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AN ANALYSIS OF THE EVOLUTION OF ALBANIAN - GREEK TRADE FLOWS

ANALIZA EWOLUCJI PRZEPŁYWÓW HANDLOWYCH MIĘDZY ALBANIĄ A GRECJĄ

Abstract

The aim of this study is to realize an analysis of the trade relations between Albania and Greece. Through the study, researchers want to show how trade relations between these countries have changed during the years, and also want to reveal some of the things that dominate these relations. Part of the study will also be the analysis that will help understand the relationship between the trade flows and the Greek GDP. Also, it will be possible to see if these trade flows have experienced any shock during the period taken into consideration. The analysis will be realized by using an econometric linear model, and to discover if there has been any shock, the Error Correcting Model will be used. The study proved that Greece is one of the main trade partners of Albania. The volume of the trade flows with Greece represents an important part of the overall trade flows of Albania. Based on the dates analyzed the study revealed that imports composition has changed more in comparison with the exports. The study also revealed that there has been a shock in the trade flows during the period taken into consideration.
Keywords: imports, exports, the balance of trade, structural change, trade flows, trade partner

Streszczenie

Celem tego badania było przeprowadzenie analizy stosunków handlowych między Albanią a Grecją. Poprzez badanie ukazano jak zmieniły się stosunki handlowe między tymi krajami na przestrzeni lat, a także ujawniono niektóre aspekty dominujące w tych relacjach. Częścią badania była również analiza, która pomogła odkryć związek między przepływami handlowymi a greckim PKB, oraz zobaczyć czy te przepływy handlowe doświadczyły jakiegokolwiek szoku w rozpatrywanym okresie. Analiza została zrealizowana za pomocą eko-nometrycznego modelu liniowego i aby odkryć, czy nastąpił jakikolwiek szok, użyto modelu korekty błędów. Badanie wykazało, że Grecja jest jednym z głównych partnerów handlowych Albanii. Wielkość obrotów handlowych z Grecją stanowi ważną część ogólnych przepływów handlowych Albanii. Na podstawie analizowanych dat badanie ujawniło, że skład importu zmienił się bardziej w porównaniu z eksportem. Badanie ujawniło również, że w rozpatrywanym okresie nastąpił szok w przepływach handlowych.
Słowa kluczowe: import, eksport, bilans handlowy, zmiany strukturalne, przepływy handlowe, partner handlowy

Statement of the problem in general outlook and its connection with important scientific and practical tasks.

On the last two decades, the Albanian economy has experienced fundamental changes, which has affected significantly the country's economy. Before 1990, the Albanian economy functioned as a totally centralized economic system, where every aspect of the country was realized by the state and the principle of the opened trade economy did not exist. The few companies that operated in the country were not able to understand really the necessities of the Albanian trade. This lack of communication and understanding slowly resulted in a deterioration of the country's economy and finally resulted in the collapse of the communism and the start of a new democratic era of the country. In the period that passed the collapse of the communism in '90 years, Albania entered in a transition phase, which was accompanied by a range of social and economic changes (ITC 2003).

Albania has the advantage of a favorable geographic position, profiting in this way from two of the most important trade partners: Greece and Italy, which have two great economies and that are at the same time neighbor countries. Albania possesses also reach natural sources.

All these advantages make Albania a very attractive trade for foreign investors or national companies. The first years of the transition faced Albanian economy with challenges and potential changes. Like any other sector of the economy, also the sector of the foreign trade was subject of deep and intensive liberating changes, processes that at the same time brought out the need of undertaking efficient policies and reforms in the foreign trade (ACIT 2008).

From 1994, the developments in the foreign trade of Albania, have been in general characterized by increasing trade flows. This

fact shows the opening and intensification of the trade exchanges of the Albanian trade and economy towards the world economies and trades.

The rate of increase of the trade flows has been sometimes not regular, reflecting in this way the main developments in the Albanian economy, and also the influence of the different national and international factors. Even though the exports contribute to the trade flows have increased, they still remain far from the value of the imports. The influence of the exports in the trade volume remains still low (ITC 2003).

