

## **THE IMPACT OF REMITTANCES ON GDP GROWTH: THE CASE STUDY IN THE REPUBLIC OF MACEDONIA**

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***Abstract:** Remittances are one of the main sources of international financial flows in the developing countries. The total amount of remittances in the developing world is as large as foreign direct investments, which is twice the size of official development aid. It is widely recognized that remittances are the most beneficial form of private financial inflows towards the developing countries. They are stable and mitigate shocks, they strengthen the balance of payment, reduce the poverty and provide financials for local development investment project, and as a final result they boost the local economy.*

*Remittances are very important source of international finances for the Macedonian economy as well. They surpass both official and other private transfers in the country. They are crucial for the balance of payment and represent the major source that finances the deficit in the current account. Many experts argue that remittances are also very important for the economic development, and that they enhance the economic growth.*

*The main objective of this paper is to determine whether the remittances influence on economic growth in the Republic of Macedonia. We have used remittances inflows and GDP growth rate for the period 1996-2016 as variables, in order to determine the inter-relationship. The data were provided from the National Bank of the Republic of Macedonia, as well as from the World Bank database. Granger Causality Test was carried out, using the contemporary econometric software EViews10, in order to determine the inter-relationship between the variables. Unit root test was conducted in order to determine whether the variables are stationary, and also the Cointegration test was performed.*

*The Johansen Cointegration test has shown that there is no long-run relationship between the remittances and GDP growth rate. Additionally, the Granger causality test has shown that we should accept the null hypothesis that remittances does not Granger cause GDP per capita, which means that remittances can't be used as a credible base for forecasting the future values of GDP growth rates.*

*The outcomes of this research should be used by the policymakers, who should introduce measures in order to stimulate the investments of remittances.*

**Keywords:** *Remittances, GDP growth rate, Johanses Cointegration Test, Granger Causality Test.*

**JEL classification:** *F62, O11*

## 1 INTRODUCTION

The remittances represent one of the main sources of the international financial resources. Given the number of the international global migrants – 232 million and additionally about 70 million internal migrants, and the fact that the majority of migrants are coming from developing countries, it is understandable why remittances are as large as foreign direct investments inflows in developing countries, and why remittances are twice the size of official development aid. It is estimated that the global remittances were about \$582 billion<sup>1</sup> in 2015, of which about 70-75% are directed towards the developing countries, where they approximately represent about 27% of GDP. The data themselves indicates the importance of the remittances for the overall economic stability and prosperity in the developing countries.

Macedonia as a developing country has about 200.000 people, who live abroad. Additionally, it is estimated that up to 500.000 people are established abroad, bringing the emigrant rate above 25% of the total population in the country. That is why remittances represent by far the most important item in the balance of payment of Macedonia, in the past years. The data suggests that formal and informal private transfers surpass both official and other private transfers and are the greatest contributor for covering the trade deficit.

Even that the positive effects of remittances are widely recognized and almost all economists agree that remittances are counter-cyclical, they stabilize the economy, reduce poverty and enhance economic development, and even that all of them are aware of the possible consequences of so-called “Dutch disease”, there has been very little literature devoted to exploring the effects of remittances on recipient countries. Despite that, the existing literature is mostly concentrated on estimating the effects of remittances on shocks mitigation,

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<sup>1</sup> “Migration and remittances: Recent developments and Outlook”, World Bank, Washington D.C., April 2017

while there is much less researches about the impact of remittances on economic growth.

The main objective of this paper is to discover whether remittances have impact on the economic growth. We have used remittances inflows and GDP growth rate in Macedonia for the period 1996-2016 as variables, in order to determine the inter-relationship. The data were provided from the National Bank of the Republic of Macedonia, as well as from the World Bank database. Granger Causality Test was carried out, using the contemporary econometric software EViews10, in order to determine the inter-relationship between the variables. Unit root test was conducted in order to determine whether the variables are stationary, and also the Cointegration test was performed.

The paper is organized in three sections. The first section is dedicated to literature review. In the second section we will present the data about the remittances and GDP growth in Macedonia and in the same time we will elaborate the main effects of remittances inflows in Macedonia. In the third section we will explain the methodology and present the empirical results from the research. The paper finishes with the final conclusions, where we have sublimated the results from the study.

