DETERMINANTS OF CURRENT ACCOUNT IN KOSOVO

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ABSTRACT

The purpose of this paper is to investigate the relationship between the current account deficit and the determinants of the current account of the balance of payments of Kosovo during the period 2010Q1–2020Q4. Current account deficit to GDP, growth rate, foreign direct investment, remittances, real effective exchange rate, net foreign assets, trade balance and trade openness are selected as variables that may affect current account deficit in Kosovo. After we have established the existence of panel cointegration in the sample, we have estimated cointegration equations using FMOLS and DOLS method. The empirical results find out that current account balances are positively correlated with foreign direct investment, fiscal balance, real effective exchange rate, remittances and growth rate, while indicators of net foreign assets, trade openness and trade balance are negatively correlated with current account balances.

Keywords: Current Account, Remittances, Fiscal Balance, Direct Investment.

INTRODUCTION

Kosovo's statistics of balance of payments throughout their history show a persistent current account deficit, which proves the structural problems of the current account. Kosovo's current account deficit problems, as in many other developing countries, are considered structural as the deficit is caused by imbalances in international trade where the proportion of imported goods compared to exported goods in relation to GDP is very high. Consequently, this paper aims to analyze the potential factors that affect the dynamics and development of the current account deficit in Kosovo.

Analyzing the determinants of the current account deficit is extremely important, especially for a small country that is open to international trade such as Kosovo. A clearer view of the factors influencing the current account can be important in terms of making macroeconomic policy. There are a large number of factors in literature that affect the current account deficit and most of them vary from country to country due to the unique characteristics that each country possesses. In our model we have included the important factors mentioned in the literature adapted to the characteristics of the economy of Kosovo.

There are various empirical models that assess the factors that influence the dynamics and development of the current account deficit, both in terms of the sign and magnitude of this relationship. However, research on the impact of factors that cause the current account deficit in Kosovo is limited, therefore the impossibility to compare this paper with the results of previous works is one of the main obstacles of this paper. Another hurdle is the short time series of statistical information on current account determinants. Most macroeconomic statistics in Kosovo only began in 2008 when Kosovo declared its independence.

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LITERATURE REVIEW

Debelle & Faruqee (1996), in the paper *"What determines the current account"* stated that a small open economy, which is initially capital (and income) poor, provided it has access to international capital markets, will run current account (and trade) deficits for a sustained period of time in order to build its capital stock while maintaining its long-run rate of consumption (IMF Working Paper, 1996). They constructed the empirical model with 21 industrialized countries for the period 1971-1993, which showed that fiscal surplus, terms of trade and capital controls do not play a significant role in the long-term behavior of the current account; while relative revenues, government debt and demographics play an important role in the behavior of the current account deficit. The model of Debelle and Faruqee is continued by Calderon et al. (2000), who advanced the method by analyzing whether the variables are endogenous to the current account deficit. Assessing current account deficit determinants in 44 developing countries during the period 1966-1995, Calderon, Chong, and Loayza suggest that GDP growth exacerbates the current account, temporary increase in public or private savings improves the current account, temporary appreciation of the real exchange rate or deterioration of terms of trade affects the increase of the current account deficit, but their impact in the long run is not significant. A temporary increase in the level of economic growth in developed countries leads to a reduction of the current account deficit in developing countries, high interest rates in developed countries reduce the current account deficit in developing countries.

According to Milesi-Ferreti and Razin, in their paper *"Sustainability of persistent current account deficit"*, there are several factors that must be taken into account when analyzing the sustainability of the current account deficit: causes of the current account deficit, the structure of the current account deficit, the structure and volume of foreign capital movements, the level of economic growth, the exchange rate assessment, the structure and level of external debt, the stability of the financial system, trade openness, political and macroeconomic stability, and global factors (Gian & Assaf, 1996).