What has characterized the developments in foreign trade has been the continuous deficit in the balance of trade. The foreign trade in Albania, after the transition period, has been characterized by fundamental changes.

What needs to be emphasized is that these changes have been reflected also in the composition and implementation of new trade policies, policies that have given their effects in the real indicators of the foreign trade. This was a summary of some facts regarding the overall foreign trade of Albania. In the other part of the study, we will discover some of the main developments in the trade relationship between Greece and Albania (ACIT 2012).

Analysis of latest research where the solution of the problem was initiated.

Regarding the international trade and balance of trade have been conducted many research papers that have had in focus on different elements. Some of them are focused on the analysis of the factors that may have affected the changes in trade flows, the factors that have had a positive or negative change in the international trade, or trade flows, and other issues.

Since our study is focused on the analysis of the evolution of foreign trade between Greece and Albania, our work is based more on the secondary data collected from different institutions of both countries.

There are no specific previous articles with the focus in the evolution of the foreign trade flows between Albania and Greece during years. The lack of previous articles with this focus was the reason why the idea to conduct this study appeared, with the aim to bring a useful analysis for later research work or for the public interested in this.

Greece and Albania are two countries that have an early story, and by taking into consideration that Greece is one of the countries with the greatest number of Albanian emigrants, many authors have realized different research papers with the focus of these countries relations. The part of them is focused on the analysis of emigration's issues and other issues since they are two neighbor countries, and also other topics (ACIT 2008-2014).

Regarding the trade flows analysis of course that they have been subject to different discussions, but there is not any specific research paper with the focus that we have chosen to analyze. Since these are two neighbor countries, and Greece is one of the countries with the greatest number of Albanian emigrants, of course, that there are many issues to be discussed for them.

We will try to analyze the trade flows between the two countries, in order to see their evolution and their tendency, and hope to give a modest contribution with the results of this study, which may serve as a base of later researches in this field.

Aims of paper. Methods

This study aims to realize an analysis of the trade relationship between Albania and Greece. It is based on secondary data collected from some national and international institutions, like INSTAT, Bank of Albania, Bank of Greece, Hellenic Statistics Authority, etc.

One of the aims of the study is to realize an analysis of the evolution of trade flows between Albania and Greece and to see if there has been a shock due to the financial crises of 2009. To realize this an econometric model was used to show the relation that exists between the level of trade flows and the level of GDP. Then, an analysis was conducted to see if these flows have been affected by the financial crisis of 2009 (to see if there has been any shock).

The least squares method was used to reach the econometric model that shows the relationship between trade flows and GDP. To see if there have been structural changes due to the financial crises of 2009, the Kojk model was used. Some of the objectives of the study are:

- ✓ To discover the strength of the trade relationship between Albania and Greece
- ✓ To see the evolution of trade flows during the period taken into consideration
- ✓ To analyze the composition of the trade flows between the two countries and to see how it has changed during the years
- ✓ To construct a model to see the relationship that exists between trade flows and GDP
- ✓ To discover if there have been any structural change on the trade flows after the financial crises of 2009

Exposition of main material of research with complete substantiation of obtained scientific results. Discussion.

### The analysis of trade relations during the years

In this part of the study, an analysis of trade relations between Greece and Albania during the years will be held. Through this author want to discover how this relationship has changed and also to find out any important fact that has characterized them.

Albanian imports from Greece

The below figure shows the value of the products imported from Greece during the period 1993-2016. As can be seen, from the figure from 1993 imports from Greece have changed. There is a tendency to increase from 1993 till 2001 from 10.42 milliard ALL imports have reached 48.95 milliards ALL in 2001.

2002 and the following years till 2005 imports have decreased. For the following years, until 2009 imports have experienced an increase, 2009 represents another "breaking point". The value of imported goods and services from Greece has reached the highest value in 2009, with 66.6 milliards ALL, and have decreased after this year. This is as a result of the financial crises of 2009 (ACIT 2014). In the period 2015-2018, they have experienced an improvement, which means that 2015 is a "turning point" from the deterioration period, during which the imports have been affected by the financial crises.