## **2 LITERATURE REVIEW**

We already mentioned that remittances are very important for the developing countries, since they bring many positive impulses in the economy. However, there are some researches, which emphasize that remittances might be volatile and unpredictable, they support excessive consumption, and finally may lead to so-called “Dutch disease”. Hence, we can analyze the remittances impact on recipient economy at least from two angles. From a development perspective, remittances are crucial for poverty reduction, consumption smoothing, saving and funding small scale investments, and from risk perspective – they may be potentially volatile and unpredictable and they may artificially support excess private demand for extended period of time, which prevent the adjustment of relative prices and the efficient allocation of labor and resources across sectors.<sup>2</sup>

The literature which underlines the positive effects of remittances on growth, distinguishes counter-cyclical and pro-cyclical remittances, depending on whether they are channeled towards consumption or investments. So, there are

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<sup>2</sup> M. Gerard, P. Gitton, G. Nacevski, M.T. Sanjani, “Former Yugoslav Republic of Macedonia Selected Issues”, IMF, June 14 2014

altruistic remittances, which are sent to relatives at home and are directed towards consumption smoothing, which means that they are counter-cyclical with regard to economic condition. The second type is so-called self-interest remittances which are pro-cyclical, and refer to the remittances which are sent for direct or portfolio investments. This form of remittances leads to improvement of business climate during the expansions and weakening during the difficult times.

Adams and Page (2005),<sup>3</sup> Acosta et al. and World Bank (2007)<sup>4</sup> argued that migrant remittances impact positively on the balance of payments in many developing countries as well as enhance economic growth, via their direct implications on savings and investment in human and physical capital and, indirect effects through consumption. Iqbal and Sattar (2005)<sup>5</sup> argue that in the absence of worker remittances, it is likely that exchange rate, monetary and fiscal policies will come under pressure. Rao and Hassan (2011)<sup>6</sup> have analyzed the effects of remittances on growth with the help of Solow growth model. The study found that migrant remittances have positive but marginal effect on growth. World Bank and IMF findings show that remittances indirectly increase the growth rate by reducing output volatility. Fayissa and Nsiah (2010)<sup>7</sup> had investigated the inter-relationship between economic growth and remittances through panel data of 64 different countries from Africa, Asia, and Latin American and Caribbean from 1987–2007. They conducted unit root and panel co-integration tests in order to investigate the relationship between remittances and economic growth. They found that there is positive relationship between remittances and economic growth throughout the whole group. Giuliano and Ruiz-Arranz (2009)<sup>8</sup> have analyzed the data from 100 developing countries in the period 1975–2002 and discovered that remittances enhance economic growth only in less financially developed countries. The positive developmental effects of remittances focuses on the multiplier effects of

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<sup>3</sup> R. Adams, J. Page, “Do international migration and remittances reduce poverty in developing countries”, *World Development* 33, 1645–1669, 2005

<sup>4</sup> P. Acosta, P. Fajnzylber, J. H., Lopez, “The Impact of Remittances on Poverty and Human Capital: Evidence from Latin American Household Surveys”, *World Bank Policy Research Working Paper*, p. 4247, 2007

<sup>5</sup> Iqbal, Z., and Sattar, A., “The Contribution of Workers’ Remittances to Economic Growth in Pakistan”, *Research Report*, Pakistan institute of development economics, 2005

<sup>6</sup> B. Rao and G. Hassan, “A panel data analysis of the growth effects of remittances”, *Economic Modeling*, Vol. 20, Issue 1, pg. 701-709, 2005

<sup>7</sup> B. Fayissa and C. Nsiah, “The impact of remittances on economic growth and development in Africa”, *The American Economist*, Vol. 55, No. 2, pp 92-103, 2010

<sup>8</sup> P. Giuliano, M. Ruiz-Arranz, “Remittances, financial development, and growth”, *Journal of Development Economics* 90, pp 144–152., 2009

consumption, development of the financial institutions that handle remittance payments, use of remittances as foreign exchange, and the role of remittances as an alternative to debt that helps alleviate individuals credit constraints in countries where micro-financing is not widely available.

