

FOREIGN DIRECT INVESTMENT INTO THE WESTERN BALKANS: THE STATISTICAL ANALYSIS OF DETERMINANTS IN BILATERAL INVESTMENT

Sho Sakuma

Graduate School of Tokyo University of Foreign Studies, JAPAN

jcn10000@yg8.so-net.ne.jp

January 2014

Contents

Abstract	2
Introduction	3
Previous works and backgrounds	6
The analytical method and the model	8
The empirical results	12
Concluding Remarks	16
References	18
Appendix	20

Foreign Direct Investment into the Western Balkans: The Statistical Analysis of Determinants in Bilateral Investment

Sho Sakuma

Graduate School of Tokyo University of Foreign Studies, Tokyo, JAPAN

Abstract:

This paper aims to analyze the determinants of foreign direct investment (FDI) in the Western Balkans, which are located in the western part of the Balkan Peninsula. This region is one of the poorest regions in Europe and their need for the economic development is necessary. In this paper, we adopted statistical method and analyzed the relationship between the latest FDI data and following seven types of data- Gross Domestic Product (GDP) of the host country, GDP of the origin country, geographical distance between origin and host countries, the amount of official development assistance (ODA) inflows, the number of emigration, religious commonness and the existence of investment treaties. The results indicate that ODA by some origin countries are positively correlated with FDI flows from that country. We also find positive correlation between FDI and the number of emigration from the Western Balkans. As for commonness of religion, we observe some origin countries' preference for commonness of religion. Contrary to our expectation, investment treaties do not ensure increase of FDI inflows.

I. Introduction

The Western Balkans, which are specifically defined as following eight countries- Slovenia, Croatia, Bosnia and Herzegovina¹, Serbia, Montenegro, Kosovo², Macedonia and Albania-are located in a part of Southeast Europe. From worldwide point of view, what is well known about this region is the wars in 90's. Slovenia, Croatia, Bosnia and Herzegovina, Kosovo and Macedonia suffered massive wars in the past.

More than ten years has passed since the final war ended in Macedonia in 2001 and it is often said that direct influence from a series of wars have already disappeared. Indeed, according to the World Bank's data base "World Development Indicators", income levels of these countries are rated not so bad (only is Kosovo classified as "Lower middle income" and the other countries are classified as "High income" or "Upper middle income"). Compared to the least developed countries (LDCs), economic situation the Western Balkans face today looks less serious than that of LDCs. Similarly, GDP per capita of the Western Balkans from 1995 to 2012 has been growing as a whole, even though its trend is gradual (Figure 1).

¹ We indicate Bosnia and Herzegovina as BiH at some part of this paper.

² Recognitions about status of Kosovo in the world differ by country. In this paper we take up Kosovo as one country because of convenience to implement statistical analysis.

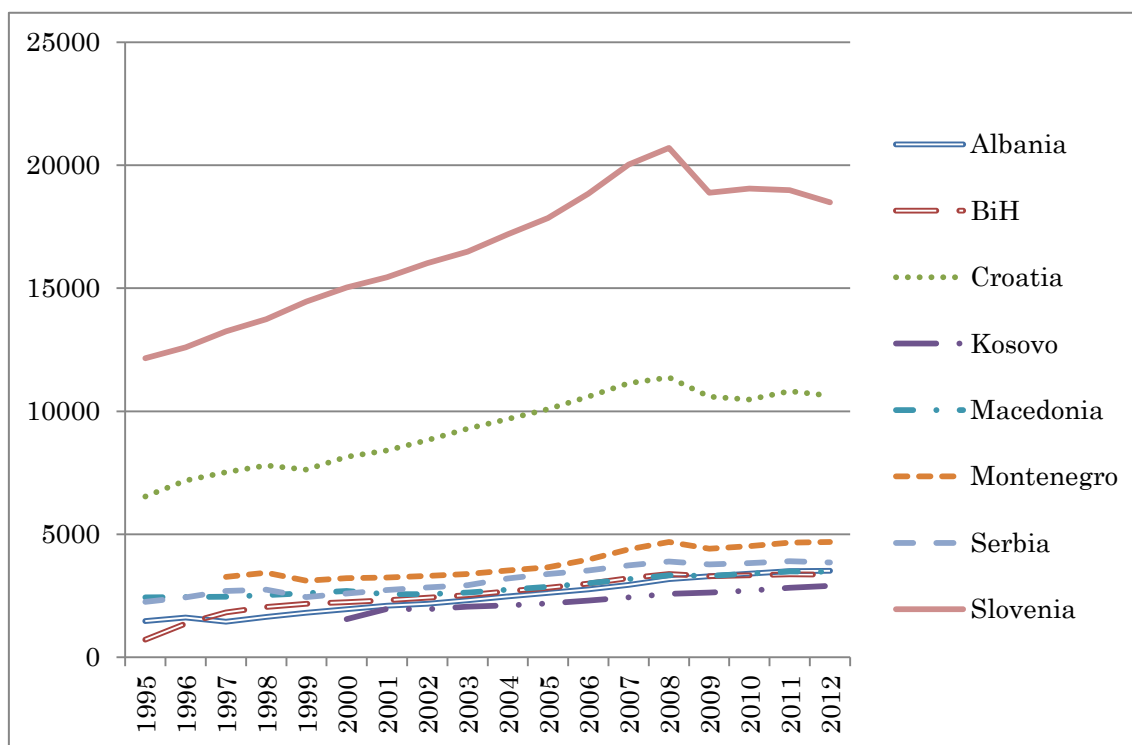


Figure 1: GDP per capita in the Western Balkans (constant 2005 US \$)

Source: World Development Indicators

However, the Western Balkans still holds some concerns in their society behind these indicators. The Western Balkan countries, which experienced the shift of economic system during the past two decades, are defined as transitional economies. Economic system of these governments is now capitalism, but their free market is still unstable. Secondly, bribery in the arena of politics and business has been recognized as conventional practices in the Western Balkans. There is some concern of bribery causing weak governance. From a viewpoint of business conduct, bribery causes extra cost for enterprises and it usually plays a role of obstacle to the business conduct. Thirdly, unemployment rate in the Western Balkans is extremely high in general. Especially in Kosovo, Macedonia and Bosnia and Herzegovina, more than one from five people does not work in recent decade (Figure 2). Unemployment causes reduction in households' income, tax revenue of governments and public investment. High unemployment rate is potential elements of a vicious spiral in economy.