Figure 1. Albanian imports from Greece during 1993-2018.
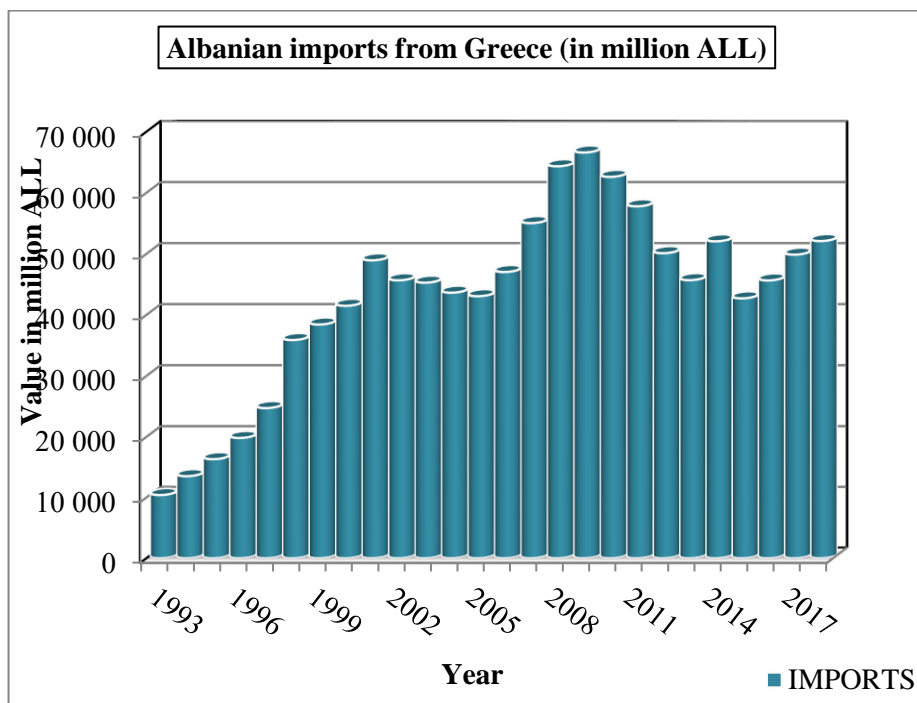
Source: INSTAT

The evolution of the import's composition
Figure number 2 shows the composition of the Albanian imports from Greece during the years 2005-2018. The group of the products that have had the highest weight in the import's volume from Greece until 2010 has been one of the minerals, electrical energy, and fuels. (ACIT 2012-2014). Import flows of these products have reached their highest value in 2008, 26.5 milliard ALL (Albanian lek).

There is a positive tendency from 2005 to 2009 (which may reflect the effects of the financial crises of 2009) and then a negative tendency (INSTAT 2014). 2014 represents a year in which the import flows of this group have increased significantly compared with 2012 and 2013, but the value of

2015 shows that there is again a decrease in the import flows of this group.

The second most important group of imported goods from Greece is one of the food, drinks, and tobacco. Import flows related to the products of this group have been more sustainable than the flows of the group that we have treated above. The highest value of the imported goods of this group has been in 2018 with 15 milliards ALL, while the lowest value has been in 2015 with 8.9 milliards ALL. These groups, together with the first one are the groups that have been more affected negatively in 2015.

The third most important group is the group of construction materials and metals. In 2005 and 2006 the import flows for these

products have been not significant but starting from 2008 the weight that they take in the imported flows has increased (ACIT 2010). This positive tendency has continued till 2011 when the imported flows of these products have reached their highest value, 14.4 milliards ALL.