Despite the researches, which have shown the positive impact of remittances on the overall economy, there are some studies that emphasize the negative effects of remittances. Lipton (1980),<sup>9</sup> Ahlburg and Brown (1999)<sup>10</sup> and Ahlburg (1991)<sup>11</sup> argued that remittances undermine productivity and growth in low-income countries because they are readily spent on consumption likely to be dominated by foreign goods than on productive investments. Chami and Jahjah (2005)<sup>12</sup> found that migrant remittances have negative impact on growth in per capita incomes. The study reported three stylized facts: first, that a “significant proportion, and often the majority,” of remittances are spent on consumption; secondly, that a smaller part of remittance funds goes into saving or investment; and thirdly, the ways in which remittances are typically saved or invested – in housing, land and jewelry – are “not necessarily productive” to the economy as a whole. Empirical results also indicate that remittances may indirectly affect real exchange rate leading to the “Dutch Disease” phenomenon, where remittances inflow causes a real appreciation, or postpones depreciation, of the exchange rate. Exchange rates appreciate in countries with large remittances which will in turn hurt the economic growth. Amuedo-Dorantes and Pozo (2006)<sup>13</sup> and López et al. (2007)<sup>14</sup> found that remittances, like capital flows can appreciate the real exchange rate in recipient economies and therefore generate a resource allocation from the tradable to the non-tradable sector. Rodrik (2006)<sup>15</sup> argue that real exchange rate overvaluation undermines long-term economic growth, particularly for developing countries,

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<sup>9</sup> M. Lipton, “Migration from the rural areas of poor countries: The impact on rural productivity and income distribution”, *World Dev.*, 8, pp 1-24, 1980

<sup>10</sup> R.P.C. Brown, and D.A. Ahlburg, “Remittances in the South Pacific”, *Int. J. Soc. Econ.*, pp 325-344, 1999

<sup>11</sup> D.A. Ahlburg, “Remittances and their impact: A study of Tonga and Western Samoa”, *Pacific Pol. Paper No. 7*, The Australian National University, Canberra, 1991

<sup>12</sup> R. Chami, C. Fullenkamp and S. Jahjah, “Are immigrant remittance flows a source of capital for development?” *IMF Staff Papers*, pp 55-81, 2005

<sup>13</sup> C.A. Dorantes and S. Pozo, “Migration, remittances and Male and Female Employment Patterns”, *American Economic Review*, Vol.26, No.2, pp222-226, May 2006

<sup>14</sup> P. Fajnzylber and J. H. Lopez, “Remittances and Development: Lessons from Latin America”, *World Bank*, Washington D.C., 2007

<sup>15</sup> D. Rodrik, “The social cost of foreign exchange reserves”, *International Economic Journal*, 19 20 (3), pp 253–266, 2006

where tradable goods production suffers disproportionately from weak institutions and market failures.

As for the remittances in Macedonia, the previous studies found that the remittances were counter-cyclical with respect to Macedonian GDP and procyclical with respect to EU - GDP<sup>16</sup>. This is understandable, considering the fact that the majority of remittances in Macedonia are coming from the EU countries. Petreski and Jovanovic (2016)<sup>17</sup> found that remittances reduce both poverty and income inequality and point the resilience of remittances devoted to consumption during the crisis. Gerard et.al (2014)<sup>18</sup> point out that remittances in Macedonia are undermining the external competitiveness of the country, by supporting the excess liquidity in the long run. They also argue that remittances are interest sensitive and put upward pressure on internal real exchange rate.

In terms of remittances in Macedonia it worth mentioning the research, which was conducted by Dr. SeadinDzaferi (2002),<sup>19</sup> who was investigating the structure of remittances in Macedonia. Dr. Dzaferi found that remittances in Macedonia are mainly consumption smoothing – 54,6% for basic needs of the families of the migrants and 13% for home repairs and building new homes, and the rest of the remittances are intended for investments and saving – 15.3% for investments and 3.1% for savings. Given the small amount of remittances directed towards investments and savings, Dr. Dzaferi has concluded that this proportion of remittances intended for investments is not sufficient to enhance the economic development and to reduce the unemployment rate in the country. Other research, made by Robert, et.al. (1985)<sup>20</sup> indicate that 74.1% of total remittances in Macedonia are directed for current spending, 8.8% for home construction, 5.7% for home maintenance and 13.7% for saving. According to this research investments are not considered as an important use of recipients, thus directly they do not have positive impact on growth, but indirect impact, through consumption and savings.

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<sup>16</sup> Ibidem.

