

## **How can Openness of Trade lead to Economic Growth: Case of Balkan Countries**

**Oltiana Nikolli<sup>1</sup>, Dr. Eglantina Hysa<sup>2</sup>**

### **Abstract**

The linkage among openness of trade and economic growth has not been recognized in theory. Some researchers have in fact brought into being some evidences, even it may not be absolute, maintain for the observation that rising openness of trade has a optimistic impact on economic growth. This study used econometrics methods like panel data to estimate effect of Exchange rate of US \$ in percentage and FDI in percentage that represent growth rate to the volume of trade that is compounded by export plus import and represent openness of trade for 10 Balkan countries, Romania, Bulgaria, Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Macedonia, Albania and Greece for the period of time from 1990 to 2013. All the data were altered into percentage and predictable by using multi-regression analysis OLS model. The outcome that this research bringing into being shows that openness of trade has a pessimistic relation with economic growth.<sup>3</sup>

**Keywords:** *Openness of trade, GDP Growth, FDI, Volume of trade ,Exchange rate*

### **I. 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)

---

<sup>1</sup> Master Student, Finance Department, Epoka University, Tirana/Albania, [onikolli10@epoka.edu.al](mailto:onikolli10@epoka.edu.al)

<sup>2</sup> Economics Department, Epoka University, Tirana/Albania, [ehysa@epoka.edu.al](mailto:ehysa@epoka.edu.al)

<sup>3</sup> Kosovo is not part of this study since there is a lack of data's.

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.

## **II. 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 taken 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 increase 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 to reduction or even elimination of tariffs or non-tariff barriers 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 quantified both throughout concentrated trade relationships and competitive input on markets that have potentially rising income of scale regarding to their extended proportions; The complementarity 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, & Haghghi 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 shows 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 countries, 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)

