

TRADE EFFECT ON ECONOMIC GROWTH OF BALKAN COUNTRIES

Assist. Prof. Dr. Eglantina Hysa
Epoka University
Faculty of Economics and Administrative Sciences
Tirana, Albania
Oltiana Nikolli, M.A.
Epoka University
Faculty of Economics and Administrative Sciences
Tirana, Albania

Abstract: Even though until now there does not exist a concrete economic theory stating that there is a link between trade and economic growth, some researchers have in fact found some evidences that underline a positive effect of trade in economic growth of a certain country. The aim of this study is to observe the case of Balkan countries, if there exist a positive relationship between trade and economic growth. The methodology used in this research is the estimation of panel data for years 1990 until 2013. Trade is measured by foreign direct investment, exchange rate and import-export. Contrary to the expectations, this study showed that there exists negative effect of trade on the economic growth for the case of Balkan countries.

JEL classification: F02, D74, H56

Key words: Openness of Trade, GDP Growth, FDI, Trade Volume, Exchange Rate

1. INTRODUCTION

This research paper shows and analysis the impact that openness of trade has on economic growth into ten economies in transition - Albania, Romania, Bosnia and Herzegovina, Croatia, Bulgaria, Macedonia, Slovenia, Montenegro, Greece and Serbia. Instability in political issues in the 1990s has provided many traces on the region of Balkan and unsettled political troubles have remained yet on the program. Even though Romania and Bulgaria became members of EU in 2007 and are nowadays more often defined inside the grouping of 10 latest member in EU states, the SEE(South East Europe) countries have a lot of familiar features as a consequence of a common past and alike transition economies.

The majority countries in Balkan have live out a high economical and political shakiness during 1990s, although the recoveries of the economy and transition regarding reforms done in the economy have been usually slower than the other part of Europe. (Kleine, Monastiriotis, White, & Gattermann, 2013) Regardless of a lot of positive developments through 2000s, countries of Balkan may yet have problem in their figure: mostly, for a lot of possible investors that come from different other countries, in many cases word Balkan shows worried images of conflict and war, more often than opportunities of investments and economic prospective. (Cviic & Sanfey, 2010)

This research paper provides the relation among the effect that openness of trade has on growth of the economy. Through estimations of econometrics methods, the

impact that trade will have on growth of the economy for 10 Balkan countries is calculated by testing the objectives that determine economic growth for each of these ten countries as a meaning of FDI, exchange rate, and trade openness expressed by volume of trade measured by exports plus imports.

The other part of the research shows literature review regarding trade and the impacts that it has on Balkan's growth of the economy: Part 3 gives a explanation and some assumptions that are part of methodology, following by the data that were used together with their sources: in the part 4 are given the results of all the models used: and part 5 shows the conclusions that are based on all the answers that this paper has provide.

2. LITERATURE REVIEW

There are a lot of studies that show the relationship between economic growth and openness of trade. In trade hypothesis, the connection among openness of trade and economic growth is usually a complex issue. The gains taken from theories of trade" (e.g. Heckscher-Ohlin-Samuelson theorem) dispute that openness of trade contributes to growth on economy throughout comparative advantage and also gains from efficiency. On the other hand some structural theories that were pessimist theories" (Prebisch & Singer, 1950) argue regarding openness of trade that may provide losses to countries that are less developed in the long-run because of declining conditions of trade since these countries, export mostly main goods that have inelastic income. Nevertheless, the disagreement used to be moderately less as part of empirical literature. Trade of countries is not strong-minded exogenously; somewhat trade of one country is mostly determined by the overall economic policies of own countries which also gives direct impact on growth of the economy. As a consequence positive relationship among trade and growth does not involve openness to cause economic growth (Ahmed 2009)

The results from one study done shows that in some countries exports of products that have high quality grow faster. While is found a non-linear pattern between dependency ratio of the trade and the quality of the trade by arguing that trade may have a negative impact in growth for such countries that export more low quality products. So is found a non-linear relation among variety of exports, growth and ratio of trade by showing that those countries that export a huge volume of products will grow even more rapidly. (Huchet-Bourdon, Mouel, & Vijil, 2004)

Some other outcomes provide significant evidence by referring to the restrictions on trade that can support growth, mainly in the developing countries under some conditions. It is essential to note down that this study has provided no intention regarding establishment of a simple and positive relationship among barriers of trade and growth. (Yanikkaya 2002) Even though in another study is shown that a long-run relationship among economic growth and openness with a short-run alteration to the variation from the balance for both dependency directions. The long-run coefficients show a positive significant outcome referring from openness to the growth and vice versa, by representing that integration to the international area is a helpful strategy regarding long term growth.

