New Version of Economic Growth for Some EU Countries: Tax Discrimination-Oriented Foreign Direct Investment Hunt

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Abstract
This study analyzes the effects of foreign direct investments, which are claimed to be obtained through various regulations made by European Union member countries Luxemburg, Netherlands, Ireland and Belgium in the period of 2004-2013, on the economic growth of the subject countries; by comparing average values of European Union member countries. For as much as, these four subject countries achieved to attract different amounts of investments into their countries by taking advantages of gaps which take place in European Union legislation and they realized their economic growths thanks to the related investments. These four countries which are the members of European Union used the sovereign base areas of the countries and at the same time, they used taxational methods which concern European Union law, when they fulfilled their subject goals. However, today, the methods, which were used by the aforesaid countries in order to achieve the aim of increasing the economic growth, have been spotted by the European Union Commission. Despite this situation, at least the half of the countries, which are mentioned in our study, are unwilling to abandon their illegal economic growth strategies.

Keywords: Foreign Direct Investment, Economic Growth, Taxation.

INTRODUCTION

At the times when European Union was first established, rules related to certain issues were formed and later, the subject rules started to take shape in the frame of the treaties made. In the following years, the countries in the union were imposed to obligations related to these practices by regulating these rules for forming Single Market. The obligations were adopted easily in the fields such as; education and research, environment, energy and infrastructure; as a result, a harmony was easily achieved in the subject issues.

Goods entrance and exits' being free inside the countries taking place in terms of economic integration because of the establishment nature of the Single Market motivated European Union members in the matter of trade. Although the common judgments about the countries outside of Single Market have been improved, there are gaps related to the legislation on this issue of European Union due to the fact that each country has its own system. In addition, the countries' having a system inside the Union forced countries of the Union use some illegal means in order to realize economic growth which is the sole purpose of a state. Especially some EU member countries wanted to attract more foreign investment in the cause of economic growth. Although they got caught by EU authorities, these countries continue to apply these practices.

The most important reason why European Union member countries apply these actions which are beneficial for themselves but harmful for Union is that the Union found it inconvenient to establish rules about some fields and that the issues related to these fields remained flexible.

The primary field among them is taxation. Since taxation bears a striking resembles to a country's sovereignty authority, it is normal for these kinds of problems to arise in European Union. In this study, the practices of EU member countries related to these problems will be referred; the relationship between investments and economic growths of the four countries, which had economic growth by illegal ways in EU, in 10 years period will be analyzed by using Granger Causality Analysis, Regression and Correlation Analysis.

LITERATURE REVIEW

In the study made by King and Rebelo (1990), it is stated that the growth might be more vulnerable against tax rates in the economies that are open to international capital movements; thus, a slight change in tax rates might have a significant effect on growth.

Borensztein, De Gregorio and Lee (1998) analyzed the foreign direct investments' effects on growth by using foreign direct investment data of 69 developing countries. They found a strong and positive relationship between foreign direct investment inflows and growth.

Zhang (1999) revealed in the study for 10 East Asian economies that direct investments increased economic growth in China, Hong Kong, Indonesia, Japan and Taiwan in the long term and in Singapore in the short term.

Nair-Reichert and Weinhold (2001) found a simultaneous correlation relationship between foreign direct investments and economic growth with panel data in 1971-95 period for 24 developing countries in which there is also Turkey. While the study showed causality from foreign direct investments to growth, it concluded that this causality would be more beneficial in open economies.

As a result of causality tests made for the developing countries in the 1975-1998 periods, Lensink and Morrissey (2001) revealed that foreign direct investments had a positive effect on economic growth; besides, they reached the information that the fluctuations happening in foreign direct investments affected economic growth negatively.

Durham (2004) introduced that foreign direct investments and foreign portfolio investments did not have an unlimited positive effect on economic growth and that this limited effect depended on home countries financial and corporate development and attraction capacity in the study in which there are 80 countries including Turkey in 1979-1998 period.

Merlevede and Schoor (2004) observed the effects of structural reforms as well as foreign direct capital investments on growth in 25 economies in transition via panel data systems couplings. The results of the research show that foreign direct capital investments affect growth positively.

