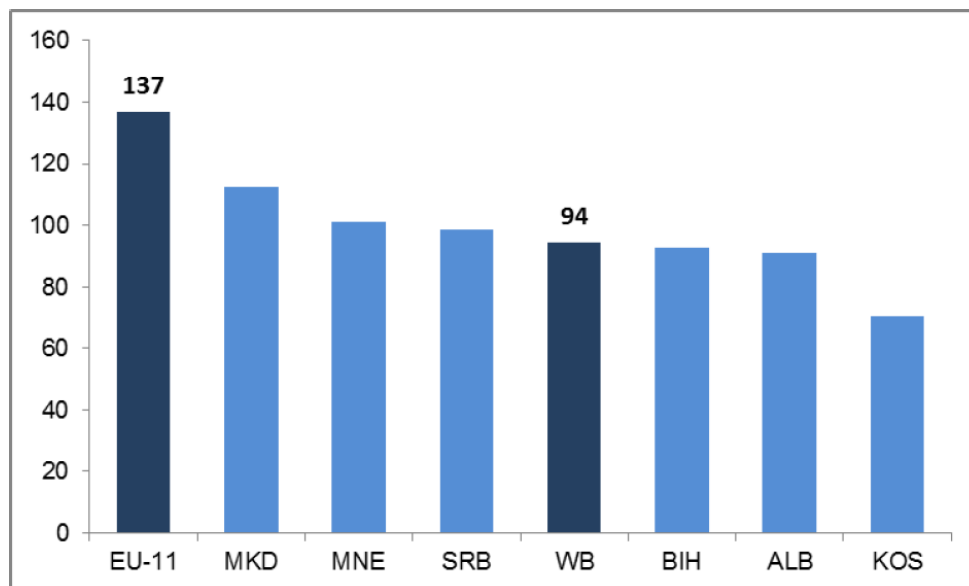
The average export share in GDP (2005-2016) for the Western Balkan countries is 33.83%. According to the average export share in GDP for this period, the ranking of Western Balkan countries is as follows: Macedonia with 43.57%, then Montenegro with 41.32%, Serbia with 36.97%, Bosnia and Herzegovina with 31.06%, Albania with 30.15 % and Kosovo with 19.69%.

According to the data from the table, the share of export to GDP (in %) in Albania over 2006-2016 has been constantly increasing (with the exception of 2015) from 24.93% in 2006 to 28.74% in 2016. Kosovo also has consistently experienced during this period an increase in export share from 12.62% in 2006 to 22.49% in 2016.

In Bosnia and Herzegovina, the share of exports to GDP in 2006 was 35.02%, and it slow down until 2009, but it started to increase from 2010 by 29.71% to 34.58 in 2015. Macedonia, Montenegro and Serbia during this period have not had consistently a growth trend over the years, but with a greater share of GDP exports over the years compared to other West Balkan Countries. Macedonia had a share of 37.79% in 2006 and in 2016 the share of exports to GDP was 49.24% in 2016. Montenegro has the largest share of exports in GDP in 2006 with 9.37%, whereas in 2016 dropping to 42.23%. Meanwhile, Serbia has the largest share in 2017 with 50.91% compared to 2006 of 30.26%.

Trade openness (the amount of exports and imports split by GDP) in the Western Balkan countries is around 94% of GDP, and stands far behind the EU countries to reach 137% of GDP, ie the Balkan average is as much as 70% of the trade openness of European Union countries.

Figure 1. Trade openness in 2014



Source: (Sanfey, et al., 2016).

Recently, exports from Western Balkan countries compared to E-11 exports are characterized by: significantly lower share of total produced goods in total exports; Exported goods were less sophisticated with a share of about 50% of manufactured goods classified as "labor and resource intensive" or "low-skill and tech-intensive", compared to about 30 per cent in the European Union; Export costs more than double that in the EU-11; Also Time to export is much longer than in E-11 (Sanfey, et al., 2016).