On the other hand the short-run coefficients provide a negative short-run outcome, by arguing that openness of trade can be even painful for an economy. (Gries & Redlin, 2009) The other researches review by empirical analyses the connection

among economic growth and international trade and some more new empirical analyses that provide of the link among productivity growth and trade. They said as that there exist a positive relation among economic growth and international trade. (Andersen & Babula, 2008) Another author shows some empirical studies that provide a correlation among economic growth and trade openness which has been usually negative prior to WWII and optimistic after that. He has shown that diffusion of technology in an efficient way is the main determinant for the overall effects that trade openness has on growth. A quantitative analysis added a new evaluation regarding the impact that trade has to the U.S. economy and also some policy recommendations for the countries that are going on to an upper level of globalization. (Wang, 2012) The relation among openness in another research done is defined as total trade by calculating (the sum of exports and imports) and using it as a division of *GDP*, and on the other hand growth

Both sets of data used in this study have take in countries at a range of stages regarding development. The findings have shown that the effect of openness that has on economic growth is positive and significant, but even though it is substantial economically: an increase of trade calculated as a fraction of *GDP* by 10 percentage, permanently it shows to increases the real growth rate of *GDP* per capita by roughly 0.25 to 0.3 percent. (Karras, 2003) Openness of economy regarding some studies means more than liberalization according reduction or even elimination of tariffs or non-tariff kibarriers referring international trade, as the slow participation of a variety of parts of the economy that provides a macroeconomic profile to all the process. An improved level of openness can be quantify both throughout concentrated trade relationships and competitive input on markets that have potentially rising income of scale regarding to their extended proportions. The complementarily among external oriented trade policy and additional domestic economic policies can ensure a recovered macroeconomic supervision.

The findings of some other researchers advise that the effects of financial trade openness are optimistically linked to the of financial trade openness, representing that moderately closed economies may gain some benefit from opening up their capital and trade accounts. Thus, those findings have provided a partial support even by Rajan and Zingales hypothesis, which consider that both types of trade and financial openness are obligatory for financial development in order to take place. (Vaighan, Kazemi, Nezakati, & Haghighi Nia, 2010). Related to Foreign Direct Investments in Balkan countries some studies express that they have a self-determined negative effect regarding FDI in general. This show an indication because of unlucky history of political issues of the region, related to conflicts, disintegration and low level of growth. This has exercised a long-term and self-regulating effect on their forecast related to reception of FDI. The risk that derives from politician, deriving from a variety of troubled political issues in the counties, still seems to provide a negative outcome on FDI. (Estrin & Uvalic, 2013)

The foreign exchange regimes and monetary of Balkan countries are diverse. Albania has implemented a free floating regime of exchange rate; Serbia and Croatia have implemented a float regime which is managed; Bosnia and Herzegovina operates below the regime of the currency board with a fixed peg based from the currency which is national to the euro; Macedonia has implemented a regime which is de facto pegged; While Montenegro has a independent euroization. The capacity of the central banks in the countries like Albania, Croatia, Serbia, and Macedonia to carry out an optional

monetary policy is really narrow, and in Bosnia and Herzegovina it is removed by the Law of the Central Bank with an exclusion of the obligatory reserves policy. While Montenegro has adopted the euro as a way of payment, because the central bank has obligatory reserves as the single instrument of monetary policy accessible for implementation. (Causevic, 2012)