Marvah and Tavakoli (2004) analyzed Indonesia, Malaysia, Philippines and Thailand for 1970-1998 periods in terms of the effects of foreign direct investments and export on economic growth. They revealed that each 1% growth's 0,269% in Indonesia, 0,333% in Malaysia, 0,308% in Philippines and 0,217 in Thailand were caused by foreign direct investments.

Alfaro and Charton (2007) found that foreign direct investments had a positive effect on economic growth in their study on 29 OECD member countries for 1985-2000 periods.

Esso's study (2010) was carried out for 10 African countries. The relationship between foreign direct investment and growth was individually analyzed for countries in the frame of co-

integration and causality analyses. According to the results of the research, there are positive long-term relationships between variables, which are subjects of research, in the economies of Angola, Republic of Cote D'ivoire, Kenya, Liberia, Senegal and South Africa.

WAY TO TAXATIONAL IN SOME EUROPEAN UNION COUNTRIES

Since, a country's power of levy from its citizens is related to that country's sovereignty area, the practices related to taxation in European Union is less effective than other practices. Nevertheless, there is a need for harmony in terms of taxation in order to operate single market smoothly, even though this harmony is partial. As especially taxes levied on goods and services such as, value added tax have a direct effect on running of the market, European Union has prepared various reports on this subject and given orders. One of the important reports about indirect taxes is Neumark Report which was published in 1962 underlying taxation policies in European Union after Treaty of Rome. This report puts forward that tax differences need to be removed in order to increase welfare level in European Union. Also, it is suggested in the subject report that value added tax be accepted and various turn-over taxes (many taxes levied on consumption) be removed (European Union; 1962: 97-156). Many orders were given in order to harmonize the rates of value added taxes (VAT) until 1997; and finally, the reduced rates were defined as minimum 5% and standard rates were defined as minimum 15% which were related to VAT which will be applied in purchase and sale of goods and serviced by Union members.

In harmonizing direct taxes, the Union was not as successful as in harmonizing indirect taxes since the authorization of taxation issue of the countries stood out in direct taxes which include income tax and corporation tax. As the income tax can be used as a policy related to re-distribution of income by the state, it is hard to be harmonized. The harmonizing works for corporation tax are based on Neumark Report and Van den Tempel Report. Related harmonizing studies stated that member states had to bring new tax incentives for the taxation of their companies in the frame of the orders given by European Union commission in 1997 which were about harmful tax rivalry. However, obeying these orders was under the initiative of the states (European Union; 1997:2-14). Because of such practices, the Union members had trouble adapting to the issues such as rate and structure of corporation tax and incentives applied to investments despite the orders given in different dates.

Since the corporation tax is calculated on the basis of companies' earnings which create a vast scale of gross domestic product, it affects especially capital movements among countries directly. Hence, the Union members can use inconsistencies and gaps in the tax legislation – primarily the ones in corporation tax legislation- in European Union which is at the position of Single Market and this may result in creating differences about investments getting into countries. Recently, Luxemburg, Netherlands, Ireland and Belgium have become the examples of the countries benefitting from these gaps which have increased their GDP with the investments getting into their countries.

Netherlands and Ireland became the first of the four aforementioned countries to benefit from the gaps in the legislation in the name of attracting more investments into their countries in 2012. According to the subject issue; a company with American origin established a company in Ireland and kept the patent of the products that they sold in Ireland. The company in the USA escaped the tax to be paid in the USA by paying royalties to the company in Ireland for the sales after the product sales, and it derived profit by keeping tax rate in Ireland low for sales which concerned the USA in the first place. Thanks to the gaps in Ireland codes and its being a tax heavens country, the profits could be easily sent to America by a company executive of the

American company in Ireland. When the products were sold to another country in the world except for the USA, the second company in Ireland transferred the profit coming from other countries to its another company in Netherlands without taxation because Ireland is a European Union member. The company in Netherlands sent the profit back to the initial company in Ireland and finally it was sent to the tax heavens country. Since the company in Netherlands takes place among the two companies of Ireland, this method is called "Double Irish with a Dutch Sandwich".