According to Gabrisch, *et.al.* (2016) "The Western Balkan countries are characterized by a relatively weak manufacturing sector whose weighted average share as a percentage of GDP amounted to 12.7% in 2012. .... The high and relatively persistent current account deficit of around 10% of GDP throughout the Western Balkan countries with the exception of Croatia and Macedonia is mainly due to this small-sized industrial sector. Integration into international production networks is weak, too" (Gabrisch, et al., 2016).

In these countries, the large consumption exceeds the overall production, which means less savings to influence investment, so it is necessary to stimulate private and public investment in these countries.

West Balkan Countries should be geared towards promoting investment and exports through accelerating structural reforms in the function of sustainable economic growth, moving from a consumption-based growth model to a new investment-export model.

If countries are export-oriented, if they have a highly differentiated export structure and highly processed exported products, then the export sector will generate positive externalities for the non-export sector (Ibrahim, 2002).

The purpose of this paper is to analyze the export impact on economic growth in the Western Balkan countries for the period 2005-2015, in addition to other variables such as remittances, gross fixed capital formation, foreign direct investment and labor.

The structure of the paper is as following: the following section gives an overview about the various theoretical and practical researches of the role of export in economic growth in developing and transition countries as well as in the Western Balkan countries. The third section deals with the research methodology, data and variables. The fourth section presents the empirical results and their interpretation, while in the last section a brief summary and conclusions are given.

## 2. Literature review

The relationship between export and economic growth has attracted the attention of many authors who with the results of their empirical studies have enriched the economic literature. The authors' views on the positive impact of export on economic growth are earlier ranging from the classical economy to

Adam Smith and David Ricardo regarding the role of the international economy over economic growth.

In recent years, more and more emphasis is placed on the impact of export growth on economic growth but also on the causal link between two variables such as exports and economic growth.

The results of many empirical researches for both developing countries and developed countries show that for different countries at different time periods, the results differ. To investigate the direction of causality between export and economic growth, many authors have used Granger causality.

These different views on export and economic growth are mainly divided into four major groups.

*The first group* includes the neoclassical views of the Export-Led Growth (ELG) theory hypothesis, according to which export growth is the main factor in the economic growth of a country in the long run. There are many supporters of these views, among which are Feder (1983), Ram (1985), Balassa (1985), Helpman and Krugman (1985), Krueger (1985) and many other authors.

Rati Ram has analyzed the role of export growth in 73 least developed countries (LDCs). It analyzed separately the period 1960-1970 and 1970-1977 and has come to the conclusion that exports have had an impact on economic growth in the 1970s in these countries, but earlier the impact was smaller depending on the level of income of developing countries. Indeed, the impact was lower for low-income developing countries for the period 1960-1970, while for the period 1970-1977 the impact was greater for both low-income countries and middle-income group (Ram, 1985).

Balassa in his studies has also highlighted that export have a positive impact on economic growth. In the study "Exports, policy choices and economic growth in developing countries after the 1973 oil shock" (1985), 43 LDCs are included for the period 1973-1978. According to this study, there are differences between countries regarding the relationship between export and economic growth, depending on their trade policy which they have applied during this period of time. Research findings also show that low-income countries are likely to influence economic growth through the application of modern technology and manufactured exports (Balassa, 1985).

*The second group* includes the views that the economic growth influences the export, where Kaldor (1967) and Shan and Tian (1998) have also contributed among other authors.

According to Kaldor (1967), productivity growth will help reduce unit costs and ease economic growth. Kaldor and Mirrlees (1962) in the New Model of Economic Growth has presented the link of technological progress to capital accumulation, arguing that technological progress depends on the capital

accumulation rate and gross investment expenditure (Kaldor and Mirrlees, 1962, p. 174).

Authors Shan and Tian (1998) have tested ELG hypothesis based on the monthly time series data for Shanghai. Research results find biased economic growth in exports. According to these two authors, economic growth affects exports if domestic production would grow faster than domestic demand (Shan & Tian, 1998).

*The third group* consists of the views of the first two groups, thus combined with each other because there is a mutual causal relationship between the variables (Ghartey, 1993; Sharma & Dhakal, 1994).

