The Impact of Inflation on External Trade Balance of European Countries and Kosovo

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ABSTRACT

Purpose: *The purpose of this paper is to analyze the impact of inflation on the external balance of European countries and Kosovo, namely to explain the relationship between the dependent variable, the External Balance in Goods and Services (EBGS), and the independent variables, Inflation (INF), Net Trade in Goods and Services (NTGS) and Current Account Balance (CAB).*

Design/Methodology/Approach: *Quantitative research methods have been applied in this paper. The secondary data were obtained from the World Bank database - "World Development Indicators" and were subjected to linear trend analysis in Microsoft Excel, as well as linear regression analysis in SPSS. The analysis includes 40 European countries and a period of 12 years (2010-2021)*

Findings: *The results have shown that the increase in inflation affects the increase in the external balance of goods and services of European countries, while the increase in inflation affects the negative increase in the external balance of goods and services of Kosovo.*

Practical Implications: *The research conducted made clear the relationship between EBGS and INF. The results obtained are supported by various analyzes and reports which give even more value to the findings of this study.*

Originality/Value: *All information and data used for research purposes are cited and all analyzes are original and performed by the author in order to test the authenticity of the research models and validate the raised hypotheses.*

Key words: *international trade, inflation, globalization, external balance, Europe, Kosovo.*

JEL Code: *F1, F2, F4, F6, F62.*

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List of abbreviations

CAB - Current Account Balance

CBK - Central Bank of the Republic of Kosovo

CPI - Consumer Price Index

CSF - Creative Solutions Division

EBGS - External Balance on Goods and Services

EU - European Union

GDP - Gross Domestic Product

IMF - International Monetary Fund

INF - Inflation

KAS - Statistics Agency of Kosovo

NTGS - Net Trade in Goods and Services

SPSS - Statistical Package for the Social Sciences

1. INTRODUCTION

The purpose of this paper is to analyze the relationship between inflation and the external trade balance of European countries and Kosovo. The global environment is now fragile with storm clouds on the horizon as inflation is now at its highest levels in decades and widespread across countries. Likewise, the economic outlook continues to deteriorate in many countries (IMF, 2022). According to Roslan (2013) inflation occurs when too much money follows too few goods. Basically, inflation is defined as the rising level of the general price of goods and services in a country's economy (Roslan, 2013). As for international trade, Roslan (2013) states that international trade is the exchange of goods and services between countries.

Nowadays, globalization is enabling consumers to be offered more variety, higher quality or lower prices. Industries have expanded to distant places to gain supplies and markets. As consumers, we know from "Made in" labels that we usually buy products from around the world (Daniels et al., 2019).

Since the end of World War II, world trade has grown much faster than world output. One way to show this is to estimate the ratio of exports from all countries to total output from all countries. In 1950, total world exports, which were the same as world imports, were estimated to be 5.5% of world gross domestic product (GDP). Sixty-three (63) years later, namely in 2013, they accounted for approximately 30% of world GDP, almost six (6) times more important compared to the size of the world economy (Gerber, 2018).

Research Questions:

1. How is the impact of the increase in inflation on the external balance of goods and services of European countries explained?

2. What impact does the increase in inflation have on the external balance of goods and services of Kosovo?

2. LITERATURE REVIEW

2.1. Overview of the concept of inflation and international trade

Inflation is a macroeconomic phenomenon and in standard models the inflation rate of consumer prices is seen as a variable that all households face (Colavecchio et al., 2011). Inflation represents an increase in the general price level (McConnell et al., 2014) of a national economy, measured either at the retail or wholesale level (Houch, 1979). When inflation occurs, each dollar ($) of income can buy fewer goods and services than before. So inflation reduces the purchasing power of money (McConnell et al., 2014). The annual rate of change in the price level, usually expressed in index numbers, represents the rate of inflation (Houch, 1979). Empirical measures of inflation are therefore based on a price index (usually the consumer price index, CPI) which measures inflation for a "representative" consumer (Hobijn & David, 2005; Colavecchio et al., 2011).

During the last decade there has been a growing interest in the concept of "global inflation" (Kabukçuoğlu & Martínez-García, 2018). This is because today much attention and importance is being paid to globalization itself, as a process of expanding and deepening interdependent

relationships between people from different nations (Daniels et al., 2019). In a globalized world, inflation is becoming less responsive to domestic economic conditions and instead is increasingly determined by global factors (Kabukçuoğlu & Martínez-García, 2018). However, inflation does not mean that all prices increase. Even during periods of rapid inflation, some prices may be relatively constant and others may even fall (McConnell et al., 2014).

According to Dexter et al. (2015), in a closed economic environment, it is generally believed that inflationary pressures increase and this occurs as a result of increased excess demand in the economy. On the other hand, countries with open economic systems cannot avoid the flow of international trade (Ilmas et al., 2022). In this regard, Daniels et al. (2019) state that globalization sometimes refers to the elimination of barriers to the international movement of goods, services, capital, technology and people that affect the integration of world economies.