While for the following years till 2016 import flows of these products have been characterized by a negative tendency. What we can see from the figure is also related to the sustainability of the import flows of the other groups, in exception of the group of other goods, whose flows have increased significantly in 2015.
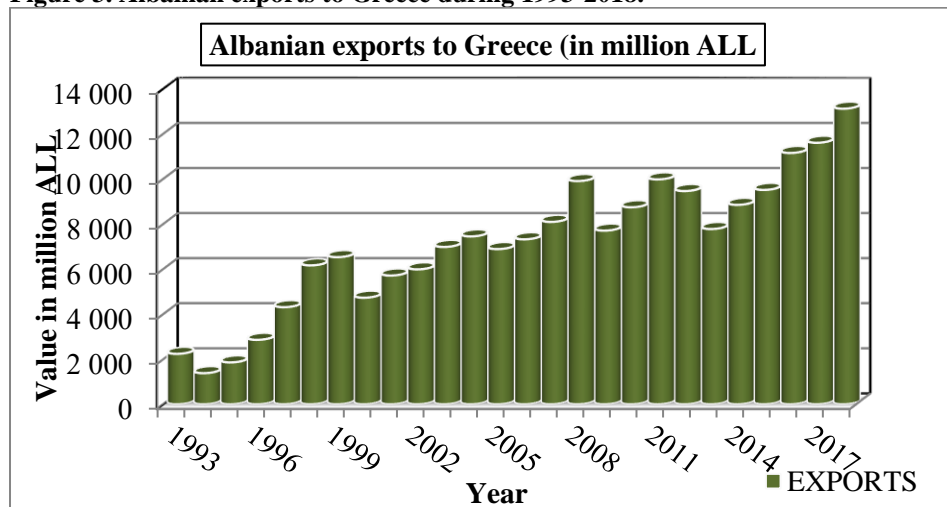
Figure 2. The composition of Albanian exports from Greece during 2005-2018.
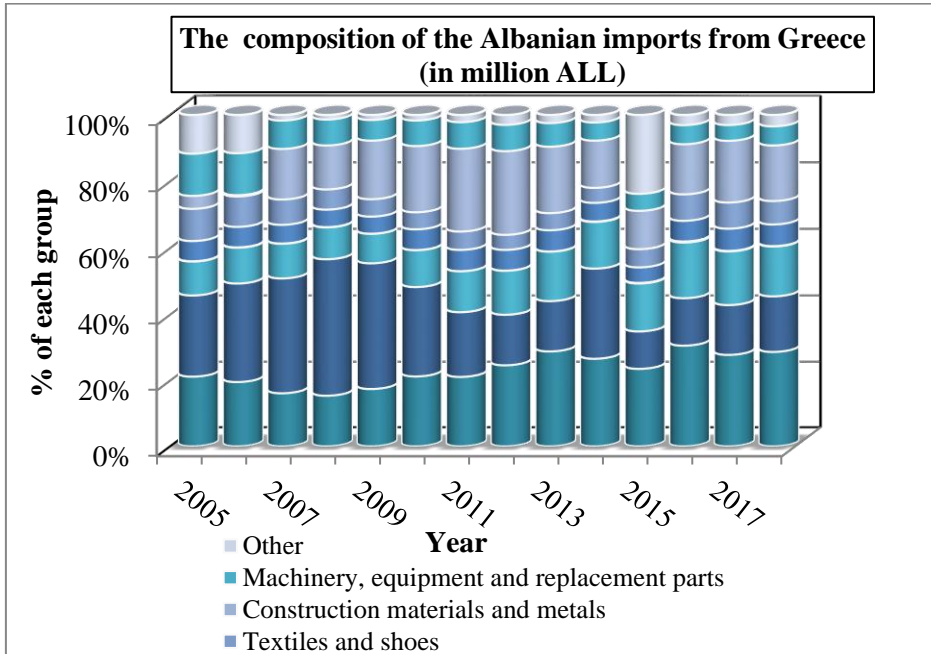
Source: INSTAT

Albanian exports to Greece

Figure 3. Albanian exports to Greece during 1993-2018.

Source: INSTAT

Figure number 3 represents the evolution of the volume of goods and services exported in Greece for the 1993-2018 years. Based on the results represented in the below figure, there is a positive tendency in the volume of goods and services exported to Greece. The lowest value of the exports is one of 1994 with 1.38 milliard ALL (Albanian lek) and the highest value is one of 2018 with 13.12 milliard ALL. If we compare the evolution of the imports and compare them with the exports, we see a difference in their tendency. The volume of the goods and services exported in Greece has, in general, a positive tendency, but there are also periods in which exports have decreased. Different from the imports exports has decreased for certain periods, but this has not lasted for a long period (only for a year), and then they have continued their positive change.

