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Behavior of Remittance Inflows and its Determinants in Bangladesh

Mst. Nurnaher Begum[•]
Rama Rani Sutradhar

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Research Department
Bangladesh Bank
Head Office, Dhaka

[•] The authors' are Joint Director and Assistant Director, Research Department, Bangladesh Bank respectively. The authors' would like to thank Dr. Ahsan Mansur, Executive Director, PRI, Dr.Md. Akhtaruzzaman, Economic Adviser, Bangladesh Bank and Dr. Hassan Zaman, Senior Economic Adviser to the Governor, Bangladesh Bank for their valuable suggestions and comments for improving the paper. The views expressed in this paper are authors' own and do not reflect that of the Bangladesh Bank.

Introduction

Remittance is a steadily growing external financial source for developing countries. It can generate substantial welfare gains for migrants and thereby could play an important role in reducing poverty[1]. In comparison of remittance flow and overseas development assistance (ODA), it appears that remittances are larger than ODA, foreign direct investment, and portfolio investment flows in many developing countries (Ratha and Mohapatra, 2007)[2]. A study of World Bank (2008) finds that migrant remittances impact positively on the balance of payments in many developing countries. It impacts on saving, investment, and consumption which propel economic growth. Recently, the joint World Bank-IMF low-income country debt sustainability framework takes remittances into account in evaluating the ability of countries to repay external obligations and their ability to receive non-concessional borrowing from private creditors. The IMF Article IV assessments also include remittance as a variable along with FDI and portfolio flows (ADB Bangladesh Quarterly Economic Update, March, 2010).

At present, remittances play a crucial role in the economy of Bangladesh. At the macro level, it helps to relieve our foreign exchange constraint, stabilize the exchange rate movement, and improve the balance of payments. A comfortable foreign exchange reserves can be maintained through increasing growth of remittance which can contribute to overall macroeconomic stability and reduce aid dependency. Besides, remittances are used to pay for imports bills and to repay foreign debt. At micro level, remittance has a beneficial impact on household consumption, reducing poverty reduction and self employment. It also improves country's creditworthiness. However, it has been more stable source of foreign earnings than both FDI and foreign aid.

Available data indicate that remittance flows to Bangladesh have grown rapidly over the last twenty years. It grew around 10.9 percent in 1990-91 which increased to 13.4 percent in 2009-10 and 6.03 in 2010-11. Remittances as percentage of most key macroeconomic variables (table-1) showed upward trend during 1981-2011. It is observed that the remittance-GDP ratio touched 10.43 percent in 2011 as compared to 1.93 percent in 1981-82 (Table 1). The trends in share of remittance to macroeconomic variable points to the growing importance of remittance in the Bangladesh economy and testify to the popular view that remittances are gradually providing more and more important contribution in our

[1] According to Global Economic Prospect 2006, in a model that relates national poverty levels to mean income and the Gini measure of inequality for 71 developing countries, a 10 percent increase in per capita official international remittances leads to a 3.5 percent decline in share of people living in poverty (Adams and Page 2005).

[2] Between 1995 and 2003, whereas migrant remittances to developing countries grew from US$58 billion to US$160 billion, FDI grew from US$107billion to just US$166 billion, with ODA increasing from US$59 billion to a mere US$79 billion.

GDP over time. But it is observed that recently the growth of both migration and remittance slowed down due to worldwide financial crisis. So, it is needed urgently to take initiative to stabilize the trend.

Table-1: Remittances as Percentage of key Macroeconomic Variables

Year	Remit/GDP	Remit/Export	Remit/Import	Remittance/aid	Remittance/FDI
1981-82	1.93	53.70	14.19	33.25	
1991-92	2.65	42.53	24.49	52.62	21199.25
1994-95	3.16	34.49	20.53	68.87	19960.50
1999-00	4.14	33.89	25.76	132.15	508.96
2004-05	6.37	44.47	32.42	243.45	8181.04
2008-09	10.84	62.25	47.75	718.88	1029.65
2010-11	10.43	50.63	38.40	661.93	1516.93

Source: Authors own calculation on the basis of data from various issues of Economic Trends, Annual Report Bangladesh Bank and Bangladesh Economic Review.

