

Personal Remittance, A Reagent of Macroeconomic Stability in the Perspective of Pakistan (2005-2017)

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Abstract

Pakistan is a semi-industrialized economy, which mainly comprehends fabrics, chemicals, food dispensation, cultivation and other activities. Economy of Pakistan is at very stirring phase in structural and financial point of view such as unfavorable balance of payments and high debt profile. To disrupt these unfavorable economic balances many peripheral economic factors act as a source of income or core factor of advantageous balances such as FDI, Remittances, Exports, Foreign aids etc. So this study is aimed to detect pros and cons of personal remittances along with correlation with macroeconomic volatilities. Data is collected from secondary sources during time span of 2005-2017. The period is chosen for study is 2002 to 2017 and numerical data is used for validity. Data is evaluated through statistical software EVIEWS. Standardized criteria is assumed to accept or reject the hypothesis. On the basis of inferences, policies and implication are given in the shape of recommendation for curative measures.

Keywords: Personal Remittances, Current account balance, Unemployment, Inflation

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1. Introduction

1.1. Background of Study:

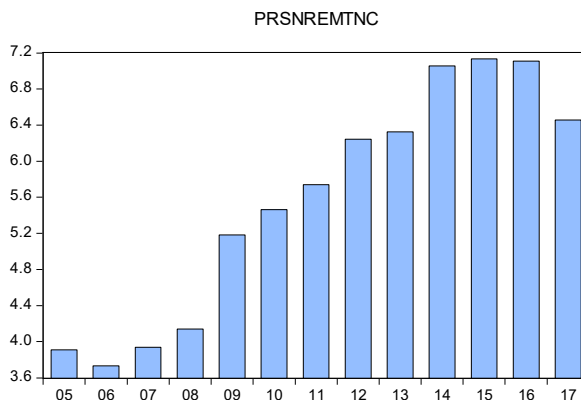
Being an emergent country, Pakistan is an imperative and dominant economy of south Asian continent. Economy of Pakistan is at very challenging face in structural and financial point of view such as unfavorable balance of payments and high debt profile. To disrupt these unfavorable economic balances many external economic factors act as a source of income or core factor of favorable balances such as FDI, Remittances, Exports, Foreign aids etc. Remittances as a source of inflow for an economy by the passages of time the term remittances is manipulated and known as "Personal Remittances".

Alessandra Alfieri and Ivo Havinga," DEFINITION OF REMITTANCES (2006)"¹ defines personal remittances as follows:

Personal remittances = compensation of employees – social contributions + Personal transfers + capital transfers between households

Personal remittance a broader definition of Remittances and a new term introduced in Balance of payments' part, comprises of all current transfers between citizens or non-citizen and habitants or inhabitants neglecting sender's earning resources and bonding between households. In developing countries personal remittances are gradually increasing due to unemployment rates, improper job responsibilities and other household expenditures. In Pakistan during 2005-2017 there is an increasing trend of personal remittances due to financial crisis of economy and individuals as well showing in the given graph.