<sup>17</sup> M. Petreski, and B. Jovanovic, “Do Remittances Reduce Poverty and Inequality in the Western Balkans? Evidence from Macedonia?”,2016

<sup>18</sup> M. Gerard and P. Gitton, G. Nacevski, M. T. Sanjani, “Former Yugoslav Republic: Selected Issue”, IMF, June 17 2014

<sup>19</sup> S. Dzaferi, ,, The financial potential of the migrants and their inclusion in the economy of the Republic of Macedonia” doctoral dissertation, Economic Institute – Skopje, March 2004

<sup>20</sup> R. Lucas, E. B., O. Stark, “Motivations to Remit: Evidence from Botswana,” Journal of Political Economy, Vol. 93, No. 5, The University of Chicago Press, 1985

### 3 REMITTANCED AND GDP IN MACEDONIA

Although the remittances inflows in Macedonia are below the level in neighboring countries, they still represent by far the most important item in the country's balance of payment. The remittances surpass both – the official and other private capital transfers, and they play a major role in covering the country's trade deficit. Robert et.al.<sup>21</sup> argue that nearly 43% of the remittance recipients receive at least 1.000 EUR annually, while 39% of recipients have responded that remittances constitute half of their disposable income, and that on average they annually receive 2.486 EUR. Considering the current economic situation in Macedonia and consider the number of migrants from Macedonia<sup>22</sup> it is clear that these numbers are very important for the overall Macedonian economy. In the relation with the Macedonian GDP, remittances have shown to be a very stable source of foreign capital, fluctuating between 13-21% of GDP.

Before we move on presenting the data about the remittances and GDP in Macedonia, we would like to point out that it is very difficult to get accurate data about the remittances. The reason is that the majority of the remittances are transferred through informal channels. There are many reasons for that: to escape the taxation, to avoid the payment of transactional expenses, which on average cost between 1-5% of the value (they are especially unsuitable for transfer of small values, because of the minimal cost of about 5-50\$), and the wish to keep the information about the transfer of money as a secret.

The majority of Macedonian emigrant are trying to escape the usage of formal channels and they prefer to use the informal channels, and that is the reason why it is very difficult to find out the real amount of remittances inflow, and to discover their impact on economy. From the other side it is essential to have the proper measurement of remittances in order to determine their impact on the economy and to make the proper decisions. Increasing the formality of transfers is crucial, because it makes the whole process more secure, easily monitored and the finances can be used in a more effective way. It is true that the formality of remittances has grown in the past years, due to the adoption of more innovative and cheap technology for money transfer, but still the majority of the private transfers are still informal.

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<sup>21</sup> ibidem

<sup>22</sup> It is estimated that about 200.000 people with Macedonian citizenship are living abroad, and additionally 550.000 Macedonians are established abroad, that makes emigrant rate above 25% of total population in Macedonia.

Officially recorded remittances are only a small share of total private transfers. National Bank of the Republic of Macedonia breaks down the private transfers into two items:

- Workers' remittances – received through official channels and reported as such by individuals. On average they represent about 2.5% of GDP. The data for this item are provided by Bank International Transactional Reporting System, which includes money transfers by banks and fast money transfer counters.
- Net cash exchange – which consist of net cash exchange (represent the largest share of private transfers and are recorded by banks and private exchange offices) and other private transfers (rents, pensions, disability assistances coming from abroad, etc.).

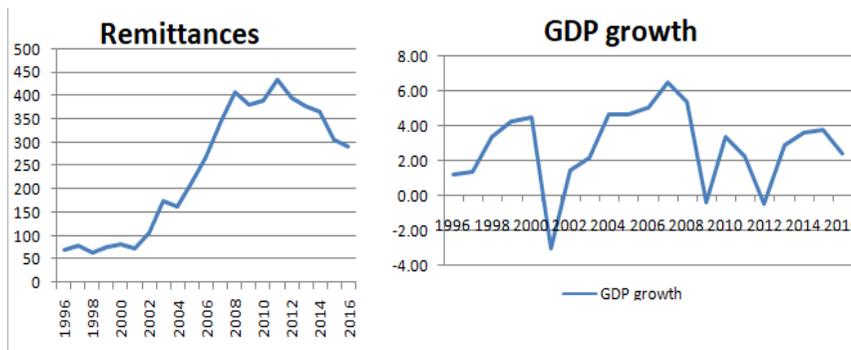
For the purpose of this research we have used the data about the personal migrant remittances inflow provided from the World Bank database. World Bank is calculating the personal remittances as personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities.<sup>23</sup>

In addition we will present the data about the remittances and GDP growth rate in the Republic of Macedonia.

