The nexus of remittances and economic growth: An experience of pakistan 1973-2015

Fareed Ullah Shah* and Ijaz Majid†

Abstract

Foreign remittances are the most attractive aspect of labour migration. They are unrequited receipts to the recipient countries from their emigrants. Remittances have encouraging impacts on the key macroeconomic variables such as consumption, investment, balance of payments and the overall economic growth. There has been a considerable increase in remittances to Pakistan over the last few years. Therefore, their role in economic growth and especially their productive utilization has gained pensive attention in Pakistan. In this study, an attempt has been made to statistically investigate the impacts of remittances on economic growth of Pakistan as well to provide suitable recommendations for judicious utilization of remittances in the country. For this purpose, time series data ranging from 1973 to 2015 were utilized. The Augmented Dickey Fuller test was used for stationarity testing. The methods of Ordinary Least Square (OLS) and Vector Error Correction Model (VECM) for unknown parameters estimation. The overall results proved that there was positive and significant nexus between economic growth and household consumption, capital investment, government spending, net exports, per capita income and remittances both in the short and long run. The main finding revealed that that a one percent increase in remittances lead to 0.55 percent increase in GDP of Pakistan. Therefore, the need of the day is to devise such policies which are friendly to productive investment rather than conspicuous consumption.

KEYWORDS: Foreign Remittances, Economic Growth, Times Series Data, OLS, VECM, Pakistan.

Introduction

Foreign workers' remittances are that portion of emigrants' earnings which are sent by exported labours to their family members in the home

^{*} Fareed Ullah Shah*, Associate Professor of Economics, Government College Peshawar, Higher Education Archives & Libraries Department, Khyber Pakhtunkhwa, Pakistan † Prof. Dr. Ijaz Majid†, Department of Economics, University of Peshawar, Pakistan

country. Economic growth means an addition to the entire production of visible and invisible items in the country in a specific span of time. For the last few decades, remittances have gained great importance in the economies of developing countries and there is a common opinion that remittances have an encouraging relationship with economic growth of these country. They are very important attribute of labour movement to the labour-sending countries. They have encouraging effect on the main major economic variables such as payments' equilibrium, expenditure, capital formation, aggregate demand and hence the economic growth (Tansel & Yasar, 2010; Javed et al., 2012). The inflow of official remittances to developing countries has attained the figure of \$528 billion while the worldwide remittances have touched the figure of \$689 billion in 2018. They are expected to touch \$549 billion to developing countries while \$715 billion globally by 2019 (World Bank, 2018). Remittances, which generally accrue from the prosperous nations to the emerging nations, are an important source of foreign exchange earnings from exported labour. The labour-sending countries have been assisted considerably by remittances in achieving more economic growth. Remittances have enabled the labour-sending countries to rely less upon international borrowing (World Bank, 2008). Remittances also take great part in the alleviation of poverty from the developing countries like Pakistan through its employment and income generating activities. They grant financial support to the poor masses of the country against various financial hardships. They also increase purchasing power of the people, which assist them in various investment activities like human capital, small business and property. Similarly, they also increase their consumption demand for various goods and services. Such increasing expenditure bring far-reaching effects on all other economic activities in the country (Kalim & Shehbaz, 2008).

The Remittances' Profile: Below is given the remittance profile of the top beneficiary countries:

Table #1. Remittances' Profile of the Top Beneficiary Countries

| | Foreign Remittances in billion of US\$ | | | | | | | | | | | | |
|---------------|--|------|------|------|-------|------|------|-------|------|-------|-------|-------|------|
| S. N o. | Country | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1 | India | 26.9 | 27.0 | 45.0 | 49.20 | 53.4 | 62.5 | 68.82 | 69.9 | 70.97 | 72.20 | 62.70 | 69.0 |
| 2 | China | 22.5 | 25.7 | 40.5 | 41.60 | 52.4 | 61.5 | 57.99 | 59.4 | 61.49 | 63.90 | 61.00 | 64.0 |
| 3 | Philippines | 12.7 | 14.4 | 16.4 | 19.96 | 21.5 | 23.0 | 24.61 | 26.7 | 27.90 | 29.80 | 29.90 | 33.0 |

| Th | The nexus of remittances and economic | | | | | | | | | F | Fareed & Ijaz | | |
|----|---------------------------------------|------|------|------|-------|------|------|-------|------|-------|---------------|-------|------|
| 4 | Mexico | 25.6 | 26.1 | 25.1 | 22.08 | 22.0 | 23.5 | 23.37 | 23.0 | 24.50 | 25.70 | 28.50 | 31.0 |
| 5 | Nigeria | n.a. | n.a. | n.a. | 18.37 | 19.8 | 20.6 | 20.63 | 20.8 | 20.88 | 20.89 | 19.00 | 22.0 |
| 6 | Pakistan | 5.10 | 6.00 | 7.00 | 8.72 | 9.69 | 12.2 | 14.01 | 14.3 | 17.80 | 20.10 | 19.80 | 20.0 |
| 7 | Egypt | n.a. | n.a. | n.a. | 7.15 | 12.4 | 14.3 | 19.24 | 17.8 | 19.83 | 20.40 | 16.60 | 20.0 |
| 8 | Bangla Desh | 5.50 | 6.60 | 9.00 | 10.74 | 11.2 | 12.9 | 14.24 | 13.8 | 15.10 | 15.80 | 13.70 | 13.0 |

World Bank Group (2018), n.a. = not available

Among the top remittances recipient countries of the world, Pakistan is at the sixth position. This position of Pakistan would have been quite better if the informal channels of remittances were diverted to the formal channels. The inflow of remittances to Pakistan is quite encouraging which will ease many hardships of the country if properly managed.

Migration, both inter and intra country is a rapidly increasing phenomenon therefore, there has been a vast study on the impacts of remittances and economic growth. Hyder (2003) described that remittances and Foreign Currency Accounts (FCAs) have significant share in Pakistan's current account inflows which have not only positive impacts on the country's key macroeconomic variables but also decrease the balance of payments' deficit. Today, the current account deficit greatly depends on the inflow of remittances as the greater the inflow, the lower the deficit. Sander (2003) stated that after Foreign Direct Investment (FDI), remittances have become the second major flow while they have exceeded the Overseas Development Assistance (ODA). Remittances are growing day by day and are now the most consistent flow to developing countries, which contribute to the balance of payments, foreign exchange reserves and well-being of the emigrants' households in these countries.

Statement of the Problem

Foreign remittances are regarded as an injection of income into the financial system therefore, it is important to evaluate their various impacts on the local economy. There is vast study on the effects of remittances on economic growth. The research studies were conducted both at national and international levels. In Pakistan, Iqbal & Sattar (2005) analytically investigated the role of remittances to economic growth of Pakistan in the shape of minimizing current account deficit, reducing reliance on external borrowing and enhancing the payments' equilibrium position. Qayum et al. (2008) statistically found the positive significant impact of remittances and poverty in Pakistan by increasing

foreign exchange reserves, smoothening the exchange rate and decreasing account deficit. The estimations and findings of the study of Glytsos (2005) and Barjas et al. (2009) pointed out that remittances had limited consequences on economic growth.

No doubt, the above and similar other studies contributed much to the work on remittances and economic growth however, still enough space was there for research work on the nexus between remittances and economic growth. In the earlier studies, mostly narrative and simple fractions were used with the exception of few studies, which empirically investigated the impacts of remittances on economic growth. Therefore, the present study is an attempt to explore the exact association between remittances and economic growth of Pakistan. Similarly, an attempt has been made to answer the relevant research questions as well as to extend the previous studies regarding the phenomenon. For this purpose, secondary data for the period of 1973 to 2015 were utilized with proper analytical techniques and different econometric models to obtain accurate empirical results. In addition this study has attempted to extend more emphasize to the productive utilization of remittances with proper recommendations so that to add to more economic growth of Pakistan.