¹ UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS STATISTICS DIVISION

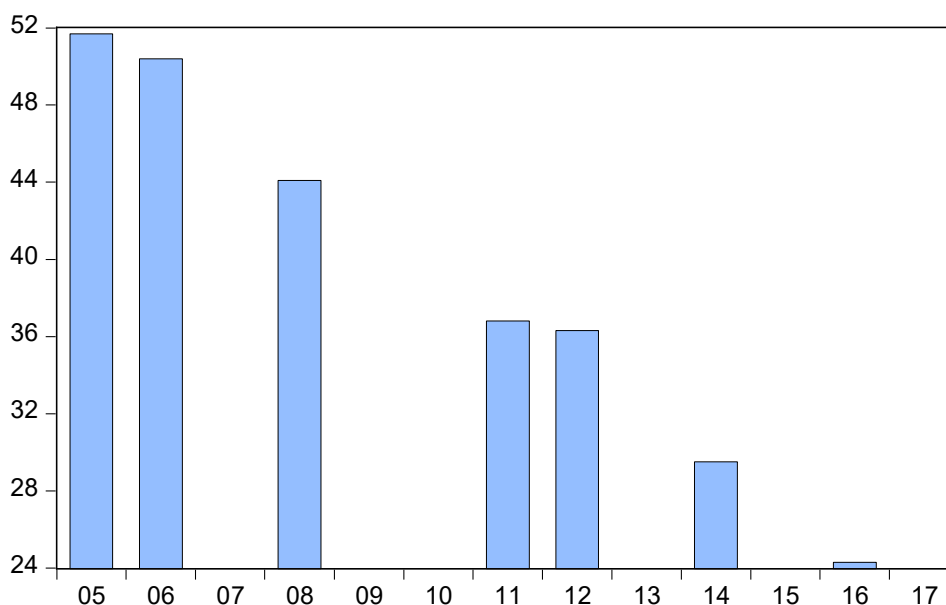


1.1.1.Remittances and Financial downturns of Economy:

Pakistan is facing a challenging situation. Since the formation of Pakistan, currency rate has been fluctuated but in last ten years it became more cheaply even dollar exchange rate touched at peak of the history due to unfavorable economic conditions. Gross Domestic Product, the unemployment rate, the inflation rate, the interest rate and the exchange rate give a summary of the macroeconomic stability of an economy. These economic indicators are influenced or can be controlled by generated different income resources for an economy and Personal remittances is one of them. Personal remittances, earnings of Pakistani citizens working in abroad has been increased during last decades. It is a source of deterring negative aspects of unemployment without any investment or increasing debts.

Poverty as another economic indicators has an influence and is influenced by prejudicing of migration permanently or temporary. In Pakistan increasing in the price of basic goods and education leads to increase in searching of sources of income aside. In Pakistan, poverty rate has been improved due to awareness in the people to explore resources of generating earnings and to attain basic goals of a standard living as well. In the following graph poverty head count ratio at national level is gradually declining.

PTY



Balance of trade is an essential essence to elaborate financial health of an economy. In economics and finance, current account balance is the difference of savings and investments. Beside this world bank added a new item” personal remittances “a part of currency transfers. Increase in remittances will save economy from drastic imbalances.

High inflows of foreign currency is unfavorable for currency valuation. Increase in high remittances receipts leads to high inflow of foreign currency one hand and devaluation of local currency other hand. Due to currency depreciation, exports become cheaper and demand or value of local products in foreign market become less competitive.

1.2. Scope of Study:

The scope of study will be very beneficial:

- To identify sources of investments for individuals to regenerate monetary benefits by remittances.
- For Ministry of Finance to identify the sources of finance without affecting economic health of Pakistan.
- To check and balance those factors which stabilize currency valuation along with remittances.

1.3. Purpose of Study:

This study is conducted to determine the following:

- Interaction between personal remittances and currency valuation
- To identify significant correlation between economic indicators and personal remittances
- To check contribution of personal remittances in generating current account receipts.

2. Literature Review:

Every phenomenon has advantages and disadvantages, remittances have its good and bad effects on economy such as decrease in labor, culture of dependency on the host country and appreciation of exchange rate (Catalina Amuedo). Detmar Meyer and Adela Shera conducted a study to explore the contribution of remittances in economic growth of seven different countries during the sample year 199-2013 by applying regression analysis and heteroskedasticity test. Model consist of GDP growth rate, House consumption, real exchange rate, total debt etc. and found overall significance impact of remittances on the whole growth model. In addition, Kristina Mustuzeviciute and Mindaugas Butkus checked impact of remittances on long run economic growth over the period of 1990-2014 by using OLS approach and found positive impact of remittances on economic growth. Mr. Udo Kock and Yan Sun published in IMF working paper regarding home remittance in Pakistan and stated that remittance is contributing In GDP and internal growth of Pakistan. In addition, Mr. Muneer Khan (2007) quoted regarding home remittance that home remittance is a function of import and there is positive relationship between income and imports.

