

Worker's Remittances and Economic Development in Pakistan A Time Series Analysis (1980-2010)

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Abstract

The present study is conducted to examine the role of worker's remittances on the economic development of the Pakistan. Time series data is utilized which is comprises on 1980 to 2010, from the world data bank and Handbook of statistics. Co-integration technique has been used to explain the long run relationship between worker's remittances and economic development in Pakistan. Results indicated that there is long run relationship exist between the worker's remittances and economic development. Furthermore study applied VECM to detect the short run adjustment in variables to attain equilibrium in the long run. However, the results indicated that in short run Economic development is in disequilibrium position.

1. Introduction:

Workers' remittances played an important role to enhance economic growth. As compare to other external capital inflows (Aids, Foreign Direct Investment and Foreign Loans) workers' remittances are consider a strong source to boost economic growth because of their stable nature. The flows of workers' remittances in developing and developed countries are growing rapidly in positive direction. The workers' remittances transfers through official channels have reached to \$440 billion in 2009. Workers' remittances are the cash inflows coming from foreign countries to their home. A number of studies have been conducted just to identify the impact of workers' remittances on economy and still there is a mix opinion about the relationship of workers' remittances and economic growth.

Vogiazides (2008) Workers' Remittances affect economy in developing countries but remittances are not the suitable strategy for sustainable development because most of the remittances are spent on consumption rather than saving and investment therefore government should break the cycle of dependence on remittance for growth and development. Waheed and Aleem (2008) Workers' remittances are beneficial only for short run and for long term economic growth countries should increase exports instead of workers' remittances. Jawaid and Raza (2012) Workers' remittances, if used efficiently can enhance economic growth.

Pakistan, due to poor economic condition and problems like unemployment, illiteracy, poverty, inflation, and terrorism etc. is known for its high migration and workers' remittance in the world. The people of Pakistan are migrating to foreign countries in search of job and to change their living standards. Due to the high level of unemployment, people are migrating Pakistan to the other country. This unemployment is creating the problem of brain drain.

World Bank (2011) Pakistan is the seventh top emigration country with 4.7 million emigrants and eleventh top remittance receiving country with 9.4 billion US\$. Pakistan Economic Survey (2011–2012) Workers' remittances have been important sources of foreign exchange for years and these remittances are not only providing support to balance of payment but also helping in poverty reduction and economic growth through different ways. China and Korea are two rapidly growing economies of East Asia. In last 10 years, the average annual growth in real gross domestic production was 10.49 percent in China and 4.17 percent in Korea.

Keeping in view all the facts, importance and significance of workers' remittances this study will identify the relationship between workers' remittances and economic growth, the impact of workers' remittances on economic growth on Pakistan's economy by analyzing time series data of years (1980 to 2010).

1.2 Objectives:

- To identify the relationship between worker's remittances and economic growth.
- To recommend some implications of policy on the basis of analysis

2. Literature Review:

Jawaid and Raza (2012) gather the data of seven years of 113 countries to examine the relationship between remittances and economic growth and conclude that there is direct relationship between worker's remittances and economic growth. It was also identified that workers' remittances are contributing more in high income

countries.

Jawaid and Raza (2012) conducted study on the same topic workers' remittance and economic growth with the view to find out the relationship between these two variables after analyzing the time series data of twenty nine years of China and Korea examined that workers' remittances have significant relationship with economic growth in china and Korea but that relationship is not same in two countries.

Irfan (2011) examined the study on remittances and poverty linkages in Pakistan and after analyzing that data from 1975 to 2009, concluded that GDP is the significant factor with remittance which leads to poverty reduction and economic development.

Ahmed *et al.* (2011) use bound testing approach and error correction model to investigate the impact of workers' remittances on economic growth in both long run and short run. Annual time series data from the period of 1976 to 2009 have been used. He concludes that workers' remittances have significant positive impact on economic growth in both short run and long run.

Yasmeen *et al.* (2011) use the annual time series data of period from 1984 to 2009 of Pakistan to identify the impact of workers' remittances on private investment and total consumption. She found that workers' remittances have significant positive impact on total consumption and private investment

Siddique, Selvanathan and Selvanathan (2010) conducted a study on remittance and economic growth on major south Asian countries i.e. Bangladesh, India and Sri Lanka and after analysis they found that remittances have a mixed response with the economic growth. In Bangladesh remittance is not the cause of economic growth and same is the case with India no causal relationship is found between remittance and economic growth but in Sri Lanka a two way causal relationship is found between remittance and economic growth which effects vice-versa.