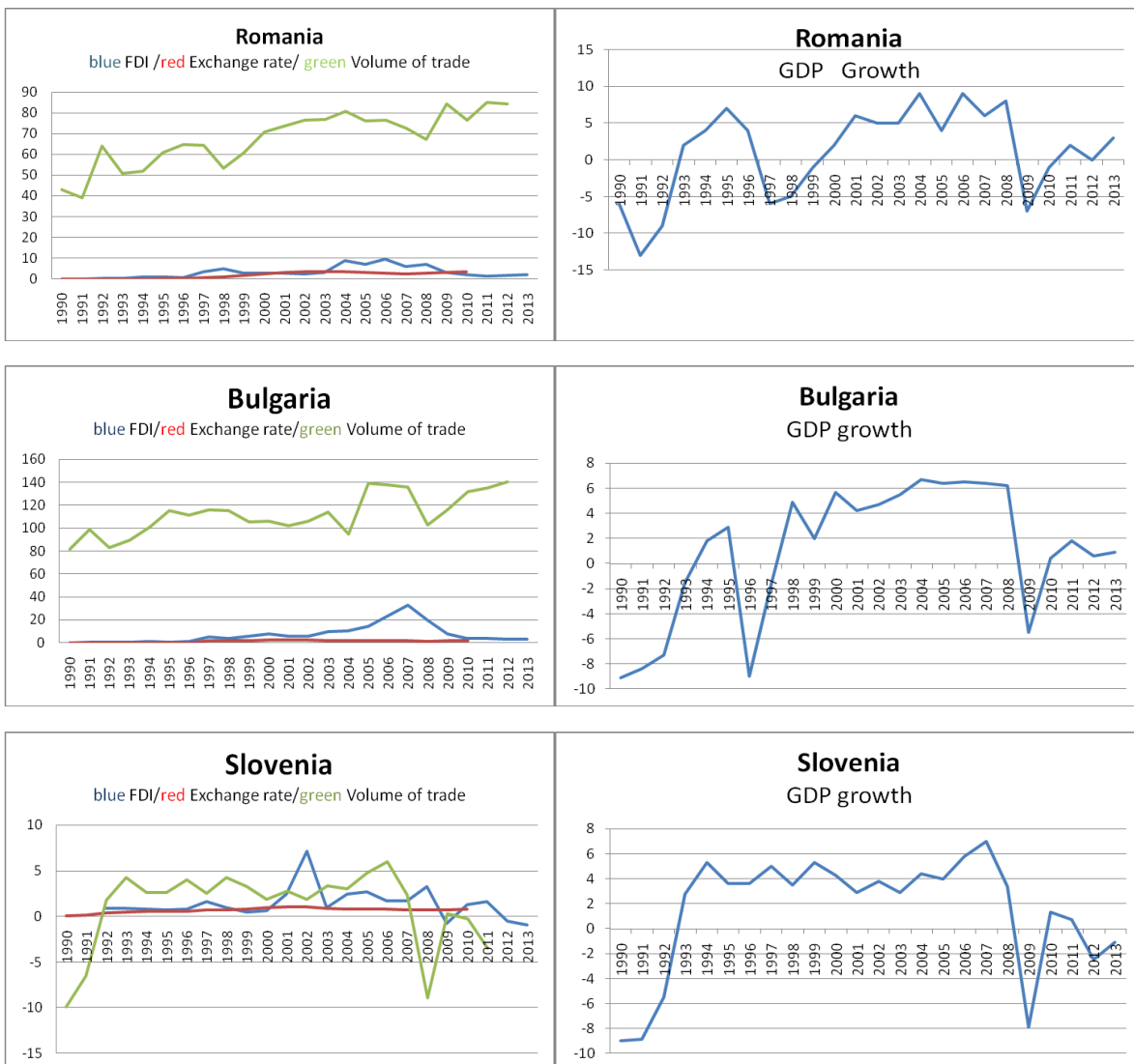
### **III. Data**

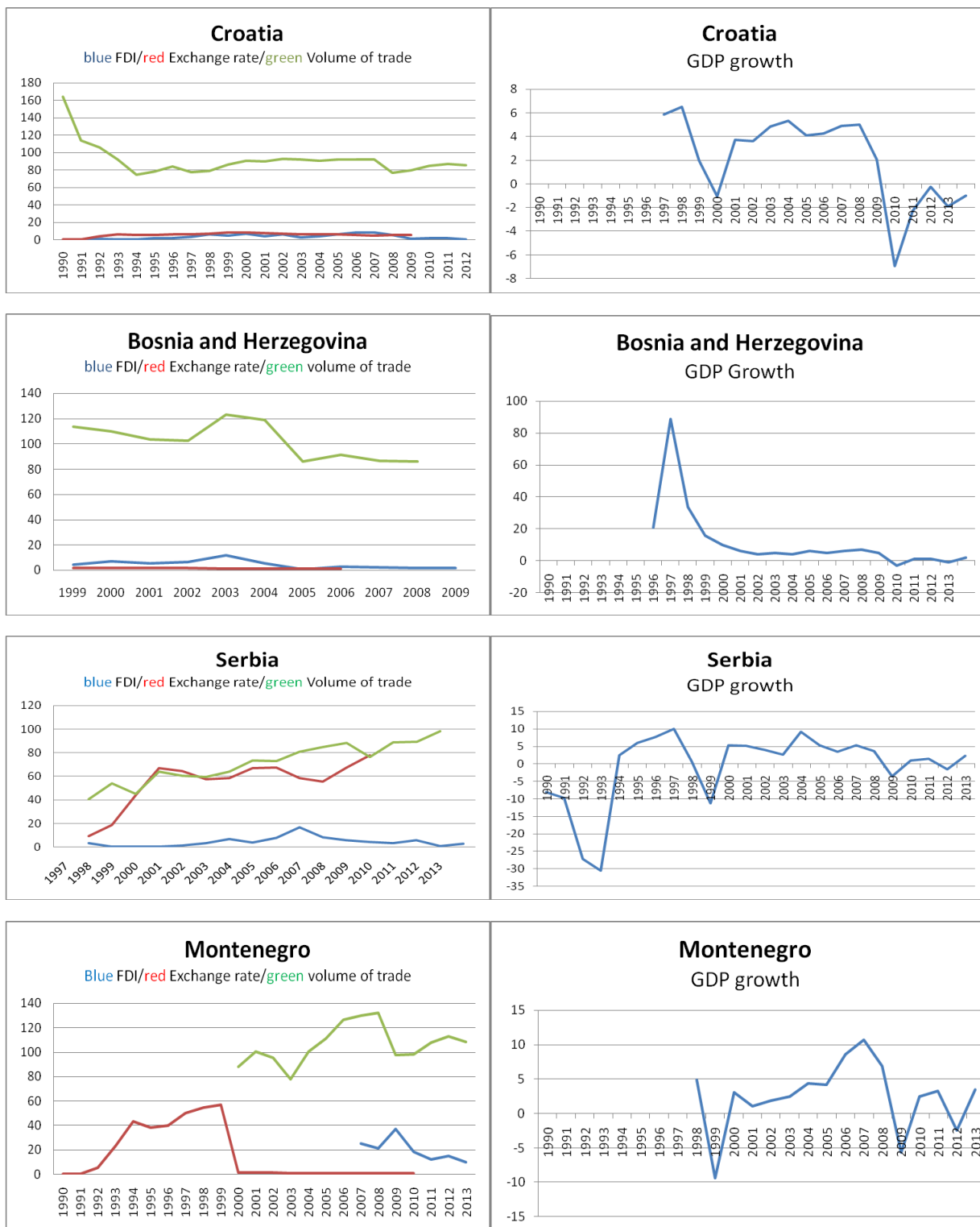
To calculate the effect of openness of trade on the economic growth of 10 Balkan countries, are taken data based on *GDP* growth which is the dependent variable while Exchange rate, Foreign Direct Investment and volume of trade as a result of the sum imports plus exports which are independent variables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