In 2014, it came to light that Luxemburg made secret tax agreements with 340 big global businesses between 2002 and 2010 in order to provide transfers of profits organized in other countries to Luxemburg via low taxes. The conglomerate companies of Luxemburg which have a variety of very advantageous options for taxes have a status of being free of tax and as in the Double Irish with a Dutch Sandwich method; the investments were brought into the country via front corporations established in Luxemburg.

Another country which could attract more investments into its borders due to the gaps in the tax legislation in European Union is Belgium. Belgium's roaring taxation system was found illegal by European Union Commission in 2016. Multinational companies have been paying low taxes because of the practiced tax regulation since 2005 and this situation is disapproved by EU in terms of the EU public support legislation. It is thought that Belgium attracts more investments into its borders and derives a huge profit because Belgium applies low taxation for the global companies.

Table 1: Corporate Tax Rate (%)

GEO/TIME	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	33	33	33	33	33	33	33	33	33	33
Ireland	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
Luxembourg	22,88	22,88	22,88	22,88	22,88	21,84	21,84	22,05	22,05	22,47
Netherlands	34,5	31,5	29,6	25,5	25,5	25,5	25,5	25	25	25

Source: OECD, http://stats.oecd.org/, Arrived Time: 15.01.2016.

Table 2: Foreign Direct Investment (Euro)

GEO/TIME	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	1.018.996	1.218.577	1.345.528	1.568.862	1.594.288	1.553.267	1.559.552	1.635.153	1.563.680	1.469.751
Ireland	1.317.192	1.721.426	2.020.800	2.306.982	2.419.677	2.573.484	2.794.926	2.881.862	3.001.729	3.130.650
Luxembourg	2.475.326	3.160.277	3.681.646	4.175.231	3.958.936	4.178.229	4.719.221	5.351.012	6.128.896	6.506.674
Netherlands	1.770.552	2.129.029	2.355.539	2.603.585	2.378.732	2.343.590	2.536.137	2.737.756	2.825.416	2.685.855

Source: Eurostat, http://ec.europa.eu/eurostat/data/database, Arrived Time: 15.01.2016.

As it can be seen in Table 1 and Table 2; corporate tax rates, which directly affect three countries' investments –except for Netherlands-, either shows no change or shows a slight change between 2004 and 2013. There is a continuous increase observed in foreign direct investments getting into subject countries, especially to Luxemburg. For example, while the corporate tax rates of Luxemburg in 2004 was 22, 88%, the amount of foreign direct investment getting into the country was 2.475.326 with national currency. In the same country, while tax rate was 22, 47% in 2013, the amount of foreign direct investment getting into the country was 6.506.674 with national currency. The increase in foreign direct investments getting into country does not change the corporate tax rates in the countries mentioned above. This situation shows that the increase in coming investment amount does not depend on the rate; and this is realized through the gaps found in taxation systems of the countries. In

Netherlands, while corporate tax rate was 34, 5% in 2004, this rate decreased to 25% in 2013. The investment amount in the subject country increased to 915.303. However, what should not be forgotten is that Ireland was more active in "Double Irish with a Dutch Sandwich" event.

Nonetheless, it is a fact that these four countries in European Union attracted foreign direct investments into their countries with similar methods by abusing the gaps in the EU legislation. It is assumed that the great number of investments has the characteristics of increasing gross domestic products of the aforementioned countries and; therefore, they can increase the economic growth of these countries. Foreign direct investments and GDP data between 2004 and 2013 of the related countries have been subjected to econometric analysis in this study.

METHODOLOGY
Stationary Concept in Time Series and Unit Root Tests

Before analyzing the causal relationships among variables, the stationary degrees of the series must be determined. In the studies exercised with non-stationary time series, spurious regressions might develop. Although in spurious regressions, R2 and significant t statistics value may come into question; the parameter estimations are economically insignificant. Under this circumstance, the stationary of time series that will be used must be tested in order to avoid spurious regressions in the studies exercised with time series analysis (Ümit, 2007: 160).

$$X_t = c_o + j.X_{t-1} + ET$$

In the equation number (1), if $|j| < l$, Xt series are stationary; and if $|j| = 1$, Xt series are non-stationary. The autoregressive coefficient j's being one or smaller is appropriate for most of the economic time series. When $j > 1$, it is economically not coherent. In the autoregressive equation number (1), $j = 1$ is known as "process with stationary differences" and most of the economic time series are seen as process with stationary differences. In such a process, when $j = 1$, Xt series are said to be integrated in the first degree (Utkulu, 1993: 309). Dickey and Fuller (1987) suggested the easy and proper method of the test Xt's integration degree in the equation (1) and it is known as Dickey Fuller (DF) Test.