Kahn & Knight (1983) used the time series model for 32 non-oil developing countries for the period 1973-1980 and concluded that external factors (real effective exchange rate and terms of trade) as well as domestic factors (fiscal deficit and appreciation of real exchange rates) are relevant to current account deterioration in these countries. A different method was used by Chinn & Prasad (2003), who focused on the medium-term determinants of the current account balance. Considering 18 developed countries and 71 developing countries, their model suggests that fiscal balance, net foreign assets, and financial indicators have a positive correlation with the current account balance in the developing country (Mohsin & Malcolm, 1983).

Several working papers have been carried out by analyzing the countries similar to Kosovo's economy. The working paper *"The Persistence and Determinants of Current Account Deficit of FYROM: An Empirical Analysis"* suggests that there is a strong relationship between current account and fiscal balance, financial development, terms of trade, and trade openness. The level of development of the financial system, fiscal balance and terms of trade are positively related to the current account balance, while trade opening is negatively related to the current account balance.

METHODOLOGY

This paper uses secondary data obtained from the Central Bank of Kosovo, the Kosovo Agency of Statistics, and the World Economic Outlook (IMF). Since the determinants of the

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current account deficit in Kosovo will be analyzed, the analysis will be based on the quantitative methodology of the time series for the period 2010Q1-2020Q4. The analysis is limited in this time period due to the availability of information on all factors selected as determinants of the current account. Macroeconomic factors affecting the current account deficit have been selected as independent variables of the study which are economic growth, fiscal balance, foreign direct investment, remittances, real effective exchange rates, net foreign assets, and trade openness. The selection of these variables was made based on their importance in the literature and the characteristics of the economy of Kosovo.

In order to test the impact of macroeconomic factors on the current account balance, we have applied the time series using the following equation:

$$CAit = \beta i + \beta_1 * GRt + \beta_2 * FISBALt + \beta_3 * FDIt + \beta_4 * REMt + \beta_5 * REERt + \beta_6 * NFAt + \beta_7 * TBt + \beta_8 * OPENt\ \varepsilon$$

Where: CAB is the dependent variable of the equation, while the explanatory variables are GR, FISBAL, FDI, REM, REER, NFA, TB and OPEN. β0, β1, β2, β3, β4, β5, β6, β7 and β8 are coefficients of regression. Error term is denoted by ε. The index i represents the individual dimension and t represent the temporal dimension.

STUDY RESULTS

This paper considers data of time series on quarterly basis during the period 2010 Q1 – 2020 Q4. Our chosen variables have 44 observations, except the NFA variable, which is shorter, starting from 2012 Q1 with total 36 observation. This part of the study starts with the description of statistics for the respective chosen variables Table 1.

Table 1
DESCRIPTION STATISTICS OF VARIABLES

Variable	Mean	Median	Max	Min	Std.Dev.	Skewness	Kurtosis	Observations
CA	-0.1	-0.1	0.1	-0.3	0.1	0.3	2.9	44.0
FDI	0.0	0.0	0.1	0.0	0.1	0.2	1.0	44.0
GR	3.80	4.6	11.2	-9.1	3.4	-2.1	1.0	40.0
FISBAL	-0.2	0.0	0.9	-1.7	0.6	-0.8	3.0	44.0
NFA	0.0	0.0	0.3	-0.4	0.2	-0.3	2.3	36.0
OPEN	0.5	0.5	0.7	0.5	0.1	0.8	2.5	44.0
REER	105.6	105.9	107.8	100.0	1.6	-1.2	3.8	44.0
REM	0.1	0.1	0.2	0.1	0.0	3.1	2.7	44.0
TB	-0.4	-0.4	-0.4	-0.6	0.1	-1.3	3.6	44.0

The main indicators of the description statistics are skewness and kurtosis. Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. The skewness value can be positive, zero, negative. Most of the studies say that the statistically acceptable level of skewness should be -1 to +1. Some other studies confirm that the level -3 to +3 is statistically acceptable. The skewness values of the above results show that variables are within statistically accepted parameters.