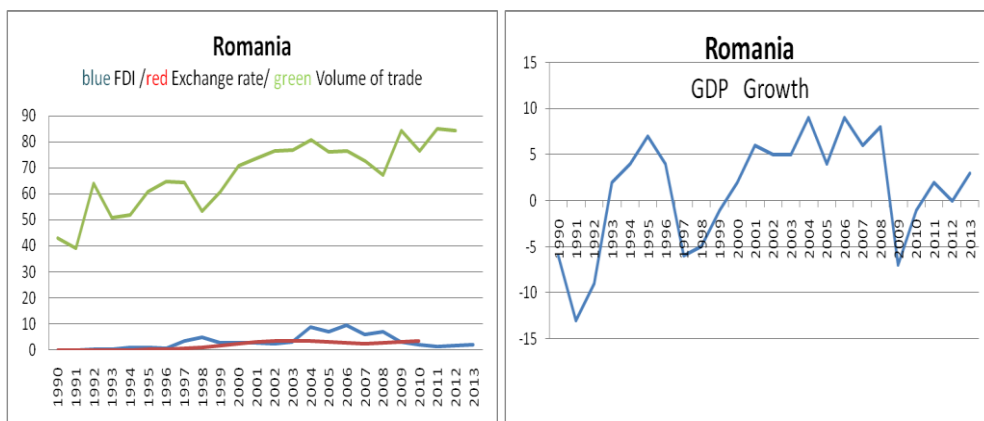
3. DATA

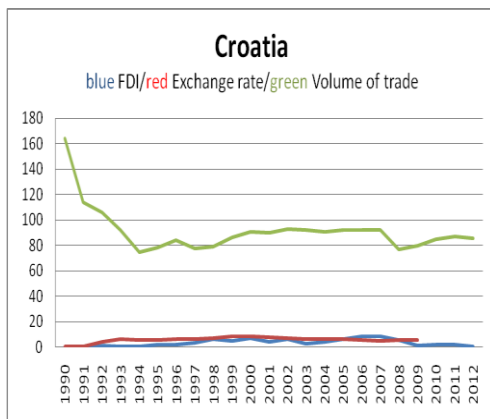
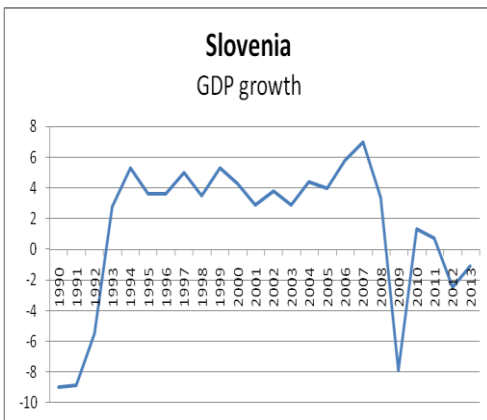
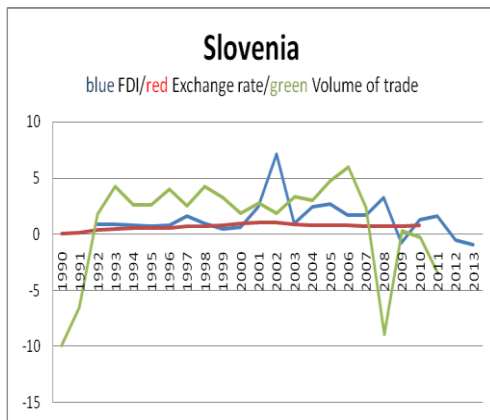
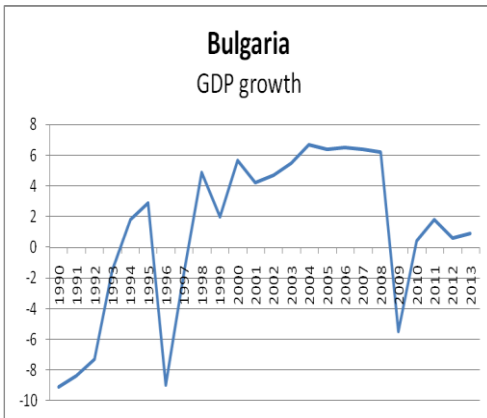
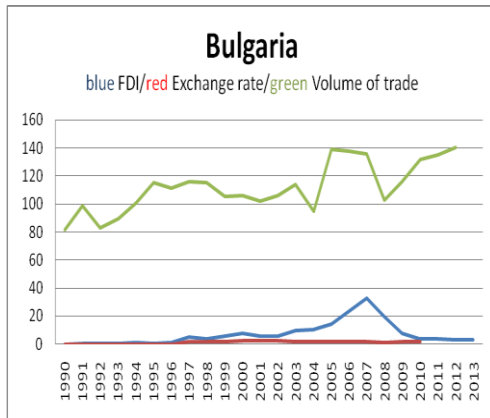
To calculate the effect of openness of trade on the economic growth of 10 Balkan countries, are taken data based on GDP growth which is the dependent variable while Exchange rate, Foreign Direct Investment and volume of trade as a result of the sum imports plus exports which are independent variables used in OLS model of regression analysis. The Balkan countries measured in this research are listed in the appendix. FDI was measured by inflow of investments in each country are shown in percentage of GDP were taken by website of World Bank.