Badinger (2009) in his paper quotes Ball (2006) who says that "*globalization is defined as trade and financial openness, the two main channels through which, according to current theories, it may have influenced inflation. While the increase in openness to trade has been a gradual process, a more recent phenomenon is the marked increase in international capital flows*" (p. 888). International trade is a form of economic cooperation between two or more countries that provides direct benefits. This form of cooperation between countries can be in the form of export or import activities. Countries that carry out economic cooperation will directly increase the use of goods and services (Ilmas et al, 2022).

2.2. The effects of inflation on the economy

Inflation in turn has multiple effects on the economy (Mankiw, 2019). According to Milton Friedman "Inflation is always and everywhere a monetary phenomenon" (Mankiw, 2019). When the inflation rate becomes high, inflation also tends to become more volatile. As a result, workers and firms are reluctant to enter into employment contracts that set nominal wages for a long period of time. If inflation turns out to be higher than expected, real wages may fall and workers will suffer a large reduction in their standard of living (Blanchard, 2017). With higher inflation rates, relative prices become more out of line (Williamson, 2018). To calculate the inflation rate, a price index is used which measures the general level of prices in relation to a base year. The inflation rate is then calculated as the percentage change in the price index over a given period (Froyen, 2013).

When the inflation rate is high this will result in the prices of goods and services produced by a country, where the prices of these goods and services will increase, resulting in lower exports and lower competition. Inflation may cause imports to grow faster, but on the contrary, export developments will grow slowly. If a country experiences inflation, the number of goods produced by that country will not be able to compete in the international market (Ilmas et al., 2022). To summarize in one sentence, high inflation rates cause significant disruptions in economic activity (Williamson, 2018).

3. RESEARCH METHODOLOGY

The methodology of this research is based on the theoretical and empirical component in order to achieve the goal of the research. The theoretical component is based on the review of theoretical sources of information, including books, scientific articles, reports of various world and local institutions and organizations, relevant Internet sources and the like. The empirical component, on the other hand, is based on secondary data provided by the World Bank "World Development Indicators" database. 40 European countries are included in the analysis, namely: Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovenia, Spain, Sweden, Switzerland, Ukraine and United Kingdom. Data was missing for countries such as: Andorra, Faroe Islands, Gibraltar, Isle of Man, Liechtenstein, Monaco and San Marino. While countries such as: Slovakia, Holy See (Vatican City), Aland Islands and Jersey did not appear in the World Bank database.

The data were subjected to linear regression analysis performed in SPSS (Statistical Package for the Social Sciences) and linear trend analysis performed in Microsoft Excel. Also, certain aspects have been analyzed through graphical representations and explanations given for these cases.

To support the research questions, four (4) hypotheses have been raised as follows.

♦ **H$_1$:** The increase in inflation affects the increase in the external balance of goods and services of European countries.

- **H₂:** The increase in net trade in goods and services affects the increase in the external balance of goods and services of European countries.

- **H₃:** The increase in the current account balance affects the increase in the external balance of goods and services of European countries.

- **H₄:** The increase in inflation affects the increase in the external balance of goods and services of Kosovo.

With the tendency of providing answers to the research questions, validating the hypotheses and achieving the goal of the research, two research models have been built, one to analyze the impact of inflation on the external balance of European countries and the other for Kosovo. The written form of research models is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

In graphic presentation, these models look like in Figure 1.

Figure 1. Graphically representation of research models
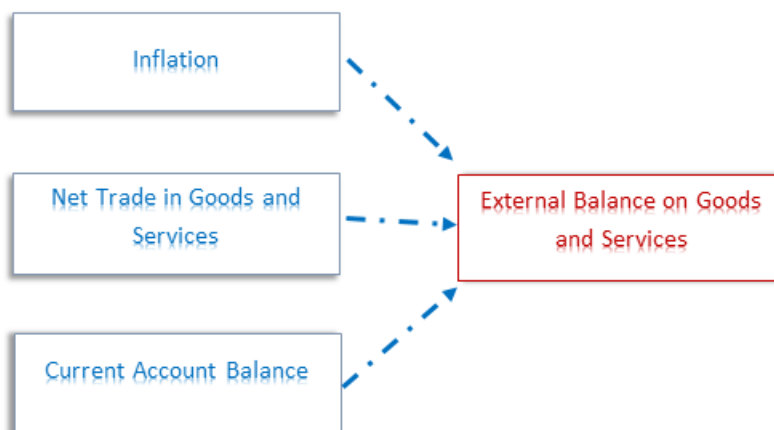
Source: Author (2022)

Table 1. Explanation of research models variables

Symbol	Abbreviation	Variable Name	Variable Type	Variable Explanation	Data Source
Y	EBGS	External Balance on Goods and Services (current US$)	Dependent	External balance on goods and services (formerly resource balance) equals exports of goods and services minus imports of goods and services (previously nonfactor services).[1]	Data from World Bank database: World Development Indicators
X_1	INF	Inflation, consumer prices (annual %)	Independent	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.[2]	Data from World Bank database: World Development Indicators
X_2	NTGS	Net Trade in Goods and Services (BoP, current US$)	Independent	Net trade in goods and services is derived by offsetting imports of goods and services against exports of goods and services. Exports and imports of goods and services comprise all transactions involving a change of ownership of goods and services between residents of one country and the rest of the world.[3]	Data from World Bank database: World Development Indicators
X_3	CAB	Current Account Balance (BoP, current US$)	Independent	Current account balance is the sum of net exports of goods and services, net primary income, and net secondary income.[4]	Data from World Bank database: World Development Indicators

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[1] Source: World Bank national accounts data, and OECD National Accounts data files. Retrieved from: World Bank Database - World Development Indicators.