Kurtosis is a measure of the thickness of the tails of a distribution based on the fourth moment of the standardized random variable; the measure is usually compared to the value for the standard normal distribution, which is three (Jeffrey M. Wooldridge). Based on this,

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statistically acceptable values should be from +3 to -3. Therefore, kurtosis values of most of our variables fit in normal parameters and are statistically acceptable.

Before carrying out the regression analysis, in the time series a stationarity test is necessary. Therefore, we conduct the unit root test for the determinant of current account in Kosovo to check whether the time series of the variables are stationary or non-stationary. Taking into consideration that the observed time series cover a shorter period (quarterly data for the period 2010 Q1-2020 Q4), in the analysis, we have used two-unit root tests in order to avoid the disadvantages of these tests that they demonstrate in a case of shorter time series. The tests were applied to level the series and the first difference of variables.

The results show that all variables are stationary with the exception of remittances and net foreign assets according to the Augmented Dickey Fuller test (ADF Test). This confirms a non-stationary time series for remittances (REM) in the level (constant and constant and trend) as well as in the first difference (constant and constant and trend), whereas for net foreign assets (NFA), it confirms a non-stationary for the first difference (constant and constant and trend). According to the Phillips Perron (PP test), almost all time series variables are stationary, especially at the first difference. Null hypothesis of two tests is that the respective variable has a unit root. The text in the table shows whether p-value of the test is higher or lower compared to the level of significance. Significance level is 5%. For example, <0.05 means that p-value is lower than 0.05, which indicates that H0 cannot be rejected at 5% level of significance.

Since most of the series, according to both tests, are stationary at the first difference, we conducted a test of the existence of cointegration relationships between the CA and the explanatory variables. Cointegration results based on the Johansen test are presented below Table 2:

Table 2
JOHANSEN COINTEGRATION TEST

Hypothesized No. of CE (s)	Eigenvalue	Trace Statistic	Critical Value	Prob.
None	0.872952	223.2705	134.6780	0.0000
At most 1	0.752768	140.7429	103.8473	0.0000
At most 2	0.570916	84.84587	76.97277	0.0111
At most 3	0.452841	51.00173	54.07904	0.0195
At most 4	0.334461	26.88113	35.19275	0.2949
At most 5	0.214477	10.59481	20.26184	0.5815
At most 6	0.023191	0.938580	9.164546	0.9591

The null hypothesis is there is no cointegration between variables (no long-run relationship between variables). Out of six probabilities in the table above, three of them suggest that there is a cointegration between variables. Therefore, we have to reject the null hypothesis. This is also confirmed with the trace statistics and critical value; the first is greater than the second.

After we have established the existence of cointegration, the next step is to estimate the coefficients of the cointegration equation in order to analyze the long-term relationship between the variables using FMOSL and DOLS estimators. By applying the FMOLS and DOLS equation estimator, we estimated the regression equation and presented the model with variables that determine the behavior of current account in Kosovo. The results of both tests are presented in Table 3.

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Table 3 ANALYZING CA DETERMINANTS USING FMOLS AND DOLS		
Variable	**Fully modified ordinary least squares (FMOLS)**	**Dynamic ordinary least squares (DOLS)**
Foreign Direct Investment	0.27**	0.25***
	(0.02)	(0.05)
Fiscal Balance	-0.14***	-0.23***
	(0.01)	(0.02)
Net foreign Assets	0.09***	0.08***
	(0.04)	(0.02)
Trade Openness	-0.09*	-0.06***
	(0.03)	(0.01)
Real Effective Exchange Rate	0.01*	0.02**
	(0.01)	(0.02)
Remittances	0.38**	0.27***
	(0.03)	(0.02)
Trade Balance	-0.57**	-0.48***
	(0.03)	(0.01)
Growth Rate	0.02***	0.01***
	(0.00)	(0.00)

Note: The symbols ***, **, and * indicate statistical significance at the 1 percent, 5 percent, and 10 percent levels, respectively. R-squared shows that the independent variables cumulatively determine dhe dependent variable 77% according to FMLOS regressor and 84% according to DOLS regressor.