Although DF test is an important step in measuring integration degree, it doesn't take autocorrelation in error terms in consideration. If the error term et is with autocorrelation, DF (Dickey-Fuller) test will be void. As a solution for that situation, Dickey and Fuller suggested that lagged values of dependent variable be added to the model as explanatory variable; so that the autocorrelation will be removed. This test, which is named as Augmented Dickey-Fuller Test (ADF), is considered as the most effective test to determine the integration degree; and it is commonly used in practice (Charemza & Deadmen, 1999: 103-104).

Various methods have emerged with the aim of overcoming some deficiencies of Dickey-Fuller test. One of them is Phillips Perron (PP) test which is another alternative unit root test. Dickey and Fuller rule out the effect of structural break on autoregressive process (AR). In order to remove this problem, Perron developed his own test in 1989 and aimed to prevent DF test from accepting the wrong hypothesis which is related to breaks. Besides, the hypothesis about error terms of Dickey and Fuller, which states that they are statistically independent and they have constant variance, was expanded by Perron and also the effects of standard error of error term's being different was included in the process. For that purpose, a nonparametric unit root test is developed. As a consequence, there is not an obligation of not having autocorrelation among error terms in this test (Kır, 2011: 64).

The regression used in Phillips-Perron unit root testis as follows (Enders, 1998: 239).

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 \left(T - \frac{N}{2}\right) + \mu_t$$

In the equation number (2); "N" is the number of observation and "μ" is error term. In this test, "β_1 = 1" zero hypothesis is tested. In order to accept or reject these hypotheses, the test statistics of Phillips-Perron unit root test are compared to critical table values used for Augmented Dickey-Fuller (ADF) unit root test and zero hypotheses are either accepted or rejected. Hereunder, the series are decided to be stationary or not (Altunç, 2008: 118).

In this study, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are used in order to determine the stationarity of the series.

Causality Analysis

Granger suggests a causality analysis which is commonly used in economy literature in order to reveal the direction of causality among the analyzed variables. Granger puts forward the concepts of causality and exogeneity. Hereunder, if adding X variable's information to the model contributes to Y variable's estimation, X variable is the cause of Y. Granger causality analysis requires the estimation of the regression which is built on lagged values of each internal value and of the other value (Granger, 1969: 553-560).

In this study, Granger Causality Analysis is used in order to investigate the relationship between GDP and investments. This analysis is executed by using the following equations.

$$Y_t = \alpha_0 + \sum_{i=1}^{k1} \alpha_i Y_{t-i} + \sum_{i=1}^{k2} \beta_i X_{t-i} + u_t$$

$$X_t = X_0 + \sum_{i=1}^{k3} \chi_i X_{t-i} + \sum_{i=1}^{k4} \delta_i Y_{t-i} + v_t$$

Granger causality analysis is carried out by testing if the coefficients of the lagged values of the independent variable coming before the error term equals to zero or not. If the βi coefficients in the equation number (3) are found different from zero in a certain significance level, it is inferred that X is the cause of Y. Similarly, if δi coefficients in the equation number (4) are found different from zero in a certain significance level, Y is the cause of X. In that case, there is a mutual causality relationship between Y and X. If solely βi coefficients in the equation (3) are different from zero, there is a unidirectional causality from X to Y and if solely δi coefficients in the equation number (4) are different from zero, there is a unidirectional causality from Y to X. In case, both βi coefficients and δi coefficients are not different from zero, this means there isn't any causality relationship between these two variables. In the original Granger Causality Test, k1, K2, k3, k4 in the equations show the length of lag and ut and vt show the error terms (Işığıçok, 1994: 93).

