Remittances and Economic Growth Nexus: Evidence from Jordan

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Abstract

Remittances considered as one of the most important sources of financial inflows for developing countries. This study aims at investigating whether remittances have a significant role in promoting economic growth in Jordan or not. For this purpose the study tests the unit root for the variables and applies the cointegration test besides the error correction model using annual data for the period 1972 to 2016. Results reveal that there is a stable long run relationship between GDP percapita and remittances in Jordan as well as in the short run. As a result, the study confirms the positive significant effect of remittances on economic growth. In other words, remittances of Jordanians enhancing economic growth for local Jordanians which improve standards of living and participate in reducing level and depth of poverty in Jordan. The study recommends cutting fees on remittances transfers and to direct Jordanians to invest remittances in productive projects in order to achieve high economic growth, increase employment, and eventually improve the standard level of living. Besides, the study recommends liberalizing movement of workers across Arab countries and foreign friend countries. Moreover there is a real need for conducting more studies that reveal the ways of spending remittances in Jordan.

Keywords: Economic Growth, Remittances, Foreign Direct Investment, Trade Openness, Jordan.

1. Introduction

Remittances of abroad workers are one of the most important external financial flows to the Arab countries, where both development assistance and foreign direct investment inflows exceed their value. It represents the return of labor migration, which contributes to improving macroeconomic indicators in general and achieving high economic growth rates in future countries (Arab Monetary Fund, 2006).

The remittances of foreign workers in the Arab countries are characterized by several points, including that the Arab region includes recipient countries for remittances, and sending countries for remittances. Others receive and send workers' remittances at the same time. In terms of number, the majority of Arab countries are net recipients of remittances. In terms of the value of remittances, Arab countries are considered as net exporters of workers' remittances.

The developed countries are the most important source of remittances. Though, remittances from middle-income and high-income developing countries to other developing countries have increased significantly over the past years. This is due in large part to the increasing number of migrant workers among developing countries as a result of the rapid economic growth experienced by developing countries hosting foreign labor, such as the Gulf Arab countries.

Remittances to the Middle East and North Africa (MENA) region witnessed a decline in 2016, by 4.4%. The decline was due to the reduction in remittances to Egypt, the largest remittances recipient, caused by the low price of oil, tightening of fiscal policy and the slow economic activity in GCC countries in 2016. The slowdown led to losing jobs, wages delaying and cuts of migrant workers. Subsidies reforms increased the cost of living, and thus decreased the amount that migrants could remit. Egypt, Jordan, and the Republic of Yemen were mostly affected, as they receive the bulk of their remittances from GCC countries and are highly dependent on remittances. (World Bank Group, 2017) As a developing country, Jordan relies on remittances to achieve many goals, including increased household consumption, increased investment, higher per capita income, increased welfare and an important source of foreign exchange inflows. Jordan was the fourth largest Arab country to receive remittances in 2016, reaching $4.375 billion, while it ranked third among the Arab countries that receive remittances as a percentage of GDP in 2016, reaching about 13%. (World Bank, 2017).

According to the period of study (1972-2016), there are some important points about the revolution of remittances in Jordan. In the 1970s, Jordanian workers' remittances increased dramatically due to high oil prices during that period, which led to higher oil revenues, thus improving the incomes of Jordanians abroad and increasing the value of their remittances to Jordan. For example, the rate of growth in remittances reached 146.1% in 1976.

In the 1980s, the rate of growth in remittances began to decline, and in 1989, the rate of growth in remittances declined by about 30% due to the Jordanian Dinar crisis in that year, which led to the depreciation of the Jordanian Dinar.

In the early 1990s, especially in 1992, the rate of growth of remittances of Jordanian workers increased by 88%, due to the return of many expatriates in the Gulf countries, especially from the State of Kuwait.

At the beginning of the twenty-first century, the growth rate of workers' remittances was steady and slow, but in 2009, after the global financial crisis that hit the world's economies, the growth rate fell by 1.3%. In 2015, the growth rate of remittances declined by 19% due to fiscal consolidation (including the introduction of a GCC-wide value-added tax) will dampen the recovery of growth in GCC countries and remittances outflows from the region. (World Bank, 2017).

It can be said that the volume of remittances flowing to Jordan and their use determines their impact on many macroeconomic variables, especially economic growth, where many policies and measures have been taken to increase the volume of remittances and direct them to investment and facilitate their flow through official channels.

This study is important because it examines the impact of remittances on economic growth in Jordan during the period 1972-2016. This period witnessed many developments and economic changes through the construction of a standard model that takes into account some explanatory variables related to economic growth such as trade openness and foreign direct investment.

2. Literature Review

Several previous studies have examined the impact of remittances on macroeconomic variables, including economic growth, where they used different methods and models of analysis, and reached many different results. Few of them concluded that there was a negative impact on transfers to economic growth. Some studies show that there was no effect on remittances on economic growth, while most studies found a positive impact on transfers to economic growth.

According to Pradhan (2016), investigates the dynamic relationship among remittances, export, exchange rate and economic growth in emerging (Brazil, Russian Federation, India, China and South Africa) economies using balanced panel data ranging from 1994-2013. As a group FMOLS extends negative impact of remittances on economic growth across the selected emerging economies. Panel Vector Error Correction Model (PVCEM) reveals that there is a long-run causal relationship running from export and remittances to economic growth.

Amuedo and Pozo (2004) show that remittances could reduce the international competitiveness and impose economic costs on the export sectors of receiving countries. Chami et al. (2005) conclude in favor of a negative link between remittances and economic growth for a panel of 113 countries over almost thirty years.