[2] Source: International Monetary Fund, International Financial Statistics and data files. Retrieved from: World Bank Database - World Development Indicators.

[3] Source: International Monetary Fund, Balance of Payments Statistics Yearbook and data files. Retrieved from: World Bank Database - World Development Indicators.

[4] Source: International Monetary Fund, Balance of Payments Statistics Yearbook and data files. Retrieved from: World Bank Database - World Development Indicators.

Table 2. Understanding the coefficients of research models

Symbol	Coefficient meaning
β_0	Constant coefficient indicating what the value of EBGS will be when INF, NTGS and CAB = 0.
β_1	Coefficient that shows what the value of EBGS will be when INF changes by 1%, keeping NTGS and CAB constant.
β_2	Coefficient that shows what the value of EBGS will be when NTGS changes by \$1, keeping INF and CAB constant.
β_3	Coefficient which shows what the value of TRD will be when CAB changes by \$1, keeping INF and NTGS constant.
ε	The error term summarizes all other factors that may influence the EBGS, but are not considered in this model.

After explaining the variables, the first research model takes the form:

$$\text{EBGS} = \beta_0 + \beta_1 \text{INF} + \beta_2 \text{NTGS} + \beta_3 \text{CAB} + \varepsilon$$

And the second research model takes the form:

$$\text{EBGS} = \beta_0 + \beta_1 \text{INF(Ks)} + \beta_2 \text{NTGS(Ks)} + \beta_3 \text{CAB(Ks)} + \varepsilon$$

4. DATA ANALYSIS AND RESULTS INTERPRETATION

This part summarizes the results obtained from the analyzes performed in order to test and validate the raised hypotheses which are directly related to the importance of the research models. Here are presented the results from the analysis of linear trends, as well as the results from the analysis of linear regression for European countries and for Kosovo.

4.1. Analysis of linear trends for European countries

In the following, the linear trends between the variables included in the research models are presented, namely the linear trend between EBGS and INF, EBGS and NTGS, as well as EBGS and CAB.

Figure 2. Linear trend between EBGS and INF for European countries (2010-2021)

Inside the chart:

$y = 8E+08x + 1E+10$
$R^2 = 0.6046$

$y = -0.1581x + 3.5238$
$R^2 = 0.2239$

Legend: EBGS   INF   Linear (EBGS)   Linear (INF)
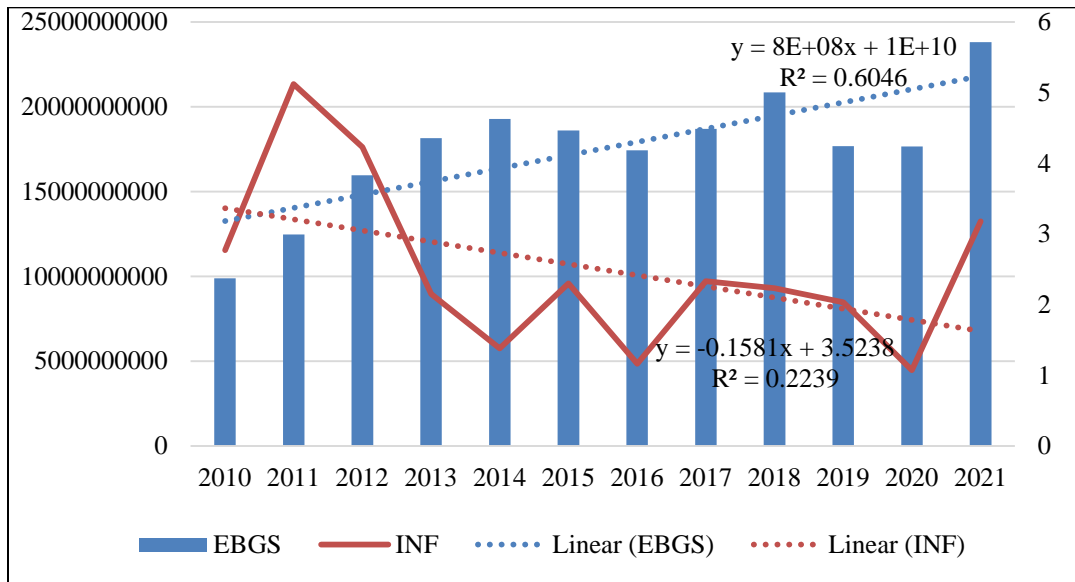
Source: Data calculation by the author in Microsoft Excel (2022)

Figure 2 shows the linear trend between the variable EBGS and INF. As we can see, the EBGS trend has an upward trend, while the INF trend has an obvious downward trend. So, we can say that the external balance of the European countries included in the analysis in the analyzed period from 2010 to 2021 has obviously increased, with some exceptions where we mention that in 2019 and 2020 there is a decrease in this variable. The main reason for this decline was the Covid-19 crisis, which brought heavy damage all over the world, including all European countries where economic activity was severely blocked by lockdown measures (EU, 2021).