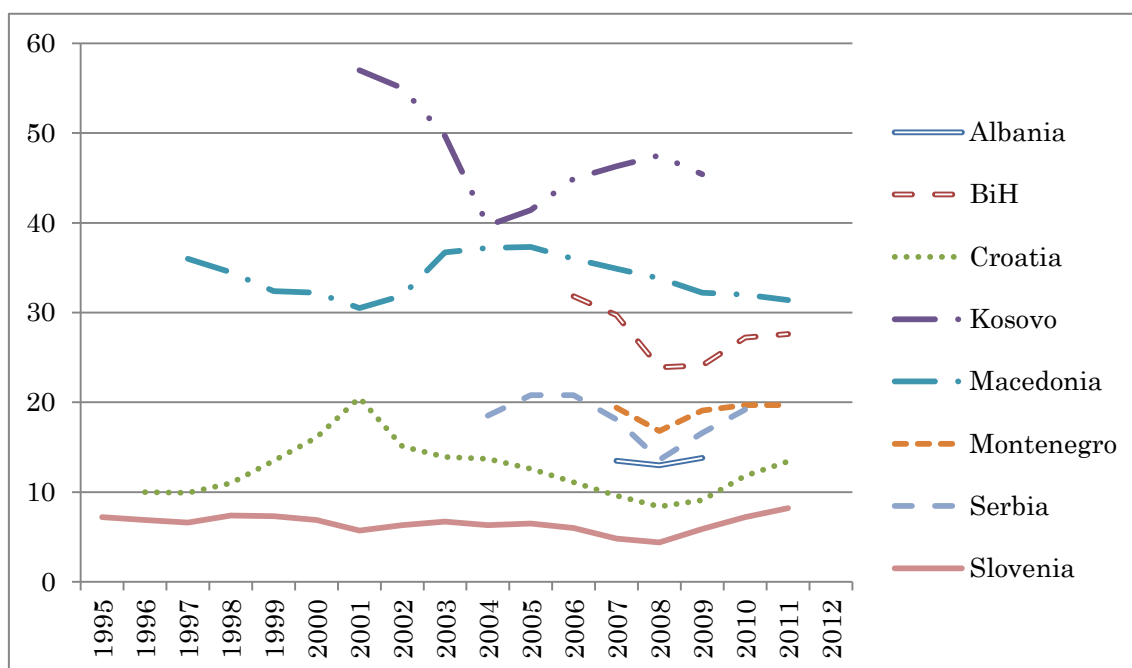


Figure 2: Unemployment rate in the Western Balkans (% of total labor force)

Source: World Development Indicators

Then see the Figure 3, which indicates inward FDI trend into the Western Balkans.

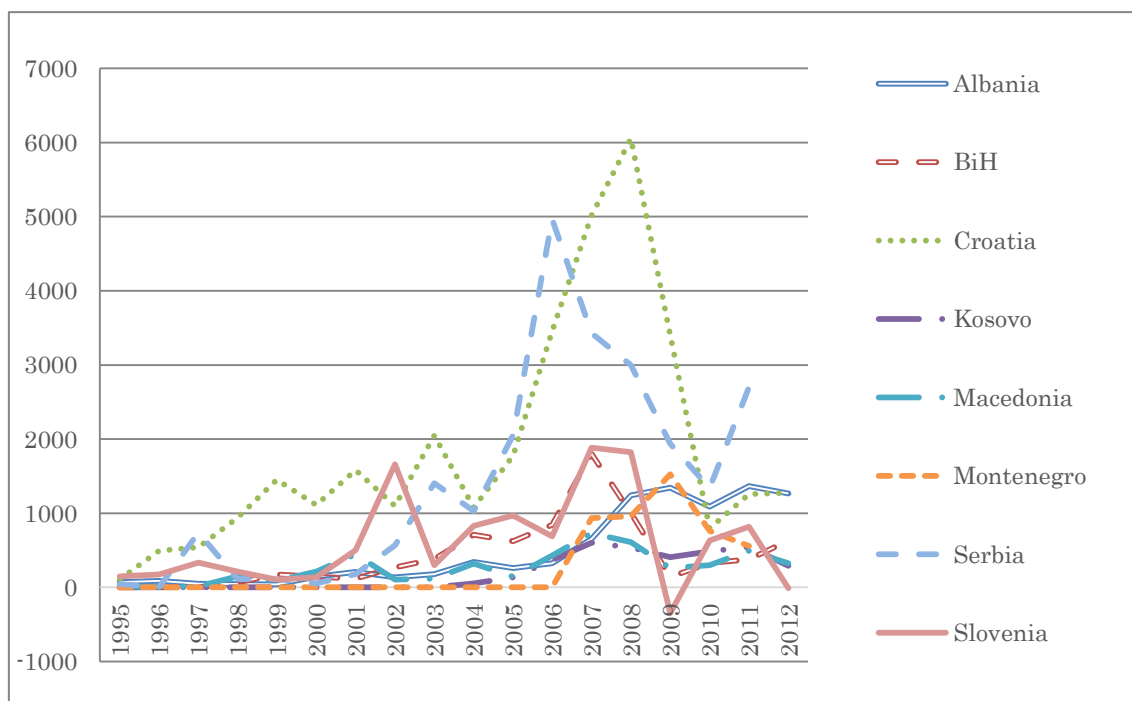


Figure 3: FDI, net inflows in the Western Balkans (Current US \$, millions)

Source: World Development Indicators

The major driving forces of FDI attraction are Croatia and Serbia³. Nearly 59% of total FDI inflow into the region goes only to these two countries. From 1995, FDI inflows have been increasing in all countries by 2008 in general, but after the global financial crisis its volume fell down sharply and still has not recovered in the level of 2008.

The Western Balkans countries are in transition in various points and their institutions are not functioning properly. Firstly, all countries of the Western Balkans sifted their economic systems to capitalism after the end of the Cold War, but the process of transition to free market has not completed yet. Secondly, most of the Balkan countries are trying to be a member of the European Union (EU). Slovenia and Croatia already joined EU in 2004 and 2013. The other countries have already applied for membership or are recognized as candidates or potential candidates by EU member countries. EU membership requires the adoption of EU legislation across the range of commercial and civil law, including trade rules, financial regulation, and competition policy. However, the process of this adoption is also still in the middle.

At the end of the introduction, we state a research question of this paper to enter the next chapter. What are the major determinants of attracting FDI into the Western Balkan countries that leads to economic development?

II. Previous works and backgrounds

In this chapter, we review the previous studies on FDI in the Western Balkans. The number of studies which are focusing on the Western Balkans' economy is not many. Especially there are few quantitative economic studies.

Žugić (2011) analyzes the economic environment that the Western Balkan countries face after the global economic crisis and assessed its effect on FDI. She states that it is the indigenous structural problem in the Western Balkans that caused inward FDI reduction, so just focusing on dealing with economic crisis is not sufficient to the FDI attraction. Botrić (2010) shows the relationship between the level of privatization of national companies and FDI attraction in the Western Balkans using the panel data framework. Botrić and Škuflić (2006) investigate the main determinants of FDI in the Southeast European Countries by using regression-based estimation. They conclude privatization, trade openness and density of infrastructure appear to be robust as determinants of inward FDI. Janicki and Wunnava (2004) also try to find the FDI

³ Serbia's data by 2006 is the data of State Union of Serbia and Montenegro.

determinants between EU member countries and central and east European candidate economies in transition. They reveal that the key determinants are size of the host economy, host country risk, labor costs in host country and openness to trade. In terms of the effects of EU accession on inward FDI, Bevan and Estrin (2004) find that besides unit labor costs, gravity factors, market size and proximity, announcements about EU accession proposals have an influence on FDI inflows into the European transition economies.