Karagoz (2009) uses the data of Turkey from the period 1970 to 2005 to empirically identify the relationship between workers' remittances and economic growth in long run by employing co-integration technique. He concludes that there is negative and significant relationship between workers' remittances and economic growth.

Qayyum *et al.* (2008) apply the ARDL approach to find out the relationship between workers' remittances with economic growth and poverty in Pakistan. Annual time series data is used from 1973 to 2007. Results suggest that workers' remittance has positive and significant contribution in economic growth and poverty reduction.

Jongwanich (2007) uses the GMM to examine the relationship of workers' remittances with economic growth and poverty. Annual data of period from 1993 to 2003 of 17 developing Asia Pacific countries have been used. Results suggest the significant positive impact of workers' remittances on poverty reduction. On the other hand positive and significant relationship is also found between workers' remittances and economic growth.

3 Data and Methodology:

3.1 Introduction:

Study attempts to analyze the impact of remittances on economic development of Pakistan. Annual time series data of period from 1980 to 2010 have been used.

3.2 Selection of variables:

For dependent variable gross domestic product growth rate has been used as a proxy of economic development in the case of Pakistan. The model to examine the impact of workers' remittances economic growth is derived using the production function framework. The productions function in general form as follows:

$$Y = f(W.R)$$

Here "Y" represents the gross domestic product (GDP), Impact of workers' remittances can be identified through (W.R). Through this general production function the empirical model for estimation has been developed as follows:

$$Y = \beta_0 + \beta_1 W.R + \mu$$

Here "Y" represents the gross domestic product (GDP), Impact of workers' remittances can be identified through (W.R).

3.3 Data Source:

All data are gathered from World Bank's database and Handbook of statistics which are authentic and reliable source

4. Result and Discussion:

4.1 Unit root results:

First of all unit root is applied to the check the stationary either variable's data is stationary or not. It is necessary to make the data stationary before estimation. Result of unit root test is given below in the table 01.

Table 1

Variable	ADF-Statistics	Critical Value	Integration Order
GDP	-3.491898	1% level -3.670170	I(0)
		5% level -2.963972	
		10% level -2.621007	
Remi	-3.012691	1% level -3.679322	I(1)
		5% level -2.967767	
		10% level -2.622989	

It is clear from the results that one variable is stationary at level and other is on 1st difference so it strongly suggested to applying co-integration test to find out the long run relationship.

4.2 Co-integration

(a) Trace

Hypothesized	Trace		0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.427738	21.86638	15.49471	0.0048
At most 1 *	0.199713	6.237973	3.841466	0.0125

(b) Maximum Eigenvalue

Hypothesized	Max-Eigen		0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.427738	15.62841	14.26460	0.0303
At most 1 *	0.199713	6.237973	3.841466	0.0125

(c) Coefficients (normalized by $b'S11*b=I$)

GDP	REMI
-0.829607	0.035825
-0.104277	-0.666705

The trace value and the maxi-egn value show that there exists a co-integration equation. The result indicates that there is long run relationship between the variables.

4.3 Vector Error Correction Estimates:

Error Correction:	D(GDP)	D(REM)
CointEq1	-0.377719 (0.12474) [-3.02814]	0.050879 (0.06993) [0.72753]

Vector error correction model shows the adjustment speed of coefficients and short run relationship between the variables. The variable GDP is 3.02814 convergences required to equilibrium.

5. Conclusion:

This study investigates the relationship between workers' remittances and economic growth in Pakistan by employing time series data from period of 1980 to 2010. It is identified that workers' remittances have impact on economic growth in Pakistan and there exist a significant positive relationship between workers' remittances and economic growth in Pakistan.

5.1 Suggestions:

Relationship should be utilized efficiently

01. Pakistan should utilize these inflows of remittances efficiently for economic growth and development.
02. Pakistan should focus on these remittances as these remittances are not only a source of economic growth but also these remittances are reducing poverty as well.
03. These remittances are a major source of foreign exchange and helping to overcome the problem of balance of payment.
04. If these remittances are utilized properly in efficient way these could help in overcoming the problem of brain drain and high migration and the effective utilization of these remittances can help in achieving sustainable development.

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