

THE REMITTANCES AND EVALUATION OF THEIR IMPACT ON ECONOMIC GROWTH (The case of Albania)

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Abstract: *Many studies in recent years have shown that remittances constitute one of the most important financial resources for developing economies. They are considered as sustainable capital resources and in this way contribute to a sustainable economic growth in developing countries. Today, the flow of remittances at a global level reaches more than US \$ 100 billion per year, and more than 60 percent goes to developing countries. They are an important mechanism to transfer resources from developed countries to developing countries. In this way remittances particularly in the developing economies play an important role in economic growth and poverty reduction. In this regard, in our paper we get in study remittances and their evaluation on the basis of the impact on economic growth in Albania. In the first part of this paper is treated the theoretical aspect of remittances and their role in economic development. In the second part we have treated methodology for collecting and processing data. For the realization of our paper, we are based on a statistical study of secondary data and to process them is using linear regression model. Data analysis represents the third part of the study, namely the correlation analysis of independent variables and the construction and analysis of linear regression equation, which expresses the connection of independent variables with the dependent variable. Remittances represent independent variable with the more important that we have included in our study, foreign direct investment and net exports represents independent explanatory variables, while economic growth represents the dependent variable.*

KEY WORDS: REMITTANCES, ECONOMIC GROWTH, POVERTY.

I. Introduction

The role of remittances is very important as in economic aspect, as well in social aspect, and also it has attracted the attention of the researchers around the world. The income flows by remittances affect strongly in the total income and in the standard of life to the beneficiary country (Taylor and Wyatt, 1996). For the more, in the developing countries the remittances represent a large part of international capital exceeding the foreign direct investments (FDI) and the incomes by the exports (Giuliano dhe Ruiz- Arranz, 2005). The last studies show that the remittances are increased faster than FDI. In this way, the financial flows like remittances in developing countries are taking a great attention because of their size and their impact in the economy of the beneficiary countries. According to Gupta et al (2007), the official remittances have achieved a total about 188.000 million \$ on the year 2005 by the developing countries. Although, the importance of remittances is increasing in the total of international capital flow, the relationship between the remittances and the economic growth is still a debatable issue, especially in the developing countries. This paper is trying to find out the impact of remittances in developing the Albania economy, relating to the data period from 2002 up to 2014. The contribution of this paper in the empirical literature is to find out the importance of remittances to promote the economic growth of a country. An exact meaning of relationship to remittances level and the economic growth may help policy-makers to make an appropriate economic policy.

II. Remittances and their role in economy

Some empirical studies have shown for the role of remittances to the poverty reduction (Lucas & Stark, 1985; Adams, 1991; Sander, 2004; Azam dhe Gubert 2005, Adam, 2006). The macroeconomic remittances impacts are of a considerable importance. Some other theoretical studies are suggested that remittances affect mainly on the consumption growth and may have a minimal impact on the investments. The improvement of the living conditions and the increasing of standard of life comes up as a priority on the spending of these flows. Stahl and Arnold (1986) argue that remittances encourage to expense for consumption, and in this way they may have a positive impact on economic growth because of the multiplier effect. In the later period, a considerable part of these remittances is used for investments, especially in the birth of new businesses, which results with a positive effect in the economic developing of a country affecting to the economic growth and the

employment. Many emigrants have invested their savings on the small businesses, real estate or in other assets on their countries. In about 2/3 of the developing economies, the remittances are used mainly for investments, because the financial sector in these countries is not capable to fill in the needs for credit to the small businesses.

III. The objective and the hypothesis

The main objective of this paper is the analysis and the assessment of remittances and their impact on economic growth. In order to achieve the main objective the "H1" is risen:

H1 – The remittances affect positively on the economic growth.

IV. Methodology

To identify and to analysis the relationship by econometric side, we are focused on the relationship to the important variables in our paper, concretely the econometric relationship between the remittances and the economic growth.

Giuliano (2008) emphasizes that the remittances have stimulated the economic growth in the developing countries, because of their undeveloped financial system. In this way, the remittances could provide an alternative to finance their investments and to reduce the liquidity restrictions. Also, Fayissa and Nsiah (2008) have argued that the remittances stimulate the economic growth on the countries, where their financial systems are not very strong and providing an alternative way to finance the investments and to get over of the liquidity restrictions. Meanwhile, Iqbal and Sattar (2005) have argued that the real GDP is connected positively by the remittances. The remittances impact on the economic growth and the poverty reduction has been an issue, which it is discussed widely as in the academic environments, as well as in the policy-makers.

To prove or to deny this relationship, we have set these variables through an equation of linear regression. The used methodology, in this paper, is that of multinomial regression because there is more than one independent variable.