According to Regional Economic Outlook. Europe: The Fog of War Clouds the European Outlook (2022), high and volatile commodity prices have driven Europe's inflation even higher. Energy and food prices explained about 60% of accumulated inflation through August in European emerging economies (excluding conflict countries and Turkey) and 70% in the euro area (Figure 3, panel 1).

Figure 3. Europe: Inflation Decomposition, 2022:M1-M8 (Percent change, year-over-year, period average)
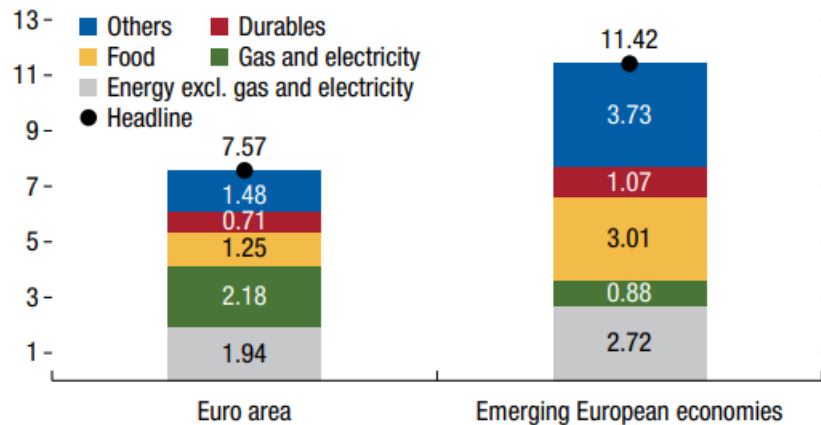
Source: IMF (2022a). Regional Economic Outlook. Europe: The Fog of War Clouds the European Outlook. Washington, DC: World Economic and Financial Surveys. Retrieved from: https://www.imf.org/en/Publications/REO/EU/Issues/2022/10/12/regional-economic-outlook-for-europe-october-2022, pg. 4.

The continuous devaluation of most European currencies against the US dollar also contributed to the increase in inflation. Some easing of supply constraints (such as a declining share of euro area suppliers expecting increases in delivery times) provided only a small offset (Figure 3, panel 2). Inflation of domestic services has continued to grow, showing the expansion of inflationary pressures. Overall, annual inflation through August in advanced European economies reached 9.3%, while it was 14.9% in developing European economies (excluding conflict countries and Turkey). Inflation has been particularly high in Estonia, Latvia and Lithuania, averaging more than 20% (year-on-year) through August. Furthermore, core inflation has risen significantly above central bank targets in both advanced and emerging European economies, while its dispersion has also widened, partly reflecting cross-country differences in consumption basket weights and rates. of passing on the increase in energy and food prices to consumers (IMF, 2022a).

Figure 4. Linear trend between EBGS and NTGS for European countries (2010-2021)
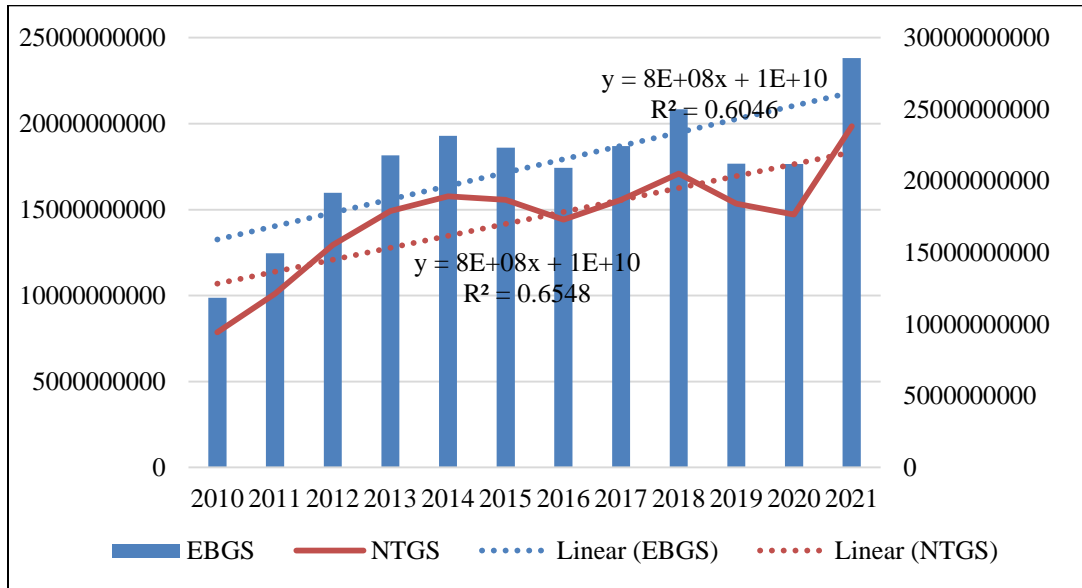
Source: Data calculation by the author in Microsoft Excel (2022)