Ghartey (1993) has tested the relation between Export and Economic Growth for US, Taiwan, and Japan. He used the Hsiao method (1979) to determine the direction of the causal link. Data include the following period: US and Taiwan period from 1960-1990 and Japan from 1955 to 1991. In this research, Ghartey has tested that there is mutual impact between two variables: US growth has led to increased exports, while exports have influenced Taiwan's economic growth but there was feedback causal relationship between two variables in Japan (Ghartey, 1993).

In cases where it has an impact on both directions, exports have an impact on economic growth and this effect has an impact on improving export performance through technical progress and the spinoff effect (Ghartey, 1993).

Subhash C. Sharma and Dharmendra Dhakal (1994) also tested the causality between export and economic growth for 30 developing countries (low and middle-income). They tested the causality between two variables through multivariate framework. The results show that there is mutual impact between export and economic growth for five countries, the impact of export in economic growth on six countries, the impact of economic growth on exports in eight countries; and no causal link between the two variables in eleven countries. Although South Korea is oriented to export growth, the results shows that in this country there is no causal connection between growth of exports and growth (Sharma & Dhakal, 1994).

*The fourth group* includes the views that there is no causal relationship between export and economic growth (Yaghmaian & Ghorashi, 1995; Anwer & Sampath, 1997).

Yaghmaian and Ghorashi (1995) have challenged the views of the first group or the neoclassical views of the Export-Led Growth theory hypothesis. In this research, about 30 countries from the four categories of countries used in the 1987 World Bank Report have been included. The number of countries involved in the research is determined by available data. Cross section regression analysis is

applied. They have argued that exports and economic growth are the result of the development process and technological change (Yaghmaian & Ghorashi, 1995).

Based on the results of Anwer and Sampath (1997, pp.1-19) empirical research for 96 countries based on World Bank data (1960-1992), it is apparent that although export growth promotes economic growth, the research results are different for different countries. Only in nine countries has had the positive impact of economic growth on export while in most of them there is no relationship between these two variables (Anwer & Sampath, 1997).

The authors Dawson and Hubbard (2004) in an analysis of export effects in GDP in Central and Eastern European countries (using panel data and fixed and random effect models) found that export growth is a significant determinant of GDP growth and according to them these countries should strongly support export-led growth theory during transition (Dawson & Hubbard, 2004).

The trade performance of the Western Balkan countries has been discussed in only a small number of academic papers. The prevailing point of interest has been the region's underperformance in respect to its export potential, and a subsequent failure to contribute more substantially to the growth of GDP.

In the World Bank Study, edited by (Kathuria, 2008, p.4), authors found that in most of the Western Balkan countries exports did not sufficiently contribute to growth, and they actually identified commodity exports as "*the weak link in growth*". According to this study, "For small countries such as those in the Western Balkans, sustainable growth should be export-led, but this process has fallen short of its potential. Small countries gain more than larger ones from trade-induced expansion in market size, which makes the effect of trade on per capita income and rate of growth on small countries much larger. In the Balkans, there is little doubt that the key response to the challenges of improving and sustaining growth should involve a sustained increase in exports. Yet, the region has been under trading relative to its potential" (Kathuria, 2008, p.65).

The study suggests that improving and sustaining export performance and thereby GDP growth will require sustained improvement in FDI inflows, pointing again to the need for significant structural reform (Kathuria, 2008).

The Balkan countries trade more with European Union than between themselves (inter-industry trade). More intensive trade between the Balkan countries would give the Balkan countries a chance to export the goods of high economic and technological level to less competitive markets. If the Balkan Countries adopt export-led strategy of small developed countries than current balance of payment deficits and external debts should be overcome in the long-run. (Mahmutefendic, 2014, p.50).

According to Sanfey *et al.* (2016, p.24) "All countries in the Western Balkans realize that sustainable growth must be built on an improved export



performance, rather than on cheap and plentiful supplies of foreign capital and credit, much of which has gone into non-export-oriented sectors”(Sanfey, et al., 2016).