These studies mainly focus on the national status of destination countries of FDI⁴. For that reason, bilateral indicators have been hardly analyzed as variables. The traditional variables such as the level of privatization, trade openness, density of infrastructure, size of the host country do not vary from whichever country inward FDI originates. On the other hand, bilateral indicators such as inward ODA, geographic distance, the number of emigration always vary depending on the combination of host country and origin country.

Therefore, emphasizing on bilateral indicators the relationship between FDI flows and economic indicators is analyzed in this paper. Especially commonness of religion between two countries, which we talk about in the next chapter, has hardly examined so far. These are uniqueness of our study and are expected to be “value-added” for this paper.

⁴ In most of the previous works, FDI is divided in three types-market seeking, efficiency seeking and resource seeking and analyzed. Host countries' indicator is suitable for this viewpoint.

III. The analytical method and the model

Before we determine a model to see the correlation between inward FDI into the Western Balkans and bilateral indicators, we have to look into the model proposed by Bevan and Estrin (2004). This study is the basis of our study. According to Tanaka (2012), gravity equation has been developing both in the theory and in the methods of quantitative analysis. The gravity model in international economics is used to capture the correlation in investment and the model proposed by Bevan and Estrin is also based on this equation. The simplest type of the gravity model to analyze the amount of bilateral FDI is as follows.

$$FDI_{ij} = A \frac{GDP_i GDP_j}{DIS_{ij}}$$

As indicated above, the amount of FDI between host country i and origin country j can be estimated by the size of host country's volume of economy, the size of origin country's volume of economy and the geographical distance from each other (DIS). A means the constant value. This model is based on the assumption that market size of each country has positive influence to FDI, and the business costs of communications and transactions will increase as the geographical distance increase. In order to use regression analysis about this model, logarithmic transformation is applied to the both side of this equation.

$$\ln FDI_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIS_{ij} + \varepsilon_{ij}$$

ε is the error term. Bevan and Estrin added "variables to take account of comparative advantage and institutional factors in transitions economies" to the basic gravity equation. They adopted the openness of the host economy, unit labor costs in the host economy, the operational risk in the host country, the interest rate differential between the two countries and announcement about EU accession dummy as independent variables. While Bevan and Estrin focused on the host countries' environment, we substitute bilateral variables for these host countries' variables. The following arranged model is our equation to employ regression analysis in this paper.

$$\ln FDI_{ij}^t = \alpha + \beta_1 \ln GDP_i^t + \beta_2 \ln GDP_j^t + \beta_3 \ln DIS_{ij}^t + \beta_4 \ln ODA_{ij}^t + \beta_5 \ln EMI_{ij}^t + \beta_6 CRD_{ij}^t + \beta_7 ITD_{ij}^t$$

We denote the year by t , the host country among the Western Balkans by i , and the origin country by j to utilize panel data for regression analysis. FDI is placed at the left side as dependent variable. Independent variables we added to the basic gravity model are ODA , EMI , CRD and ITD .

The dependent variable FDI is the amount of the stock of foreign direct investment from country j to country i . “Gross Domestic Product” (GDP) is commonly used as the measure of size of economies and we also used this variable. “Distance” (DIS) plays the role of cost indicator between country i and country j . “Official Development Assistance” (ODA) represents the total net of money officially given by the government of origin country to host country. “Emigration” (EMI) represents the total number of people who left country i and are living in country j . This variable counts only the stock of foreign born people⁵. Also, this variable measures only outflows of the people from arbitrary countries among the Western Balkans so inflows of the people from outside do not affect its values. A dummy variable “Common Religion Dummy” (CRD) represents 1 when the selected two countries i and j share common religion as the largest majority of the population in their own country⁶⁷. A dummy variable “Investment Treaty Dummy” (ITD) represents 1 when the selected two countries i and j ratified bilateral investment treaty between them and it had already entered into force at that time.

These four independent variables- ODA , EMI , CRD and ITD - are employed on the basis of the assumption that these variables may show positive correlation with the amount of FDI flows. As for ODA , ODA inflows into host country from origin country are expected to have positive effect on FDI inflows because ODA itself will improve infrastructure in host country and prepare the foundation for companies to invest in. EMI is the outflows of people from the Western Balkan countries to origin countries. In our assumption, potential investors in the origin countries will be able to take advantage from the people from host countries living in their country. Potential investors can get beneficial information about business conduct in the Western Balkans in advance. This advantage may push potential investors to implementation of FDI. CRD is prepared specially for the measurement of business costs. If foreign investors and local people share the same religion, it will cost them less than they do not share after they invest. The final variable ITD is put in our model in order to confirm the positive

⁵ Therefore, the following generations who were born in country j are not included in this variable.

⁶ Countries whose religious majority does not exceed over 50% of all of the population do not have 1 as its value even if partner country shares the same religion as their majority. Eventually this rule applies to Bosnia and Herzegovina, Germany and Netherlands.

⁷ Due to the data limitation, Kosovo’s share of people by religion is not available. This is why Kosovo’s value in this variable are 0.

effects of bilateral investment treaties on actual volume of FDI inflows.

After we employ natural logarithm (\ln) of GDP_i , GDP_j , DIS , ODA , EMI and FDI , all data were put in the analysis model. The selected countries i and j are indicated in Table 1. Origin countries of FDI are selected for their large amount of investment flows during the period 1995-2012 among the member countries of OECD. The total of FDI by these ten countries (j) exceeds over 93% of the all FDI inflows. Concrete figures of FDI inflows and their share among OECD countries are indicated in Table 2.

Table 1: Country list to analyze

host country (i)	origin country (j)
Albania	Austria
Bosnia and Herzegovina	France
Croatia	Germany
Kosovo	Greece
Macedonia	Hungary
Montenegro	Italy
Serbia	Luxembourg
Slovenia	Netherlands
	Belgium
	Slovenia

Table 2: The origin ten countries (j) and their volume in total FDI (US \$, millions)⁸

origin country (j)	FDI into host country (i)	Share	
Austria	16023.3	33.9%	94.0%
Germany	6491.0	13.7%	
Hungary	4572.1	9.7%	
Belgium	4153.9	8.8%	
France	3207.7	6.8%	
Slovenia	2993.3	6.3%	
Greece	2021.7	4.3%	
Italy	2005.4	4.2%	
Luxembourg	1955.7	4.1%	
Netherlands	1001.9	2.1%	
The others	2829.4	6.0%	6.0%
Total	47255.4	100.0%	100.0%

Source: OECD.stat

The range of the year t is basically from 1995 to 2012. The data of the countries which became independent after 1995 cover only the period after independence⁹. Because of the limitation of available data, the original data downloaded from online databases contained some defect part. As for variables FDI , GDP_i , GDP_j , ODA and EMI , we substituted the estimated values for the missing values in order to get substantial number of data combinations for statistical analysis¹⁰. Data combinations that have still some defect part before regression analysis are finally dropped from the dataset.

