



Remittances from Migrant Workers and their Importance in Economic Growth

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Abstract

Remittances are a growing financial resource, considered more stable than other capital flows, needed to be understood and at the same time to be exploited in a positive and efficient direction, both at the macroeconomic level, through the impact on economic development of a country, but also at the microeconomic level, through the improvement on the life's level and quality of people who receive this income from migrant workers. In this article we intended to analyze the impact of remittances on economic growth in Romania, one of the main countries in the European Union in terms of received remittances. The statistical analysis was conducted for the 2000-2016 period, the simple regression model was utilized and the least squares method was applied. The results of the study showed that remittances are significant in Romania and also have a positive impact on the economic development of the country.

Key words

Remittances, economic growth, migrant, regression model, capital flow

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1. Introduction

Remittances can be defined as money transfers made by people who left their home country to their family, relatives or friends in their home country. In our opinion, the definition does not surprise the essence of this income source, remittances represent more than money transfers, they can be seen as links between migrants and their families in the home country.

Remittances have a positive impact on the macroeconomic indicators of a country, such as: Gross Domestic Product, Financial Inclusion, or Poverty Reduction. It is therefore worthwhile studying their impact on the growth and development of the country considered.

The role of remittances can be better understood and implemented so as to prove their benefits for the economic growth of a country. Remittances can be seen as links between financially excluded individuals and banks or financial institutions that over time have been unwilling to develop financial products and services exclusively dedicated to this segment of the population, a segment condemned to poverty.

Remittances represent a first step towards a more effective financial inclusion. Through remittances people have access to cash, which has been proved to be the preferred mean of payment in EU countries. Moreover, by attracting unbanked individuals into financial systems and by creating remittances withdrawal mechanisms through financial institutions, the unbanked could contribute to the economic growth of their countries, either through savings, opening of savings accounts at a financial institutions, either by investing or reusing remittances and reinvesting them in the local community.

Romania represents an important case study. According to the World Bank, remittances in Romania were EUR 3.07 billion in 2016. This figure takes into account only remittances sent through official transfers, but it is estimated that the remittances in Romania were about EUR 5 billion.

In the year 2016, according to Eurostat, 118,03 million people, roughly 23.5% of the EU-28 population were at risk of poverty or social exclusion. The latest World Bank data indicates that the unbanked population in southern and eastern EU countries is on average of 26%. Romania has the highest percentage (40%, conservative estimate) of the unbanked population. Taking into account the size of the population, Romania with 7,8 million individuals has the largest unbanked population at risk of poverty in the EU. A special case is represented by the population living in rural areas, where banks do not have or have few outlets so that people do not have access to financial services. We can conclude that Romania is a good case to study, regarding the analysis of the impact of remittances on GDP.

In this article I studied the evolution of remittances in Romania during the 2000-2016 period. The analysis contains graphs and tables that give a more significant picture of the recorded situation.