Authors (Brankovic A. & Jovicic J, 2014, p.355) in their study - *The Integration of Western Balkan Industries into the EU Internal Market: Recent Trends in the Trade of Manufactured Goods* - have concluded “that the region, as a whole, continues to specialize in the export of labor-intensive products, such as garments and footwear, and resource-intensive products, such as metals and wood. When more sophisticated goods, such as machinery and transport equipment, are considered, an increase in the volume of exports, as well as their share, can be observed” (Jovičić & Branković, 2014).

### **3. Data and methodology**

#### **3.1. Variables and Data**

This study focuses on exploring the impact of export of goods and services (EXP), and other controlling variables such as: foreign direct investment (IHD), worker remittances (REM), capital formation (C) and labour force (LF), on the economic growth in the West Balkan countries. In order to test the impact of export and other variables in economic growth we have created and used a strongly balanced panel data (also known as longitudinal or cross-sectional time-series data) for West Balkan countries which are still in the transition process (Albania, Kosovo, Serbia, Macedonia, Montenegro, and Bosnia and Herzegovina). All Western Balkan countries are in the process of meeting standards to integrate into the European Union. From the Western Balkan countries, only Croatia has become a member of the European Union, so we have not included it in the analysis.

In this paper we have constructed a simple growth model including export (EXP) as variable of interest, and other controlling variables: foreign direct investment, remittances, alongside traditional production factors such as labour and capital.

The absolute values of the variables we used in the model have been transformed into natural logarithms, so that the changes of the variables are presented in percentages. Also, the transforming of absolute values in natural logarithms has similar effects to deflating of time series and helps to straightens out exponential growth patterns and reduces heteroscedasticity.

The Table 2 describes all the variables in the model that are going to be estimated.

Table 2

<b>The variables in the model</b>	
<b>Variable name (Symbols)</b>	<b>Description</b>
ln GDP	GDP (current US\$)
ln EXP	Exports of goods and services (BoP, current US\$)
ln FDI	Foreign direct investment, net inflows (BoP, current US\$)
ln REM	Personal remittances, received (current US\$)
ln C	Gross fixed capital formation (current US\$), as proxy for Capital
ln LF	Labour force, total (people) as proxy for Labour

Data source is the World Development Indicators of the World Bank (WB, 2016) and covers the interval from 2005 to 2015. Data for Gross Domestic Product (GDP), export of goods and services (EXP), foreign direct investment (FDI), remittances (REM), and Gross fixed capital formation (C) are in current US\$, while data for Labour force (LF) are in people. The data for the Labour Force in Kosovo we obtained from Agency of Statistics of Kosovo, since the World Bank Development indicator does not contain these data. We have made selection of the time period according to the availability of secondary data.

Table 3

<b>Descriptive statistics of Variables (2005-2015)</b>					
<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Coefficient of variation (%)</b>	<b>Min</b>	<b>Max</b>
GDP (mill \$)	14,600	12,600	86	2,260	49,300
EXP (mill \$)	4,900	4,720	96	413	19,200
FDI (mill \$)	989	1,050	106	60,9	4,930
REM (mill \$)	1,460	1,240	85	196	4,650
C (mill \$)	3,270	2,520	77	406	12,300
LF (persons)	1,253,643	950,298	76	243,413	3,265,003

Source: Authors calculations

Table 3 presents the descriptive statistics for the sample of 6 countries covering period 2005 to 2015. From the data we see that the average export value for the observed years is nearly equal to the value of REM, FDI and C jointly.

The minimum value of EXP during the 11 years of study is 4128 million US\$ observed in Kosovo in 2005, while maximum value of 19179 million US\$ is observed in Serbia in 2010. All the variables show high variability. The highest variability is shown in Foreign Direct Investment (106%).