Figure 4 presents the linear trend between the variable EBGS and NTGB. As can be seen, there is a fair ratio between them, as both have an increasing tendency. We can say that during the analyzed period (2010-2021) the countries of Europe have had an increase in the external balance of goods and services and the net foreign trade of goods and services.
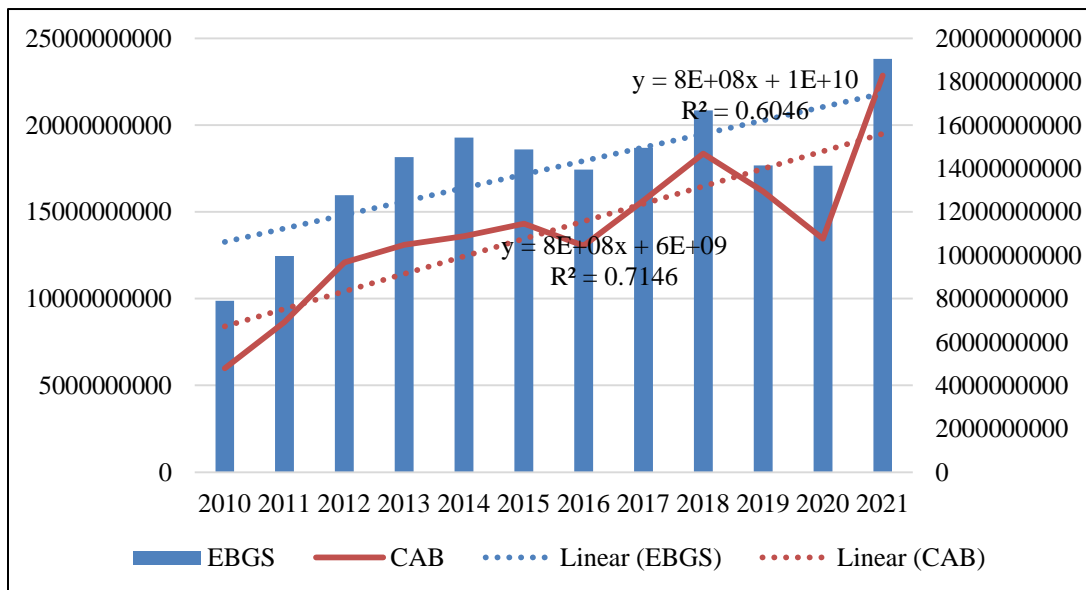
Figure 5. Linear trend between EBGS and CAB for European countries (2010-2021)

Source: Data calculation by the author in Microsoft Excel (2022)

Figure 5 shows the linear trend between the variable EBGS and CAB for the European countries for the years 2010-2021, where it can be seen that there is a fair relationship between the external balance of goods and services and the current account balance, as both have an increasing tendency. As can be seen during the years 2019 - 2020, the EBGS and CAB variables have decreased due to the confrontation of the whole world with the Covid-19 virus.

4.2. Results from linear regression analysis for the first research model for European countries

Linear regression analysis is used to assess the relationship between the dependent variable and the independent variables. This is the most used analysis in most social science research (Krasniqi & Hajrizi, 2012). Below, the results from the linear regression analysis for the first research model for European countries are presented.

Table 3. Correlation analysis

Correlations					
		EBGS	INF	NTGS	CAB
Pearson Correlation	EBGS	1.000	-.039	.998	.908
	INF	-.039	1.000	-.038	-.037
	NTGS	.998	-.038	1.000	.908
	CAB	.908	-.037	.908	1.000
Sig. (1-tailed)	EBGS	.	.195	.000	.000
	INF	.195	.	.202	.212
	NTGS	.000	.202	.	.000
	CAB	.000	.212	.000	.
N	EBGS	480	480	480	480
	INF	480	480	480	480
	NTGS	480	480	480	480
	CAB	480	480	480	480

Source: Author's calculations in SPSS software (2022)

The table above presents the result of the analysis of the correlation between the variables included in the model. From this result we see that:

♦ There is a very weak and negative correlation of -0.039 between "EBGS" and "INF". This statement is not correct because the significance has a value of 0.195 which means that this value is higher than the standard p-value of 0.05. So, based on the resulting value, the above statement is not valid for $\alpha=1\%$, nor for $\alpha=5\%$, nor for $\alpha=10\%$.

♦ There is a very high and positive correlation of 0.998 between "EBGS" and "NTGS" and this statement is correct because the significance has a value of 0.000, this value is lower than the standard p-value of 0.05. So this statement is valid for significance level $\alpha=1\%$ and $\alpha=10\%$.