Many studies found there is no relationship between remittances and economic growth. Jouini (2015) studied the causality between remittances and economic growth in Tunisia using auto-regressive distributed lag (ARDL) with time series data for the period (1970-2010). He found that there is no impact on the economic growth in the long run and bidirectional causality between remittances and growth in the short run. The same result reached by Lim and Simmons (2015), who use panel cointegration test for Caribbean Community and Common Market (CARICOM), and found there is no significant relationship between remittances and economic growth in the long run. And Rao and Hassan (2011), estimated with panel data of 40 high remittance recipient countries with the system generalized method of moment. We found that remittances have no direct growth effects but they have small indirect growth effects.

Other studies focused on the causality between remittances and economic growth. Nyeadi and Atiga (2014), Olubiyi (2014) and Siddique et al. (2012) found that there is unidirectional causality from remittances to economic growth. While Kumar and Vu (2014) found that there is bidirectional causality between remittances and economic growth.

The majority of studies found that there is a positive relationship between remittances and economic growth. Jawaid and Saleem (2017) study investigates the relationship of foreign direct investment, workers' remittances, and external debt with economic growth of Pakistan by employing time series data from 1976 to 2015. The results indicate foreign direct investment has a significant and negative effect on economic growth, whereas a significant positive effect of remittances and external debts on economic growth.

Nwaogu and Ryan (2015) utilize panel data analysis to examine the relationship between remittances and economic growth in 53 African and 34 Latin American and Caribbean countries. They found a positive impact of remittances on economic growth.

The same result found in many studies like Imai et al. (2014), Zizi (2014), Salahuddin (2013), Kumar (2013), Nsiah and Fayissa (2013), Ramirez (2013), Cooray (2012), Nyamongo et al. (2012), Fayissa and Nsiah (2010), Giuliano and RuizArranz (2009), and Qayyum et al. (2008).

Finally, few studies found there is no causality between remittances and economic growth like Ahamada and Coulibaly (2013), who studied 20 Sub-Saharan African countries through the period of 1980–2007 using panel granger causality. Other studies result that there is no impact of remittances on economic growth like Barajas et al. (2009).

3. Methodology

This study investigates the existence of a significant statistical connection between remittances and economic growth in Jordan. It is needless to say that the availability of proper and credible data is very important for diagnosis analysis. The study will use an annual data set for Jordan for the period (1972-2016) that is retrieved from World Bank data base.

The study will test the long run relationship between remittances percapita (Rem_Percapita), FDI, openness and income percapita (GDP_Percapita) in Jordan. For this purpose, this study will use the unit root tests, Johansen co-integration technique and the Error Correction Model (ECM) to attain its objectives.

4. Analysis Results

As widely known, the main aim of cointegration analysis is to clarify the nature of the long-run connection among a set of time series variables. Yet, it is important to check each time series for stationarity first and then run the cointegration test if the given time series is not stationary at level. The results show that variables are stationary at first difference, which implies that variables are integrated of order one, I(1). Based on these results, one can test for the existence of a long-run relationship between the variables, that is, cointegration.

Cointegration implies that in spite of being individually not stationary, a linear set of two or more time series could be stationary. Results of Trace Statistic and Max-Eigen Statistic tests confirm the existence of long run relationship between the variables, which give the green light to apply the Error Correction Model (ECM). The cointegration results permits to test and estimate short and long run relationship between variables using the ECM approach which also helps to solve the spurious correlation problem among economic variables.

The study proceed with the estimation of the Error Correction Model which was developed by Engle and Granger to reconcile the short-run behavior of an economic variable with its long-run behavior and to investigate the adjustment mechanisms towards the long-run equilibrium represented by the cointegration relationship. Hence, ECM shows the dynamics of short run adjustments towards the long run equilibrium.

The results show that there is a stable long run relationship between GDP percapita and Rim percapita in Jordan as well as in the short run because the t-statistics of these variables are significant except for FDI. This relationship explains that the effect comes from openness and remittances to GDP percapita in the long run. This effect was estimated to be 1.98 and the negative sign indicate that there is adjustment toward long-run equilibrium. As a result, the study confirms the positive effect of remittances in promoting economic growth in the long run. In other words, remittances of Jordanians increase income percapita for local Jordanians which improve standards of living and participate in reducing level and depth of poverty in Jordan.

5. Conclusions

Jordanian economy is considered as an exporter of labor besides being an importer one. Since 2000 remittances have been increased by (106%) in Jordan with an annual rate of about (5%). However, little is still known about their impact on economic growth and poverty. This study concentrated on the remittances and economic growth nexus in Jordan over the period 1972 – 2016.

This study aims mainly at analyzing and investigating the relationship between remittances per capita and economic growth in Jordan. For this purpose, the study tested the stationarity of variables using Augmented Dickey-Fuller Test (ADF), applied the Johansen cointegration method, and estimated the Error Correction Model (ECM) using annual data over the period (1970-2016).

The results show that there is a stable long run relationship between GDP per capita, Rim per capita and openness in Jordan as well as in the short run because the t-statistics of these variables are significant. This relationship explains that the effect comes from Rim per capita and openness to GDP per capita in the long run. This effect was estimated to be 1.98 with a significant adjustment toward long-run equilibrium. As a result, the study confirms the effect of remittances in enhancing economic growth in the long run. In other words, remittances of Jordanians increase income per capita for local Jordanians which improve standards of living and participate in reducing level and depth of poverty in Jordan.

The study recommends cutting fees on remittances transfers and to direct Jordanians to invest remittances in productive projects in order to achieve high economic growth, increase employment, and eventually improve the standard level of living. Besides, the study recommends liberalizing movement of workers across Arab countries and foreign friend countries. Moreover there is a real need for conducting more studies that reveal the ways of spending remittances in Jordan.

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