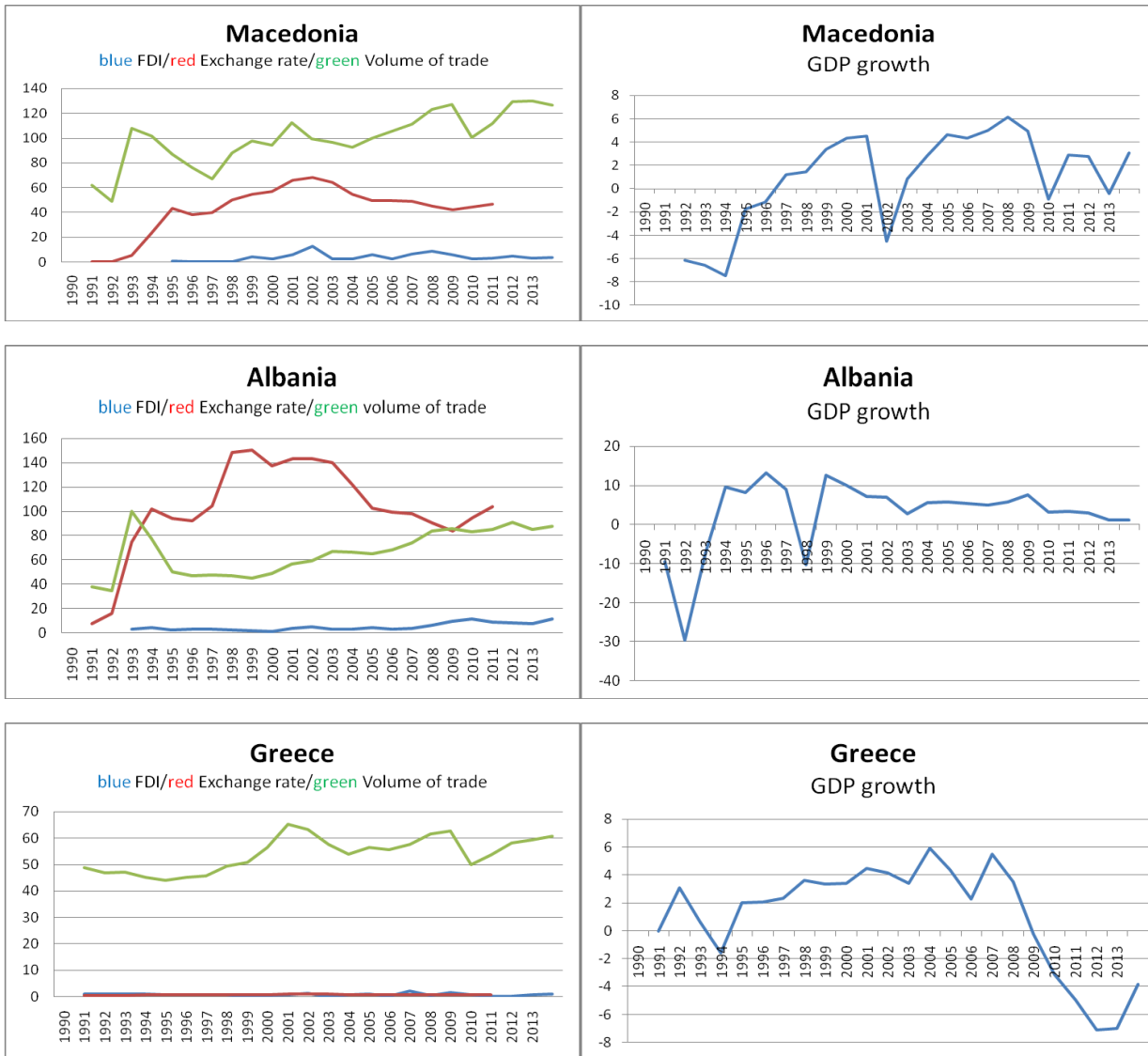
measured by inflow of investments in each country are shown in percentage of GDP were taken by website of World Bank.