The original data used for these variables are obtained from following websites. FDI , ODA and EMI are from the Organisation for Economic Co-operation and Development "OECD.stat", GDP_i and GDP_j from the World Bank "World Development Indicators", DIS from Google Inc. "Google Maps"¹¹, CRD from Central Intelligence Agency "The World Factbook" and ITD from the International Centre for Settlement of Investment Disputes "ICSID Database of Bilateral Investment Treaties".

⁸ Figures in this table are made by totaling FDI inflows from 1995 to 2012.

⁹ Serbia, Montenegro and Kosovo correspond to this.

¹⁰ From year and available values of each data observation, we used general linear model to create the estimated values. After its creation every value were checked and inappropriate values were deleted (e.g. minus value in FDI).

¹¹ Variable DIS is made by measuring geographical slant distance between capitals of two countries. As for Montenegro, we choose Podgorica as capital, not Cetinje because of its practical function as capital city.

IV. The empirical results

We employed two types of aggregation in this study. In the first stage, the dataset is aggregated by the host country (i). In the second stage, we changed the way of aggregation using the same dataset, in order to inspect the determinants from the side of the origin country (j). The results of regression analysis based on the model discussed in the previous chapter are shown in Table 3 and 4.

Table 3 shows the result of regression analysis from the views of host countries. We can see the correlation between seven independent variables and FDI by the Western Balkan countries. On the other hand, Table 4 indicates the correlation by the origin country of FDI. Blanks in these tables are the parts that could not get results of regression analysis. This is because in the all observations of each aggregation, we could not find any difference in corresponding variables.

These two tables are summarized for comparison among the countries so we can grasp characteristics of each country. The original and detailed results of regression analysis implemented in this paper are contained in Appendix.

Table 3: The results of regression analysis by the Western Balkan countries¹²

Dependent variable	FDI							
Country aggregated	All	Albania	BiH	Croatia	Macedonia	Montenegro	Serbia	Slovenia
Partial regression coefficient	-	-	-	-	-	-	-	-
(a) GDPi	0.6631** [0.1499]	2.5923** [0.6506]	1.4477** [0.4425]	9.2902** [1.0124]	6.2373** [0.8074]	3.4269* [1.1880]	4.3868 [2.8046]	5.1043** [1.2290]
(b) GDPj	0.0782 [0.1240]	0.4783 [0.2944]	0.0430 [0.2304]	2.5092** [0.3842]	-0.3252** [0.1040]	-1.3612** [0.4225]	-0.3718* [0.1582]	-0.1650 [1.6339]
(c) DIS	-2.0006** [0.3190]	-2.2002* [0.8857]	-1.0735 [0.8320]	-5.6502** [0.7280]	-3.3549** [0.4583]	5.9286** [1.6923]	1.5622** [0.3116]	-2.1496 [9.0235]
(d) ODA	0.1214 [0.0799]	0.5633** [0.1790]	-0.0432 [0.1325]	-0.2228 [0.1351]	0.2180* [0.0846]	-0.1814* [0.0606]	-0.0501 [0.1201]	0.4789** [0.1551]
(e) EMI	0.2035** [0.0623]	0.1839 [0.1717]	0.6101** [0.0736]	-0.2706 [0.1501]	-0.0940 [0.0770]	-0.2057** [0.0654]	-0.0122 [0.0655]	0.6247** [0.1742]
(f) CRD	0.1946 [0.3194]			-0.7883* [0.3645]	-0.1434 [0.6041]			1.6994 [1.9338]
(g) ITD	-0.5776** [0.2135]	-1.7391 [1.5429]	1.3568 [0.4300]	-0.3099 [0.3981]	0.5060 [0.4974]		-0.4313 [0.1782]	-0.0209 [0.2932]
Constant	0.2395	-53.8365	-25.4465	-252.1075	-105.6416	-73.1357	-98.3526	-100.5875
R square	0.4798	0.7207	0.8236	0.8775	0.8328	0.7560	0.8223	0.9787
Adjusted R square	0.4699	0.6974	0.7999	0.8635	0.8156	0.6008	0.7531	0.9727
No. of obs.	375	92	60	69	76	19	26	33
Degree of freedom	374	91	59	68	75	18	25	32

* represents P value under 0.05. ** represents P value under 0.01. Standard errors in [brackets].

¹² Kosovo's column is not included in the tables because Kosovo's FDI data is not available in the database "OECD.stat" and it is unable to analyze using regression.

At first we discuss the results of column “All”. This column is made by aggregation of all countries of the Western Balkans. Based on gravity model in international economy, the results of our model also show traditional correlation. Geographical distance has substantial negative correlation, and GDP of the host countries has positive correlation with FDI. GDP of the origin countries, however, do not signify robust correlation. Among the bilateral variables we inserted in the model, the number of emigration and the existence of investment treaty show correlation. *EMI*’s effect on FDI is the same with what we expected, but *ITD* is negatively related to FDI inflows. *ITD*’s result is the opposite direction from our assumption. This result reveals that just ratifying investment treaties do not directly stimulate the investment activities of companies.

Comparing the obtained coefficients by country, we can see that GDP volumes of the origin countries and FDI are in negative relations in Macedonia, Montenegro and Serbia. The major investor in these countries are Greece, Italy and Slovenia, whose GDP are relatively small among the country *j*. In these three countries, there are other variables that attract FDI inflows. As for Montenegro and Serbia, proximity with origin countries shows negative correlation and they receive FDI from geographically far countries. We could find positive relevance between ODA and FDI in Albania, Macedonia and Slovenia along with our hypothesis. Religion commonness has robust negative correlation with FDI only in Croatia. The result of regression analysis in the first stage differs by host country as a whole.

Table 4 shows results of regression analysis by the origin countries. Through this type of aggregation process, we can understand the result of analysis from different dimension even from the same dataset.

Table 4: The results of regression analysis by the origin countries¹³¹⁴

Dependent variable	FDI							
Country aggregated	Austria	France	Germany	Greece	Hungary	Italy	Netherlands	Slovenia
Partial regression coefficient	-	-	-	-	-	-	-	-
(a) GDPi	2.9714** [0.7817]	-2.5821* [1.0773]	0.8728** [0.2253]	3.5359** [0.7593]	-7.9375* [3.3221]	14.7555** [2.1882]	-0.2901 [0.8613]	0.2608** [0.0873]
(b) GDPj	10.8805** [1.4082]	9.1776** [2.2483]	7.1955** [1.4004]	4.0231** [1.0832]	16.6256 [8.5938]	-3.4827 [3.4800]	0.8938 [2.1606]	-1.6055 [0.8051]
(c) DIS	3.4418* [1.6550]	-22.7565** [3.8073]	-3.9563** [0.9705]	-6.1405** [1.7562]	-14.1573** [4.8261]	11.0031** [1.7075]		1.2050** [0.3431]
(d) ODA	0.0979 [0.1555]	0.7229** [0.2439]	0.2419** [0.0856]	0.2409* [0.1127]	0.0882 [0.5509]	-0.0548 [0.0897]	-0.0077 [0.0668]	0.0767 [0.0965]
(e) EMI	0.6004** [0.1731]	0.8381 [0.4676]	0.1603 [0.0926]	0.3001 [0.1503]	0.4658 [0.3488]	-0.5383 [0.3743]	0.6935 [0.5894]	0.6885** [0.0591]
(f) CRD	0.8713 [0.9127]	-2.5435 [1.4237]		5.7115** [1.0269]	7.1925* [3.2706]			2.6164** [0.5698]
(g) ITD	0.0589 [0.1869]	1.7375** [0.6205]	0.2037 [0.1963]	1.7637 [1.0513]	6.3468 [4.5050]			-1.1379** [0.1175]
Constant	-375.1415	-35.0225	-195.5265	-146.7065	-152.8168	-302.1923	-17.1357	30.6893
R square	0.9661	0.6498	0.9172	0.9343	0.5812	0.9766	0.7677	0.9421
Adjusted R square	0.9609	0.6192	0.9076	0.9218	0.4802	0.9640	0.4402	0.9308
No. of obs.	54	88	69	45	37	21	17	44
Degree of freedom	53	87	68	44	36	20	19	43