Regression and Correlation Analysis

Regression and correlation methods are used in studying the relationship between two or more variables. The relationship between two variables is studied by simple regression analysis, and the relationship among more than two variables is studied by multiple regression analysis. Generally, the core of regression and correlation analysis is based on determining and measuring the form, the direction and the degree of the relationship between two or more variables. While the form of the relationship between variables is determined numerically in regression, the degrees of these relationships are put forward in correlation.

The linear relationship between two variables –one of them is dependent and one of them is independent variable- can be formulated as follows:

$$Y = \alpha + \beta X + \varepsilon$$

In the equation number (5), Y is dependent and X is independent variable and ε is error term. In order t decide which observation represents the dependent variable and which observation represents the independent variable, it is needed to decide which variable affects the other. This requires having information about the observations. The commonly used method in obtaining regression equation is Ordinary Least Squares Method (OLSM). The basis of OLSM is that the value Y's sum of the squares of deviations from regression axis is minimum. In that sense, OLSM regression axis defines the same thing with arithmetic mean (Çakıcı, et. al., 2003: 139-167).

The correlation coefficient is the measurement that displays degree of relationship between variables. When the value is between 0 and 1, there is a positive correlation; when the value is between 0 and -1, there is a negative correlation. If the correlation coefficient equals 0, there isn't any relationship between variables. If it equals 1 or -1, there is a complete correlation. If the correlation coefficient is between 0 and 0.49, the relationship is weak; if it is between 0.5 and 0.74, the relationship is moderate; and if it is between 0.75 and 1, the relationship is strong. The figure of correlation coefficient depends on β coefficient's figure in the regression equation. If β is positive, the correlation is also positive; if it is negative, the correlation is also negative (Akkaya and Pazarlıoğlu, 1998: 85-86).

ECONOMETRIC ANALYSIS

Data Set and Variables

In this study, the relationship between Belgium, Ireland, Luxemburg and Holland's average economic growths and their average foreign direct investments between the years 2004 and 2015 is studied with time series analysis and the numerical results that are found are evaluated. First of all, logarithms of the values are taken in order to avoid the small fluctuations that time series can show. After that, Augmented Dickey Fuller test (ADF) and Phillips Perron test (PP) are done in order to determine if the values belonging to two variables are stationary or not. Then, Granger Causality test is done to determine the causality relationship between variables and finally, Regression and Correlation Analysis is performed to identify the direction and the degree of the relationship.

In the study, how the foreign direct investments affect economic growth in Belgium, Ireland, Luxemburg and Holland between the years 2004 and 2015 is researched. For that, the average annual economic growth and average annual foreign direct investments of the four countries in the subject period are used. The variables used in the application are taken from the database of OECD (Organization for Economic Co-operation and Development) and the database of Eurostat website.

The changes of these data in time can be seen in the Figure 1. GDP used in the analysis is abbreviation for Economic Growth; and Investment is abbreviation for foreign direct investments.