The evolution of the export's composition
Figure number 4 shows the composition of Albanian exports to Greece has changed during 2005-2018. What can be distinguished from the figure is that the group that makes the most part of the Albanian export flows is one of textiles and shoes.
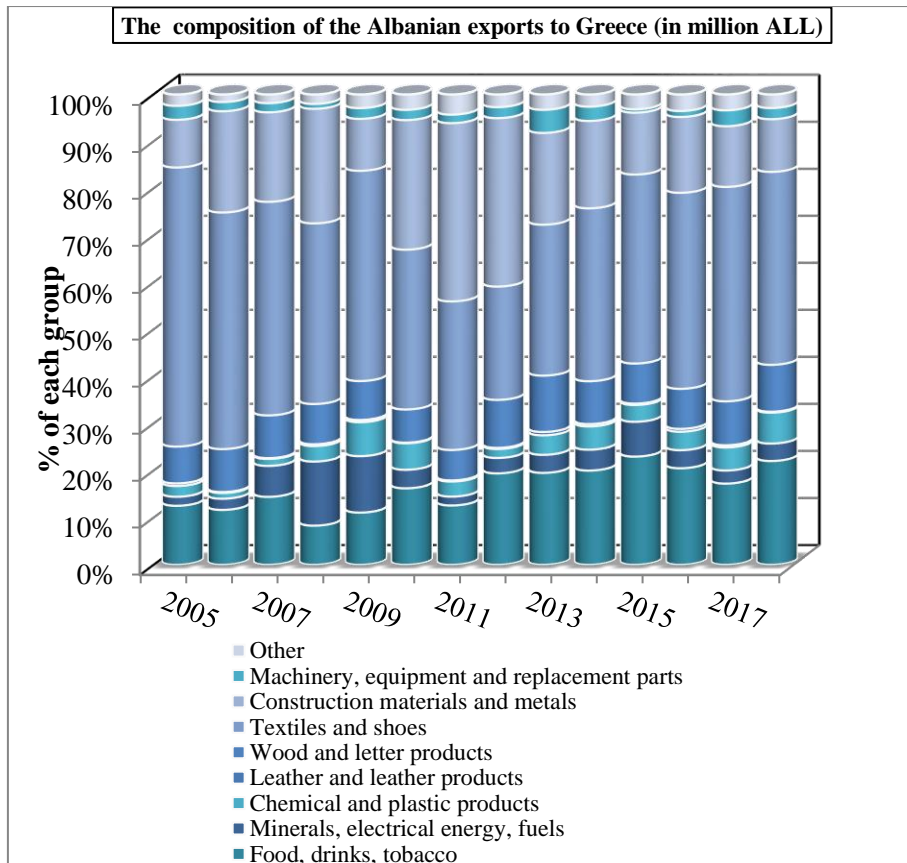
The flows of exported goods of this group have been characterized by the fluctuation during the period taken into consideration. The lowest value of the exported good of this group has been in 2010 with 2.97 milliards ALL, and the highest value has been reached in 2018 with 5.4 milliards ALL.

The second most important group of the exported goods in Greece is the group of construction materials and metals. What has characterized the exports of the goods of this group is the instability of these flows during the 2005-2016 years. There are years in which these flows have decreased and there are also years in which these flows have increased. The weight of the export flows of this group is lower compared with the first group treated above. The lowest value of the export flows of this group have been in 2005 with 0.7 milliards ALL,

and the highest value in 2011 with 3.4 milliards ALL.

The third most important group regarding its importance in the total exported flows is the group of food, drink, and tobacco (ACIT 2014). The lowest value of the export flows of these products have been in 2009 with 0.83 milliards ALL, and the highest value in 2018 with 2.9 milliards ALL. About the products of the other groups, their weight comparing with the groups treated above is not too significant and has not experienced any important change during this period.

Figure 4. The composition of Albanian exports from Greece during 2005-2016.