### 3.2 Research Methodology

For exploring the impact of exports of goods and services (EXP) and other controlling variables such as: foreign direct investments (FDI), workers' remittances (REM), and the two basic traditional production factors, capital formation (CF) and labour (L) on the economic growth in six West Balkan countries, we have used three models that are appropriate for panel data: Pooled OLS Regression; Fixed Effect or LSDV model and Random Effect model or GLS Model. Same methodology is used by (Goschin, 2014), (Meyer & Shera, 2017). The Pooled regression model has the following expression:

$$Y_{it} = \beta_0 + \sum_j \beta_j K_{ijt} + \varepsilon_{it} \quad (1)$$

where:  $i = 1, \dots, 6$  (countries),  $t = 2005, \dots, 2015$ ,  $Y_{it}$  is the dependent variable, in our case in lnGDP,  $K_{ijt}$  are the independent variables included in the model,  $\beta_j$  is the parameter that summarize the  $j$  factor contribution to the dependent variable, and  $\varepsilon_{it}$  is error term with zero mean and constant variance.

By taking natural log (ln), Equation 1 has been transformed in to Equation 2.

$$\ln GDP_{it} = \beta_0 + \beta_1 \ln EXP_{it} + \beta_2 \ln FDI_{it} + \beta_3 \ln REM_{it} + \beta_4 \ln C_{it} + \beta_5 \ln LF_{it} + \varepsilon_{it} \quad (2)$$

The major disadvantage with this model is that it does not distinguish between the various countries that we have. In other words by combining 6 countries and by pooling (Pooled OLS) we deny the heterogeneity or individuality that exists among countries.

Fixed effect (FE) or LSDV Model allows for heterogeneity or individually among 6 countries, meaning that we have different intercepts for different countries. The term fixed effect is due to the fact that although the intercept may differ across the countries, but intercept does not vary over time that is time invariant. The fixed effects model captures the sources of change within countries. According to (Stock & Watson, 2015), fixed effect regression is the main tool for regression analysis of panel data as an extension of multiple regression that exploits panel data to control for variables that differs cross countries but are constant over time.

The fixed effect model that is addressed in this paper is:

$$Y_{it} = \beta_0 + \gamma_i + \sum_j \beta_j X_{ijt} + \varepsilon_{it} \quad (3)$$

where:  $i = 1, \dots, 6$  (countries),  $t = 2005, \dots, 2015$ ,  $Y_{it}$  represents the dependent variable (lnGDP). The terms  $\gamma_i$  are called the entity fixed effects, in our case could be economic growth and crises, change in migration, policies, etc. They control

for the omitted variable (unobserved heterogeneity) that varies from country to country but not over time. The parameter  $\beta_0$  reflects cross-sectional fixed effects (country characteristics that are time-invariant over 2005-2015),  $\beta_j$  is the parameter that summarizes the  $j$  factor contribution to the dependent variable. Term  $e_{it}$  present error term with zero mean and constant variance.

The slope coefficient of the population regression line,  $\beta_j$ , is the same for all states, but the intercept of the population regression line varies from one state to the next.

Random effects model (RE) assumes a random variation across countries and is more appropriate if differences among countries affect the dependent variable. The random effect model or GLS model assumes that the constant is a random variable and the individual intercepts  $\beta_0$  are random deviations from the average constant  $\beta_0$ .

The general specification of the random effects model is as follow:

$$Y_{it} = \beta_0 + \sum_j \beta_j X_{ijt} + u_{it} \quad (4)$$

To decide which model is suitable to accept, Fixed effect (FE) or Random effect (RE), for our panel data set, we have applied a Hausman Test. It basically tests whether the unique errors ( $u_i$ ) are correlated with the regressors. In a panel model, the individual effect terms can be modeled as either random or fixed effects. If the individual effects are correlated with the other regressors in the model, the fixed effect model is consistent and the random effects model is inconsistent. On the other hand, if the individual effects are not correlated with the other regressors in the model, both random and fixed effects are consistent and random effects is efficient.

Also, we will employ the Breusch and Pagan Lagrangian multiplier test for random effect, in order to test which model is more appropriate, Random effect or Pooled regression model. In order to check whether there is a serial correlation in the residual, we used Durbin Watson (DW) test.