2. Literature review

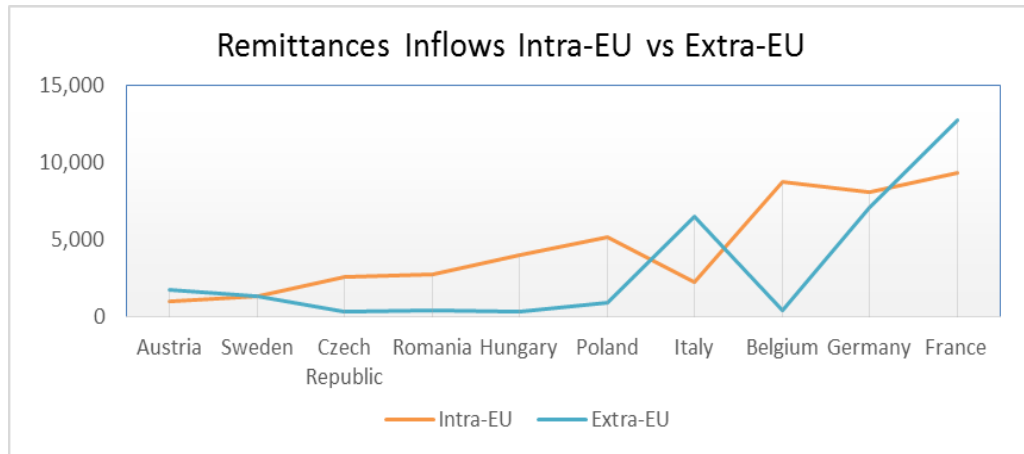
Anghelache *et al.* (2017) analyzed poverty, its measures and indicators, and presented some models for analyzing the impact of remittances on poverty. Anghelache *et al.* (2017) studied the main statistical and econometric models applied in investigating the impact of remittances on economic development. Anghelache (2010) analyzed the evolution of gross domestic product in Romania. Giuliano and Ruiz-Arranz (2008) have shown in their studies that remittances contribute in making profitable investments in countries with less developed financial systems. Brown (1994) investigates the relationship between remittances, savings and investment in Tonga and Samoa and ascertains that remittances contribute significantly to savings and investments in island economies. Mesnard (2004) analyzes the impact of remittances on Tunisia using a lifecycle model and observes that workers tend to use remittances to invest. Yang (2004) shows that remittances lead to improved schooling for children, increasing education and facilitating investment. Stark and Lucas (1988); Taylor (1992) and Faini (2002) also find a positive relationship between remittances and economic growth. Ratha (2003) concludes that the effect of remittances is that of consumption increase level in rural households. Ratha and Mohapatra (2007) analyzes the impact of remittances on poverty, economic growth and provide suggestions on modalities for developing countries to better use these capital inputs. Based on a set of 76 low and middle income developing countries in order to examine demographic, economic and financial determinants of international remittances, Richard and Adams (2008) states that countries that "export" a large proportion of educated individuals receive fewer per capita remittances than countries that "export" a larger proportion of low-skilled migrants. Remittances also contribute to poverty reduction (Gupta *et al.*, 2007). This paper studies the impact of increasing remittances flows to Sub-Saharan Africa and notes that remittances have a direct effect of poverty alleviation and a positive impact on the financial market.

3. Research methodology and data. Results and discussions

In 2017, the World Bank estimated an increase in remittances to developing countries of 4.8% over last year, reaching an amount of EUR 406 billion. Globally, the volume of remittances, including developed countries, has an estimated value of EUR 539 billion. The trend will continue to grow in 2018. The World Bank estimates a growth in remittances to developing countries of 3.5% to EUR 421 billion. This growth comes after two consecutive years of decline in remittances flow and is due to strong economic growth in the European Union, the Russian Federation and the US.

There have also been fluctuations in remittances in the European Union. According to Eurostat, in the period 2009-2013 the registered volume of remittances was about EUR 40 billion. Starting with 2014, the volume of remittances has increased from EUR 40.8 billion to EUR 43.8 billion in 2016.

Due to the fact that within the European Union the citizens can move freely in the labor market, the residents of the EU countries transfer money between them, according to Eurostat statistics, 2 out of 3 sent euros are also found within the EU countries. Figure 1 confirms this.



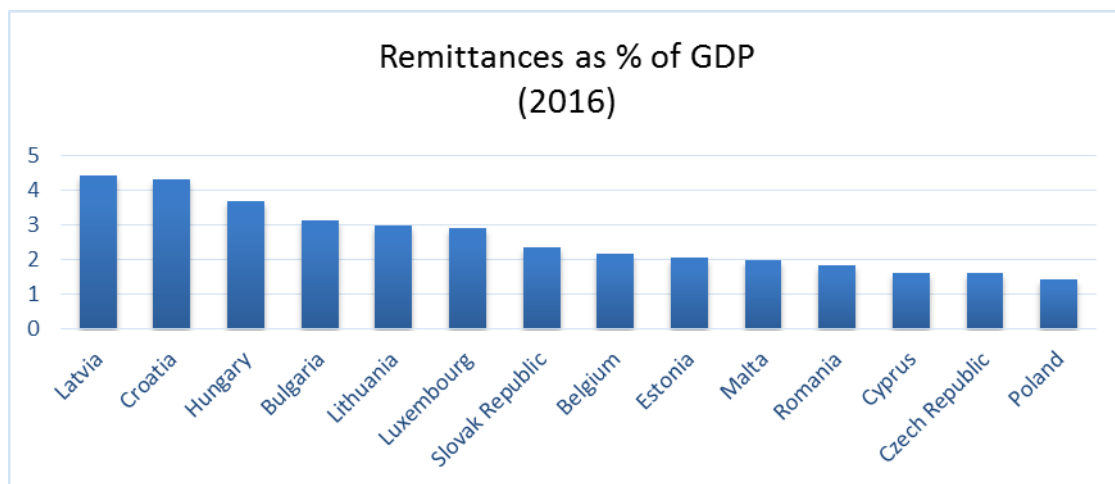
Source: Eurostat “Personal remittances total inflows to the EU-28, millions EUR”