The composition of the Albanian exports to Greece (in million ALL)

- Other
- Machinery, equipment and replacement parts
- Construction materials and metals
- Textiles and shoes
- Wood and letter products
- Leather and leather products
- Chemical and plastic products
- Minerals, electrical energy, fuels
- Food, drinks, tobacco

Source: INSTAT

The balance of trade of Albania with Greece

In the part above the imports and exports flows between Albania and Greece has been analyzed, and their evolution during the period was taken into consideration. Figure number 5 shows the weights that the balance of trade of Albania with Greece has in comparison to the overall balance of trade of Albania. From these dates, the tendency of the importance that the balance of

trade with Greece has had in the overall balance of trade can be seen.

Years from 1994 till 2002 represent a period in which the importance of the balance of trade with Greece has been high, the trade flows of Albania with Greece has been more than 20%, what shows that Greece has been one of the main trade partners of Albania. 1996 represents a year in which the weights that the balance of trade of Albania with Greece decreased. Even though the deficit of the balance of trade with Greece has increased in comparison with 1995, these may have been a result of a higher increase in the total deficit of the balance of trade (ACIT 2012).

This means that the percentage of the increase in the overall balance of trade has been higher than the percentage of increase in the balance of trade with Greece. The highest percentage has been in 1995, 1998 and 2000, which means that Greece has been a very important trade partner for Albania. It still remains an important trade partner, but the weight that trade flows with this country has in Albanian balance of trade has decreased in a continuous way after 2000. 2018 represents a year in which this weight has reached its lowest value, with 6%, which is significantly lower than the highest value of 31% that has been reached in the above mentioned years.

Figure 5. The percentage of the balance of trade with Greece in the overall balance of trade of Albania.
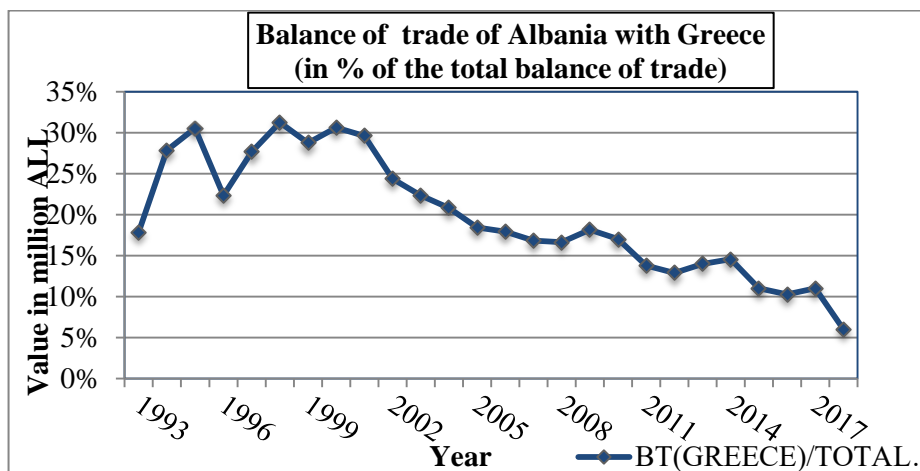
Source: INSTAT

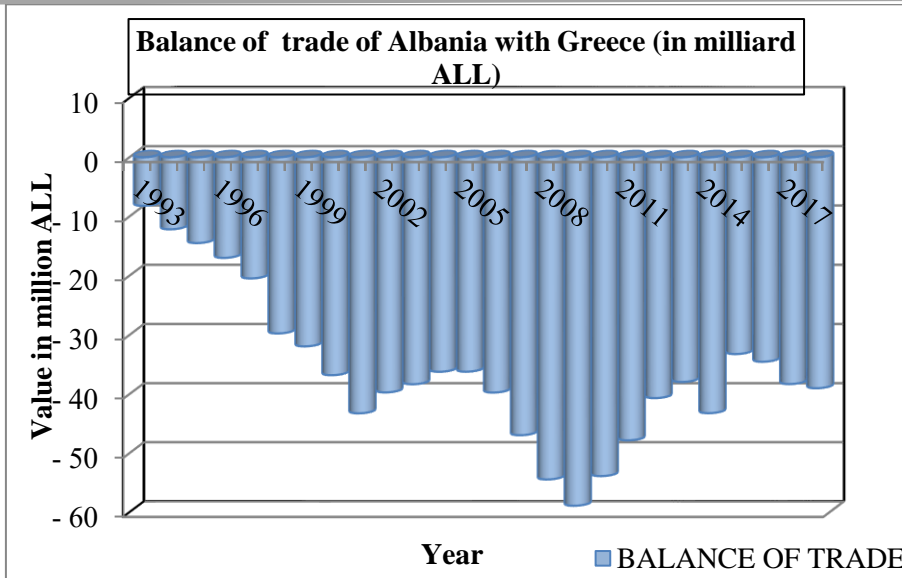**Figure 6. Albanian balance of trade with Greece during 1993-2018.**