* represents P value under 0.05. ** represents P value under 0.01. Standard errors in [brackets].

¹³ Belgium's column is not included in the tables because Belgium's EMI data is not available in the database "OECD.stat" and it is unable to analyze using regression.

¹⁴ Luxembourg's column is not included in the tables because Luxembourg's FDI data is not available in the database "OECD.stat" and it is unable to analyze using regression.

Seen from the points of views of origin countries, each variables shows different feature in correlation by origin country as well. Positive effect of the origin countries' GDP on FDI flows is observed in Austria, France, Germany and Greece this time. In the columns of France, Germany and Greece influence of *ODA* is positive to FDI. There might be a possibility that public-private partnership (PPP) strategy has been done in these three countries. The most characteristic result is observed in *CRD*. Significant positive correlation with FDI inflows is observed in Greece, Hungary and Slovenia. Considering both results of regression analysis in the first and second stage, it is concluded that there are two types of origin country from the viewpoint of religion. Countries that take account of similarity of religion and prefer countries that share common religion as a destination, and countries that do not take account of religious similarity in decision making where to invest. The positive effect of investment treaties on FDI is seen only in France.

V. Concluding Remarks

We analyzed in this study what are the main determinants for the Western Balkan countries to attract FDI from abroad. In specific, through applying statistical regression analysis to the latest available data, we examined if inward FDI and those variables – GDP of the host county, GDP of the origin country, geographical distance of each county, the amount of ODA to the host country, the number of emigration from the Balkan country, similarity of religion and existence of bilateral investment treaty – show some correlation through two types of aggregation.

Though these Balkan countries are bounded on each other and they were forming one country in the near past except Albania, we find that economic characteristics from the viewpoint of FDI are quite different among examined eight countries. Even though they are called “the Western Balkans” as one regional group, the Western Balkans hold diversity in its attraction of FDI.

Looking into the analytical results of whole Western Balkans, we can see that the number of people from Western Balkans living in the origin countries of FDI plays the role of push factor for potential investors. Considering this finding, the Western Balkan countries should negotiate with other countries to accept emigrants from the Western Balkans in anticipation of future FDI inflows. In addition, we find possibility of FDI reduction effect of bilateral investment treaties in the Western Balkans. This result has

to be examined further in detail, but it may be possible to assume that just ratifying investment treaties does not increase FDI flows any longer.

In the second analysis, we observed similar phenomenon in terms of the difference in significant variables among origin countries of FDI. Because of the defect parts of some countries in raw data, we were not able to conduct regression analysis about all of the countries we had planned. However, the result that ODA have a positive correlation with FDI flows suggests that policies taken by each government of origin countries have influence on the money flows in private sector even though it is indirect. As for commonness of religion, some countries among origin countries of FDI consider commonness of religion when they select FDI destination and prefer similar country to their own country.

Since the global economic crisis occurred in the first decade of the 21st century, the Western Balkans, as well as the other part of the world, has been experiencing difficult economic conditions. The range of findings our statistical and econometric study could explore may not be comprehensive, but the empirical findings obtained through this study would be one of the keys to the future attraction of FDI in the Western Balkans.

References

- Barolli Blendi, Takahashi Koji and Tomizawa Toshikatsu (2009), "The Impact of Political Volatility on Foreign Direct Investment: Evidences from the Western Balkan Countries", *Bulletin of Yamagata University(Social Science)*, Vol.40 No.1, 65-78.
- Bellak Christian, Leibrecht Markus and Riedl Aleksandra (2008), "Labour costs and FDI flows into Central and Eastern European Countries: A survey of the literature and empirical evidence", *Structural Change and Economic Dynamics* 19, 17-37.
- Bevan A. Alan and Estrin Saul (2004), "The determinants of foreign direct investment into European transition economies" *Journal of Comparative Economics* 32, 775-787.
- Botrić Valerija (2010), "Foreign direct investment in the Western Balkans: privatization, institutional change, and banking sector dominance", *Economic Annals, Volume LV, No. 187*, 7-30.
- Botrić Valerija and Škuflić Lorena (2006), "Main Determinants of Foreign Direct Investment in the Southeast European Countries", *Transition Studies Review* 13 (2), 359-377.
- Budak Jelena and Rajh Edo (2011), "Corruption as an obstacle for Doing Business in the Western Balkans: A Business Sector Perspective", *EIZ Working Papers* EIZ-WP-1104.
- Carstensen Kai and Toubal Farid (2003), "Foreign Direct Investment in Central and Eastern European Countries: A Dynamic Panel Analysis", *Kiel Working Paper* No. 1143.
- Clausing A. Kimberly and Dorobantu L. Cosmina (2005), "Re-entering Europe: Does European Union candidacy boost foreign direct investment?" *Economics of Transition Volume 13 (1)*, 77-103.
- Egger Peter and Pfaffermayr Michael (2004), "The impact of bilateral investment treaties on foreign direct investment", *Journal of Comparative Economics* 32, 788-804.
- Fink Guenther and Redaelli Silvia (2009), "Determinants of International Emergency Aid Humanitarian Need Only?", The World Bank East Asia Human Development Department Social Protection Division.
- Galego Aurora, Vieira Carlos and Vieira Isabel (2004), "The CEEC as FDI Attractors A Menace to the EU Periphery?", *Emerging Markets Finance and Trade*, vol.40, no5, 74-91.
- International Commission on the Balkans (2005), "The Balkans in Europe's Future",

Report.