Both equations used fixed effects, with constant trend specification covering all the sampling period 2010 Q1 – Q4 2020. The R-square indicator in the case of applying the FMOLS estimator results to be 77%, which tells us that the independent variables 77% determine the dependent variable or the suitability of the model with the selected variables is 77%. In the case of the DOLS estimator, this indicator is even higher, 84%.

The results show that the independent variables have a long-term relationship with the dependent variable of the model, and all of them are significant at the 5% significance level, except the trade openness and real effective exchange rate.

From the results of the model, we see that there is a strong correlation between the current account and foreign direct investment, fiscal balance, and remittances. Foreign direct investment, fiscal balance, real effective exchange rate, remittances and growth rate are positively correlated with the current account balance, whereas trade openness, net foreign assets and trade balance are negatively correlated with the current account balance. The signs in the correlation model are largely in line with the theoretical expectations. The relationship between current account and the real effective exchange rate is positive, but not statistically significant. If real effective exchange rate increases by 1%, it would lead to positive but insignificant effect on the level of current account.

The results from the DOLS estimator are almost in the same direction as those in the FMOLS estimator. Only the remittances ratio is significant at 1%, the other variables are significant at 5%, excluding trade openness and fiscal balance which are significant at 10%, while the real effective exchange rate is statistically insignificant.

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RESULTS AND DISCUSSION

There are many papers that study the relationship between current account balance and its determinants. Kosovo is a new state, without a very long history of balance of payments statistics. The short time series of model variables has been the main obstacle of this paper. Additionally, the lack of papers that address similar topics in Kosovo has made it impossible to compare the results of our paper with other papers.

The empirical analysis of our model consists of three parts; in the first part the variables are tested for their stationarity. The model variables have resulted in stationary (especially) in the first difference; and as a result, the test of the existence of cointegration relationships between the CA and the explanatory variables has been developed. This test has shown that there is a long-run relationship between the current account deficit as a dependent variable and the independent variables that are the determining factors of the current account deficit. The last part of the model estimated the coefficients of the equation to analyze the long-run relationship between the variables including the magnitude and sign of this relationship using the FMOLS and DOLS method.

Based on this model, the results show that there is a positive relationship between the current account and foreign direct investments, fiscal balance, real effective exchange rate, remittances, and economic growth; while, between the current account and net foreign assets, trade openness and trade balance there is a negative relationship. The signs of the estimated coefficients are largely consistent with theoretical expectations. The strongest link between the current account and the variables has resulted in foreign direct investment and remittances. This means that a significant part of direct investments and remittances in Kosovo contribute to covering the current account deficit. Foreign direct investments, in addition to contributing to the capital growth in the country and bringing innovation and the latest technology, have improved the export sector, which has a positive impact of narrowing the current account deficit. Moreover, foreign direct investment is a preferred method of financing the current account deficit because they are considered stable investments and are not endangered by sudden capital withdrawals. It is important to redirect these investments to the sectors that lead to increased exports, such as production, because this would improve the current account position. Direct investments in Kosovo are dominated by the real estate, financial services, manufacturing, and construction sectors.

Remittances are another factor that positively affect the current account by ensuring its financing. Unlike direct investments, remittances are not considered a proper way of financing the deficit because they are income received mainly in small amounts used to cover the daily consumption expenditures of households. In the case of Kosovo, remittances are very important for financing household economic consumption, which represent about 13 percent of GDP (on average during the period 2008-2020). Our model shows that remittances are statistically significant and have positive impact on the current account balance by narrowing its deficit.
According to the results of the equation, for one unit of remittance growth, the current account improves by 0.38 units.

The model shows a positive relationship between the current account and net foreign assets, which is not in line with theoretical expectations. The reason for this may be that the NFA in Kosovo had a positive balance until 2014 when it begins to record a negative balance and continued until 2020. Usually, countries facing current account deficits have a negative balance NFA. This is not the case for Kosovo until 2014 when the NFA balance was positive and the current account in deficit.