♦ There is a very high and positive correlation of 0.908 between "EBGS" and "CAB". This statement is correct because $0.000 < 0.05$.

♦ There is a very weak and negative correlation of -0.038 between "INF" and "NTGS". This statement is not correct because $0.202 > 0.05$.

♦ There is a very weak and negative correlation of -0.037 between "INF" and "CAB". This statement is not valid for 1%, 5% or 10% significance level because $0.212 > 0.05$.

♦ There is a very high and positive correlation of 0.908 between "NTGS" and "CAB". This statement is correct because $0.000 < 0.05$. The same applies to the 1% and 10% significance levels.

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Model Summary[b]										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.998[a]	.995	.995	3266563764 .88537	.995	33685. 450	3	476	.000	.886
a. Predictors: (Constant), CAB, INF, NTGS										
b. Dependent Variable: EBGS										

Source: Author's calculations in SPSS software (2022)

From Table 4 we get the results for the correlation coefficient (R), the determination coefficient (R²), as well as the total significance of the research model. The correlation coefficient, R = 0.998, shows that the variables included in the model have a correlation of 99.8%. The coefficient of determination, R^2 = 0.995, shows that the independent variables (INF, NTGS, CAB) explain the dependent variable (EBGS) at a level of 99.5%. The remaining percentage, 0.5%, belongs to the error term (ε) which includes all other factors that have an impact on the dependent variable, but which are not taken into account in this model. Also, the Sig. F Change = 0.000 indicates that this model is statistically significant or reliable because $0.000 < 0.05$.

Table 5. First research model coefficients

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	139460763.828	182400312.037		.765	.445	-218948594.998	497870122.655
	INF	-12173538.255	30833004.507	-.001	-.395	.693	-72759165.838	48412089.328
	NTGS	.992	.008	.983	131.411	.000	.977	1.006
	CAB	.014	.007	.016	2.090	.037	.001	.028
a. Dependent Variable: EBGS								

Source: Author's calculations in SPSS software (2022)

Table 5 presents the results of the coefficients of the model, as well as the level of significance for each of them in particular. According to the results, it turns out that:

♦ β_0 - is a constant coefficient which shows that when "INF", "NTGS" and "CAB" are 0

then "EBGS" has a value of $139,460,763,828. This statement is correct because $0.445 <$

0.05.

♦ β_1 - indicates that if the "INF" value increases by 1% "EBGS" will decrease by

$12,173,538.255 keeping constant or unchanged the other two variables "NTGS" and

"CAB". This statement is not correct because the significance value of the coefficient

which is $0.693 > 0.05$ proves the opposite.

♦ β_2 - indicates that if "NTGS" increases by $1, "EBGS" will increase by $0.992, keeping

the "INF" and "CAB" variables constant. This statement is valid because Sig. = 0.000,

which means that this value is lower than the standard p-value of 0.05.

♦ β_3 - indicates that if the value of "CAB" increases by $1, "EBGS" will increase by

$0.014, keeping the other two variables constant, namely "INF" and "NTGS". This

statement is correct because the significance of this coefficient has a value of 0.037, so

$0.037 < 0.05$.

Based on the result of the given result, the research model takes the form:

**EBGS = 139,460,763.828 - 12,173,538.255INF + 0.992NTGS + 0.014CAB + ε**

After interpreting the coefficients of the model, we come to the conclusion that it is

confirmed as correct *H1: The increase in inflation affects the increase in the external balance of*

goods and services of European countries, it is confirmed as correct *H₂: The increase in net*

trade in goods and services affects the increasing the external balance of goods and services of

European countries. Also, is confirmed as correct *H3: The increase in the current account*

balance affects the increase in the external balance of goods and services of European countries.

4.2. Results from regression and linear trend analysis for the second research model for Kosovo

This part shows the results of the second research model, namely the linear regression analysis for Kosovo, as well as the linear trend analysis.

Figure 6. Graphic presentation of data distribution through a) histogram and b) probability plot
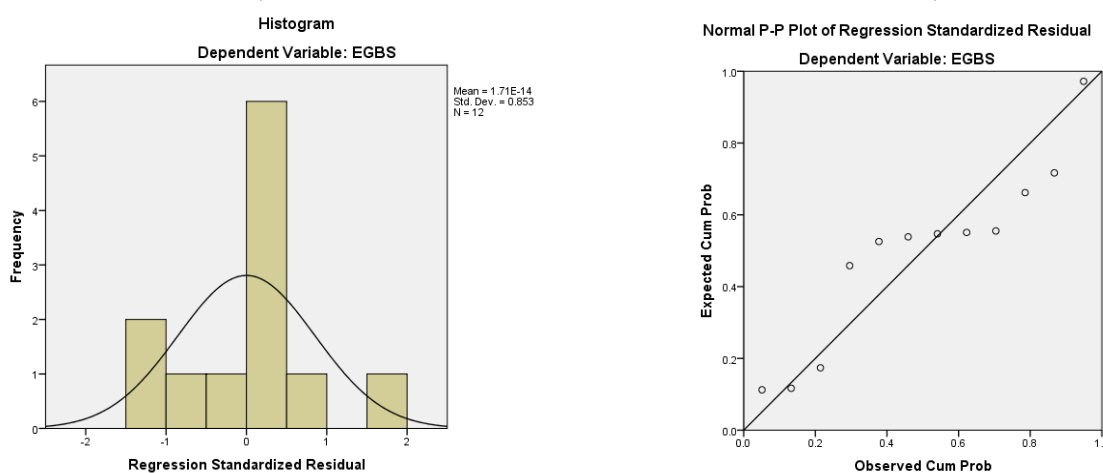
Source: Author's calculations in SPSS software (2022)