- International Monetary Fund (2013), "Financing Future Growth: The Evolving Role of Banking Systems in CESEE", *Central, Eastern and Southeastern Europe—Regional Economic Issues*, 1-42.
- Janicki P. Hubert and Wunnava V. Phanindra (2004), "Determinants of foreign direct investment: empirical evidence from EU accession candidates", *Applied Economics* 36, 505-509.
- Karakaplan Ugur M., Neyapti Bilin and Sayek Selin (2005), "Aid and Foreign Direct Investment: International Evidence", Ankara: Bilkent University.
- Kinoshita Yuko and Campos F. Nauro (2003), "Why does FDI go where it goes? New evidence from the transition economies", *William Davidson Institute Working Paper Number 573*.
- Tešić Jelena (2010), "Institutional Environment and Foreign Direct Investment in the Western Balkans", Institute for the Danube Region and Central Europe.
- Multilateral Investment Guarantee Agency (2006), "Investment Horizons: Western Balkans Benchmarking FDI Opportunities", The World Bank Group/MIGA, Washington, DC.
- Žugić Jelena (2011), "Foreign Direct Investment and Global Economic Crisis in the Western Balkans", *Journal on European Perspectives of the Western Balkans Vol. 3, No. 1 (4)*, 69-90.
- Koyama Yoji (2010), "An Overview of Economy in the Western Balkans" (in Japanese, "南東欧バルカン経済図説"), *Eurasia Booklet No. 160*, Toyo Shoten.
- Tanaka Ayumu (2012), "International Trade and Trade Policy Studies No.13" (in Japanese, "国際貿易と貿易政策研究メモ No.13"), Research Institute of Economy, Trade & Industry, IAA.
- Chida Zen (1999), "Why Yugoslav Wars were at a Stalemate for a Long Time? Responsibilities of the Western Countries" (in Japanese, "ユーゴ紛争はなぜ長期化したか 悲劇を大きくさせた欧米諸国の責任"), Keiso Shobo.
- Taro Tsukimura (2006), "Wars in Yugoslavia – Political Power and Racism" (in Japanese, "ユーゴ内戦—政治リーダーと民族主義"), University of Tokyo Press.
- Momose Ryoji et al. (2012), "The Latest Studies of the Former Yugoslavia" (in Japanese, "旧ユーゴ研究の最前線"), Keisuisha.

Appendix

The original and detailed results of regression analysis by country in Table 3 and 4.

Country aggregated - All

Regression Statistics	
Multiple R	0.692695281
R Square	0.479826752
Adjusted R Square	0.469905191
Standard Error	1.755547515
Observations	375

ANOVA

	df	SS	MS	F	Significance F
Regression	7	1043.34439	149.0491985	48.36202402	1.8624E-48
Residual	367	1131.074577	3.081947076		
Total	374	2174.418966			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.239500339	3.638447411	0.065824873	0.947553095	-6.915320739	7.394321417
GDP(i)	0.66313851	0.149944541	4.422558537	1.28692E-05	0.368280225	0.957996795
GDP(j)	0.07821047	0.12403932	0.630529662	0.528740524	-0.16570652	0.322127461
DIS	-2.000597494	0.319037387	-6.270730558	1.01057E-09	-2.627968228	-1.37322676
ODA	0.121403473	0.079862367	1.520158717	0.129332128	-0.035641794	0.278448741
EMI	0.203460935	0.062271872	3.267300768	0.001188171	0.081006478	0.325915393
CRD	0.194584266	0.319367967	0.609279221	0.542716363	-0.433436536	0.822605068
ITD	-0.577553152	0.213545172	-2.704594754	0.007157371	-0.997478831	-0.157627474

Country aggregated - Albania

Regression Statistics	
Multiple R	0.848944998
R Square	0.720707609
Adjusted R Square	0.697433243
Standard Error	1.476587091
Observations	92

ANOVA

	df	SS	MS	F	Significance F
Regression	7	472.6040338	67.51486197	30.96572479	9.32026E-21
Residual	84	183.1459927	2.180309436		
Total	91	655.7500265			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-53.83647214	15.46049995	-3.482194774	0.00079192	-84.5813718	-23.09157248
GDP(i)	2.592300092	0.65058611	3.984561077	0.000143395	1.298538264	3.88606192
GDP(j)	0.478339114	0.294372135	1.624946986	0.107920365	-0.10705216	1.063730388
DIS	-2.200243165	0.885649524	-2.484327157	0.014965405	-3.96145437	-0.439031959
ODA	0.56330343	0.179039155	3.146258307	0.002288068	0.207264435	0.919342425
EMI	0.18392517	0.171701026	1.071194359	0.287150193	-0.157521149	0.52537149
CRD	0	0	65535	#NUM!	0	0
ITD	-1.739061823	1.542939004	-1.127109898	#NUM!	-4.807365242	1.329241595

Country aggregated – Bosnia and Herzegovina

Regression Statistics	
Multiple R	0.907548582
R Square	0.82364443
Adjusted R Square	0.799904257
Standard Error	0.776916883
Observations	60

ANOVA

	df	SS	MS	F	Significance F
Regression	7	146.5895614	20.94136592	34.69412088	1.95148E-17
Residual	52	31.38719184	0.603599843		
Total	59	177.9767533			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-25.44650055	9.7123859	-2.620005096	0.011498555	-44.93582869	-5.957172418
GDP(i)	1.447715911	0.442524356	3.271494307	0.001903155	0.559725826	2.335705996
GDP(j)	0.042981387	0.230412175	0.1865413	0.852746158	-0.419374468	0.505337241
DIS	-1.073463768	0.831973634	-1.290261764	0.202667959	-2.742941002	0.596013466
ODA	-0.043206961	0.132479766	-0.326140079	0.745627327	-0.30904706	0.222633137
EMI	0.610073359	0.073602937	8.288709399	4.46449E-11	0.46237826	0.757768458
CRD	0	0	65535	#NUM!	0	0
ITD	1.356803988	0.429986499	3.155457188	#NUM!	0.493972954	2.219635022

Country aggregated – Croatia

Regression Statistics	
Multiple R	0.936753914
R Square	0.877507895
Adjusted R Square	0.863451424
Standard Error	0.776191879
Observations	69

ANOVA

	df	SS	MS	F	Significance F
Regression	7	263.27581	37.61083	62.4273254	1.99416E-25
Residual	61	36.7509038	0.602473833		
Total	68	300.0267138			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-252.1074948	24.57126972	-10.26025507	6.61224E-15	-301.2407853	-202.9742044
GDP(i)	9.290229692	1.012355486	9.176845305	4.28747E-13	7.265899785	11.3145596
GDP(j)	2.509228492	0.384163341	6.531670848	1.46888E-08	1.741046416	3.277410569
DIS	-5.650182741	0.727973024	-7.761527632	1.13204E-10	-7.10585477	-4.194510713
ODA	-0.22284209	0.135117831	-1.649242649	0.104238955	-0.493026892	0.047342712
EMI	-0.270600012	0.150098532	-1.802815849	0.076357212	-0.570740575	0.029540552
CRD	-0.78825397	0.364461375	-2.162791518	0.034486362	-1.517039531	-0.059468409
ITD	-0.309872107	0.398069254	-0.778437681	0.439320218	-1.105860776	0.486116562

Country aggregated – Macedonia

Regression Statistics	
Multiple R	0.91257472
R Square	0.832792619
Adjusted R Square	0.815580095
Standard Error	0.78106805
Observations	76