Literature Review

Igbal and Sattar (2005) stated the functions of foreign remittances in economic growth of Pakistan by reducing reliance upon foreign debt and overcoming joblessness and poverty problems. They statistically investigated the time series data of 1972-73 to 2002-2003 to identify the impact of remittances and other macroeconomic variables on economic growth. The results revealed that there was significant relationship between remittances and economic growth. It was recommended that remittances should be diverted towards useful economic activities otherwise the nation would meet economic difficulties.

Fayissa (2008) stated the relative impacts of remittances on economic growth and development with respect to other inflow to Africa. The estimated results proved that there was positive relationship between economic growth and remittances. It was found that when there was 10% increase in remittances, the GDP per capita income increase was 0.4%. Similarly, if there was 10% increase each in investment, human capital and physical capital, the GDP per capita income increase was 1.6% and 1.06% respectively. On the other hand, increase in foreign aid led to slight decrease in economic growth in sub-Saharan African countries. The relationship between trade openness, foreign direct investment and economic growth was positive however, insignificant. It Volume XII Number 3 Journal of Managerial Sciences

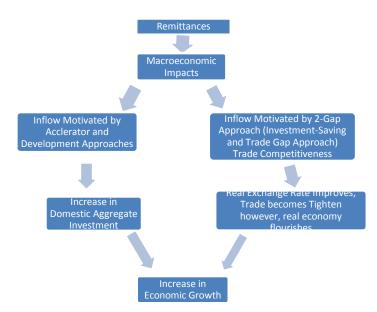
was also found that poor governance was the main obstruction to economic growth of these economies and a 10% decrease in political freedom led to about 1.34% decrease in per capita income.

Azam et al. (2016) investigated the impacts of external sources including remittances on economic growth of 12 selected countries of Europe and Central Asia (ECA) by utilizing panel data of the period 1993-2013. It was interpreted from the results that the inflow of remittances and foreign direct investment to these countries brought positive and significant impacts on economic growth in ECA during the course of study. They suggested that the concerned governments should support their migrants in investment and help them in money transfer processes through competitive market exchange rates and formal banking channels.

Jawiad and Raza (2016) investigated the impact of remittances and its vitality on economic growth of India, Bangladesh, Sri Lanka, Nepal and Pakistan by utilizing the time series data of 1975-2009. The Cointegration results revealed that there was a considerable encouraging association between these two major variables in India, Bangladesh, Sri Lanka and Nepal while negative association in Pakistan. On the other hand, the effect of vitality of remittances was negative and considerable on economic progress in India, Pakistan, Bangladesh and Sri Lanka while negative and inconsiderable effect in Nepal. They recommended decrease in transaction cost in order to attract remittances to the area. Jawaid and Saleem (2017) explored the association among FDI, remittances and external debt with economic growth of Pakistan. They utilized the time series data of 1976 to 2015. The results obtained by cointegration pointed out that in the long run, foreign capital inflows have considerable association with economic growth. The results obtained by Ordinary least square showed that there was considerable but negative impact of these inflows on economic growth. However, the impact of remittances and external debts on economic growth was greatly positive. To back-test the time series, the Rolling windows analysis of three models was used wherein the two different conscious investigations verified that preliminary results were strong.

In support of the present studies various theories have been discussed. The theories help the researchers to establish a relationship between remittances and economic growth as well as to develop techniques for model construction and to build up the theoretical structure in such a way so that to explore their role more systematic,

coherent and profound. The theories and diagram have been presented below:



Fig#1. The Nexus of Remittances and Economic Growth

Source: Author's Construction

In the above figure, the process of remittances-growth nexus has been explained. It is argued that on the one hand, the inflow of foreign remittances increases domestic investment and on the other hand it reduces the investment-saving gap and also trade gap due to availability of more money for investment and imports. Hence, the multiplier effect enhances the output level which brings economic growth in the country (Todaro, 1969; Stark & Wang, 2002).