Figure 1. GDP and Investment Series Graph

LOGGDP
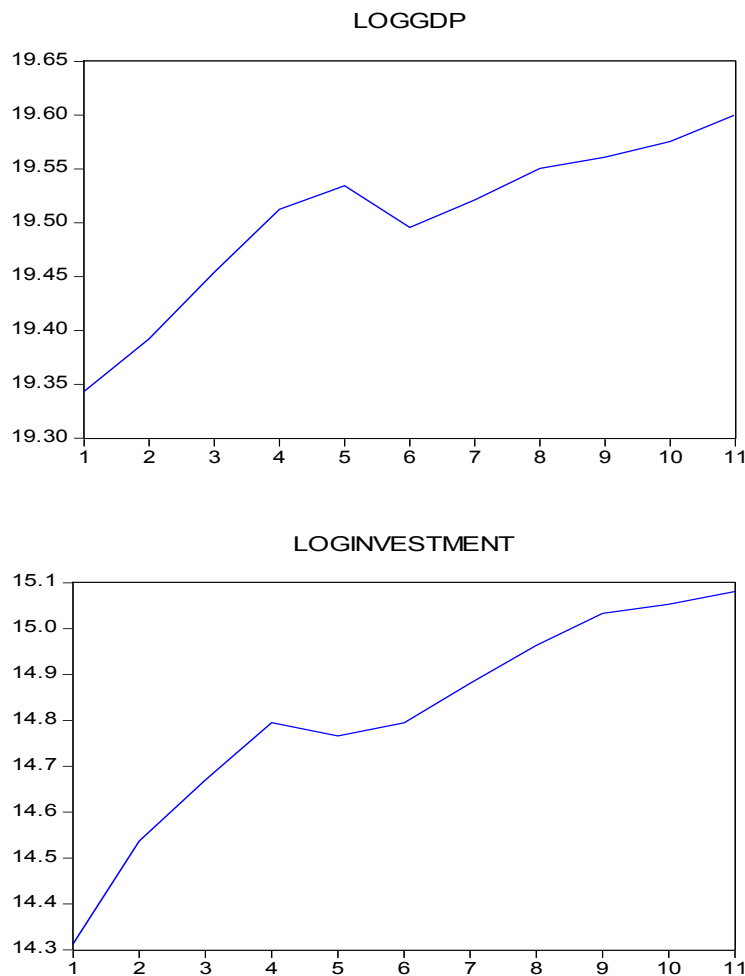
LOGINVESTMENT

When the series showing GDP and investment data between 2004 and 2015 are observed, the results are as follows: Both of the graphs follow a similar course and have an increasing course. It draws attention that GDP increases when compared to previous years except for 2009. Similarly, investments tend to increase continuously except for the slight decrease in 2008.
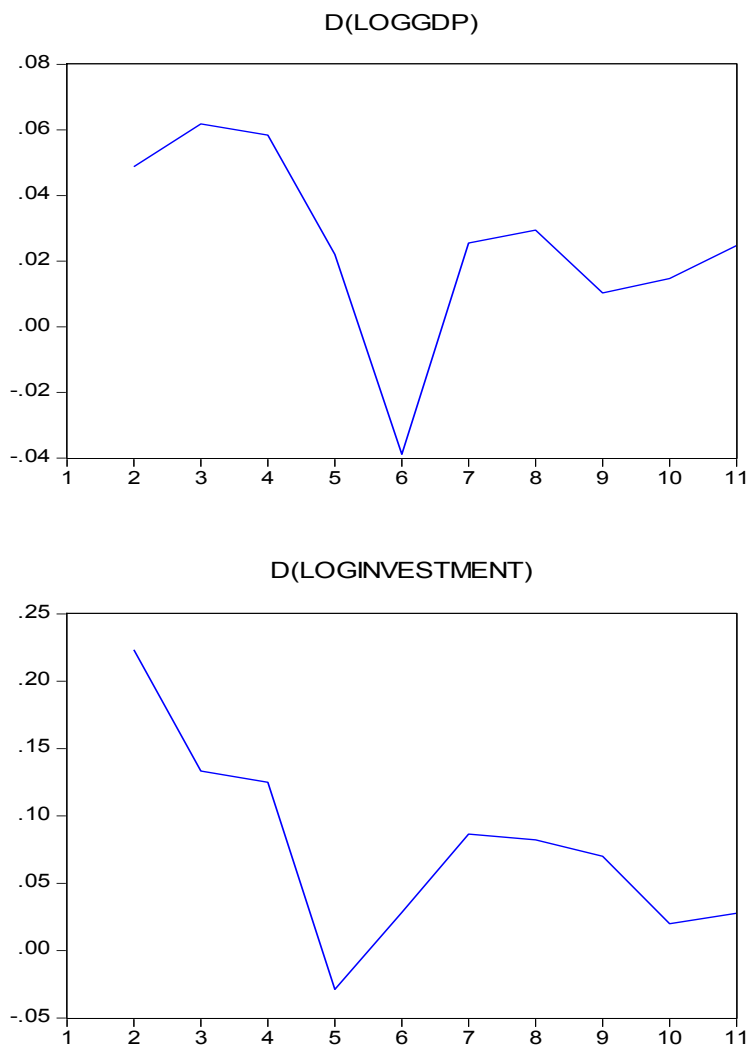
Unit Root Tests

Time series used in the model must be tested in order to see if they are stationary or not. As Granger and Newbold showed (1974), spurious regression problem can occur, in case of a study with non-stationary time series. In that case, the result obtained from regression analysis does not reflect the real relationship (Gujarati, 1999).