Source: INSTAT

Figure 6 represents the evolution of the balance of trade between these two countries. As the figure shows what dominates is the negative balance of trade during the whole period analyzed. This is also related to the total balance of trade of Albania. Albania is a net importer country, that it is a country with domination of the imported goods comparing with the exported goods. The volumes of imports are significantly higher than the volumes of exported goods. This is also reflected in the balance of trade between Albania and Greece. As we can see on figure 6, the highest value of the balance of trade (the deficit) has been in 1993 with 8 milliards ALL, and the lowest value of the balance of trade deficit has been reached in 2009 with 59 milliards ALL.

Trade Flow Analysis.

This part of the study is focused on analyzing the relationship that exists between trade flows and GDP, and also to see if the financial crisis of 2009 has had an impact in the evolution of these flows. The figure below shows the evolution of trade flows between Albania and Greece during the years 1993-2016. These flows have had a positive tendency from 1993 to 2001. For the following years till 2005 they have not experienced any significant change. After 2005 they have been increasing again and the highest value of them has been reached in 2009 with 74 milliards ALL. The figure also shows that trade flows after 2009 have decreased. This may show the effects of the financial crises of 2009. 2014 and 2016-2018 are years in which the trade flows between Albania and Greece have increased in comparison with the previous years.

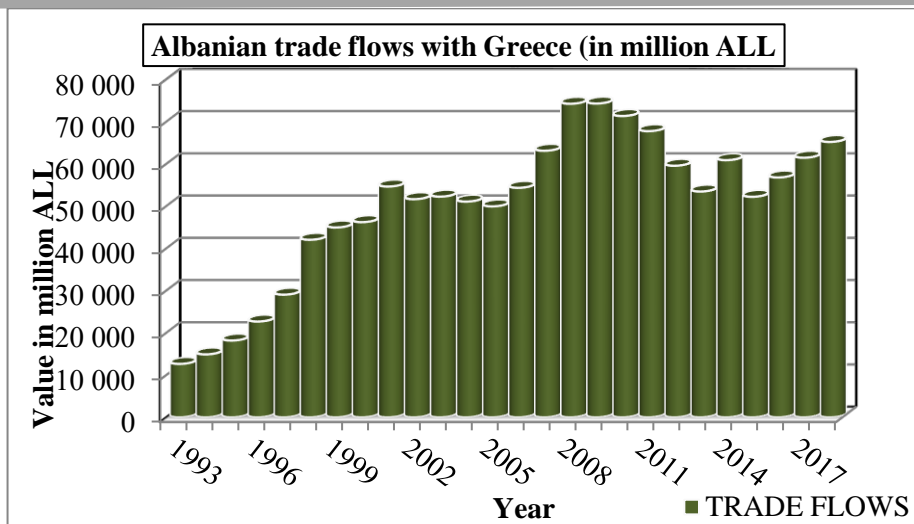**Figure 7. Albanian balance of trade with Greece during 1993-2018.**

Albanian trade flows with Greece (in million ALL

Source: INSTAT

After seeing which the evolution of the trade flows between years is, an econometric model will construct to see the relationship that exists between the level of trade flows and the level of Greek GDP. To realize that a linear model and the least squares method will be used. The dates were taken from the national and international institutions and include the annual data for the period 1993-2018. Trade flows are in ALL (Albanian currency) and Greek GDP in Euro. All the dates are processed by using EViews program. The results of the model constructed are shown in the below table.