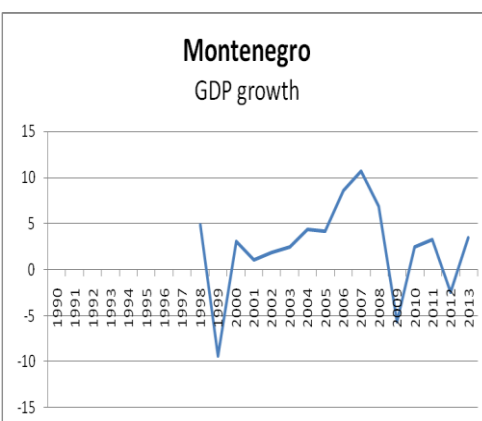
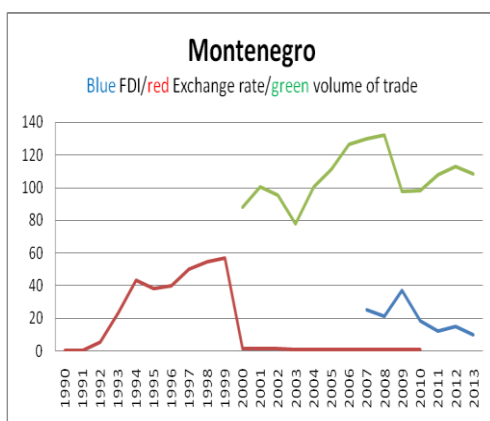
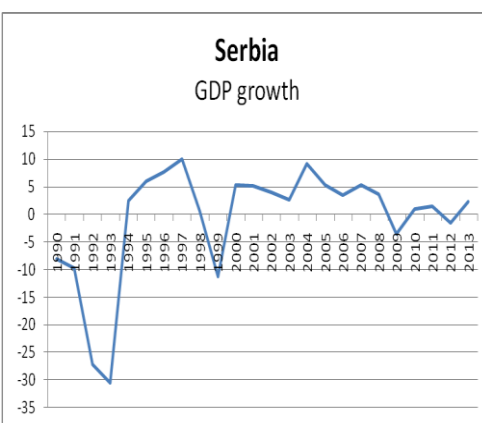
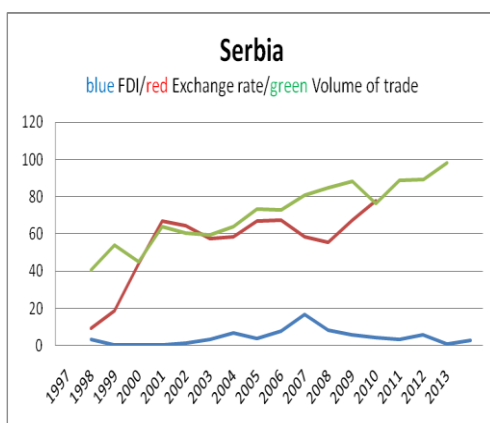
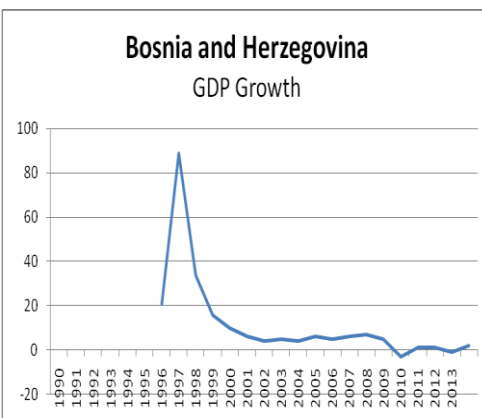
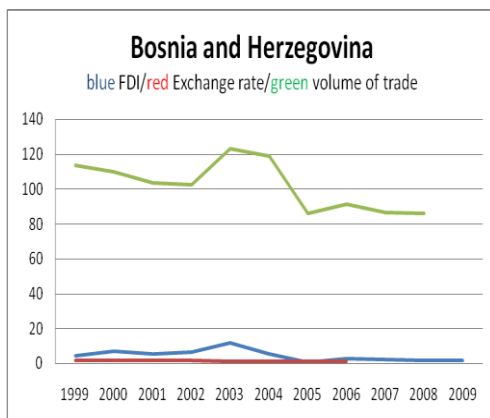
Exchange rate was shown as a percentage of US\$ according to the currency that each country has and data's are taken from Penn World Table website. Openness of trade was estimated as the sum of exports and imports for each of ten country part of the study. This kind of measurement for trade openness is done since some of the countries may be just exporters and in this case they are not open toward trade. Data's of exports and imports were taken by website of World Bank. All the data used are in percentage from website of World Bank.