The Accelerator Theory states that increase in income increases investment manifold. It is implicit that extra capital is needed for more production if the existing stock of capital is totally used. In such a situation, foreign remittances to the recipient country will be a blessing which can better be utilized for investment in the country (Githaiga, 2014).

The Classical Development Economics and Growth considers development as the process of capital formation which can be achieved by investment and savings. The development optimist approach argued that remittances direct the movement of investment capital across the world which lead to enhancement of development in the recipient countries (de Haas, 2007).

The Neo-Classical Theory states that migration leads to the inflow of remittances to the labour exporting countries which in turn lead to development in these countries (de Haas, 2007; Massey et al., 1994).

Data and Methodology

In this study, the time series data for the period of 1973 to 2015 were utilized. The data were collected from various sources including World development Indicator, State Bank of Pakistan and Pakistan Economic surveys. The Classical Linear Regression Model (CLRM) with OLS technique was utilized to assess the short run association between economic growth and key macroeconomic variables comprising remittances. For the long run association, Vector Error Correction Model (VECM) technique was used between the dependent variable and independent variables. The objective of using VECM was to better interpret the results, as it explains the long run association between variables and represents Vector Autoregressive. It is also used for error correction as divergences in the long run are corrected.

The economic growth was presented by the volume of Gross Domestic Product (GDP). The relationship between remittances and GDP is estimated for the purpose to identify the potency of remittances on economic growth of Pakistan. In this regard, the subsequent model derived from the study of Iqbal & Sattar (2005) and Glytsos (2005) was utilized to illustrate the connection between economic growth and macroeconomic variables comprising remittances. All the variables were taken in real terms:

 $RGDP = \beta_0 + \beta_1 RHC + \beta_2 RCI + \beta_3 RG + \beta_4 \ RNX + \beta_5 \ RR_{EM} + u_i$ Where, RGDP stands for Real Gross Domestic Product, RHC denotes Real Household Consumption, RCI represents Real Capital Investment, RG shows Real Government Spending, RNX stands for Real Net Exports, RR_{EM} represents and u_i is error term while β_0 , β_1 , β_2 β_3 , β_4 , and β_5 are their relevant parameters.

Results of OLS Estimation

Before availing the tests for relationship, the ADP Unit Root test was performed to know the stationarity level of the variables. All the

variables were stationary at 1st difference were integrated of order one I(1) as given table#2 below:

Table #2. Result of ADF Unit Root Test

| Variables | t-values | p-values* | Stationarity Level | Order of integration |
|-----------|-----------|-----------|----------------------------|----------------------|
| | | | | |
| RGDP | -6.432262 | 0.0000 | 1 st Difference | I (1) |
| RHC | -6.303078 | 0.000 | 1 st Difference | I(1) |
| RCI | -6.004626 | 0.0000 | 1 st Difference | I (1) |
| RG | -7.026847 | 0.0000 | 1 st Difference | I (1) |
| RNX | -7.210134 | 0.0000 | 1 st Difference | I(1) |
| RREM | -6.266241 | 0.0000 | 1 st Difference | I (1) |

*Mackinnon (1996) one sided p-values. Source: Author's Calculations Similarly, for detecting autocorrelation errors, heteroskedasticity error and normality error, various diagnostic tests were also performed to check validity of the model. The results are given in table#3:

Table # 3. Diagnostic Test Results

| Error | Test Type | | Statistics | Probability |
|--------------------|---------------------|--------|--------------|-------------|
| Autocorrelation | Breusch-Godfrey | Serial | F-Statistics | 1.882395 |
| | Correlation LM Test | | (Prob.) | (0.1669) |
| Heteroskedasticity | White Test | | F-Statistics | 0.176861 |
| | | | (Prob.) | (0.9816) |
| Normality | Jarque-Bera | | Statistics | 2.996634 |
| | - | | (Prob.) | (0.223506) |