From the above discussion, it is essential to know the determinants of remittance inflow in Bangladesh for formulating sound macroeconomic policies. In this backdrop, the main objectives of the paper are (i) to analyze the behavior of remittance inflow and (ii) to identify its determinants. Generally, there are two ways to detect the determinants of remittance. One way is what has been characterized in the literature as "altruism": repayment of loans, self interest, consumption and saving target. By analyzing portfolio management decisions is another way of looking of the determinants of remittance. It is believed that there are some macroeconomic factors (interest rates, exchange rates, and inflation, GDP and relative rates of return on different financial and real assets), both in the host and home country, may significantly affect the flow of remittances. For this reason, the present study tries to develop a simple model of determinants of workers' remittances in Bangladesh.

The paper examines the determinants of remittance inflow by applying ordinary least square method (OLS). The model include the weighted average GDP of the six (Saudi Arabia (KSA), United Arab Emirates (UAE), Malaysia, Kuwait, USA and UK) remittance sending host countries which contributed more than 83 percent of remittance inflow in Bangladesh. The annual data has been used for the period 1980-2011. All data are measured in million USD at current market price.

The paper finds that in terms of growth, there is a mixed trend of remittance inflows during FY1982-FY04. Since FY05, growth of remittance grew steadily till 2008 afterward it showed downward trend.

On the other hand, there was a mixed trend in growth rate of migration from Bangladesh during 1981 to 2005. It increased significantly in 2007, but it dropped substantially in 2009 and gradually increased after 2009. It is also find in the paper that in the short run there exists a positive relationship between domestic exchange rate and remittance and some regulatory and institutional arrangement taken by the government and the Bangladesh Bank may have to bring the flow of remittances from informal to formal channel which contributed to boost up the remittances. The analysis of labour migration shows that unskilled labour migrants' are the principal source of remittance flows in Bangladesh. It is also observed that the wage rate for Bangladeshi unskilled workers are low compared to the wage rate of skilled or semi-skilled migrants. Finally, the paper finds that domestic inflation and host country's GDP have positive relationship with remittance inflow in Bangladesh.

The paper is organized as follows: Following the introduction in section I, literature review is given in section II, section III analyzes the performance of migration and remittance inflow in Bangladesh Section IV describes the econometric model and the estimated results. Finally, Section V discusses the conclusion and policy recommendations.

Section II: Literature review

Many valuable studies have been taken on remittance inflows in Bangladesh. But most of the studies have been found on the impact of remittance on poverty and income level in Bangladesh. However, Barua et al (2007) find the macroeconomic determinants of remittance in Bangladesh by using a balanced panel dataset of bilateral remittance flows from 10 major countries (of Bangladeshi migrants') to Bangladesh during 1993-2005. The results of the study show that income differential between host and home country is positively correlated while inflation differential is negatively correlated. The devaluation of domestic currency appears to be positively correlated with the inflow of remittances respectively in Bangladesh. Hasan, mohammad Monirul (2008) examines the macroeconomic determinants of remittances in Bangladesh. He found that if the domestic interest rate goes up by 1 percent, on average, remittance will increase by 1.94 percent and if GDP of the five host countries increases by 1 percent, remittance will increase by 3.06 percent. Rahman (2003) finds the determinants of remittance of saudi Arabia. He found that there is a significant positive relationship between the level of per capita GDP and remittance per worker from the kingdom. That is remittances are seen to pro-cyclical with the activity in the kingdom. He also finds that the per capita remittances are more elastic with respect to wages as compared to per capita income and inelastic with interest rate. Schiopu and Siegfried (2006) analyze determinants of flow of workers' remittances from 21 Western

European countries to 7 European neighbouring countries. In their data set they found that altruistic motive is important for sending remittances, while investment motive is not significant. Moreover, average remittance per migrant increases with increase in the migrants' skill level but decreases with rise of the share of informal economy host countries.