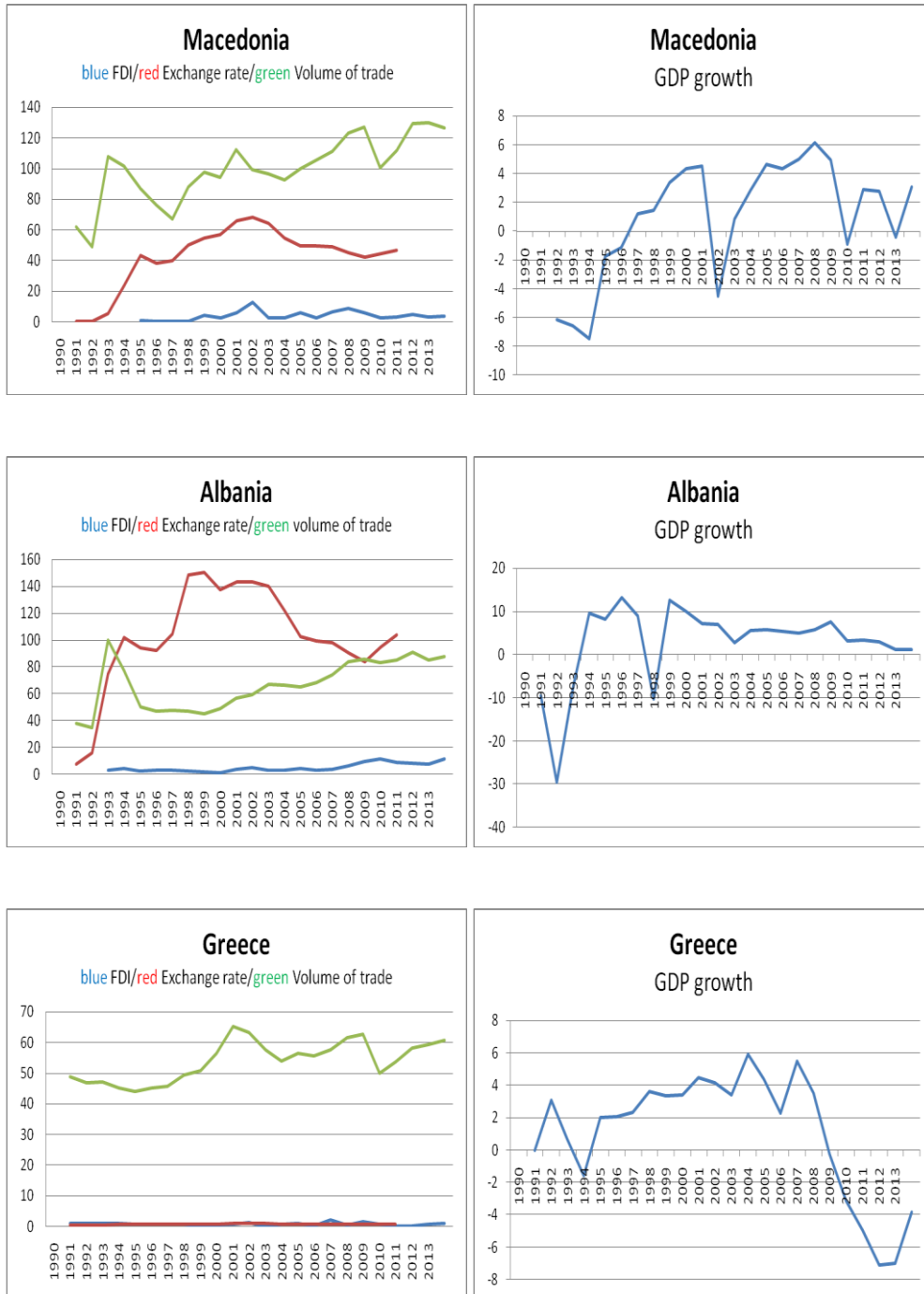
In the figure below there are easily seen the trends of three variables: FDI, exchange rate and trade volume for all the countries. FDI, exchange rate and trade volume in most of cases have an upward trend while GDP is really volatile and is usually negative and in downward trend. So clearly can be seen that the ratio between GDP Growth and other three variables respectively FDI, exchange rate and trade volume is negatively related the effect for this not normal trend may be political and social instability in decades that are taken in this study.