Source: Author's Calculation

The above table shows that in order to detect autocorrelation error from Breusch-Godfrey Serial LM test, the value of F-Statistics is 1.882395 while its P-Value is 0.1669 which is higher than 5% level of significance. It proves that there is no problem of serial correlation and hence no autocorrelation error is found. For detecting the heteroskedasticity error, the White Test result shows that F-Statistics is 0.176861 while its P-Value is 0.9816 which is also higher than 5% level of significance. It proves that there is no heteroskedasticity problem. In case of normality, the Jarque-Bera test shows that the Statistics is 2.996634 while its P-Value is 0.2235.6 which is higher than 5% level of significance. It proves that there is no normality problem and the model residuals are normally distributed.

It was found that there was no autocorrelation and heterosckadasticity were found while the data were normally distributed. To check the long run co-movement and linear combination among the variables as well as order of the time series, the Johansen Co-integration test was performed. The table #4 is given below:

Table #4. Johansen's Multiple Co-integration Test Results

| Relationshi | - | Trace | 0.05 | Prob./ | | Max: | 0.05 | Prob./ |
|-------------|---------|----------|----------|--------|------|----------|----------|--------|
| p among | Hyp: | Values | Critical | Signif | Нур: | Eigen | Critical | Signif |
| Variables | | values | Value | : | | Value | Value | : |
| | R = | 706.8539 | 125.6154 | 0.000 | R = | 368.6630 | 46.23142 | 0.000 |
| | 0 | /00.8339 | 123.0134 | 1 | 0 | 308.0030 | 40.23142 | 0 |
| | $R \le$ | 338.1910 | 95.75366 | 0.000 | R= 1 | 133.2384 | 40.07757 | 0.000 |
| | 1 | 336.1910 | 93.73300 | 0 | K- 1 | 133.2364 | 40.07737 | 0 |
| RGDP, | $R \le$ | 204.9526 | 69.81889 | 0.000 | R = | 99.00071 | 33.87687 | 0.000 |
| RHC, RCI, | 2 | 204.9320 | 09.01009 | 0 | 2 | 99.00071 | 33.07007 | 0 |
| RNX, | $R \le$ | 105.9519 | 47.85613 | 0.000 | R=3 | 45.97574 | 27.58434 | 0.000 |
| RREM | 3 | 103.9319 | 47.03013 | 0 | K- 3 | 43.97374 | 27.36434 | 1 |
| | $R \le$ | 59.97617 | 29.79707 | 0.000 | R = | 40.87390 | 21.13162 | 0.000 |
| | 4 | 39.9/01/ | 49.19/07 | 0 | 4 | 40.07390 | 21.13102 | 0 |
| | $R \le$ | 19.10227 | 15.49471 | 0.013 | R = | 17.01289 | 14.26460 | 0.017 |
| | 5 | 19.10227 | 13.494/1 | 7 | 5 | 17.01269 | 14.20400 | 9 |
| | | | | | | | | |

Hyp: = Hypotheses, Signif: = Significance. Source: Author's Calculations

The results shown in the table suggested that there is significant long term relationship amongst the variables under investigation. Thus regression equation can be established between economic growth and the independent variables. The results of both the Trace Value and Max: Eigen Value test shown in the tables indicated six co-integrating equations or vectors at 5% level. The null hypotheses of all the variables were rejected at 5% level. Here the number of co-integrating rank is one. This also allows us to use VECM for long run association between the dependent and independent variables.