Section III: Performance of Migration and Remittance Inflow in Bangladesh

Trends in Remittance Inflow of Bangladesh in the Global Context

In recent years, the growth of remittance of Bangladesh has registered a substantial amount across the region. A study estimates that Latin America and the Caribbean are the main recipient areas of remittances in the world, receiving about 31 percent of total flows. South Asia is the second-largest remittance recipient area (20 percent), followed by the Middle East and North Africa (18 percent), East Asia and the pacific (14 percent), Europe and Central Asia (13 percent) and Southern Africa (5 percent)[3]. During 2005 - 2010 worldwide flow of remittances almost doubled (from USD 275 billion to USD 440 billion). From Table-2, similar trend is observed in the case of developing countries (from USD 192 billion to 325 billion). Even in the year 2010, when GDP growth rates in most countries of the world have been slowing down, remittance flows to developing countries has been rising.

Table-2 Global flows of international migrant remittances (in million USD)

Year/Country	2005	2006	2007	2008	2009	2010e
All developing countries	192127	226707	278456	324832	307088	325466
East Asia and Pacific	50300	57440	71073	85465	85685	91160
Latin America and Caribbean	50144	59223	63281	64647	56897	58057
Middle-East and North Africa	25078	26458	32145	35937	33660	35455
South Asia	33924	42523	54041	71598	74850	82585
Sub-Saharan Africa	9418	12668	18584	21359	20575	21490
World	274878	317855	384955	443185	415977	440077

Source: Migration and Remittances Factbook 2011,World Bank . e : estimated.

Over time, the inflow of remittances has been increasing (with the exception of Mexico) among top remittance recipient developing countries (Table-3). It is mentioned that among the top remittance recipient developing countries, India attracts the largest share of remittances (USD 55 billion),

[3] In 2002, a study was commissioned by the Multilateral Investment Fund of the Inter-American Development Bank, which estimated the worldwide flows of remittances by region.

followed by China (USD 51 billion). Bangladesh is ranked 7th highest remittance receiving country in the world. It is mentioned that Bangladesh's share to the world remittance market was around 2.5 percent in 2010, which was 2.02 percent in 2008and 2.5 percent in 2009.

Table-3 Top remittance recipient developing countries (in million USD)

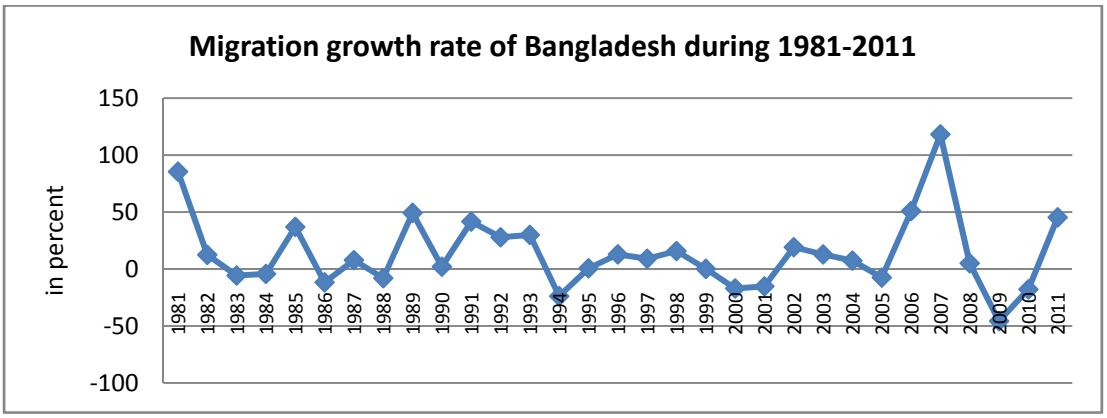
Year/Country	2007	2008	2009e	2010e	% change in 2010 over 2009
India	37217	49941	49256	55000	11.66
China	38791	48524	48729	51000	4.66
Mexico	27136	26304	22153	22572	1.89
Philippines	16302	18642	19766	21311	7.82
France	14445	16408	15551	15939	2.50
Germany	9898	10908	10879	11559	6.25
Bangladesh	6562	9841	10523	11050	5.01
Belgium	9098	10255	10360	10446	0.83
Spain	10739	11807	9904	10245	3.44
Nigeria	9221	9980	9585	9975	4.07

Source: Migration and Remittances factbook 2011, World Bank . e : estimated.