The economic growth, which is measured by the growth of real GDP, is a dependent variable, while the remittances are the most important independent variable for our study. But, to conclude successfully our study is necessary to include other independent variables, which are also determinant for the economic growth.

According to Campos and Kinoshita (2002), the FDIs have a positive effect on the economic growth and the economic development in developing countries. In this variable are involved the FDIs for 2002 – 2014 time period.

The classic theory of Adam Smith and David Ricardo about the role of exports like a factor of economic growth is supported also by actual studies.

In this way, we have included the FDI and the exports like the independent variables, in our study, as the main determinants to the economic growth.

The mathematical relationship that we want to study in this case is:

$$PPB = \beta_0 + \beta_1 \cdot RMT + \beta_2 \cdot EXP + \beta_3 \cdot IHD + \varepsilon$$

In this case, we have determined these variables like this: the dependent variable is the growth of real GDP (PPB), the independent variables are (1) the remittances (RMT), (2) the Foreign Directed Investments (IHD), (3) the exports (EXP). The data are processed by SPSS version 21, through regression analysis.

Like the main source for our data is used mainly the Bank of Albania, Institute of Statistics and the Ministry of Finance. The data that appreciate the level of economic growth are expressed in the term of real GDP (PPB). These data express the numeric values that dependent variable takes in our econometric model.

Table 1. The collected data.

Year	Remittances	FDI	Exports	Growth of Real GDP (%)
2002	693.01	137.61	345.38	6.94
2003	774.00	169.87	426.68	16.18
2004	774.00	267.00	486.00	5.77
2005	802.00	209.00	530.00	9.47
2006	937.00	250.00	631.00	6.58
2007	951.70	463.70	786.00	5.96
2008	833.30	609.80	917.50	10.86
2009	781.30	688.70	750.70	-5.36
2010	689.80	788.50	1,171.50	-1.44
2011	665.00	716.80	1,405.50	2.54
2012	675.00	727.00	1,526.00	2.25
2013	543.80	923.00	1,757.00	-1.36
2014	591.90	800.00	1,826.00	0.39

V. Data analysis

To realize successfully this paper and to test the hypothesis we have done a statistical data processing relying on SPSS program version 21 analysing with general method known as cause-effect relationship, which are classified in two groups:

- (1) Correlative relationship
- (2) Mathematical relationship between dependent variable and independent variables.

Correlative relationships are shown on the table of bivariate correlations (table 1).

It is shown that it has a non-very strong correlation (p=0.041) between the remittances (RMT) and time period (YEAR). For the more, it is shown that this correlation is negative (PCC=-0.573), which is in coherence with albanian reality and to the origin countries of remittances. The deep crisis to Greece and at some other countries to EU, mainly Italia, has had as a result the

significant reduction of remittances by these countries. The same statistical characteristics are shown and for the couple variables: IHD with RMT (PCC = -0.578, p=0.038), and PBB with EXP (PCC = -0.587, p=0.035)

Table 1. Correlation coefficients to the variables

		Correlations				
		YEAR	RMT	IHD	EXP	PPB
YEAR	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	13				
RMT	Pearson Correlation	-.573*	1			
	Sig. (2-tailed)	.041				
	N	13	13			
IHD	Pearson Correlation	.950**	-.578*	1		
	Sig. (2-tailed)	.000	.038			
	N	13	13	13		
EXP	Pearson Correlation	.968**	-.685**	.901*	1	
	Sig. (2-tailed)	.000	.010	.000		
	N	13	13	13	13	
PPB	Pearson Correlation	-.694**	.460	-.746**	-.587*	1
	Sig. (2-tailed)	.008	.113	.003	.035	
	N	13	13	13	13	13

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

It is noted that the Bavaria correlation between GDP and the remittances does not exceed the level of statistical significance to the relationship between them (PCC = 0.460; p=0.113). By the macroeconomic view, the relationship between PBB and RMT is not so directly, because the remittances are not part of elements, which measure the GDP, but also they are not financial assets to be used for investments in the economic field to generate income. They are used mainly for consumption and family investments.

On the table of the correlation coefficients it is noted that between EXP and IHD exists a very strong correlative relationship with the high level of Pearson correlation coefficient (PCC = 0.901; p = 0.000). It is well known, that such levels of PCC take the risk of effects of multicollinearity between independent variables, which are related correlatively by coefficients near the value 1, in absolute value. The processed data are progressive annual data related with YEAR, and for this reason it is normal that the check of multicollinearity effects between independent variables to do through it.