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<sup>23</sup> <https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT?locations=MK&view=chart>

**Graph 1: Remittances and GDP growth rate in the Republic of Macedonia**



Source: Research calculation

From the presented graphs, we can see that the remittances and the GDP growth rate do not have similar trend. Namely, GDP growth rate has more unstable movement, compared to the remittances. Despite that it is obvious that the remittances in Macedonia are counter-cyclical, since they have grown during the periods of slowdowns in Macedonian economies – 2001, 2009 and 2012, and have mitigated the crisis. These claims confirm the findings of Dr. Dzaferi, who found that the remittances in the Republic of Macedonia are consumption smoothing, rather than directed in investments.

## 4 METHODOLOGY AND RESULTS

In order to get reliable results about the influence of remittances on GDP growth rate, we will use the data provided from the National Bank of the Republic of Macedonia and from the World Bank database. The annual data are for the period from 1996 to 2016. We will use Johansen Cointegration Test in order to investigate whether there is a long run relationship between the variables and Granger Causality test to explore the causal relationship between remittances and GDP growth rate in the Republic of Macedonia. Before we go on Johansen cointegration test and Granger Causality test, we must explore whether the variables are stationary. For that purpose we will do the unit root test, using Augmented Dickey–Fuller test (ADF).

### 4.1 Augmented Dickey–Fuller ADF unit root test

In order to use Granger causality test first we need to explore whether the variables are stationary. That is why we will conduct the Augmented Dickey–Fuller test (ADF). The null hypothesis in ADF test is that there is a unit root, and the alternate hypothesis is that the time series do not have unit root. The

ADF unit root test was done first in level form and then in 1<sup>st</sup> difference. The lag length for ADF test was chosen by using Schwarz’s criterion (SC’s information criterions). Below we will present the results for ADF test for both variables.

**Table 1: ADF unit root test for remittances**

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.950189	0.0582
Test critical values:		
1% level	-3.831511	
5% level	-3.029970	
10% level	-2.655194	

Source: Research calculations

**Table 2: ADF unit root test for GDP growth rate**

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.586747	0.0021
Test critical values:		
1% level	-3.831511	
5% level	-3.029970	
10% level	-2.655194	

\*Mackinnon (1996) one-sided p-values.  
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Source: Research calculations

The results from the ADF test indicate that remittance series is non-stationary at its level form, but it achieves stationary in its first difference. We got the same results for the GDP growth rate series. We have considered critical values for 5% level of significance. In addition, we have also done Phillips-Perron unit root test, and we got the same results. Since, the results from the unit root test are adequate for Granger causality test, we can now go further to the Johansen Cointegration Test and Granger Causality test.

## 4.2 Johansen Cointegration Test

The main purpose of the Johansen Cointegration Test is to discover whether there is a long-run interrelationship between the variables. In addition we will present the results from the Johansen cointegration test.

**Table 3: Johansen Cointegration test**

Johansen Cointegration Test				
Date: 03/31/18 Time: 22:36				
Sample (adjusted): 1999 2016				
Included observations: 18 after adjustments				
Trend assumption: Linear deterministic trend				
Series: REMITTANCES GDP_GROWTH				
Lags interval (in first differences): 1 to 2				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.330729	7.431641	15.49471	0.5280
At most 1	0.011239	0.203439	3.841466	0.6520
Trace test indicates no cointegration at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Research calculations

The results from Johansen Cointegration test have shown that there is not long-run relationship between the remittances and the GDP growth rate. The results have shown that there is not any cointegration at the level of significance of 5%.

## 4.3 Granger Causality Test

As the results from the unit root test are eligible, we can now investigate the impact of remittances on GDP growth rate, using the Granger Causality Test. The null hypothesis is that remittances does not granger cause GDP growth rate. The alternate hypothesis is that remittances does granger cause GDP growth rate.

Since, the EViews 10 software automatically gives the results not only about the impact of remittances on GDP growth rate, but also vice versa, we will present the results about the impact of GDP growth rate on remittances, also. So, for this case the null hypothesis is that GDP growth rate does not granger cause remittances and the alternate hypothesis is that GDP growth rate does granger cause remittances.