Analysis of Manpower Migration of Bangladesh

The growth of manpower migration to different countries from Bangladesh showed a mixed trend over the last several years and a substantial decrease was noticed in 2009 and 2010. After the birth of Bangladesh, most Bangladeshi migrants had sought to look job to Middle East countries as well as selected EU destinations (mainly Germany). But, a tendency to increase employment in developed countries like USA, Canada, Italy and some Asian countries like Japan, Malaysia and Singapore was observed in the 1990s and onward (Annex Table-1)**.** From figure-1 it is observed that there was a mixed trend in growth rate of migration from Bangladesh during 1981 to 2005. It increased significantly in 2007, but it dropped substantially in 2009 and increased in 2011 compared to the preceding year.

Figure-1:



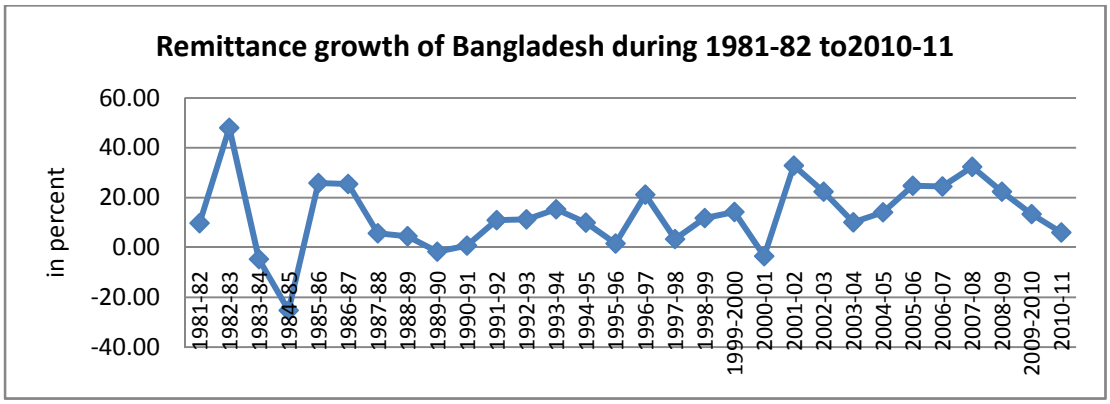
Migration growth increased dramatically in Malaysia, Singapore, Oman, KSA and UAE in 2007 due to higher demand for construction sector of those countries. On the other hand, the growth decreased substantially in 2009 due to worldwide financial crisis. It is visualized from Annex Table-1 that migration to Malaysia (90 percent) and KSA (88 percent) UAE (38 percent) decreased drastically in 2009 as compared with that of 2008 and this trend continue in 2010. In 2011, migration increased but the number of migration has slowed down (UK, Kuwait, Libya, Bahrain and Malaysia) in different countries (Annex chart-1). Already, some of the traditional destinations, like KSA, Malaysia and Singapore have indicated concern to recruitment in the face of sluggish economic growth and lower demand for construction and other services.

The analysis of labour migration also shows that unskilled labour migrants' are the principal source of remittance flows in Bangladesh (Annex Table-2). In 1990, 34 percent of the migrant workers were skilled category, 6 percent were professional and the rest of the 40 percent were unskilled and 20 percent were semi-skilled category. However, after 1990, the manpower export increased gradually and the number of skill workers also increased. In 2011, 40, 5 and 55 percent of the migrant workers were skilled, semi-skilled and unskilled. Share of category-wise migration is shown in Annex Chart-2. It is observed that the wage rate for Bangladeshi unskilled workers are low compared to the wage rate of skilled or semi-skilled migrants (Table-5). So, it is imperative to increase the skill of unskilled migrants which can contribute to boost the remittances inflow in Bangladesh.

Performance of Remittance Inflow

The growth of remittances showed downward trend in the recent years. The country received USD 381 million overseas remittances in 1976 which increased to USD 10987.4 million in 2011(Annex Table-3). In terms of growth, it showed a mixed trend during FY1982-FY04. Since FY05, growth of remittance grew steadily till 2008 afterward it showed downward trend (Figure-2).