Workers remittances which is known as personal remittances and consider an important item of balance of payment It is the largest source of inflows without any risk and mobility of resources. It helps to reduce current account deficits in terms of foreign currency at very low cost. Mohammad Abdul Hannan Pradhan and Sabih Afrin (2012) investigated contribution of remittances to stabilize current account balance of Bangladesh economy in the era of 1998-2010. Vector Error Correction (VEC) model was adopted to show the linearity of remittances and current account balances and found significant relation between current account balance and remittances.

In developing countries, there is always a need of inflows driven policies to repel the negative impact of high outflows in the shape of increase in imports. Remittances is one of the source of supplying foreign exchange in the money market. Afolabi O Adejumo and Professor Sylvanus (2017) conducted a study to investigate reality of exchange rate phenomenon created by increase in inflows in Nigeria. OLS technique was used to check level of significance of variables on different sectors of economy and concluded that remittances indirectly induced loss of merchandise export competitiveness due to appreciation of currency. To support this, Ripon Roy and Md Moklesur Rahman (2014) piloted a study on relationship between remittances and inflation in Bangladesh along with floating exchange rate scenario. ADF unit root test applied on econometric model and found significant relation between food inflation and remittances.

South Asian countries are dominant for cheap labor market for European countries. Pakistan is one of the top countries which has high trend of immigration along with cheap rate of labor forces. To elaborate this, Muhammad Asad, Shujaat Haider and Saadia Yousuf conducted a study on Pakistan's macroeconomic indicators during 1975-2010. Co-integration technique and SML model has been constructed on annual time series data and found unidirectional correlation between unemployment and remittances while Ermira Hoxha Kalaj identified the negative impact of remittances on labor market of Albania.

Unemployment is the major cause behind emigration of labor force towards developed countries. Increase in labor supply leads to increase in remittances. To identify push factors of remittances, Dayangku Aslinah, Roslinah Mahmud and Rostika Petrus (2017) conducted a study on Indonesian immigrants to Malaysia in the time span of 1982-2011 and concluded that unemployment rate is significantly related with Indonesia immigration to Malaysia and increase in remittances in Indonesia as well.

3. Methodology:

3.1. Data Collection Technique:

As there are two methods of collecting data Primary and Secondary, but this study is totally based on Secondary data.

3.2. Sources of Secondary Data:

- Pakistan Statistics Bureau
- Economic surveys of Pakistan
- State bank of Pakistan's annual records of trade and payments
- Annual reports of State Bank of Pakistan
- Ministry of Pakistan

3.3. Sample Size:

Time period from 2005-2017 is taken as a sample period because in this there is a radical change in economic stability furthermore there is also an increment in current account deficits which adversely affected reputation of trade and exchange rates of Pakistan .

3.4. Modeling Frame work:

Econometric Model:

$$Y = \beta_0 + \beta_1 (\chi_1) + \beta_2 (\chi_2) + \dots + \mu$$

Model Driven:

$$\text{Personal Remittances} = \beta_0 + \beta_1 \text{Capital account balance} + \beta_2 \text{Exchange rate of US dollar} + \beta_3 \text{Inflation} + \beta_4 \text{unemployment} + \mu$$

EXPECTED SIGNS:

- $\beta_0 = ?$
- $\beta_1 < 0$
- $\beta_2 > 0$
- $\beta_3 > 0$
- $\beta_4 > 0$

3.5. HYPOTHESIS:

H₁: Personal Remittance is significant and correlated with capital account balances.

H₀₁: Personal Remittance is insignificant and correlated with capital account balances.

H₂: Personal Remittance is significant and correlated with exchange rate.

H₀₂: Personal Remittance is insignificant and correlated with exchange rate.

H₃: Personal Remittance is significant and correlated with inflation.

H₀₃: Personal Remittance is insignificant and correlated with inflation.

H₄: Personal Remittance is significant and correlated with unemployment.

H₀₄: Personal Remittance is insignificant and correlated with unemployment.