ANOVA					
	df	SS	MS	F	Significance F
Regression	7	206.6179666	29.51685238	48.3829447	5.75031E-24
Residual	68	41.48457631	0.610067299		
Total	75	248.1025429			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-105.6416143	18.46656464	-5.72069664	2.5976E-07	-142.4910703	-68.79215829
GDP(i)	6.237276287	0.807357123	7.725548096	6.90352E-11	4.626220231	7.848332344
GDP(j)	-0.325213557	0.103955242	-3.128399784	0.002587878	-0.532653013	-0.117774101
DIS	-3.354917038	0.458288768	-7.320530799	3.7428E-10	-4.269418035	-2.440416041
ODA	0.217981338	0.084630141	2.575693904	0.012182011	0.049104521	0.386858155
EMI	-0.09402507	0.077013923	-1.220884033	0.226346396	-0.247703961	0.059653822
CRD	-0.143379701	0.6040505	-0.237363765	0.813088286	-1.348743707	1.061984305
ITD	0.506015196	0.497440947	1.017236717	0.312646535	-0.48661276	1.498643152

Country aggregated – Montenegro

Regression Statistics	
Multiple R	0.869502274
R Square	0.756034204
Adjusted R Square	0.600783243
Standard Error	0.189623368
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	7	1.2257133	0.1751019	4.869755388	0.010123677
Residual	11	0.395527238	0.035957022		
Total	18	1.621240538			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-73.13568659	26.13889177	-2.797964322	0.017337785	-130.6669995	-15.60437371
GDP(i)	3.426925218	1.187958095	2.884718943	0.014845433	0.812247081	6.041603355
GDP(j)	-1.361222321	0.422490501	-3.221900416	0.008131532	-2.291117645	-0.431326998
DIS	5.928567645	1.692286431	3.503288532	0.004941608	2.203870324	9.653264966
ODA	-0.18141131	0.060563364	-2.995396852	0.012179636	-0.314710376	-0.048112245
EMI	-0.205674319	0.065426548	-3.143591167	0.009348365	-0.34967718	-0.061671457
CRD	0	0	65535	#NUM!	0	0
ITD	0	0	65535	#NUM!	0	0

Country aggregated – Serbia

Regression Statistics	
Multiple R	0.906788637
R Square	0.822265632
Adjusted R Square	0.753146711
Standard Error	0.306772081
Observations	26

ANOVA

	df	SS	MS	F	Significance F
Regression	7	7.83691064	1.119558663	11.89638991	1.2998E-05
Residual	18	1.693963974	0.09410911		
Total	25	9.530874613			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-98.35264898	66.36994901	-1.481885257	0.155665921	-237.7907377	41.08543972
GDP(i)	4.386842139	2.804596386	1.56416166	0.135190102	-1.505396224	10.2790805
GDP(j)	-0.371784856	0.158239653	-2.349505004	0.030411166	-0.704234031	-0.039335682
DIS	1.562187041	0.311592863	5.013552067	9.01587E-05	0.907554728	2.216819354
ODA	-0.050073963	0.120123696	-0.41685333	0.681714762	-0.302444484	0.202296558
EMI	-0.012169303	0.065503677	-0.185780457	0.854694455	-0.149787421	0.125448815
CRD	0	0	65535	#NUM!	0	0
ITD	-0.43126778	0.178158922	-2.420691458	#NUM!	-0.805565785	-0.056969775

Country aggregated – Slovenia

Regression Statistics	
Multiple R	0.989268984
R Square	0.978653124
Adjusted R Square	0.972675998
Standard Error	0.345262114
Observations	33

ANOVA

	df	SS	MS	F	Significance F
Regression	7	136.6256719	19.51795313	163.7330756	2.86283E-19
Residual	25	2.980148186	0.119205927		
Total	32	139.6058201			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-100.5875204	84.22055497	-1.194334571	0.243556229	-274.0430003	72.86795949
GDP(i)	5.104297299	1.228979298	4.153281759	0.000333927	2.573167055	7.635427543
GDP(j)	-0.164955935	1.633861459	-0.100960785	0.920386941	-3.5299566	3.20004473
DIS	-2.149570307	9.023518381	-0.238218643	0.81365326	-20.7338543	16.43471368
ODA	0.478911324	0.155144976	3.086863246	0.004896114	0.159384265	0.798438383
EMI	0.624723968	0.174164017	3.586986448	0.001418615	0.266026461	0.983421475
CRD	1.699380048	1.933782425	0.878785548	0.387886131	-2.28331941	5.682079505
ITD	-0.020883149	0.293167824	-0.071232744	0.943779314	-0.624673585	0.582907288

Country aggregated – Austria

Regression Statistics	
Multiple R	0.982893813
R Square	0.966080248
Adjusted R Square	0.960918547
Standard Error	0.345225286
Observations	54

ANOVA

	df	SS	MS	F	Significance F
Regression	7	156.1433773	22.30619676	187.1631443	1.33816E-31
Residual	46	5.482302912	0.119180498		
Total	53	161.6256802			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-375.1414738	23.43607378	-16.00701027	1.98745E-20	-422.3158435	-327.967104
GDP(i)	2.971367496	0.7816923	3.801198371	0.000421892	1.397902506	4.544832485
GDP(j)	10.88049256	1.408175807	7.726657785	7.50093E-10	8.045981678	13.71500345
DIS	3.441764057	1.655038477	2.079567397	0.043166286	0.110344391	6.773183723
ODA	0.097868492	0.155451051	0.629577548	0.532085708	-0.215038245	0.410775229
EMI	0.600355179	0.17313483	3.467558657	0.001150217	0.251852842	0.948857517
CRD	0.871293903	0.912653321	0.954682225	0.344728692	-0.965781951	2.708369757
ITD	0.0588785	0.186937755	0.314963129	0.754213983	-0.317407683	0.435164684

Country aggregated – France

Regression Statistics	
Multiple R	0.806113063
R Square	0.649818271
Adjusted R Square	0.61917737
Standard Error	1.37126159
Observations	88

ANOVA

	df	SS	MS	F	Significance F
Regression	7	279.1444803	39.87778291	21.20754428	7.04622E-16
Residual	80	150.4286678	1.880358347		
Total	87	429.5731481			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-35.02252964	82.63675947	-0.42381296	0.672839604	-199.4749219	129.4298626
GDP(i)	-2.582116554	1.07732602	-2.396782874	0.018872141	-4.726063659	-0.438169449
GDP(j)	9.177597146	2.248329308	4.081963045	0.000105087	4.703279232	13.65191506
DIS	-22.75653878	3.807272573	-5.97712361	6.01815E-08	-30.33325266	-15.1798249
ODA	0.722909058	0.243894027	2.964029368	0.00399909	0.237544477	1.208273639
EMI	0.83807823	0.467568358	1.792418619	0.07684634	-0.092412456	1.768568916
CRD	-2.543483815	1.423676497	-1.786560234	0.077797014	-5.376690336	0.289722705
ITD	1.737524674	0.620536069	2.800038161	0.006403185	0.502618541	2.972430807

Country aggregated – Germany

Regression Statistics	
Multiple R	0.957680783
R Square	0.917152483
Adjusted R Square	0.907645391
Standard Error	0.500979782
Observations	69