Figure 1: Trends of FDI, Exchange rate, Volume of trade and GDP Growth for 10 Balkan Countries









Source: Authors' own elaboration based on data's taken in World Bank website

So as we see some special cases that can evidently show the difference are FDI and Exchange rate that are really in low level in majority of countries part of this study. Meanwhile volume of trade is more positive in all cases. According to GDP growth rapid fluctuations and also negative periods are clearly stated. Uncertainties in Balkan

region have lead to these evidences to show that these countries have a transition economy in general even though some of these countries are part or are nearly integrating process in EU.

The method of this study is OLS regression analysis. If independent variables are correlated, the ordinary least squares (OLS) estimator model for β would be contradictory, so it is expected to treat the μ_i (individual error component) as a further set of n parameters to be estimated.. This is named the fixed effect (which is also known as least squares variables) model, generally projected by OLS on transformed data and this gives reliable estimates for β . If the individual element is missing in general, pooled OLS is named as the most efficient estimator for β . (Croissant & Millo, 2008) That's why in this paper is used this kind of Regression model.

The model to be estimated is:

$$GDPgrowth = \beta_0 + \beta_1 FDI + \beta_2 ExchRate + \beta_3 TradeVol + u \quad (eq.1)$$

Where:

GDP growth represents the ratio of GDP growth for each Balkan country (%)

β_0 shows the intercept of GDP growth when all the independent variables are equal to 0

FDI shows Foreign Direct Investments (%)

β_1 represents the expected slope of how much GDP growth ratio will change for one percent of change in foreign direct investments rate.

Exchange rate shows currency converter ratio in (%)

β_2 shows the expected slope of how much GDP growth ratio will change for one percent of change in Exchange rate

Trade volume shows the sum Export + imports ratios in (%)

β_3 shows the expected slope of how much GDP growth will change for one percent of change in Trade volume.

After running the regression analysis by using Eviews program is presented following equation:

Table 1: Pooled OLS Model

Variables	Coefficient	t-Stat	P-value
GDP growth(Dependent)	-1.26	-0.88	0.37
FDI	0.09	1.34	0.18
Exchange rate	0.02	2.87	0.004
Volume of trade	0.03	2.13	0.03
R square= 0.09			
F-Stat=5.28			

Source: Authors' own elaboration based on data's taken in World Bank website by using Eviews

Table 2: Fixed Model

Variables	Coefficient	t-Stat	P-value
GDP	-6.36	-2.36	0.01

growth(Dependent)			
FDI	0.08	0.97	0.33
Exchange rate	0.01	0.36	0.71
Volume of trade	0.09	3.22	0.001
R square= 0.19			
F-Stat=3.04			

Source: Authors'own elaboration based on data's taken in World Bank website by using Eviews

Table 3: Random Model

Variables	Coefficient	t-Stat	P-value
GDP growth (Dependent)	-2.51	-1.39	0.16
FDI	0.1	1.35	0.17
Exchange rate	0.02	2.19	0.12
Volume of trade	0.04	2.46	0.01
Cross-section random S.D =1.1			Rho=0.05
Weighted Stat			
R squared=0.08			
F-stat=4.99			
Un weighted stat			
R-squared=0.08			