Figure-2:



It is observed that (Annex Table-3) remittance from KSA, Malaysia and UAE increased in 2009 and 2010 but remittance inflow decreased from KSA in 2011. Remittances from Iraq was nil since 1991-92. It is noted that KSA is still the main sources of remittance inflow to Bangladesh in the face of the substantial labour migration demand fall in KSA. The country-wise dynamics of remittance flow (Annex Chart-3) indicates that the share of KSA in remittance declined but still the highest of 28 percent in 2011. Besides, contribution from UAE, USA, Kuwait, and Qatar was 17, 16, 9, and 3 percent respectively. It is mentioned that, recently there has been a gradual change in the share of remittance flows by regions. During 1980-2006, the inflow of remittances from Middle-East remained above 70 percent (Table-4). Since 2007, it appears to have been a shift that is taking place with remittances increasingly coming from new sources, like USA, Canada, UK, Germany, Italy, Malaysia and Japan reflecting considerable diversification of labour flows.

Table-4 Intensity of Remittance flow by Region (in percent)

Area	1980-85	1985-90	1990-95	1995-2000	2000-06	2006-07	2007-08	2008-09	2009-10	2010-11
Middle-East	72	70	75	74	73	66	63	66	66	62
ROW	28	30	25	26	27	34	37	34	34	38
Total	100	100	100	100	100	100	100	100	100	100

Source: Bureau of Manpower, Employment and Training.

Factor Affecting in Remittance Inflow

From the above discussion, it is observed that in the short run there is a puzzle between migration and inflow of remittance. Inflow of remittances decreased after 2008 though the outflow of migration gradually grew after 2009. So, the question is actually what factors influence the remittance to increase. We consider four factors that may affect the remittance inflow. The factors are: wage rate, exchange rate, migration and some regulatory and institutional arrangement taken by the government and the Bangladesh Bank.

Wage Rate

At first, if we look into the minimum wage rate, it is observed that in the major migrants labour countries like Saudi Arabia and UAE there were virtually no change in the wage rate of the unskilled labour. According to the BMET, there was no evidence to change wage rate during 2002-2007 (table-5). So, it is clear that wage rate didn't play an important role to increase remittances.

Table-5 Minimum wage rate of different countries

Country	Skilled		Semi skilled		unskilled	
	2001	2008	2001	2008	2001	2008
S Arabia	**750 S riyal**	**750 S riyal**	**750 S riyal**	**750 S riyal**	**525 S riyal**	**550 S riyal**
Bahrain	75 B dinar	200 B dinar	75 B dinar	100 B dinar	55 B dinar	75 B dinar
Qatar	750 K riyal	1000 K riyal	750 K riyal	800 K riyal	550 K riyal	550 K riyal
UAE	**750 dirham**	**1000 dirham**	**750 dirham**	**800 dirham**	**550 dirham**	**550 dirham**
Singapore	200 USD	18 S dollar(per day)	200 USD	16 S dollar(per day)	150USD	-
Malaysia	200 USD	-	200 USD	-	150 USD	-

Source: Bureau of Manpower, Employment and Training. – Not re-fixed.

Interbank Exchange Rate

It is said that exchange rate plays a vital role to increase inflow of remittances in Bangladesh. In order to find the relation between exchange rate and remittance inflow, we estimate an equation by regressing log of remittance inflow of Bangladesh on log of exchange rate and log of migration. The monthly data has been used for the period 2000-2011. The data have been collected from Economic

Trends of Bangladesh Bank, Foreign Exchange Policy Department of Bangladesh Bank, Bureau of Manpower, Employment and Training.