The linear model that shows the relationship that exists between the level of trade flows and the Greek GDP is the one below:

$$Y = 6920.78 + 199.35*GDP$$

The results showed in table 1 show that there exists an important relationship between the level of trade flows and the level of Greek GDP. We can see this from the value of F-statistic, which is 0, lower than the importance level α=5%.

The exogenous factor (GDP), is also important, because the probability of t-statistic is also 0, lower than 5%. The percentage of the R^2 means that 69% of the variation of the endogenous variable (Trade Flows) is explained by the variation of GDP. The 31% rested is explained by other factors that are not included in the study. The value 199.35 shows that when the Greek GDP increases with 1 Euro the trade flows between Greece and Albania increase with 199.35 ALL (Albanian Lek). The + before GDP means that the level of trade flows is related positively with the level of GDP (if Greek GDP increases the level of trade flows will also increase).

Table 1. The results of the econometric model about the relationship between TF and GDP.

The relationship between Trade Flows and GDP				
Dependent Variable: TF				
Method: Least Squares				
Sample: 1993-2018				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6920.78	6435.63	1.08	0.29
GDP	199.35	28.89	6.90	0.00
R-squared	0.69	Mean dependent var		48772.52
Adjusted R-squared	0.68	S.D. dependent var		18205.32
S.E. of regression	10309.59	Akaike info criterion		21.40
Sum squared resid	$2230*10^7$	Schwarz criterion		21.50
Log likelihood	-244.13	F-statistic		47.60
Durbin-Watson stat	0.29	Prob(F-statistic)		0.00

Source: Calculations with EViews

Table 2. The results Error Correcting Model.

THE ERROR CORRECTION MODEL				
Dependent Variable: D(Y)				
Method: Least Squares				
Sample(adjusted): 1994 2018				
Included observations: 25 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1295.81	1038.11	1.25	0.23
D(GDP)	112.30	41.23	2.72	0.01
E(-1)	-0.22	0.10	-2.10	0.0498
R-squared	0.41	Mean dependent var		1798.68
Adjusted R-squared	0.35	S.D. dependent var		5952.98
S.E. of regression	4810.33	Akaike info criterion		19.92
Sum squared resid	$44*10^7$	Schwarz criterion		20.07
Log likelihood	-216.13	F-statistic		6.58
Durbin-Watson stat	1.36	Prob(F-statistic)		0.01

Source: Calculations with EViews

To see if there has been any shock in the trade flows due to the financial crises of 2009, the Error Correcting Model has been used. The results are shown in table number 2. E(-1) represents the error of the model that was treated above.

This variable is important (4.98<5%), what means that has been a shock in the trade flows, the value 22% means that the shock

has been recuperated with 22% in the next period.

Conclusions

At the end of this study, there is a need to summarize some of the main conclusion in which this study reached.

Greece has been and is one of the most important trade partners of Albania. This is shown from the volumes of trade flows between the two countries. The percentage of the balance of trade with Greece in comparison with the overall balance of trade shows also the strength of the trade partnership between the two countries.

Regarding to the structure of the exports to Greece, this structure has experienced some changes, but not very significant. The products that dominate the Albanian exports to Greece remain: textiles, shoes, construction materials and metals.

Regarding the structure of imported goods from Greece, it has been dominated by these products: minerals, electrical energy, fuels, food, drinks, and tobacco. In comparison with the composition of the exports, imports composition have experienced more significant changes during the period analyzed (ACIT 2008-2014).

There exists an important relationship between the level of trade flows between Greece and Albania and Greek GDP. The influence of Greek GDP is trade flows is in two directions:

The first impact is direct. If the Greek GDP increases this influences in the increase of the imported goods from Albania, so Albanian exported flows increase. But taking into consideration the fact that Albania is a net exporting country, this impact is lower than the second one.

The second impact is related to the fact that Greece is one of the countries with the greatest number of Albanian emigrants. This means that the level of development of Greece has a great impact in the Albanian economy. This impact is higher in comparison with the first one because the volume of the imported goods for Albania is significantly higher than the volume of the goods exported (ACIT 2012).

The econometric analysis revealed that there has been a shock regarding the relationship between the trade flows and Greek GDP, but this has been recuperated in the next year. Greece has been and remains one of the main trade partners for Albania.

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