Figure 1. Remittances inflows Intra-EU versus Extra-EU

Figure 1 presents the top ten EU countries that receive remittances within the EU (Intra-EU) compared to the remittance flow for the same countries that receive remittances from outside the EU (Extra-EU).

It can be observed that, for Italy, France and Austria, remittances received outside the EU (Extra – EU) have a higher value than transfers intra-EU, respectively EUR 4,2 million for Italy; 3,3 million for France and EUR 744 thousand for Austria. This is, of course, due to the fact that these countries receive larger volumes of migrants from outside the EU.

For the rest of the countries, most from Central and Eastern Europe, called also source countries for migration, remittances inflows come from countries within the EU.

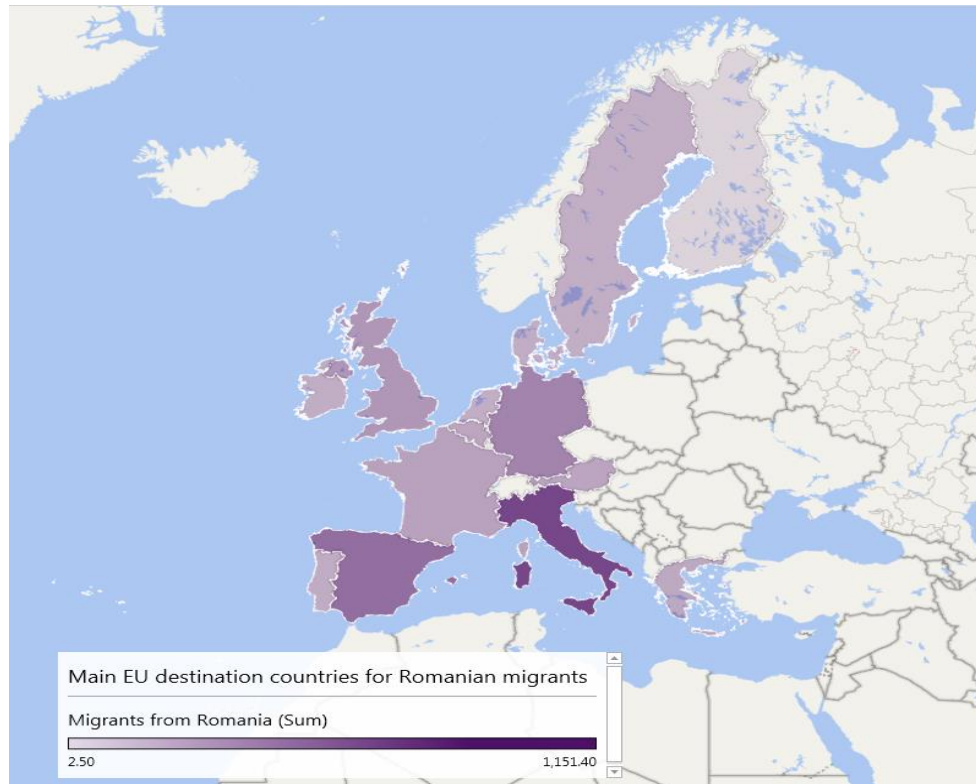


Source: World Bank, World Development Indicators - remittances as % of GDP, 2016

Figure 2. Share of remittances in Gross Domestic Product (GDP)

Figure 2, shows countries within the EU where remittances have a more visible impact on the country's economic growth. Latvia and Croatia occupy the first places, in these two countries remittances in GDP account for 4.4% and respectively 4.3%. In the case of Romania, the percentage of remittances in GDP is 1.86%.