The estimated regression result is given in Table-6

Table-6

LogREM	Coefficient	Standard Error	t	Pro.
Constant	-17.66780	2.776678	-6.36	0.000
LogEXR	5.522203	0.939006	5.88	0.000
LogMIG	0.059804	0.135002	0.44	0.6585

The estimated regression equation is as follows:

Log(REM)= -17.66 + 5.52 Log(EXR) +0.06 Log(MIG)---------(1)

t (-6.36) (5.88) (0.44)

MIG = Migration from Bangladesh
EXR = Domestic exchange rate
REM= Remittance inflow in US dollar

The estimated equation-1 indicates that inflow of remittance elasticity with respect to exchange rate is 5.52 which imply that if exchange rates depreciate/appreciate by 1 percent, inflow of remittance increase/decrease by 5.52 percent. On the other hand, remittance elasticity with respect to migration is only .06 which is statistically not significant.

Policy Change

The government and Bangladesh Bank have taken various regulatory and institutional arrangements to boost up remittance through formal channel in the early 2010s which contributed to boost up the remittances (Annex: Box: Migration Management and policies to Boost up Remittances). In order to find the impact of these measures we apply chow break point test. Chow break point test shows that there is a break in January 2003. We include a dummy variable D_1 in the model. The D_1 is constructed by taking value zero for July 2000-December 2002 and 1 for January 2003- December 2011 sample period. The estimated result show that D_1 is significant which implies that the measures taken by the

government and the Bangladesh Bank contributed to boost up the remittances flow from informal to formal channel.

In fact, the remittance transfer through formal channel is higher than that of informal channel in recent times. A survey in 2009 conducted by International Organization for Migration (IOM) revealed that 73 percent remittance receives through banks and another 8 percent through formal money transfer agencies. Only 18 percent of the total remittances were sent through informal channels. At the same time, another survey by Bangladesh Bank estimates that the informal channel received 19 percent in 2009 which was 24 percent in 2008 (WB, 2008) and 54 percent in 2006(GEP 2006, WB). However, if the informally sent remittances are made possible to be channeled through formal arrangement, the financial system would be a position to make more efficient use of funds which could accelerate the country's economic development to a speedy pace.

Section IV: Determinants of Remittance Inflow

Data and Methodology

The paper examines the determinants of remittance inflow by applying ordinary least square method (OLS). We consider the weighted average GDP of the six remittance sending host countries which contributed more than 83 percent of remittance inflow in Bangladesh. The countries are: Saudi Arabia (KSA), United Arab Emirates (UAE), Malaysia, Kuwait, USA and UK. We include domestic country's inflation, exchange rate and migration in the model because these variables also influence remittance.

The annual data has been used for the period 1980-2011. The annual data have been collected from Economic Trends of Bangladesh Bank, Foreign Exchange Policy Department of Bangladesh Bank, Annual Report of Bangladesh Bank, National Account Statistics, of BBS and Bangladesh Economic Review, of Ministry of Finance.

Specification of the Model:

The model used in the study is as follows:

$$LnREM = \alpha + \beta_1 lnMIG + \beta_2 LnEX + \beta_3 LnCNTGDP + \beta_4 lnINFLA + € \quad \text{----------} \quad (2)$$

LnEX = Log of domestic exchange rate
LnREM= Log remittance inflow in US dollar
LnINFLA= Log domestic inflation rate
LnCNTGDP= Log simple average of six country's GDP in million USD

LnMIG = Log migration from Bangladesh

It is commonly believed that increase in the number of migrant workers abroad is positively correlated with remittance inflow implying that growing stock of migrants abroad contribute to higher level of remittances. However, compositional features of migrants are also important in determining the amount of remittance sent home (GEP 2006, p-92). If the exchange rate of the home country depreciates the remittance inflow will increase. There is a positive relationship between host country's GDP and remittance inflow. If the host country's GDP increase, the remittance inflow will also increase. Higher inflation in the home country relative to host country can increase or decrease the inflow of remittances. Higher inflation at home, which reduces the purchasing power of migrants' family, can induce migrants to send more remittances. On the other hand, it also represents more risk and uncertainty in the home country relative to host country, thereby discouraging them to send more remittances.