After performing all the diagnostic tests, the Ordinary Least Square (OLS) estimation was performed. The results are given in the table # 5 below:

Table 5 # The OLS Estimates

| Explanatory Variables | Coefficients | t-statistics (Prob.) | |
|-----------------------|--------------|-------------------------|--|
| C | 57.45644 | 3.932267 | |
| C | 37.43044 | | |
| D/DHC) | 1.064556 | (0.0003)* | |
| D(RHC) | 1.064556 | 41.67016 | |
| | | (0.0000)* | |
| D(CI) | 0.435814 | 6.618839 | |
| | | (0.0000)* | |
| D(RG) | 0.851919 | 6.091563 | |
| | | (0.0000)* | |
| D(RNX) | | 10.24837 | |
| | 0.588969 | (0.0000)* | |
| D(RREM) | | 4.691012 | |
| | 0.551206 | (0.0000)* | |

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|-----------------------------|------------|---------------|
| | | |

| \mathbb{R}^2 | 0.997771 | |
|-------------------------|----------|----------|
| Adjusted R ² | 0.997302 | |
| S.E. of regression | 580.8519 | |
| Durbin-Watson stat | 1.942459 | |
| Akaike Info Criterion | 15.73729 | |
| F-Statistics | | 2126.499 |
| | 2126.499 | (0.000) |
| N | 43 | |

^{* =} Significant at 1%, Source: Author's Calculations

As per results, the coefficients of the variables are positive and the t-statistics as well as probabilities are significant. The t-statistics values are more than 2 while the p-values are less than 5%. The level of significance for all the variables is 1% while it is 5% for per capita income only. It is proved that the real gross domestic product which is used as proxy for economic growth depicted a positive relationship with all the controlled variables i.e. the household consumption, the capital investment, the government spending, the net exports, the per capita income and the foreign remittances. The value of R-Square is also 99% which shows that there is a strong change in dependent variable (i.e. the GDP) occurred due to independent variables. The Durbin-Watson t-statistics value is 1.94 which is below 2. This also showed that there was no autocorrelation.

The regression coefficients show the influence of controlled variables on dependent variable GDP. In the above equation, the term constant 'C' has the value of 57.45644 which is the value of GDP if all other variables are kept constant. The estimated coefficient of household consumption is 1.06556 with p-value of 0.0000 which corresponds a positive and highly significant relationship between the real GDP and real household consumption. It also elaborates that 1% increase in household consumption enhances the GDP level by 1.06%. Increase in household consumption leads to increase in investment which in turn leads to more output and hence more level of GDP. The findings of Sun & Deng (2013) used co-integration and granger causality test approached to find a statistical analysis on the influence of household consumption on economic growth in Hubei Province, China. The results establish the fact that there was positive relationship between the variables in the long run. It is also found that the results of this study are durable and reliable with the previous studies and also consistent with the economic theory of positive relationship between household consumption and GDP or economic growth.

The relationship between GDP of the country and government spending (G) in the country is also positive and significant. The

estimated coefficient of capital consumption is 0.851919 with p-value of 0.0000 which shows a positive and highly significant connection between the real GDP and real government spending in the country. It shows that 1% increase in government spending enhances the GDP level by 0.85%. Increase in government spending leads to increase in national income and hence the overall economic growth. Loizides & Vamvoukas (2005) also estimated a cross country influence of government spending on economic growth and pointed out a stable relationship between the two variables. It is also found that the results of this study are durable and reliable as well as consistent with the previous studies and economic theory.

