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Impact of Worker's Remittance on Foreign Exchange Reserve in Bangladesh

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ABSTRACT

The purpose of this research article is to show the impact of workers remittance on foreign exchange reserve and giving emphasis on the importance of workers remittance and reserve. From the regression analysis of this study, researchers have found that remittance has an impact on reserve. Moreover, this study also shows that remittance has a strong and statistically significant impact on reserve. This study also shows that remittance and reserve have a positive relationship, which means that when workers remittance increases, the reserve also increases. So, we can say that foreign exchange reserves are heavily dependent on workers remittance in Bangladesh.

Keywords: Remittance, Reserve, Impact, relationship, Bangladesh.

1. INTRODUCTION

Workers remittance is the funds a foreign worker transfer/send to his or her country of origin via wire, mail, or online transfer. Remittance can also refer to the accounting concept of a monetary transfer by a customer to a business (Wikipedia the free Encyclopedia).

Actually, workers remittance is the private saving of workers and families that are spent at home for food, clothing, medical services, education for their child, and other expenditures. The remittance which is transferred to Bangladesh from the rest of the world by Bangladeshi workers is known as workers remittance in Bangladesh.

Workers remittance plays a very important role in the economics of developing and underdevelopment countries, so that workers remittance plays a very important role for growth and development of Bangladesh's economy. Bangladesh has an urgent need for workers remittance because workers remittance enhances

saving, Investment and accelerates growth. If workers remittance inflow any country the economy growth very positively, Improving balance of payment position and reducing the dependences on the external vulnerability.

Country Wise Workers Remittance inflow in Bangladesh (2006-2015)

(Million US Dollar)

<i>Countries</i>	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Saudi Arabia	1697	1735	2324.2	2859.1	3427.1	3290.03	3684.36	3829.45	3118.88	3345.23
UAE	561.4	804.8	1135.1	1754.9	1890.3	2002.63	2404.78	2829.40	2684.86	2823.77
UK	555.7	886.9	896.1	789.7	827.5	889.6	987.46	991.59	901.23	812.34
Kuwait	494.4	680.7	863.7	970.8	1019.2	1075.75	1190.14	1186.93	1106.88	1077.78
USA	760.7	930.3	1380.1	1575.2	1451.9	1848.51	1498.6	1859.76	2323.32	2380.19
Italy	83.00	149.6	214.5	186.9	182.2	215.58	244.75	233.23	269.59	260.16
Qatar	175.6	233.2	289.8	343.4	360.9	319.36	335.26	286.89	257.53	310.5
Oman	165.3	196.5	220.6	290.1	349.1	334.31	400.93	610.11	701.08	915.26
Singapore	64.8	80.2	130.1	165.1	193.5	202.33	311.46	498.79	429.11	443.44
Germany	11.9	14.9	26.9	19.3	16.5	25.64	34.99	25.81	26.94	21.16
Bahrain	67.3	80.0	138.2	157.4	170.1	185.93	298.46	361.7	459.39	554.34
Japan	9.4	10.2	16.3	14.1	14.7	15.2	22.16	21.18	17.06	16.30
Malaysia	20.8	11.8	92.4	282.2	587.1	703.73	847.49	997.43	1064.68	1381.53
Other Countries	134.6	164.7	186.8	281.1	497.4	541.71	582.72	728.87	867.76	975.27
Total	4801.9	5978.5	7914.8	9689.3	10987.4	11650.32	12843.42	14461.14	14228.31	15316.92

Source: Foreign Exchange Policy Department, Bangladesh Bank.

In Bangladesh, ‘Wage Earners’ scheme was initiated in 1974, in-order to help the non-resident Bangladeshis remit their earning home through legal channels. Soon this scheme became very popular among Bangladeshis working abroad. The amount 11.8 million dollar was remitted to Bangladesh in fiscal year 1974-75, 350 million dollar in 1980-81, now 2014-15 is 15316.92 million dollar. The kingdom of Saudi Arabia has been the largest sources of foreign exchange reserve to Bangladesh, UAE, Qatar, Oman, Kuwait, Malaysia, Singapore, USA, UK, and Italy are also major sources of workers remittance in Bangladesh (From Wikipedia, the free encyclopedia).

2. LITERATURE REVIEW

There is a lot of research work found on remittance and reserve, With respect to remittance and reserve foreign and national experts undertook number of studies. Now we will discuss some major works related to our study.