3.6. Data Handling:

Data is handled through EVIEWS software by analyzing statistical tests:

Statistical Tests:

- level of significance=95%
- Probability ≤ 0.05
- Correlation

4. Results Estimation:

4.1. DESCRIPTIVE STATISTICS TABLE:

	CAB	EXRT	INF	PRSNREMTNC	UNEMPL
Mean	-3.094971	83.78812	9.173739	5.571403	3.185462
Median	-2.374882	85.50170	7.921084	5.741443	3.039000
Maximum	-0.763217	104.6971	20.28612	7.135673	6.528000
Minimum	-9.204316	59.35760	2.529328	3.730765	0.650000
Std. Dev.	2.475924	18.05164	4.855685	1.287470	1.709813
Skewness	-1.205659	-0.267016	0.747470	-0.245467	0.258054
Kurtosis	3.715107	1.527838	3.199401	1.580135	2.394718
Jarque-Bera	3.426492	1.328411	1.232080	1.222560	0.342730
Probability	0.180280	0.514682	0.540079	0.542656	0.842514
Sum	-40.23463	1089.246	119.2586	72.42823	41.41100
Sum Sq. Dev.	73.56242	3910.338	282.9322	19.89093	35.08153
Observations	13	13	13	13	13

The above table shows the mean, median, standard deviation of each variable, the highest the mean and

standard deviation show highest deviation in data.

4.2. Correlation Matrix:

	CAB	EXRT	INF	PRSNREMTNC	UNEMPL
CAB	1.000000	0.546708	-0.360420	0.600773	-0.555929
EXRT	0.546708	1.000000	-0.545094	0.983845	-0.627254
INF	-0.360420	-0.545094	1.000000	-0.527515	-0.018161
PRSNREMTNC	0.600773	0.983845	-0.527515	1.000000	-0.642528
UNEMPL	-0.555929	-0.627254	-0.018161	-0.642528	1.000000

The data has analyzed through Eviews software by using correlation and regression. The correlation test indicates the relationship between the variables. According to above table there is a positive or negative correlation exist between dependent and independent variables. Exchange rate is positively strong correlated with personal remittances, unemployment and inflation have moderate and negative correlation with personal remittances while current account balance is moderately and positively correlated.

4.3. Inferences:

Independent Variable	Dependent Variable	Comments
CAPITAL ACCOUNT BALANCE	PERSONAL REMITTANCE	POSITIVELY AND MODERATELY CORRELATED WITH EACH OTHER
EXCHANGE RATE	PERSONAL REMITTANCE	STRONG AND POSITIVE CORRELATION IS EXISTED.
INFLATION	PERSONAL REMITTANCE	NEGATIVE AND MODERATE CORRELATION IS EXISTED
UNEMPLOYMENT	PERSONAL REMITTANCE	NEGATIVE AND MODERATE CORRELATION IS EXISTED

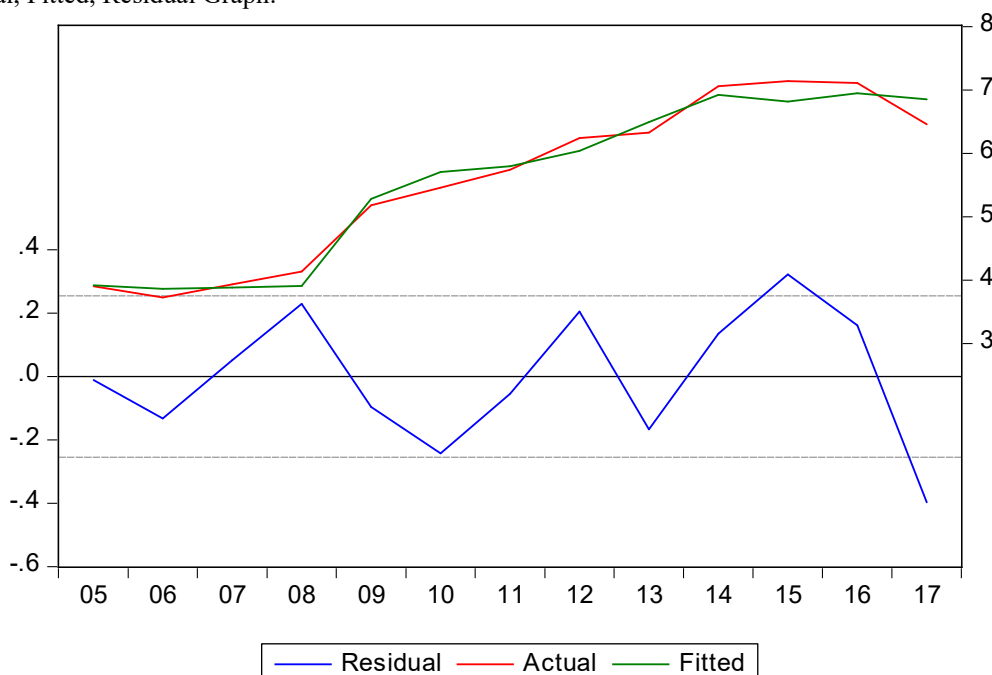
4.4. ESTIMATED EQUATION:

Dependent Variable: PRSNREMTNC				
Method: Least Squares				
Date: 02/07/19 Time: 00:23				
Sample: 2005 2017				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.012718	0.954599	-0.013323	0.9897
CAB	0.048429	0.039929	1.212867	0.2598
EXRT	0.067636	0.007480	9.042236	0.0000
INFT	0.006114	0.023039	0.265396	0.7974
UNEMPL	0.003395	0.074224	0.045738	0.9646
R-squared	0.973896	Mean dependent var		5.571403
Adjusted R-squared	0.960845	S.D. dependent var		1.287470
S.E. of regression	0.254761	Akaike info criterion		0.386738
Sum squared resid	0.519224	Schwarz criterion		0.604026
Log likelihood	2.486203	Hannan-Quinn criter.		0.342075
F-statistic	74.61798	Durbin-Watson stat		1.755996
Prob(F-statistic)	0.000002			

In the above equation: R Square show Coefficient of Determination defines the square of Coefficient of Correlation. The R Square value (0.973) means 97.3% reliable to be used for estimation of population. The Std. Error is important because they reflect how much sampling Fluctuation a statistic will show. The R change shows the differences between R-value & Adjusted R square.

Durbin Watson test value lies in significant region which indicates that there is no autocorrelation in the samples .The F change shows the combination of all variable and overall significances of the Model.

4.5. Actual, Fitted, Residual Graph:



The above graph shows the tracing of model, the tracing of the model indicates minor error in a model as adjusted R-Squared indicated as well.

4.6. Results Analysis:

Dependent Variable: PERSONAL REMITTANCE

Ind.Variable	Coefficient	t-value	Prob.	Corrl.	Hypothesis Accepted/Rejected
CAB	0.048429	1.212867	0.2598	0.600773	Hi1:Rejected Ho1:Accepted
XRATE	0.067636	9.042236	0.0000	0.983845	Hi2:Accepted Ho2:Rejected
INFT	0.006114	0.265396	0.7974	-0.527515	Hi3: Rejected Ho3: Accepted
UNEMPL	-142.0205	0.003395	0.9646	-0.642528	Hi4:Rejected Ho4:Accepted

5.1. Conclusion

Personal remittance is one of an essential factor to eradicate economic instabilities and now has become an item included in balance of payment located at the portion of current account balance. The study is aimed to investigate the impact and interaction between personal remittances and macroeconomic indicators. Personal remittance is counted as a catalyst for increment in foreign inflows which has different pros and cons such as devaluation of currency. According to all above analysis it is explored that exchange rate is highly significant and positively correlated with personal remittances while current account balance, unemployment and inflation are labelled as insignificant by above analysis for this study.

5.2. Recommendations

To increase remittance for productive uses following suggestions are extracted for relevant authority of policy makers:

- 1) To reduce transaction cost of sending remittances so that people found easier to send huge amounts of money.
- 2) Government of Pakistan should manipulate policies for the productive use of remittances inflows to flourish SME's sector of Pakistan.

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