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The negative sign of the fiscal balance indicates a positive relationship between the current account and the fiscal balance, which is in line with the theoretical expectations, according to which countries that have a deficit in the fiscal balance, also have a deficit in the current account balance. So, the increase of the fiscal balance, leads to the increase of the current account balance and vice versa, therefore in theory it is known as the *"twin deficit"*. Many models predict a positive relationship between government budget balances and current accounts in the medium term. Overlapping generation models suggest that government budget deficits tend to drive current account deficits by redistributing revenues from future generations to current ones (Obstfeld & Rogoff, 1994).

The economic growth factor according to the model has a positive relationship which shows that economic growth affects the increase of the current account deficit. This result is in line with the results of the work of Debelle & Faruqee (1996) who demonstrated that countries with rapid economic growth tend to have current account deficits, as well as the work of Calderon et al. (2000), who argue that an increase in the economic growth rate leads to an increase in the current account deficit. Moreover, economic growth based on high imports will increase the current account deficit, as in the case of Kosovo. In this context, it is important to analyze the composition of imported goods. During the period 2008-2020, 48% of goods imported in Kosovo are intermediate goods and 33% of goods intended for consumption, while only 10% are capital goods.

Trade openness resulted in having a negative relationship with the current account balance, which indicates that the increase of trade openness will affect the increase of current account deficit as well. This result is in line with the theoretical expectations that openness to international trade negatively affects the current account balance. The test results show a positive correlation between the real effective exchange rate and the current account, which is contrary to the theoretical expectations that the real exchange rate has a negative relationship with the current account deficit, because the appreciation of the real effective exchange rate leads to deteriorating international competitiveness by reducing exports and increasing imports. In our case this factor is statistically insignificant, which proves the fact that most of the countries that are Kosovo's main trading partners are European Union countries, which are part of the Eurozone and use euros to conduct trade transactions.

The relationship between the trade balance and the current account is negative according to the results of the model and represent the strongest correlation of the current account among its determining factors. Based on the coefficient, we can say that for each unit of trade balance increase, the current account increases by 0.57 units. Compared to the magnitude of other current account determinants, we can conclude that the trade balance is the main determinant of Kosovo's current account deficit.

CONCLUSION

This study has attempted to find the relationship between the current account deficit and the determinants of the current account deficit in Kosovo. The long-run relationship between the variables, including the sign and magnitude of their relation, was analyzed by using the FMOLS and DOLS model in the time series of current account deficit determinants. The main limitation of the paper is the short time series of variables, which have been available since 2010. For some variables, there is information for even earlier periods, but they are not complete. To have a larger number of observations, the time series is analyzed in quarterly data for the period of 2010Q1 -2020Q4.

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The results of the model have shown consistency with the theoretical expectations for all variables except net foreign assets and real effective exchange rate, which we believe have shown inconsistencies with the literature due to the characteristics of the economy of Kosovo. Net foreign assets in the case of Kosovo result in a positive balance until, while the current account throughout its history has faced a deficit. Regarding the real effective exchange rate, we can say that it is not determining the current account deficit variable, given that Kosovo does not have its national currency but uses the euro as a legal tender for transactions, while Kosovo's main trading partners are countries of the European Union which use the euro. Empirical results confirm that there is a direct link between the current account and foreign direct investment, fiscal balance, real effective exchange rate, remittances, and economic growth. While the negative relationship exists between the current account and net foreign assets, trade openness and trade balance.

Based on the results of the model we can conclude that the current account deficit problems are structural because they arise from the composition of the current account. Therefore, if the aim is to reduce the current account deficit in Kosovo, efforts should be focused on structural changes in the economy, including increased exports which would increase international competitiveness, increase foreign direct investment in the form of capital invested in the sectors that stimulate the growth of exports as well as the growth of domestic investments. Remittances should not be considered as a long-term possibility of financing the current account because they do not represent a stable income and the upward trend of remittances will be followed by their downward trend as the practices of many other countries have shown.

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