Estimation of the Model:

Unit Root Test

To test whether the variable used in the model are stationary or nonstationary, we used Augmented Dickey-Fuller (ADF) unit root test. The result of the ADF for the variables in their levels and first differences are reported in Table-7. Reported ADF test indicates that none of the variables represents a stationary process in level form but they are stationary in the first differences which is statistically significant at 5% level of significance. From the ADF test results we may conclude that log of domestic exchange rate (LnEX), log of remittance inflow (LnREM), log of domestic inflation (LnINFLA), log of simple average of six country's GDP (LnCNTGDP), log of migration (LnMIG) are I(1). Now we test the relationship among the variables whether they are cointegrated or not.

Table-7 **ADF unit root test**

Variable	ADF test statistics	5% critical value	10% critical value	Decision
Level-LnREM	-1.35	-3.56	-3.22	Non-stationary I(1)
Δ LnREM	-6.05	-3.57	-3.22	Stationary I(0)
Level-LnEX	-3.22	-3.56	-3.22	Non-stationary I(1)
ΔLnEX	-4.79	-3.57	-3.22	Stationary I(0)
Level-LnINFLA	-2.43	-3.56	-3.22	Non-stationary I(1)
ΔLnINFLA	-7.02	-3.57	-3.22	Stationary I(0)
Level-LnCNTGDP	-0.26	-3.56	-3.22	Non-stationary I(1)
ΔLnCNTGDP	-5.72	-3.56	-3.22	Stationary I(0)

Level-LnMIG	-1.65	-2.96	-2.62	Non-stationary I(1)
ΔLnMIG	-5.47	-2.97	-2.62	Stationary I(0)
et (Level)	-2.24	-1.95	-1.61	Variables are cointegrated

Note: Δ mean first difference

Cointegration test:

In order to find the cointegration between the variables, we use the Engle-Granger method. Engle-Granger test shows that (Table-7) the calculated value of the residual et is greater than the critical value that is the residual is stationary at the level form. So the variables are cointegrated which indicate that the long run relationship exists between the variables. The OLS estimate gives the long run relationship.

Estimated Result and Analysis

The estimated regression result is given in Table-8

Table-8

LnREM	Coefficient	Standard Error	t	Pro.
Constant	-21.86667	5.977468	-3.66	0.0011
LogCNTGDP	1.953619	0.654272	2.99	0.0059
LogEX	0.019103	0.699882	0.03	0.9784
LogINFLA	0.286312	0.081104	3.53	0.0015
LogMIG	0.083378	0.175454	0.48	0.6385

The estimated regression equation is as follows:

LnREM = -21.87+0.08lnMIG + 0.02 LnEX + 1.95 LnCNTGDP + 0.29lnINFLA ---------- (3)

t (-3.66) (0.48) (0.03) (2.99) (3.53)

In equation (3) estimated values of the parameters show that if domestic inflation goes up by 1 percent remittance inflow will increase by 0.29 percent. Similarly, if six countries GDP increase 1 percent, remittance will increase by 1.95 percent. This indicates that remittance is very sensitive to the GDP of the six host countries. Remittance elasticity with respect to migration and exchange rate are 0.08 and 0.02 respectively but both are statistically not significant.

Section V: Conclusion and Policy Recommendations

Remittance is an enormous source of foreign exchange earnings in Bangladesh. It has emerged as a key driver of economic growth and poverty reduction. It can help to improve a country's development prospects, maintain macroeconomic stability and mitigate the impact of adverse shocks.

The analysis of the study indicates that in recent years remittance growth decreased though migration grew gradually. In short run there exists a positive relationship between domestic exchange rate and remittance and some regulatory and institutional arrangement taken by the government and the Bangladesh Bank may have to bring the flow of remittances from informal to formal channel which contributed to boost up the remittances. The analysis of labour migration shows that unskilled labour migrants' are the principal source of remittance flows in Bangladesh. On the other hand, it is also observed that the wage rate for Bangladeshi unskilled workers are low compared to the wage rate of skilled or semi-skilled migrants.

The aim of the paper is to investigate whether the macroeconomic variable of the home and host countries can affect the inflow of remittance in Bangladesh. According to the estimated equation, it is found that domestic inflation have a positive relation with remittance implying that higher inflation at home country, which reduces the purchasing power of migrants' family, induced migrants to send more remittances in Bangladesh. On the other hand, remittance is also very sensitive to the GDP of the six host countries. In fact, it is really tough for Bangladesh to maintaining the rising trend in remittances in the face of low wages and decreasing demand of migration in the labour importing countries. However, Bangladesh has to strive hard to maintain its commendable liaison record with the labour-importing countries, especially in the Middle East and Malaysia.