Source: Authors'own elaboration based on data's taken in World Bank website by using Eviews

Which model is appropriate to define this case is used Housman test

Table 4: Housman test

	Chi-Sq. Stat	Chi.Sq.d.f	Prob
Cross-section random	5.78	3	0.12
test comparison			
Variable	Fixed	Random	P-value
FDI	0.89	0.1	0.79
Exchange rate	0.013	0.029	0.62
Volume of trade	0.09	0.049	0.03
Cross-section random effect test equation			
Variable	Coefficient	t-stat	P-value
GDP growth (dependent)	-6.3	-2.3	0.01

FDI	0.08	0.97	0.33
Exchange rate	0.01	0.36	0.71
Volume of trade	0.09	3.22	0.001
Cross-section fixed(dummy variables)			
R-squared=0.19			
F-stat=3.04			

Source: Authors'own elaboration based on data's taken in World Bank website by using Eviews

Null Hypothesis is: Random effect model is appropriate

Alternative hypothesis is: Fixed effect model is appropriate

P value is 0.1224 or 12.24% more than 5 % so we can not reject null hypothesis so we accept null hypothesis, so random affect model. So we run again random model which is the appropriate one.

Table 5: Random Model

Variables	Coefficient	t-Stat	P-value
GDP growth(Dependent)	-2.51	-1.39	0.16
FDI	0.1	1.35	0.17
Exchange rate	0.02	2.19	0.12
Volume of trade	0.04	2.46	0.01
Cross-section random S.D =1.1			
Weighted Stat			
R squared=0.08			
F-stat=4.99			
Un weighted stat			
R-squared=0.08			

Source: Authors'own elaboration based on data's taken in World Bank website by using Eviews

$$\text{GDP Growth} = -2.5 + 0.1 \text{ FDI} + 0.029 \text{ Exchange rate} + 0.049 \text{ trade volume} + \mu \quad (\text{eq.2})$$

The results show that all variables have negative impact on GDP growth. So an increase in foreign direct investments rate, Exchange rate and Trade volume rate indicate a decrease in GDP growth ratio. Highest impact on GDP growth ratio has FDI ratio with 0.1% increase followed by Trade Volume of 0.049% and 0.029 % for Exchange rate .The most significant variables in the model are Exchange rate with p-value of 0.029 and Trade volume with p – value 0.014 which shows that the relation between these two variables, Exchange rate and trade volume toward GDP growth is significant .While the variable of Foreign Direct Investments which is larger than 0.05

p-value indicates that the result is statistically not significant. Even more R² which is equal to 0.086 % shows that these variables explain only 8.6 % of GDP growth in these Balkan countries.

4. CONCLUSION

Based on different studies and theories, an increase in FDI, exchange rate and trade volume has positive impact in the GDP growth of a certain country. The impact of a raise in openness of trade in a country case on the economic growth is much more higher when the society has strong and applicable laws and the government of that country is not involved in corruptive affairs.

Conversely to the expectations, our study finds an inverse relationship between all the above mentioned variables for Balkan countries. Almost all countries being part of this study have a negative trend of GDP growth followed by rapid fluctuations during the period of time from 1990 till 2013. The last year, which corresponds to year 2013, GDP growth shows a slight increase. Meanwhile, volume of trade even if it has a lot of fluctuations, it mostly shows a positive trend. On the other hand, exchange rate and FDI in the majority of Balkan countries is found to be constant with insignificant fluctuations.

Based on these observations, it can be said that the FDI can easily be established in Albania due to the fact that the Balkan countries have stable exchange rates, meaning low risk rates for foreign investors.

The results coming out from the regression analysis provide a negative relationship such as the volume of trade, exchange rate and FDI are negatively related to GDP growth. Even if the result is found to be not as it was expected, it can be explained by the political and economical situation of Balkan countries.

These countries have suffered from different crisis during these last two decades. In addition their political and social instability have led to a really huge gap to recover. Even though these Balkan countries are trying to fulfill standards and become European members, such as Romania and Bulgaria, the undertaken reforms are still quite weak in order to reach the targeted results.

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