Akram Naseem, Fawad Aslam and Syed Zohaib Hassan (2012) examined the impact of remittance on reserve (Bangladesh, India, Pakistan). They found that the remittance has strong and statistically significant impact on reserve and there has positive relation ship between remittance and reserve, If remittance increase at the same time reserve increase. The Researchers also found that this three countries (Bangladesh, India, Pakistan) reserve heavily depend on remittance. This study takes the data from 2000-2009. Rashid Hussain and Ghulam Abbas Anjun (2014) perform an analysis this analysis shows that the worker’s remittance

are positively and statistically significant impact with GDP growth that means GDP growth and worker's remittance has positive relationship. If worker's remittances increase it has positive impact in GDP growth. Worker's remittances are very much important for GDP growth.

Kuntal Ray Chowdhury, Fauza Hamid and D.D Chatterjee (2010) Found that if remittances increase then foreign exchange reserve increase, Enhance saving and investment and improve the position of balance of payment, Thus the remittances plays an important role for economic development for Bangladesh. That is why researchers say the remittances are very important influential variable for economic development of Bangladesh. Mahedi Masuduzzaman (2014) shows that there is a positive relationship between remittance –Financial development and Remittance–Economic growth. This study also finds a long run positive relationship between inflow of remittance and gross domestic product. The researchers also found that for economic growth and financial development inflow of worker's remittance is very important of developing country, That is why this study examine that the worker's remittance inflow necessary for financial development and economic growth. Qayyum Abdullah (2008) examine that the inflow of remittance have statistically significant impact on poverty reduction in Pakistan (Developing Country). So that the economic growth and poverty reduction heavily depend on remittance inflow. Since remittance is very influential economic variable for developing country that is why it is say the migrant labor have their significant benefit for developing country. Researcher took data from 1973-2007.

Objective of the Study

- (a) Finding out/showing the impact of workers remittance on reserve in Bangladesh.
- (b) How workers remittance effect on foreign exchange reserve in Bangladesh. And
- (c) Showing the relationship between workers remittance and reserve.

3. METHODOLOGY OF THE STUDY

The research methodology of the selected topic follows in these dimensions:

The Period of Study

The researcher are covered ten years for this study from 2006-2015.

Data Collection

This study conducted based on secondary data. For this purpose the researcher has used the data which are published in Annual reports of Bangladesh Bank and other related Websites. At the same time, the journal, articles report and surveys have been referred.

Data Analysis

For this study, (the impact of workers remittance on foreign exchange reserve) Some statistical tests have been used according to the nature and objective of the study. The collected information is analyzed by descriptive observations, Regression analysis and ANOVA test. This analysis based on 5% level of significances.

Variable

The researcher analyzing the impact of workers remittance on reserve so that there has two variable workers remittance and foreign exchange reserve, Here workers remittance is independent variable and reserve is dependent variable.

Hypothesis

For this study the hypothesis are as under.

Ho = There is no significant impact of workers remittance on foreign exchange reserve in Bangladesh.

H1 = There is significant impact of workers remittance on foreign exchange reserve in Bangladesh.

Regression Model

$$Y_i = \alpha + \beta X_i + U_i$$

Here,

α = Intercept of the regression line

U_i = The random error term

β = Slope of the regression line

Y_i = Foreign exchange reserve

X_i = Workers remittance

4. DATA ANALYSIS AND RESULT

In this section researcher just describe the result from both the Descriptive and Statistical analysis separately. Descriptive Observations: For the descriptive analysis in bellow the table and diagram shows the workers remittance and reserve for ten year. Descriptive Observation:

Table 1.1
Foreign Exchange Reserve & Worker's Remittance for Ten Years.(2006-2015)