We used Breusch-Pagan/Cook-Weisberg test for heteroskedasticity for groupwise heteroskedasticity in pooled regression model to check whether there is heteroskedasticity in the panel data. And finally, to make the results unbiased or to fight heteroscedacity, we add to robustness.

#### 4. Empirical Results

The results of regression are presented in Table 4. Since the probability value for Hausman Fixed test is larger (0.1318), than level of significance we didn't reject the Null hypothesis meaning that the Random Effect Model is more appropriate for our panel data. After testing with Breusch and Pagan Lagrangian

multiplier test for Random Effect Model we decide to accept the null hypothesis that for our panel data the Pooled regression model is appropriate. Probably, in time series data, some econometric problems such correlation or multicollinearity problems arise. After employing the least squares method, if the results found that  $R^2$  and adjusted  $R^2$  are greater than the Durbin Watson ratios, than the regression results are considered not spurious and are thus acceptable. Breusch-Pagan/Cook-Weisberg test for heteroscedasticity has the p-values greater than level of significance, so we can't reject the null hypothesis and conclude that residuals are homoscedastic. However, in order to make the results unbiased, we add to the regression the robustness.

We are going to interpret only the results that are derived from Pooled Regression Model.

Table 4

Results from the Pooled Regression Model Robust				
Dependent variable ln GDP	Std. Err. adjusted for 6 clusters in country			
Variable name	Coefficient	Robust Std.Err.	T	P> t
ln EXP	0.3485298	0.0200113	9.58	0.000
ln FDI	-0.0269235	0.0163196	-1.65	0.104
ln REM	0.1922774	0.0200113	9.61	0.000
ln C	0.3213835	0.0835595	3.85	0.000
ln LF	0.1435079	0.0581368	2.47	0.016
Cons_	3.088443	0.7594067	4.07	0.000
Number of observation:	66			
Adjusted R <sup>2</sup> :	0.9852			
F-statistic (5, 60) =	Prob>F =			
693.52	0.0000			
Hausman Fixed	Prob > chi2			Pr= 0.1318
Durbin-Watson d-statistic ( 6, 66) = 0.6556495				
Breusch and Pagan Lagrangian multiplier test for random effects (chibar2 (01)=0.00				Pr =1.000
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity: chi2(1) =				Prob > chi2
0.00				= 0.9766
Prob > chi2 = 0.9766				

Source: Authors estimations

Results are statistically significant, adjusted  $R^2$  ratios are near to one, t-ratios are high (p-values are lower), F-ratios are high. Most of the variables have expected signs and are theoretically satisfactory.

Since the *p-value* of F-statistic is less than 0.05, we can conclude that the coefficients in the model are different than zero which is mean that they are statistically significant in explaining the variation in economic growth in West Balkan countries.

The model shows a positive relationship between EXP, REM, C and LF on GDP, while the relationship between FDI and GDP are negative but statistically not significant.

The coefficient of exports of goods and services is positive and statistically significant, showing that for a given country as exports increase by 1%, GDP increases in average approximately by 0.35%, holding other variables constant. Our results are consistent with the literature and empirical results that support the positive effect of export in economic development: (Ram, 1985), (Balassa, 1985), (Dawson & Hubbard, 2004) etc.

The coefficient on FDI exerts a negative and statistically not significant influence on economic growth in West Balkan countries showing that in a given country, as FDI increase by 1%, GDP decreases by 0.03%, holding other variables constant. The negative relationship of FDI and economic growth show the macroeconomic inefficiency of foreign capital in West Balkan Countries. Our findings can be taken as preliminary due to the lack of data for longer periods of times. However, our findings are consistent with findings of other authors: (Lyroudi, et al., 2004), (Apergis, et al., 2008), (Curwin & Mahutga, 2014), (Estrin & Uvalic, 2014) etc.