Map 1 presents Romanian migrants preferences regarding destination countries. Italy is placed first on top of destination countries, registering 1,15 million Romanian migrants, followed by Spain with 695 thousand Romanian migrants and Germany with 444,2 thousand Romanian migrants.



Source: Eurostat – Migration and population statistics

Figure 3. The main destination countries for Romanian migrants, on January 2016 (thousands of people)

In order to analyze the remittances' impact, sent by Romanian migrants, on the country's economic growth, a series of data between years 2000 and 2016 was analyzed, using a simple linear regression model.

The simple linear regression model is given by the following relation:

$$GDP = \alpha_0 + \beta_1 Rem + \varepsilon \quad (1)$$

Where:

GDP – represents the Gross Domestic Product;

Rem – represents remittances sent by migrants to Romania;

ε – is the residual variable that expresses the effects of the other factors.

In order for the analysis to be as realistic as possible, we have chosen a longer analysis period, the data used covering the period 2000-2016.

For the analysis purpose, the data series employed were from the World Bank database and the bilateral matrix of remittances, namely: GDP for Romania, for the period 2000 - 2016, expressed in current prices, in US dollars. Remittances entered into Romania in the period 2000 - 2016, also expressed in current prices, in US dollars. According to the World Bank, data on remittances include personal transfers and employee compensation.

To estimate the regression parameters mentioned in equation (1), we used the least squares method using the Eviews 7.3 software.

4. Model results and their interpretation

The results of the model obtained by least square method are presented in Table1.

Test values R^2 (0.7892) and Adjusted R^2 (0.7752) show that the results obtained are statistically acceptable and significant. These values indicate that the probability that this model is correct is about 78.92%.

The validity of this regression model is confirmed by the F-statistic test values (56.18) and Prob(F-statistic) < 0.01. It can be said that the independent variable *Rem* significantly influences the dependend variable GDP, at the significance level of 1%.

Durbin-Watson statistics, which measures the serial correlation of residual values, shows a positive residue autocorrelation common to time series data, the value of Durbin-Watson statistics being in the range of 0 and 2, namely 0.70.

Thus, in the case of Romania, the results presented in Table 1 are satisfactory, with a value of R^2 of 78%, the model shows a variation of 78% through the explanatory variable - remittances of migrant workers. The impact of this variable on economic growth is positively significant at a significance level of 1%.

Table 1. Model estimates through Ordinary Least Squares (OLS)

Variable Explicative	Romania Coefficients
Rem	0.41 [0.05] (7.49)
C	17.02 [1.13] (15.04)
R^2	0.78
Adj. R^2	0.77
S.E. of regression	0.28
Durbin-Watson	0.70
Akaike info criterion	0.46
F-statistic	56.18
N	17

Note: t-Statistic is written in brackets (); standard errors in []; N- number of observations

We can assume that the simple regression model, which studies the correlation between gross domestic product and migrant remittances, is a correct one and also reflects the real evolution of the two macroeconomic indicators. Thus, we can rewrite the model as follows:

$$GBP = 17.02 + 0.41Rem$$

This model allows us to establish some aspects regarding the relationship between the two variables. It is noted that between the value of gross domestic product and that of remittances, during the period 2000-2016, in Romania there is a positive direct relationship.

The size of the resulting coefficient is 0.41, indicating that a change in an unity of remittances will bring an increase of 0.41 units in GDP (economic growth).

The situation resulting from this model is normal, in the sense that Romania is in top 10 receiving remittances countries in the European Union.

5. Conclusions

Remittances and their impact on economic development it is still worth studying, at both the macroeconomic and as well at the household level. The role and importance of remittances from migrant workers should be better emphasized so that they can be taken into account in a country's socio-economic development policies.

This article analyzed the impact of remittances on Romania's economic development, the study being conducted over a period of 16 years, between 2000 and 2016. In order to achieve this analysis, a simple regression model was used to demonstrate the positive impact of remittances send by workers from outside the country to Romania. In this analysis, the main focus was just on the analysis of the correlation between remittances and the Gross Domestic Product.

The study may be also extended to the analysis of the correlation between remittances and other macroeconomic indicators. It can be also analyzed the impact of remittances in reducing the poverty level using quantitative econometric models.

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