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. Below is shown graphically for every country part of these study variables that are analyzed and as can be seen 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.

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







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  $\beta$  would be contradictory, so it is expected to treat the  $\mu_i$  (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  $\beta$ . If the individual element is missing in general, pooled OLS is named as the most efficient estimator for  $\beta$ . (Croissant & Millo, 2008) That's why in this paper is used this kind of Regression model.

The model to be estimated is:

$$GDP_{growth} = \beta_0 + \beta_1 FDI + \beta_2 ExchRate + \beta_3 TradeVol + u \quad (eq.1)$$

Where:

- GDP growth represents the ratio of GDP growth for each Balkan country (%)
- $\beta_0$  shows the intercept of GDP growth when all the independent variables are equal to 0
- FDI shows Foreign Direct Investments (%)
- $\beta_1$  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 (%)
- $\beta_2$  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 (%)
- $\beta_3$  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

<b>Variables</b>	<b>Coefficient</b>	<b>t-Stat</b>	<b>P-value</b>
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			

**Table 2:** Fixed Model

<b>Variables</b>	<b>Coefficient</b>	<b>t-Stat</b>	<b>P-value</b>
GDP growth(Dependent)	-6.36	-2.36	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
R square= 0.19			
F-Stat=3.04			

**Table 3:** Random Model

<b>Variables</b>	<b>Coefficient</b>	<b>t-Stat</b>	<b>P-value</b>
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			

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 test comparison	5.78	3	0.12
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				

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			

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

R2 =0.086

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.

#### **IV. Conclusion**

Normally in one country when FDI, exchange rate and trade volume increase there is a directly related with an increase in GDP growth of that country. The valuable impact of a raise in trade openness give a rise on economic growth is bigger when the society has a more professional accountable and the honesty of the government where the law is regularly respected.

But in our study we observed an inverse relation between these variables for Balkan countries. Nearly all countries part of this study have a negative trend of GDP Growth followed by rapid fluctuations during the period of time from 1990 till 2013 only in last year's is seen a slightly increase trend of GDP Growth. While volume of trade even it has a lot of fluctuations mostly it has a positive trend. In the other hand Exchange rate and FDI in majority of Balkan countries is flat with really slow fluctuations. This shows the lack of investment from developed countries that will help in economic growth of Balkan countries. Also the outcome of regression analysis provides a negative relationship so volume of trade together with Exchange rate and FDI are negatively related with GDP Growth. Even this is not a normal result this can be explained by the political and economical situation of Balkan countries. Also is some countries has been a lack of data that would show a more clear result. A strong impact of crises in these ten countries for last two decades also their political and social instability have lead to a really huge gap to recover. Even though these Balkan countries are trying to fulfill standards and become European members like Romania and Bulgaria still reforms are quite weak in order to face wanted results.