ANOVA

	df	SS	MS	F	Significance F
Regression	7	169.4853958	24.2121994	96.47034768	1.46644E-30
Residual	61	15.30982523	0.250980742		
Total	68	184.795221			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-195.5265032	33.06738826	-5.91297086	1.63603E-07	-261.6488326	-129.4041737
GDP(i)	0.872765464	0.225262498	3.874437467	0.000263581	0.422325259	1.323205669
GDP(j)	7.195481242	1.400349594	5.138346362	3.08167E-06	4.395309167	9.995653318
DIS	-3.956317903	0.970470131	-4.076702391	0.000134327	-5.896892865	-2.015742941
ODA	0.241903152	0.085620138	2.825306727	0.006375488	0.070695104	0.413111199
EMI	0.160281437	0.092635889	1.730230457	0.088645842	-0.024955472	0.345518345
CRD	0	0	65535	#NUM!	0	0
ITD	0.203662004	0.196344582	1.037268263	#NUM!	-0.188953254	0.596277261

Country aggregated – Greece

Regression Statistics	
Multiple R	0.966577248
R Square	0.934271577
Adjusted R Square	0.92183647
Standard Error	0.599050762
Observations	45

ANOVA

	df	SS	MS	F	Significance F
Regression	7	188.7334589	26.96192269	75.13176812	6.34518E-20
Residual	37	13.27788717	0.358861815		
Total	44	202.011346			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-146.7065004	24.25365023	-6.048842093	5.39193E-07	-195.8490637	-97.56393711
GDP(i)	3.53594968	0.759333752	4.65664758	4.05335E-05	1.997393354	5.074506006
GDP(j)	4.023092886	1.083165303	3.714200295	0.000669673	1.828391514	6.217794259
DIS	-6.140538767	1.756176969	-3.496537578	0.001243142	-9.698891306	-2.582186228
ODA	0.240850857	0.112650923	2.138028255	0.039185506	0.012598405	0.469103309
EMI	0.30011993	0.150266595	1.997249821	0.053192029	-0.004349112	0.604588972
CRD	5.711476116	1.026903203	5.561844682	2.46245E-06	3.630772586	7.792179645
ITD	1.763721815	1.051285853	1.677680538	0.101838608	-0.366385656	3.893829287

Country aggregated – Hungary

Regression Statistics	
Multiple R	0.762394806
R Square	0.581245841
Adjusted R Square	0.48016725
Standard Error	2.476482192
Observations	37

ANOVA

	df	SS	MS	F	Significance F
Regression	7	246.8704682	35.26720974	5.750434778	0.000305293
Residual	29	177.8559573	6.132964046		
Total	36	424.7264255			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-152.8168484	237.7338276	-0.642806495	0.525399843	-639.0371196	333.4034227
GDP(i)	-7.937494108	3.322115003	-2.389289384	0.023604928	-14.73198219	-1.143006029
GDP(j)	16.62561696	8.593804007	1.934605088	0.06284779	-0.950685735	34.20191965
DIS	-14.15728444	4.82614242	-2.933457657	0.006487843	-24.02785397	-4.286714903
ODA	0.088196994	0.5508915	0.160098665	0.873913311	-1.038502631	1.214896619
EMI	0.465788076	0.34880454	1.335384214	0.192138322	-0.247597308	1.17917346
CRD	7.192526765	3.270561041	2.199172153	0.035991475	0.503478378	13.88157515
ITD	6.346754878	4.504991353	1.408827316	0.169518746	-2.866986975	15.56049673

Country aggregated – Italy

Regression Statistics	
Multiple R	0.988228596
R Square	0.976595759
Adjusted R Square	0.963993475
Standard Error	0.354031518
Observations	21

ANOVA

	df	SS	MS	F	Significance F
Regression	7	67.99038163	9.712911661	77.49355477	1.39388E-09
Residual	13	1.629398109	0.125338316		
Total	20	69.61977974			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-302.1922667	121.7574891	-2.481919338	0.027510401	-565.2333298	-39.1512036
GDP(i)	14.75554244	2.188247344	6.743087101	1.3768E-05	10.02812146	19.48296341
GDP(j)	-3.482656132	3.480035003	-1.00075319	0.33521049	-11.00081468	4.035502413
DIS	11.00314639	1.707546224	6.443835156	2.18749E-05	7.314217045	14.69207573
ODA	-0.0547954	0.089734124	-0.610641726	0.55196379	-0.248654189	0.139063388
EMI	-0.538304164	0.374296439	-1.438176023	0.174020147	-1.346922459	0.270314131
CRD	0	0	65535	#NUM!	0	0
ITD	0	0	65535	#NUM!	0	0

Country aggregated – Netherlands

Regression Statistics	
Multiple R	0.876157631
R Square	0.767652194
Adjusted R Square	0.440202926
Standard Error	0.226068543
Observations	17

ANOVA					
	df	SS	MS	F	Significance F
Regression	7	2.026223926	0.289460561	9.911677788	0.001334466
Residual	12	0.613283836	0.051106986		
Total	19	2.639507762			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-17.13568772	55.9113143	-0.306479787	0.764491956	-138.9559766	104.6846012
GDP(i)	-0.290106352	0.861262954	-0.336838303	0.742056619	-2.166637126	1.586424422
GDP(j)	0.893840473	2.160575324	0.413704842	0.68638814	-3.813648762	5.601329709
DIS	0	0	65535	#NUM!	0	0
ODA	-0.007685183	0.066759848	-0.115116837	#NUM!	-0.153142396	0.137772031
EMI	0.693546624	0.589375725	1.17674786	0.262111148	-0.590592768	1.977686016
CRD	0	0	65535	#NUM!	0	0
ITD	0	0	65535	#NUM!	0	0

Country aggregated – Slovenia

Regression Statistics	
Multiple R	0.970594799
R Square	0.942054264
Adjusted R Square	0.930787038
Standard Error	0.301476709
Observations	44

ANOVA					
	df	SS	MS	F	Significance F
Regression	7	53.19422321	7.599174745	83.61013031	2.45372E-20
Residual	36	3.271975415	0.090888206		
Total	43	56.46619863			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	30.68927977	18.83892325	1.629035766	0.112026347	-7.517827452	68.896387
GDP(i)	0.260790961	0.087288689	2.987683331	0.005036765	0.083761295	0.437820628
GDP(j)	-1.605518178	0.805100547	-1.994183438	0.05374829	-3.238337768	0.027301413
DIS	1.204953651	0.343118462	3.511771547	0.001218254	0.509077157	1.900830145
ODA	0.076664658	0.096526776	0.79423204	0.432265014	-0.119100717	0.272430034
EMI	0.688494508	0.059140496	11.64167625	9.21138E-14	0.568552023	0.808436994
CRD	2.616426893	0.569807043	4.591777034	5.19281E-05	1.460804648	3.772049138
ITD	-1.137919269	0.117525718	-9.682300116	1.46134E-11	-1.376272472	-0.899566066