The results suggest that the coefficient of remittances to GDP is positive and statistically significant and shows that for e given country, as remittances increase by 1%, the GDP increases in average approximately by 0.19%, holding other variables constant. Our results are consistent with the literature and empirical results that support the positive effect of remittances in economic development (Goschin, 2014), (Giuliano & Ruiz-Arranz, 2006), (Meyer & Shera, 2017) etc.

The coefficients of Gross Fixed Capital Formation (C) and labour force LF are positive, suggesting that both physical and human capital is important for economic development in West Balkan Countries.

## 5. Summary and Conclusion

In recent years, more emphasis is placed on the the relationship between export and economic growth. Different views on export and economic growth are mainly divided into four major groups. The first group includes the neoclassical

views of the Export-Led Growth theory according to which export growth is the main factor in the economic growth of a country in the long run, while the second group includes the views that the economic growth influences the export. The third group consists of the views of the first two groups, because there is a mutual causal relationship between the variables and the fourth group includes the views that there is no causal relationship between export and economic growth.

The main purpose of this study is to examine the impact of export of goods and services (EXP) in the process of economic growth in six countries of the Western Balkans using the annual panel data for period 2005-2015. The selection was based on data availability.

The regression results confirm a significant positive relationship between export and economic growth in countries under this study. The impacts of other variables such as, remittances (REM), capital formation (C), and labour force (L) show a positive relation and significant impact on economic growth, while there is no statistically significant impact of foreign direct investment in economic growth in the West Balkans countries.

The contribution of exports to the Western Balkan countries, although positive and statistically significant, has not contributed sufficiently to the economic growth of the countries under the research, due to the fact that export share in the GDP of these countries is much lower than in the other Central and South-Eastern Europe. On the other hand, the structure of exported products is low-value-added, unskilled-labour and natural-resource-intensive products, indicating a low level of productivity and competitiveness of firms in the region.

Given that in the Western Balkan countries, the share of the production sector is very small due to a continuous deindustrialization that has occurred over long periods of time, Western Balkans need more active industrial policies to stimulate new industries or empowerment of the existing ones in order to strengthen the sector and stimulate the growth of exports.

West Balkan Countries should be geared towards promoting investment and exports through accelerating structural reforms in the function of sustainable economic growth, moving from a consumption-based growth model to a new investment-export model. If countries are export-oriented, if they have a highly differentiated export structure and highly processed exported products, then the export sector will generate positive externalities for the non-export sector.

The key response to the challenges of improving and sustaining growth should involve a sustained increase in exports.

**Bibliography**

- Anwer, M.S. & Sampath, R.K., 1997. Exports and Economic Growth. In *Association 1997 Annual Meeting*. July 13-16, Reno/Sparks, Nevada, 1997.
- Apergis, N., Lyroudi, K. & A., V., 2008. The relationship between foreign direct investment and economic growth: evidence from transition countries. *Transition Studies Review, Springer-Verlag*, pp. 37-51.
- Arnold, L.G., 2013, p.237. Existence of equilibrium in the Helpman–Krugman. *Econ Theory*, (52), pp. 237-70.
- Balassa, B., 1985. Exports, Policy Choices, and Economic Growth in developing countries after the 1973 Oil Shock. *Journal of Development Economics, North-Holland*, (18), pp. 23-25.
- Baumoll, W.J. & Blinder, A.S., 2010, p. 25. *Macroeconomics: Principles & Policy*. Eleventh Edition ed.
- Botrić, V., 2010. Foreign direct investment in the Western Balkans: privatization, institutional change, and banking sector dominance. *ECONOMIC ANNALS*, LV(187), pp. 7-24.
- Carstensen, K. & Toubal, F., 2004. Foreign direct investment in Central and Eastern European countries "A Dynamic Panel Analysis". *Journal of Comparative Analysis*, 32, pp. 3-22.
- CBK, 2016. *Macroeconomic Development Report*. Prishtina: Central Bank of Kosovo.
- Curwin, K.D. & Mahutga, M.C., 2014. Foreign Direct Investment and Economic Growth: New Evidence from Post-Socialist Transition Countries. *Social Forces, University of California, Riverside*, 92(3), pp. 1159-87.
- Dawson, P.J. & Hubbard, L.J., 2004. Exports and economic growth in Central and East European countries during transition. *Applied Economics*, 36(16), pp. 1819-24.
- Dritsakis, N., n.d. *Exports and Economic Growth: An Empirical Investigation of E.U, U.S.A and Japan using causality tests*. Department of Applied Informatics, University of Macedonia, Economics and Social Sciences.
- Estrin, S. & Uvalic, M., 2014. FDI into transition economies: are the Balkans different?. *The Economics of Transition*, 22(2), pp. 281-312.
- Gabrisch, H. et al., 2016. *Improving Competitiveness in the Balkan Region – Opportunities and Limits, Research Report 411*. Vienna: The Vienna Institute for International Economic Studies.
- Ghartey, E.E., 1993. *Causal relationship between exports and economic growth: some empirical evidence in Taiwan, Japan and the US*. Applied Economics ed. Department of Economics, Howard University, Washington, DC, 20059, USA.
- Goschin, Z., 2014. Remittances as an economic development factor. Empirical evidence from the CEE countries. *Procedia Economics and Finance*, 10, pp. 54-60.