#### **References**

- Ahmed, M. (2009). Openness, Institutions, and Economic Growth: Empirical.
- Andersen, L., & Babula, R. (2008). *The Link Between.*
- Causevic, F. (2012). *Small open economies in the Western Balkans:.*
- Croissant, Y., & Millo, G. (2008). Panel Data Econometrics in R: The plm Package. *Journal of Statistical Software .*
- Cviic, C., & Sanfey, P. (2010). *In Search of the Balkan Recovery. The Political and.*
- Dominte, L. (2006). Determinants and effects of economic openness. *Analele Stiintifice Ale universitatii „Alexandru Ioan Cuza .*Estrin, S., & Uvalic, M. (2013). *Foreign direct investment into transition.*
- Gries, T., & Redlin, M. (2009). *Trade Openness and Economic Growth:.* Germany.

Huchet-Bourdon, M., Mouel, C. L., & Vijil, M. (2004). *the relationship between trade openness and economy growth:Some new insights on the openness measurement issue.* France.

Karras, G. (2003). Trade openness and economic growth. *Applied Econometrics and International Development.*

Kleine, D. M., Monastiriotis, D. V., White, D. J., & Gattermann, D. K. (2013). *Foreign direct investment into transition.*

Prebisch, P., & Singer. (1950). “structuralist school,”.

Vaighan, B. M., Kazemi, M., Nezakati, H., & Haghghi Nia, A. (2010). Financial development, trade openness, and economic growth. *GSM- FEP- AGBA Conference 2010-7th Annual AGBA World Congress, Vol. 7, No: 1, ISSN: 1549-9332, .*

Wang, C.-K. (2012). *On the Impact of Trade Openness.* Boston University.

Yanikkaya, H. (2002). *Trade openness and economic growth:.* Turkey.

**Appendix:** All data’s used for every state part of this study

States	Years	GDP Growth	FDI	Exchange rate	Volume of trade
Romania	1990	-6	0	0.002243	42.9
Romania	1991	-13	0.1	0.007639	39.1
Romania	1992	-9	0.3	0.030795	64
Romania	1993	2	0.4	0.076005	51
Romania	1994	4	1.1	0.165509	51.9
Romania	1995	7	1.2	0.203328	60.8
Romania	1996	4	0.7	0.308422	64.7
Romania	1997	-6	3.4	0.716794	64.4
Romania	1998	-5	4.8	0.887558	53.3
Romania	1999	-1	2.9	1.533284	60.9
Romania	2000	2	2.8	2.170872	71
Romania	2001	6	2.9	2.906079	73.7

---

Romania	2002	5	2.5	3.305543	76.4
Romania	2003	5	3.1	3.320007	77
Romania	2004	9	8.5	3.263657	80.7
Romania	2005	4	6.9	2.913653	76.3
Romania	2006	9	9.3	2.808983	76.6
Romania	2007	6	6	2.43825	72.5
Romania	2008	8	6.8	2.518858	67.2
Romania	2009	-7	3	3.049325	84.5
Romania	2010	-1	1.9	3.1779	76.6
Romania	2011	2	1.4		85.1
Romania	2012	0	1.6		84.5
Romania	2013	3	2		
Bulgaria	1990	-9.1	0	0.00219	69.8
Bulgaria	1991	-8.4	0.5	0.017788	82.7
Bulgaria	1992	-7.3	0.4	0.023341	100
Bulgaria	1993	-1.5	0.4	0.027594	84
Bulgaria	1994	1.8	1.1	0.054134	90.7
Bulgaria	1995	2.9	0.7	0.067171	101.8
Bulgaria	1996	-9	1.2	0.177889	116.2
Bulgaria	1997	-1.6	5	1.681879	112.1
Bulgaria	1998	4.9	4.1	1.760358	117.2
Bulgaria	1999	2	6.2	1.836383	116.6
Bulgaria	2000	5.7	7.8	2.123275	106.3
Bulgaria	2001	4.2	5.9	2.184708	106.9
Bulgaria	2002	4.7	5.7	2.076975	103