Based on the graphical representation of the distribution of data through a) histogram, we see that there is a normal distribution of data since this distribution has a mesoquartile shape. On the other hand, according to b) the probability graph, we see that the data are mostly distributed close to the regression line with some standard deviations which are included in the error term (ε).

Table 6. Model summary for second research model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	1.000[a]	1.000	1.000	6970028.012	1.000	7743.441	3	8	.000	2.488

Model Summary[b]

a. Predictors: (Constant), CAB, INF, NTGS

b. Dependent Variable: EBGS

Source: Author's calculations in SPSS software (2022)

From table 6 they see that R = 1.000 which shows that the variables included in the model have a correlation of 100%. R^2 = 1.000, indicates that the independent variables ("INF", "NTGS" and "CAB") explain the dependent variable ("EGBS") at a level of 100%. Another important coefficient is the Durbin-Watson coefficient, which indicates the presence or absence of autocorrelation in the model. Values that are taken as preferable span the range 1.5 - 2.5. In our case, the value of this coefficient is 2.488, which proves that there is no autocorrelation in this research model. According to the obtained results, we see that all important factors are included and in this case the error term (ε) does not exist. Also, the Sig. F Change = 0.000 indicates that this model is statistically significant or reliable because 0.000 < 0.05.

Table 7. Second research model coefficients

Coefficients[a]

Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
		Unstandardized Coefficients		**Standardized Coefficients**			**95.0% Confidence Interval for B**		**Collinearity Statistics**	
1	(Constant)	-4961477.142	14586214.678		-.340	.743	-38597348.506	28674394.222		
	INF	-71345.151	1175973.614	.000	-.061	.953	-2783145.169	2640454.866	.708	1.412
	NTGS	.992	.008	.991	120.703	.000	.973	1.011	.638	1.567
	CAB	.026	.017	.014	1.533	.164	-.013	.065	.512	1.952

a. Dependent Variable: EBGS

Source: Author's calculations in SPSS software (2022)

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Table 7 presents the results of the coefficients of the model for Kosovo, as well as the level of significance for each of them in particular. According to the results, it turns out that:

♦ **β_0** - is a constant coefficient which indicates that if "INF", "NTGS" and "CAB" are 0, "EBGS" has a value of -4,961,477.142. It is worth noting that this coefficient does not have any logical meaning. Likewise, the significance was found to be $0.743 > 0.05$.

♦ **β_1** - shows that if "INF" increases by 1% "EGBS" will decrease by -$71,345.151 keeping constant "NTGS" and "CAB" and this statement is not valid because Sig. = 0.953 which means that this value is higher than the standard p-value of 0.05.

♦ **β_2** - shows that if "NTGS" increases by $1 "EGBS" will increase by $0.992, keeping "INF" and "CAB" constant, but this statement is correct because the significance of this coefficient has a value of 0.000, so $0.000 > 0.05$.

♦ **β_3** - indicates that if "CAB" increases by $1, "EGBS" will increase by $0.026, keeping the other two variables, "INF" and "NTGS" constant. This statement is not correct because the significance of this coefficient has a value of 0.17.

After interpreting the coefficients, the model takes the form:

YEBGS(Ks) = -4,961,477.142 - 71,345.151INF(Ks) + 0.992NTGS(Ks) + 0.026CAB(Ks) + ε

Based on the results, we say that "*H4: The increase in inflation affects the increase in the external balance of goods and services of Kosovo*" is rejected.

Figure 7. Linear trend between EBGS and INF for the state of Kosovo (2010-2021)