- Griffin, R.W. & Pustay, M.W., 2006. *International Business*. 5th ed. New Jersey: Pearson/Prentice Hall.
- Giuliano, P; Ruiz-Arranz, M (2006), Remittances, Financial Development, The Institute for the Study of Labor (IZA), Bon
- Ibrahim, I., 2002. On Exports And Economic Growth. *Pengurusan*, (21), pp. 3-8.
- Jovičić, A. & Branković, E., 2014. The integration of Western Balkan industries into the EU internal market: recent trends in the trade of manufactured goods. In *The Europe of tomorrow : creative, digital, integrated , 9th Annual international academic conference on European integration*. Skopje, 2014. University American college, ISBN 978-608-4607-31-1.
- Kaldor, N. & Mirrlees, J.A., 1962. A New Model of Economic Growth. *The Review of Economic Studies*, Jun. pp. 174-92.
- Kathuria, S., 2008. *Western Balkan Integration and the EU, An Agenda for Trade and Growth*. Editor: World Bank.
- Lyrouti, K., Papanastasiou, J. & Vamvakidis, A., 2004. Foreign Direct Investment And Economic Growth In Transition Economies. *South-Eastern Europe Journal of Economics*, vol. 2(issue 1), pp. 97-110.
- Mahmutefendic, T., 2014, p.50. *Economic Performance in South-East European Transition Countries after the fall of communism*. Xlibris LLC, USA.
- Meyer, D. & Shera, A., 2017. The impact of remittances on economic growth: An econometric model. *EconomiA, ScienceDirect*, pp.1-9.
- Shan, J. & Tian, G.G., 1998. Causality between exports and economic growth. *Australian Economic Papers*, 2(37), pp. 195-202.
- Sharma, S.C. & Dhakal, D., 1994. *Causal analyses between exports and economic growth in developing countries*. Applied Economics, pp. 1145-1157.
- Stock, J.H. & Watson, M.W., 2015. *Introduction to Econometrics*. 3rd ed. New Jersey: Pearson Education, Inc.
- UNCTAD, 2017. *World Investment Report 2017, Investment and the Digital Economy*. Geneva: UNITED NATIONS PUBLICATION.
- WB, 2017. *Ballkani Perëndimor, Raport i Rregullt Ekonomik Nr. 11 Rritje më e Shpejtë Ekonomike, Më Shumë Punësim*. Washington: World Bank.
- WB, 2017. *World Development Indicators, Exports of goods and services (% of GDP)*. [Online] Available at: <http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS> [Accessed 31 July 2017].
- WBG, 2017. *Faster Growth, More Jobs*. Western Balkans Regular Economic Report, no.11. World Bank Group.
- Yaghmaian, B. & Ghorashi, R., 1995. Export Performance and Economic Development: An Empirical Analysis. *The American Economist*, 39(2), pp. 37-45.