---

Bulgaria	2003	5.5	10.1	1.732702	107.4
Bulgaria	2004	6.7	10.5	1.575109	115.3
Bulgaria	2005	6.4	14.2	1.574133	96.2
Bulgaria	2006	6.5	23.7	1.559267	140
Bulgaria	2007	6.4	32.9	1.42905	138.6
Bulgaria	2008	6.2	19.9	1.337117	136.9
Bulgaria	2009	-5.5	8	1.406692	103.8
Bulgaria	2010	0.4	3.9	1.477392	116.7
Bulgaria	2011	1.8	4		133
Bulgaria	2012	0.6	3.1		136.4
Bulgaria	2013	0.9	3.6		141.4
Slovenia	1990	-9		0.047238	169
Slovenia	1991	-8.9		0.115053	158
Slovenia	1992	-5.5	0.886402	0.339205	119
Slovenia	1993	2.8	0.8885	0.47255	116
Slovenia	1994	5.3	0.812624	0.53751	115
Slovenia	1995	3.6	0.718213	0.494567	101
Slovenia	1996	3.6	0.819389	0.564864	101
Slovenia	1997	5	1.638081	0.666366	103
Slovenia	1998	3.5	0.991844	0.693265	104
Slovenia	1999	5.3	0.477819	0.758509	99
Slovenia	2000	4.3	0.679698	0.929127	111
Slovenia	2001	2.9	2.455738	1.012974	111
Slovenia	2002	3.8	7.172695	1.002537	109
Slovenia	2003	2.9	1.034232	0.864271	108

---

Slovenia	2004	4.4	2.457019	0.802792	117
Slovenia	2005	4	2.717978	0.804144	125
Slovenia	2006	5.8	1.775801	0.797146	134
Slovenia	2007	7	1.775801	0.730638	141
Slovenia	2008	3.4	3.340819	0.682675	138
Slovenia	2009	-7.9	-0.72018	0.719843	115
Slovenia	2010	1.3	1.349842	0.755045	130
Slovenia	2011	0.7	1.624876		142
Slovenia	2012	-2.5	-0.50105		
Slovenia	2013	-1.1	-0.89395		
Croatia	1990	..	..	0.01132	..
Croatia	1991	..	..	0.01964	163.7799
Croatia	1992	..	0.126466	0.263298	113.7965
Croatia	1993	..	1.322749	3.579149	105.965
Croatia	1994	..	0.785004	5.998011	91.75941
Croatia	1995	..	0.490135	5.230756	74.66615
Croatia	1996	5.92029	2.110105	5.434161	78.40889
Croatia	1997	6.543643	2.302541	6.160583	84.43479
Croatia	1998	1.976766	3.747373	6.363286	77.47832
Croatia	1999	-1.04287	6.293473	7.111743	79.19307
Croatia	2000	3.750388	5.158228	8.277666	86.48387
Croatia	2001	3.655998	6.864519	8.341541	90.6085
Croatia	2002	4.878266	4.146916	7.871683	90.0441
Croatia	2003	5.371068	6.00059	6.704969	92.8266
Croatia	2004	4.128437	2.630418	6.034341	92.0636

---

Croatia	2005	4.279806	3.964903	5.949237	90.92034
Croatia	2006	4.93524	6.45791	5.837793	92.41099
Croatia	2007	5.059929	8.339852	5.364536	91.81608
Croatia	2008	2.084338	8.351932	4.93504	91.89332
Croatia	2009	-6.9472	5.467587	5.283946	76.74072
Croatia	2010	-2.27232	1.4354	5.498011	79.93727
Croatia	2011	-0.2348	2.019804		85.14921
Croatia	2012	-1.86972	2.379968		86.69918
Croatia	2013	-1	1.022578		85.39309
Bosnja and Herzegovina	1990		..	0.000115	..
Bosnja and Herzegovina	1991		..	0.000196	..
Bosnja and Herzegovina	1992		..	0.003467	..
Bosnja and Herzegovina	1993		..	0.338127	..
Bosnja and Herzegovina	1994		..	0.791222	101.8472
Bosnja and Herzegovina	1995	21	..	1.441667	91.87961
Bosnja and Herzegovina	1996	89	..	1.496667	107.5
Bosnja and Herzegovina	1997	34	..	1.734056	100.631
Bosnja and Herzegovina	1998	16	1.621116	1.759668	125.6666
Bosnja and Herzegovina	1999	10	3.772744	1.835795	121.8206