Equations shown in figure:
$$y = -4E+07x - 2E+09$$
$$R^2 = 0.2521$$
$$y = -0.2232x + 3.4502$$
$$R^2 = 0.1438$$
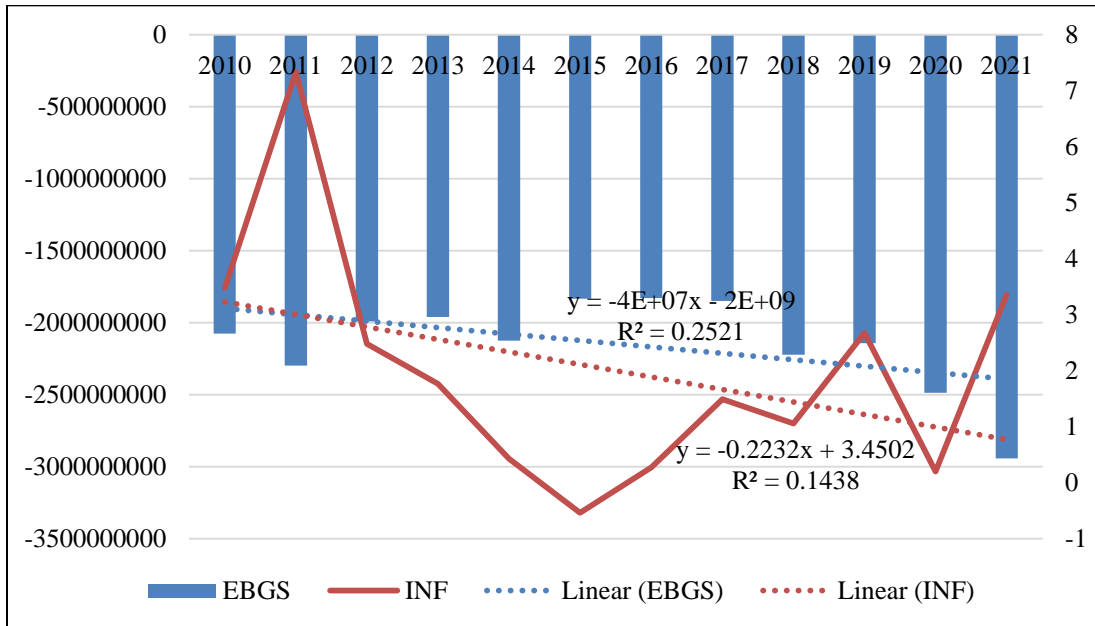
Source: Author's calculations in SPSS software (2022)

Figure 7 shows the linear trend between the variables "EBGS" and "INF" for the case of Kosovo. Knowing that Kosovo has a negative trade balance, referring to the figure we see that the linear trend for the "EBGS" variable has a negative tendency and during the period 2010 - 2021, "EGBS" has always been negative. As for inflation, even the linear trend for INF shows a downward trend. In order to be more clear, the aspect of the trade balance and inflation, we have referred to the reports of KAS (Kosovo Agency of Statistics), from which we obtained the data on the trade balance of Kosovo (in €), as well as data on inflation (in %) (see Table 8 and Figure 8).

Table 8. Data on trade balance (in €) and inflation (in %) for the country of Kosovo (2010-2021)

	Year	Trade Balance (TRB) (in €)	Inflation (INF) (in %)
Kosovo	2010	-1,861,769,000	3.5
	2011	-2,173,184,000	7.4
	2012	-2,231,509,000	2.5
	2013	-2,155,221,000	1.7
	2014	-2,213,794,000	0.4
	2015	-2,309,399,000	-0.5
	2016	-2,479,864,000	0.3
	2017	-2,669,007,000	1.5
	2018	-2,979,507,000	1.1
	2019	-3,113,451,000	2.7
	2020	-2,821,751,000	0.2
	2021	-3,928,472,000	3.4

From table 8, we see that Kosovo's trade balance has recorded a negative increase from 2020 to 2021. If we compare the data for the years 2020 and 2021, it appears that Kosovo's exports have increased from €474,884,000 to 755,726,000€, and imports have increased from 3,296,635,000€ to 4,684,198,000€. These increases have caused a negative increase in the trade balance, from -2,821,751,000€ in 2020 to -3,928,472,000€ in 2022 (KAS, 2022a).

If we look at the percentage (%) of inflation in Kosovo, we compare for example the period 2018-2021, we say that from 1.1% inflation in 2018, there was an increase to 2.7% in 2019. This was followed by a decrease in the level of inflation to 0.2% in 2020, to increase to 3.4% in 2021 (see Figure 8).

Source: Compiled by the author based on Table 8 data

According to the "Quarterly Assessment of Macroeconomic Developments No. 35, Quarter II/2021" published by CBK, "*the pandemic crisis has turned into an economic and social crisis, where social distancing measures and increased uncertainty resulted in a decline in economic activity that was accompanied by a contraction of investments, a marked reduction of the export of services, as well as a decrease in the import of goods and services. As a result of developments in the economy, the rate of inflation is also characterized by significant fluctuations*" (CBK, 2022, p. 6).

5. CONCLUSIONS

Based on all that was said above, we come to the conclusion that as far as European countries are concerned, the increase in inflation has affected the increase in the external balance of goods and services, the increase in net trade in goods and services has affected the increase in the external balance of goods and services, as well as the increase in the current account balance has influenced the increase in the external balance of goods and services of these countries.

On the other hand, also in the case of Kosovo, the increase in inflation has influenced the increase in the external balance of goods and services. It has been observed that Kosovo's exports and imports have increased from 2020 to 2021 and this has influenced the increase in the negative trade balance. Also, inflation has increased in 2021 compared to 2020.

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