When the series have unit root, it means that it is non-stationary. When the fixed data of the test statistics of ADF and PP are examined; the situation for GDP and investment series are as follows: it can be seen that they are nor stationary in the level and they do not show a distribution in a certain average. When the first differences are taken, the test statistics are bigger than critical values determined by Mackinnon in terms of absolute value. As a result, it can be said that when the first differences of GDP and investment series are taken; that is, in I (1), they provide stationarity hypothesis (see. Table 1 and Table 2). The graphs of stationary series whose differences in the first degree are taken are shown in Figure 2.

Figure 2. Graph of GDP and Investment Series with Taken Differences

D(LOGGDP)

D(LOGINVESTMENT)

Table 1. ADF Unit Root Test Results

		ADF – t Statistics	
Variables	**MacKinnon Critical Values**	**Level Values**	**First Difference**
GDP	%1=- 4.2970 %5 = -3.2126	-2.4071 (0)	-5.9372 (0)***
INVEST.	%1 = -4.2970 %5 = -3.2126	-2.1456 (0)	-4.3274 (0)***
NOTE: The values in brackets give the length of lag chosen according to SCI criteria. The critical values for ADF are obtained by MacKinnon (1996). ***p<.01, **p<.05, *p<.1.			

Table 2. PP Unit Root Test Results

Variables	MacKinnon Critical Values	PP – t Statistics	
		Level Degrees	First Difference
GDP	%1= -4.2971 %5 = -3.2126 %10= -2.7477	-1.2015 (9)	-4.0254 (8)**
INVEST.	%1 = -4.3205 %5 = -3.2598 %10= -2.7711	-2.6076 (0)	-5.0723 (8)***
NOTE: The values in brackets give the length of lag chosen according to SCI criteria. The critical values for PP are obtained by MacKinnon (1996). ***p<.01, **p<.05, *p<.1.			

Granger Causality Test

Granger Causality Test is developed by Granger in order to see if a variable causes another one or not in the model, which is formed in order to estimate a variable. The causality relationship between variables is explained with this test. The length of lag in causality analysis is determined by using Akaike Information Criteria and the length of lag is taken as 2. The obtained results are presented in Table 3.

Table 3: Granger Causality Test Results

Hypothesis	F-statistics	Prospect
GDP is not the cause of investments.	3.5589	0.1394
Investments are not the cause of GDP.	8.1724	0.0387

According to the results of Granger Causality test, the Ho hypothesis stating that GDP is not the Granger cause of investments is accepted (with 0.1394). The Ho hypothesis staing that investments are not the Granger cause of GDP is rejected (with 0.0387) in 5% significance level.

Thus, there is a unidirectional relationship between GDP and investments which is from investments to GDP. As a consequence, changes occurring in investments affect GDP.

Correlation and Regression Analysis

Before starting regression analysis, the causality relationship between GDP and investments must be clarified. If there isn't any causality relationship between these two series, the results of regression analysis will not be significant in terms of economics –even if it is significant statistically.

Also, the direction of the causality must be determined in order to decide which series will be dependent variable (result) and which series will be independent variable (cause) in the model that will be formed for regression analysis. As the causality relation is from investments to GDP in the study, a regression analysis in which GDP will be result and investments are because variable can be formed.

Below, the regression analysis results between these two variables are displayed for the subject period.

Table 4. Regression Analysis Results (Dependent = GDP)

VARIABLES	COEFFICIENT
FIXED	14.6788 (3.9431)*
INVESTMENT	2.3258 (1.2962)*
R²	0.8491
DW	2.0590
F ist.(Prob.)	0.027

The numbers in brackets are t statistics. The figure * shows significance in 1% level.