---

Bosnja and Herzegovina	2000	6	2.653033	2.12286	104.1906
Bosnja and Herzegovina	2001	4	2.061148	2.18566	104.319
Bosnja and Herzegovina	2002	5	4.025868	2.07817	95.27677
Bosnja and Herzegovina	2003	4	4.561335	1.732932	113.4578
Bosnja and Herzegovina	2004	6	7.08232	1.575157	109.7401
Bosnja and Herzegovina	2005	5	5.697935	1.572722	103.827
Bosnja and Herzegovina	2006	6	6.822225	1.559072	102.6214
Bosnja and Herzegovina	2007	7	11.80611	1.429003	123.2054
Bosnja and Herzegovina	2008	5	5.418956	1.335196	118.8204
Bosnja and Herzegovina	2009	-3	0.810817	1.407891	86.06625
Bosnja and Herzegovina	2010	1	2.645698	1.47674	91.59051
Bosnja and Herzegovina	2011	1	2.567996		86.56931
Bosnja and Herzegovina	2012	-1	2.074425		86.31403
Bosnja and Herzegovina	2013	2	1.806822		..
Serbia	1990	-8	..	0	..
Serbia	1991	-9.78261	..	0	..
Serbia	1992	-27.1605	..	1.5E-07	..



---

Serbia	1993	-30.5085	..	1.81	..
Serbia	1994	2.5	..	1.706667	..
Serbia	1995	6.1	..	4.9425	..
Serbia	1996	7.8	..	6.66	..
Serbia	1997	10.1	3.461025	9.58	40.88675
Serbia	1998	0.7	0.697352	18.94	54.47041
Serbia	1999	-11.2	0.635183	44.02	45.36733
Serbia	2000	5.339367	0.853013	66.6806	64.34894
Serbia	2001	5.3	1.55818	64.48758	60.65027
Serbia	2002	4.122706	3.756488	57.58107	59.7599
Serbia	2003	2.674531	7.191285	58.39162	64.13123
Serbia	2004	9.3	4.347004	66.72162	73.61176
Serbia	2005	5.4	8.126867	67.1458	73.34491
Serbia	2006	3.6	17.00158	58.4535	81.30628
Serbia	2007	5.4	8.810617	55.7235	85.22811
Serbia	2008	3.8	6.273762	67.5806	88.70445
Serbia	2009	-3.50577	4.809011	77.7289	76.51253
Serbia	2010	1.006703	3.623127		89.02213
Serbia	2011	1.567209	6.172433		89.55137
Serbia	2012	-1.523	0.932248		98.49537
Serbia	2013	2.456	3.239418		..
Montenegro	1990	..	..	0.11318	..
Montenegro	1991	..	..	0.19638	..
Montenegro	1992	..	..	5.09	..
Montenegro	1993	..	..	23.26	..

---

Montenegro	1994	..	..	43.26318	..
Montenegro	1995	..	..	37.88176	..
Montenegro	1996	..	..	39.98108	..
Montenegro	1997	..	..	50.00355	..
Montenegro	1998	4.9	..	54.46173	..
Montenegro	1999	-9.4	..	56.90183	..
Montenegro	2000	3.1	..	1.085401	87.9252
Montenegro	2001	1.1	..	1.11751	100.4102
Montenegro	2002	1.9	..	1.062552	95.2471
Montenegro	2003	2.5	..	0.886034	77.59983
Montenegro	2004	4.4	..	0.805365	100.1086
Montenegro	2005	4.2	..	0.80412	111.1315
Montenegro	2006	8.6	0	0.797141	126.627
Montenegro	2007	10.7	25.52186	0.730638	129.7349
Montenegro	2008	6.9	21.48593	0.682675	132.187
Montenegro	2009	-5.7	37.2598	0.719843	97.45332
Montenegro	2010	2.5	18.43085	0.755045	97.82451
Montenegro	2011	3.23	12.35647		107.672
Montenegro	2012	-2.5	15.28413		112.9239
Montenegro	2013	3.5	10.08386		108.046
Macedonia	1990	..	..	0.11318	61.67685
Macedonia	1991	-6.17066	..	0.19638	48.78696
Macedonia	1992	-6.565	..	5.09	107.6976
Macedonia	1993	-7.46956	..	23.26	101.4443
Macedonia	1994	-1.75804	0.709792	43.26318	86.60397