Table 2. Partial correlation coefficients between IHD and EXP

		Partial Correlations		
Control Variables		IHD	EXP	
VITI	IHD	Correlation	1.000	-.239
		Significance (2-tailed)		.455
		df	0	10
	EXP	Correlation	-.239	1.000
		Significance (2-tailed)	.455	
		df	10	0

Controlling partial correlation between IHD and EXP in accordance to YEAR in the table of partial correlations it is noted that PCC- partial between IHD and EXP is too small (PCC = -0.239) and no-significative (p = 0.455), so the risk of multicollinearity effects to the appreciation of linear regression

coefficients is present¹. The SPSS program v.21 is enable to diagnose the multicollinearity and also to exclude the independent variable that causes this phenomenon.

Data processing with the help of Stepwise method through SPSS v.21 for the assessment of linear regression coefficients permits the use of only two independent variables in the model, concretely RMT and IHD (table 3). The statistical significance testing of these variables is done by F test, accepting as important those independent variables, which provide an F test probability less than 0.05.

Table 3. Verifying the significant variables

Variables Entered/Removed ^{a,b}			
Model	Variables Entered	Variables Removed	Method
1	RMT		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	IHD		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
a. Dependent Variable: PPB			
b. Linear Regression through the Origin			

The independent variable (EXP) is excluded by the model (table 4), because of the multikollinearity effects that it causes in the correlated relationship with the indepent variable (IHD) (VIF =24.482>10), but also because of the unaccepted level of significance (p=0.152)

Table 4. The excluded variables by the model

Excluded Variables ^{a,b}								
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
2	EXP	1.178 ^d	1.550	.152	.440	.041	24.482	.039
a. Dependent Variable: PPB								
d. Predictors in the Model: RMT, IHD								

On the table 5 is shown the coefficients of linear regression model for the independent variables that take part on the model. The assessment of these coefficients (C_{RMT} = 0.014 and C_{IHD} = -0.011) has a standard error of very good level, concretely: SE_{RMT} = 0.002 and SE_{IHD} = 0.004. The significant levels on this assessment protect also good levels of statistical significance of the model, concretely: p = 0.001 and p = 0.011 (table 5)

The mathematical equation that is derived by the linear regression coefficients on the table 5 is:

$$PPB = 0.014 \cdot (RMT) - 0.011 \cdot (IHD) + \varepsilon \quad (1)$$

The equation (1) shows that in the statistical model to assess the Albania GDP, the remittances (RMT) and the FDI (IHD) have an important role on the economic growth. The data that are used on this study for a time period 2002 – 2014 show that the statistical prognosis of their impact to the economic growth of GDP is positive for RMT and negative for IHD.

So, the equation (1) shows that the relation through remittances and the economic growth is positive, testing in this

way the hypothesis to this study. If the RMT is increased with 1 unit, than the GDP will be increased with 0.014 unit. This shows that a part of remittances is gone to the other field of economy which generate monetary values in the form of family businesses and the increased consumption.

Table 5. The coefficients of linear regression model

Coefficients ^{a,b}								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	RMT	.006	.002	.675	3.173	.008	1.000	1.000
2	RMT	.014	.003	1.443	4.839	.001	.299	3.343
	IHD	-.011	.004	-.916	-3.074	.011	.299	3.343
a. Dependent Variable: PPB								
b. Linear Regression through the Origin								

According to FDI, their negative impact is explained by the fact that the stimulated policies to absorb these investments don't have favoured the elements which are parts of GDP, like the free duty of FDI, the imports and the subventions on the local products, etc

One other reason on the negative impact of FDI to the GDP is the inconsistency of these investments because of the inconsistent policies that different governments, which have governed our country, have implemented during all this time period, and the uncertainty on the sustainability of fiscal policies.

VI. Conclusions

➤ The main purpose of this study is to evaluate the impact of remittances on growth. The results of this paper show that remittances have a positive impact on economic growth in Albania, as a developing economy.

➤ The increase with 1 unit of RMT's, gives rise to 0.014 unit of real GDP. This indicates that part of remittances have gone to areas that generate monetary value in the form of family businesses and increase of consumption.

➤ Remittances facilitate budgetary constraints of the families, for filling important needs, by funding the costs for food, health care, housing and education for their children.

➤ Also, emigration can have a detrimental effect on the internal market of labor in sectors such as higher education, government services, science and technology, manufacturing and services, especially when the labor force which emigrates in other countries are highly qualified.

➤ Remittances facilitate financial constraints and constitute a source of savings and financing, of interior sector. In this way, they stimulate economic growth.

➤ Remittances reduce instability of consumption and stimulate consumption expenditures, thereby affecting the growth of aggregate demand and gross domestic product.

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