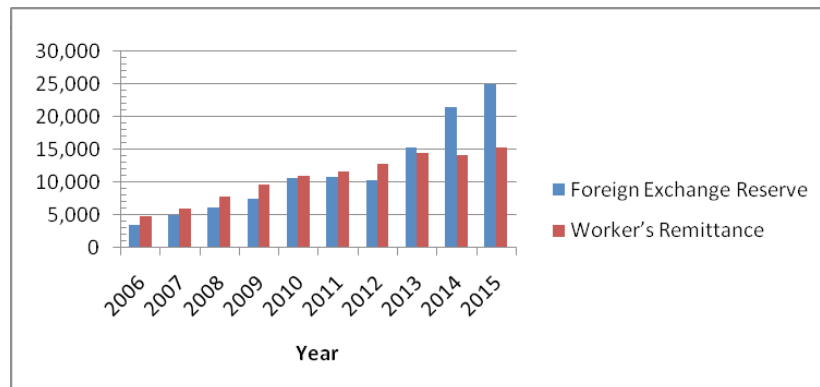
(Million US Dollar)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Foreign Exchange Reserve	3,484	5,077	6,149	7,471	10,750	10,912	10,364	15,315	21,508	25,021
Worker's Remittance	4801.9	5978.5	7914.8	9689.26	10987.40	11650.32	12843.42	14461.14	14228.31	15316.92

Source: Accounts & Budget dept. and Foreign Exchange Dept. Bangladesh Bank.

From the Table 1.1 and Figure 1.1, Researcher find that worker's remittance has significant impact on foreign exchange reserve because if worker's remittance increase reserve increase. This table and figure also shows that there is positive relationship between worker's remittance and reserve. From 2006 up to 2013 worker's remittance and reserve gradually increase but after 2013, in 2014 and 2015 reserve are heavily

increase than the worker's remittance, which means in Bangladesh the sources of foreign exchange reserve diversifying many sectors after than the reserve of Bangladesh heavily depend on worker's remittance.



**Figure 1: Foreign Exchange Reserve and Worker's Remittance (2006-2015)
(In Million US Dollar)**

Source: Accounts & Budget dept. and Foreign Exchange Dept. Bangladesh Bank.

Statistical Analysis

Statistical analysis for this study, the researcher using the micro soft excel data analysis tool. Researchers run liner regression for the sample period 2006-2015. Here Researcher examines the result of regression between workers remittance and foreign exchange reserve, which is exhibited in Table 1.

Now the Researcher interpreter the finding result of regression line.

In Table 1, Multiple R = .8864, is a large value indicates that there is linear relationship between dependent variable (reserve) and the independent variable (workers remittance).

R Square = .7857 indicates that 78.57 percent variation of reserve explain by the workers remittance.

In Table1, T-stat = 5.4171, that is the calculated value of T, which is more than the table value of 2.306 at 5% level of significance that is why null hypothesis is rejected. And P-value = .00063. Here P-value is lower than. 05, Researcher therefore reject the null hypothesis so that there is significant impact of the workers remittance on foreign exchange reserve in Bangladesh so that researchers can say that there is significance relation between workers remittance (independent variable) and foreign exchange reserve (dependent variable) at the 5% level of significance.

From the ANOVA table, The researchers found that the calculated value of F = 29.3446, which is more than the table value of F = 4.07 at 5% level of significance. Hence, the null hypothesis is rejected. And the value of significance F = .00063 is lower than.05 implying that null hypothesis is rejected. That is why there is significance impact of workers remittance on the foreign exchange reserve in Bangladesh so that researchers can say that there is significance relation between workers remittance (independent variable) and foreign exchange reserve (dependent variable) at the 5% level of significance. There are same result shows in regression analysis and ANOVA, Null hypothesis rejected so there is liner relationship between the dependent variable (reserve) and independent variable (workers remittance).

Table-1
Summary Output
Result of the regression between worker's remittance and foreign exchange reserve

<i>Regression Statistics</i>	
Multiple R	0.886441525
R Square	0.785778577
Adjusted R Square	0.759000899
Standard Error	3471.293857
Observations	10

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	353598188.5	353598188.5	29.3445377	0.000633012
Residual	8	96399048.36	12049881.04		
Total	9	449997236.9			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-6968.263285	3600.115645	-1.935566513	0.08895311	-15270.14484	1333.618274
X Variable 1	1.721796986	0.31784714	5.417059876	0.00063301	0.988840169	2.454753804

5. CONCLUSION

The studies main objective is to examine whether workers remittance has/have impact on foreign exchange reserve and at the same time importance of workers remittance and foreign exchange reserve in Bangladesh. In this study Researcher found that remittance effect on reserve very positively and significantly. Since remittance effect very positively that is why researchers can says that workers remittance has/have strong statistically significant impact on reserve increase in Bangladesh. If workers remittances increase foreign exchange reserve increase that means positive relationship between workers remittance and foreign exchange reserve in Bangladesh so that reserve is critically depends on workers remittance in Bangladesh.

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