---

Macedonia	1995	-1.11456	0.213288	37.88176	75.77931
Macedonia	1996	1.184812	0.253496	39.98108	66.69724
Macedonia	1997	1.440154	0.421384	50.00355	88.16202
Macedonia	1998	3.378764	4.213953	54.46173	97.29196
Macedonia	1999	4.339212	2.406731	56.90183	94.32551
Macedonia	2000	4.549038	5.995639	65.90387	112.1532
Macedonia	2001	-4.52534	13.00951	68.03713	99.30423
Macedonia	2002	0.85349	2.784649	64.34979	96.18527
Macedonia	2003	2.816485	2.475907	54.32226	92.56346
Macedonia	2004	4.627297	5.85804	49.40993	99.99633
Macedonia	2005	4.352167	2.427902	49.28368	105.2774
Macedonia	2006	5.030639	6.51538	48.80177	111.078
Macedonia	2007	6.148866	8.988757	44.72982	123.1602
Macedonia	2008	4.950012	6.220116	41.86768	127.0932
Macedonia	2009	-0.92027	2.786581	44.10058	100.2213
Macedonia	2010	2.9	3.220316	46.48555	111.8352
Macedonia	2011	2.8	4.762735		129.3348
Macedonia	2012	-0.4	2.951779		129.878
Macedonia	2013	3.1	3.683225		126.3358
Albania	1990	-9.5	..	7.745833	38.06578
Albania	1991	-29.5	..	16.24583	34.81639
Albania	1992	-7.2	2.819075	75.0325	100.0027
Albania	1993	9.6	4.722854	102.0625	77.71507
Albania	1994	8.3	2.66912	94.62333	50.30201
Albania	1995	13.3	2.887194	92.6975	46.98742

---

Albania	1996	9.1	2.990159	104.4989	47.5473
Albania	1997	-10.2	2.162803	148.9329	47.21093
Albania	1998	12.7	1.650081	150.6333	45.13491
Albania	1999	10.1	1.199626	137.6906	49.31591
Albania	2000	7.3	3.878861	143.7094	56.62534
Albania	2001	7	5.067196	143.4848	59.23018
Albania	2002	2.9	3.034135	140.1545	67.13591
Albania	2003	5.7	3.149791	121.8633	66.49364
Albania	2004	5.9	4.572142	102.7801	64.84862
Albania	2005	5.5	3.133523	99.87025	68.59919
Albania	2006	5	3.560209	98.10338	74.24167
Albania	2007	5.9	6.095457	90.42789	83.77045
Albania	2008	7.7	9.633871	83.8946	86.02737
Albania	2009	3.3	11.15134	94.97812	83.35956
Albania	2010	3.5	9.134071	103.9364	85.46456
Albania	2011	3	8.140843		90.76286
Albania	2012	1.299987	7.453345		85.16743
Albania	2013	1.300053	11.45255		87.47533
Greece	1990	0	1.076646	0.465191	48.74954
Greece	1991	3.1	1.132048	0.534897	46.88385
Greece	1992	0.7	1.032233	0.559425	47.17519
Greece	1993	-1.6	0.941629	0.672781	44.98903
Greece	1994	2	0.882295	0.711968	43.95553
Greece	1995	2.09972	0.806759	0.679862	45.09573
Greece	1996	2.358402	0.766508	0.706418	45.62624

---

Greece	1997	3.637608	0.730767	0.801344	49.50034
Greece	1998	3.363684	..	0.86729	50.93822
Greece	1999	3.419392	0.425941	0.896983	56.56117
Greece	2000	4.477406	0.870773	1.072337	65.33119
Greece	2001	4.197175	1.220716	1.11751	63.2627
Greece	2002	3.439407	0.036331	1.06255	57.55018
Greece	2003	5.94379	0.690532	0.886034	54.02953
Greece	2004	4.367604	0.923442	0.805365	56.59223
Greece	2005	2.280354	0.287393	0.80412	55.70964
Greece	2006	5.507519	2.066862	0.797141	57.74174
Greece	2007	3.536178	0.640951	0.730638	61.71793
Greece	2008	-0.21511	1.678427	0.682675	62.74645
Greece	2009	-3.13664	0.860576	0.719843	49.98931
Greece	2010	-4.9437	0.181335	0.755045	53.76232
Greece	2011	-7.10582	0.376692		58.20042
Greece	2012	-6.97265	0.669551		59.3634
Greece	2013	-3.85511	1.114814		60.87711