The relationship between GDP growth of the country and net exports (NX i.e. X-M) in the country is also positive and significant. The estimated coefficient of net exports is 0.588969 with p-value of 0.0000 which shows a positive and highly significant association between the real GDP and real net exports in the country. It shows that 1% increase in government spending enhances the GDP level by 0.58%. Increase in net exports leads to increase in exports earnings which in turn contributes to the national income and hence the overall economic growth. It is also found that the results of this study are durable and reliable with the previous studies. Exports are regarded as engine of economic growth because they give foreign exchange (Forex) earnings to the export sending country. The forex earnings enable the country to purchase modern technology to increase its productivity and efficiency of labour. The approach of trade promoting economic growth can be found in the classic and neo-classical economists' approaches. The East Asian Countries and Newly Industrialized Countries also got development due to export-led industrialization policies (Alkhateeb 2016). It is argued that if there is trade openness in the country then the impact would be high. Furthermore, developing economies have generally small markets for their products therefore, international markets contributed more to their economic growth (Wacziarg & Welch, 2008). On the other hand, Uger (2008) found that demand for imports is influenced by both economic and non-economic factors, however, the real income and relative prices are the main factors which considerably change the demand for imports.

The results further confirmed that there is positive and highly significant relationship between GDP growth and foreign remittances entailing that higher remittances is correlating with higher economic growth. The estimated coefficient of remittances is 0.551206 with p-value as 0.0000 which reveals that one percent boost in remittances

enhances the GDP growth by 0.55 percent. The findings of this study also confirms the earlier studies by Iqbal & Sattar (2005) and Fassiya & Nsiah (2010). However, Chami et al. (2003) and Karagoz (2009) obtained the negative association between remittances and economic growth due to moral hazard problems as well as no proper utilization of remittances. It is proved that inflow of foreign exchange from human resource has a significant impact on the economic growth by striking the key macroeconomic variables of GDP.

To check the long run relationship between the independent variables (RHC, RCI, RG, RNX and RREM) the dependent variable (RGDP), the VECM is utilized as given in table#7 below:

Table#7. The VECM Results
Dependent Variable is RGDP

| Variables | Lags of | | Std. | | |
|------------------------------|-------------|-------------------|----------|-------------|-------|
| | Coefficient | Coefficient Value | Error | t-Statistic | Prob. |
| Cointegrating Coefficient | C(1) | -0.355135 | 0.111550 | 3.183643 | 0.007 |
| RGDP | C(2) | -3.957285 | 3.019621 | 1.310524 | 0.206 |
| KGDI | C(3) | -3.503463 | 2.809428 | 3.183643 | 0.228 |
| | C(4) | -16.58330 | 4.856071 | 3.414963 | 0.003 |
| | C(5) | -8.780756 | 6.535617 | 1.343524 | 0.195 |
| RHC | C(6) | 4.390099 | 3.629853 | 1.209443 | 0.242 |
| RHC | C(7) | 3.176417 | 3.425134 | 0.927385 | 0.366 |
| | C(8) | 18.62823 | 5.144368 | 3.621092 | 0.002 |
| | C(9) | 8.255158 | 7.337331 | 1.125090 | 0.275 |
| | C(10) | 5.202787 | 4.231243 | 1.229612 | 0.234 |
| RCI | C(11) | 4.760146 | 4.692224 | 1.014475 | 0.323 |
| | C(12) | 12.22925 | 6.781935 | 1.803209 | 0.088 |
| | C(13) | 8.635631 | 5.131125 | 1.682990 | 0.109 |
| | C(14) | -3.527296 | 3.605303 | 0.978363 | 0.340 |
| RG | C(15) | 2.227486 | 3.259453 | 0.683393 | 0.503 |
| | C(16) | 8.447789 | 4.879342 | 1.731338 | 0.100 |
| | C(17) | 6.243265 | 5.179374 | 1.205409 | 0.243 |
| | C(18) | 6.551501 | 4.782656 | 1.369846 | 0.187 |
| RNX | C(19) | 7.179765 | 3.624592 | 1.980848 | 0.063 |
| | C(20) | 13.49050 | 4.459315 | 3.025240 | 0.007 |
| | C(21) | -0.549508 | 4.151147 | - | 0.896 |

| | | | | 0.132375 | |
|--------------------|-------|-----------|----------|----------|--------|
| | | | | | |
| | C(22) | 0.607381 | 7.943433 | 0.076463 | 0.9399 |
| RREM | C(23) | 2.746330 | 4.733836 | 0.580149 | 0.5690 |
| KKLWI | -() | | | - | |
| | C(24) | -17.76967 | 13.85557 | 1.282493 | 0.2159 |
| | C(25) | 22.09114 | 10.52972 | 2.097981 | 0.0503 |
| Constant | C(26) | 2460.695 | 2920.984 | 0.842420 | 0.4106 |
| R-squared | | | 0.871834 | | |
| Adjusted R-squared | | | 0.693826 | | |