The results from the Granger Causality Test are presented in the Table 4. The Akaike Information Criterion(AIK) and the Schwarz's criterion were used in order to determine the lag lengths, and both found that the optimal lag length is 2.

**Table 4: Granger Causality Tests Results (2 lags)**

View	Proc	Object	Print	Name	Freeze	Sample	Sheet	Stats	Spec
Pairwise Granger Causality Tests									
Date: 03/31/18 Time: 22:38									
Sample: 1996 2016									
Lags: 2									
Null Hypothesis:						Obs	F-Statistic	Prob.	
GDP_GROWTH does not Granger Cause REMITTANCES						19	1.10413	0.3587	
REMITTANCES does not Granger Cause GDP_GROWTH							1.35322	0.2902	

Source: Research calculation

The results from the causality analysis are showing the inter-relationship between the remittances and the GDP growth rate. The Granger Causality test gives information about the impact of one variable on the other and vice versa. As we mentioned before, although the main target of our interest is ascertaining whether the remittances contribute to the growth of GDP, the analysis have given us broader information.

From the Table 3 we can conclude that we failed to reject the hull hypothesis that remittances does not granger cause GDP growth rate. We have considered 5% level of significance, which is usually set as mostly acceptable, and since p value is bigger than the accepted value of significance of 5%, we will accept the null hypothesis and conclude that the past values of remittances cannot be used as a credible base for forecasting the future value of the GDP growth rate.

Although the impact of GDP growth rate on remittances is not the exact field of interest of this paper, we will comment the results. The p value in is in the range 0.35, which is far above the determined level of significance of 5%. The results suggest that we failed to reject the null hypothesis, that GDP growth rate does not Granger Cause remittances. The results indicate that GDP growth rate is not a variable that determines the future value of remittances.

The Granger Causality test which explored the causality relationship between the GDP growth rate and the remittances in the Republic of Macedonia showed that GDP growth rate is not connected with the level of remittances in the Republic of Macedonia. The results were expected, considering the fact that remittances are mainly consumption smoothing and very small share of the

overall remittances are directed towards investments. Of course that increase in consumption will increase the production of tradable and non-tradable goods, but a part will be compensated with import. That is the reason why consumption smoothing remittances do not have always positive impact on GDP growth. Contrary, remittances which are directed toward investments have more positive impact on GDP growth rate.

## 5 CONCLUSION

Remittances are very important for developing countries. The total remittances inflows toward developing countries have reached \$582 billion in 2015, of which about 70-75% are directed to developing countries, where they approximately represent about 27% of GDP. The data themselves indicates the importance of the remittances for the overall economic stability and prosperity in the developing countries. Remittances have many positive impacts on recipient economies, such as shock mitigation and stabilization of the economy, poverty reduction, balance of payment stabilization, economic development boosting, etc..Despite these positive effects, remittances might have some negative implications on the economy, and may lead to the so-called “Dutch disease”. The effects from the remittances mainly depend on their usage – whether they are consumption smoothing or self – interest. Remittances produce greatest positive effects, if they are self - interest, since they stimulate the investments and increase the production.

The main objective of this paper was to discover whether the remittances inflows in Macedonia influence on GDP growth in the country. We have conducted Johanes cointegration test and Granger causality test, in order to determine whether there is a long-run relationship between the variables and whether remittances can be used as a basis for forecasting the future values of GDO growth.

The results from the Johanes Cointegration test have shown that there is not any cointegration between remittances and GDP growth rate, which means that there is not long-run relationship between the variables. The results from the Granger Causality test have suggested that we should accept the null hypothesis that remittances does not granger cause GDP growth rate, which means that the past values of remittances can not be used as credible base for forecasting the future values of GDP growth.

The analysis from Johanes cointegration test as well as from the Granger causality test, have confirm our expectations that remittances do not influence

on GDP growth. The main reason for that is the fact that remittances inflows in Macedonia are mostly altruistic – consumption smoothing, and not self-interested which are directed towards investments and savings. Contrary to self-interest remittances, which always increase the production, the altruistic remittances may have the different impact. Namely, they increase the overall consumption of tradable and non-tradable goods, and in most cases they increase the import. As a result in some cases they do not influence on GDP growth, just like it is the case in Macedonia.

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