In Table 4, regression analysis results are given by using equation number (5). When the regression analysis results obtained from the solution of equation number (5) are evaluated; H0: rejected, H1: accepted and coefficients are significant as the probability values of coefficients are smaller than 1%. For the total significance of the model, F probability is considered and as it is smaller than 5%; H0: rejected, and H1: accepted; and it can be inferred that model is significant. It is seen that "t" value of investments is statistically significant in a level close to 1% and the relationship is in a positive direction. Also, the determination coefficient of the model (R2) is found 0.84 which is closer to a high percentage. On the other hand, D.W (Durbin-Watson) statistic value (2.05) obtained from regression analysis indicates that there isn't any autocorrelation problem among the error terms of the model.

When the results of regression analysis are evaluated in terms of economy, it can be understood that in the four subject countries, the relationship between investment and GDP is in a positive direction. The figure of investment coefficient's being positive proves that. 1% increase in the investments in the subject countries for 2004-2015 period is expected to make a 2.32% increase in GDP. Also, when the investment is fixed, GDP is expected to be 14.67.

The positive relationship between variables obtained from regression analysis can also be seen in Correlation Analysis (see. Table 5). Correlation analysis is carried out with the aim of determining the direction and the strength of the relationship between two variables. Correlation coefficient takes readings between -1 and +1.

Table 5. Correlation Analysis Results

Variables	GDP	INVESTMENT
GDP	1.000000	0.794249
INVESTMENT	0.794249	1.000000

When the data in Table 5 are evaluated, it can be said that the correlation between investments and GDP is positive (0.79) and there is a strong relationship.

CONCLUSION

The European countries consisting European Union confederation have tended towards practices that serve their own interests by violating rules of European Union in time in order to strengthen their economies. These tendencies enabled European Union countries to have economic growth by attracting foreign investments into their countries in the globalizing world especially in 2000s. Ireland and Netherlands transferred the sales made by companies, which were big global non-EU of origin businesses, to the front companies in their countries by using the advantages of being member of European Union. While Luxemburg made big taxational concessions to great foreign businesses for foreign investments, Belgium deliberately applied a taxation system which generated huge profits.

While the tax rates of some of the aforementioned three countries except for Netherlands did not change between 2004 and 2013, some of them showed a slight change. Nevertheless, a continuous increase in foreign investments can be seen. Especially, there is a clear increase in foreign investments of Luxemburg. While the subject country's corporate tax rates ranged around 22%, the foreign investments showed increase with the following amounts; 2.475.326 in 2004, 4.178.229 in 2009 and 6.506.674 in 2013. As it can be seen from the indicators, assumed hypothesis fits to the taxational concessional system of Luxemburg.

Ireland and Netherlands used aforementioned Double Ireland Sandwich Holland system. In this system, even if the foreign company sells inside or outside the country, the front companies in Ireland are used. In fact, the front companies in Netherlands are only used when the foreign company sells outside the country. It is obvious that the effective country in this system is Ireland. Therefore, while the corporate tax rates of Ireland remained in 12,5% level over the years, the corporate tax rate of Netherlands which was 34,5% in 2004 became 25% in 2013. Ireland got ahead of Netherlands in the amount of foreign investment increase that came into the subject countries. Whereas 1.317.192 Euro came in Ireland and 1.770.552 Euro came in Netherlands in 2004, 3.130.650 Euro came in Ireland and only 2.685.855 came in Netherlands in 2013. Also, tax rate of Belgium remained in the same level in the subject years and the investment amount coming in the country followed the same level of course despite the changing conditions of the world.

In this study, the relationship between average GDP and average foreign direct investment of Belgium, Ireland, Luxemburg and Netherlands has been searched with time series analysis by using 2004-2013 period annual data. A unidirectional causality relationship from investments to GDP has been found with Granger causality analysis. The Regression analysis has shown that foreign direct investments affect GDP positively. Also, it is found for 2004-2013 period that a 1% increase in foreign direct investments creates approximately a 2, 3% increase in GDP in these four countries.

As a result of the findings that are obtained from the analysis, it is understood that Ireland, Netherlands, Luxemburg and Belgium made use of gaps in legislations both in their own countries and in European Union while attracting foreign investments into their countries in order to achieve economic growth. This situation is against the Single Market strategy of European Union. Today, the actions of the subject countries have already been ascertained by European Commission. However, some of the subject countries are hanging back about this issue. As a result, the unwilling countries have to be persuaded about this issue, we think that it can only be achieved through enforcements.

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