Source: Author's Calculations

The C(1) in the regression model depicts the long-run relationship of the independent variables with the dependent variable i.e. RGDP. The probability of C(1) is 0.0072 which is greater than the 5% level of significance. Therefore, a long run relationship is established between the dependent variable (RGDP) with the independent variables (RHC, RCI, RG, RNX and RREM). Furthermore, it also establishes the fact that the long-run coefficients of the independent variables which have been pointed out in the Johansen Co-integration test are at the same time influencing the real GDP in the country in the long-run.

Conclusion And Recommendations

Foreign remittances have become an interesting and widespread discussion in international and development economics due to its size and far reaching effects on the economy of developing countries including Pakistan. Remittances have positive nexus with economic growth of most of the countries including Pakistan. The need of the day is to utilize the remittances in more productive way so as to achieve fast economic growth in the country. For this purpose, a comprehensive data regarding the total inflow of remittances and their utilization pattern should be collected so that to evaluate the data and make conclusion and viable recommendations accordingly. In this regard the following recommendations are forwarded:

- The Government can introduce special Credit Scheme to the remittance recipients who will share their business ideas with the financial institutions and after viability, credit will be extended to them on soft conditions to start a productive business.
- The financial institutions can start a joint investment scheme for the remittance recipients. The financial institutions will provide ideas, technical and financial support to the recipients.
- The Government of Pakistan should remove all the unnecessary impediments to the inflow of remittances so that to attract divert

- the inflow from unofficial channels to official channels. This will not only lead to documentation of remittances and revenue generation but also to better policy devising.
- Sufficient information regarding the economy of Pakistan especially the prospective fields for investment can be provided to the emigrants to encourage them to send their money into Pakistan for investment purpose.
- The government can provide more incentives and profit oriented programmes to increase the inflow of remittances through legal channels.
- There is no organization in Pakistan to pool the savings of Pakistani workers. Therefore, the Government of Pakistan (GoP) can design such type of plans and policies, which benefit the emigrants and encourage legal channels. The government can offer a more favourable rate of exchange for remittances.
- National saving schemes through the national saving centers and banks can be introduced. Mobile Saving Officers can be appointed in these centers/banks to meet the returnees or their households to persuade them to invest their remittance-income in national saving schemes. For this purpose, special remittancesaving schemes can be started. The profit rate and schedule of such schemes should be more attractive.
- The government can enhance the quality, quantity and variety of domestic products so that to encourage the emigrants and emigrants' households to buy Pakistani products. This will not only increase the cash remittances but will also enhance the domestic investment.
- The Ministry of 'Labour, Manpower and Overseas Pakistanis' can conduct a thorough study of our surplus labour force, at present and ten years from now, and introduce a comprehensive educational and training programmes to be implemented by both the private and public sectors.
- The branches of Pakistani banks working abroad especially in the Middle East can introduce some credit to the emigrants to facilitate them in times of hardships. This will encourage them to use only official channels.
- The Small Business Enterprises Banks can design some attractive schemes for workers and their families to make a better use of overseas earnings.

• The government should frame a uniform policy for the private recruiters to compel them to follow the standards of migration.

Last but not least, the government can take effective measures to increase further the inflow of remittances to Pakistan. However, still there is great cushion for further research on the impact of remittances especially their more productive utilization of remittances in Pakistan.

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