References:

Adams, R. and J. page, (2005), "Do International Migration and Remittances Reduce Poverty in Developing Countries? "World Development 33(10): 1645-69.

Addison. E.K.Y. (2004), "The Macroeconomic Impact of Remittances in Ghana", Bank of Ghana, Ghana.

Ahortor. C.R.K. and Adenutsi. D. E. (2009), "The Impact of Remittances on Economic Growth in Small- Open Developing Economies", Department of Economics, Central University College, Accra, Ghana.

Asian Development Bank Bangladesh, Quarterly Economic Update, March 2010.

Annual Report, Bangladesh Bank, various issues.

Bangladesh Economic Review, Ministry of Finance, various issues.

Buchenau. J. (2008) Migration, Remittances and Poverty Alleviation in Bangladesh, Report and Proposal, United Nations Development Program, UNDP, Dhaka, Bangladesh.

Barua, Shubhasish Majumder, Md. Alauddin and Dr. Md. Akhtaruzzaman (2007), "Determinants of Workers' Remittances in Bangladesh: An Empirical Study", MPRA Paper No. 15080. Policy Analysis Unit, Bangladesh Bank, Dhaka.

Budget 2010-11.

Bureau of Manpower, Employment and Training (BMET).

Economics Working Paper Series. No. 189. Manila: Asian Development Bank.

Economi Trends, Bnagladesh Bank, various issues.

Foreign Exchange Policy Department, Bangladesh Bank.

Glytsos. N. P. (2002), "Dynamic Effects of Migrant Remittances on Growth: An Econometric Model with an Application to Mediterranean Countries", Centre of Planning and Economic Research 22, Hippokratous Street, 10680 Athens, Greece.

Haque. Fariha (2006), "General Overview of Inflow of Remittance in Bangladesh Economy", School of Business, Independent University, Bangladesh.

Haydory Akbar Ahmed and Md. Gazi Salah Uddin (2008), "Export, Imports, Remittance and growth in Bangladesh: An Empirical Analysis", Working Paper, International Trade Research Series, August 2008.

Hasan, Mohammad monirul (2008), " The macroeconomic determinants of remittances in Bangladesh" MPRA Paper No. 27744.

Karagoz. Kadir (2009), "Workers' Remittances and Economic Growth: Evidence From Turkey", Journal of Yasar University, Turkey.

Loser. C., Caitlin Lockwood, Adam Minson and Lucia Balcazar, "The Macro-Economic Impact of Remittances in Latin America-Dutch Disease or Latin Cure". Unpublished peper.

Murshid.K.A.S., Kazi Iqbal and Meherun Ahmed (2002), "Remittance Inflows and Utilization, Regional Office for South Asia", International Organization for Migration(IOM), Dhaka. Unpublished paper 2002.

Murshid et al (2002), "A Study of Remittance Inflow & Utilization", UNDP & IMO, Dhaka.

Murshid.K.A.S., et al (2009),"The Global Financial Crisis Implications for Bangladesh", Working Paper No.-1, Bangladesh Institute of Development Studies, BIDS, Dhaka.

Mustafizur Rahman et al (2009), " Global Financial Crisis Discussion Series Paper 1: Bangladesh" Overseas Development Institute, London.

M W R Khan (2008), "The Micro level Impact of Foreign Remittances on incomes in Bangladesh." A

Mesearment Approach using the propensity Score. Centre for Policy Dialogue.

Osmani, S.R (2004) "The mpact of Globalisation on poverty in Bangladesh" ILO, Geneva and Dhaka.

Paderanga, Jr. C.W., The Macroeconomic Impact of Remittances in The Philippines. Unpublished paper.

Rahman A-M.M. Abdel (2003), " The determinants of Foreign Worker Remittances in the Kingdom of Saudi Arabia" department of Economics, King saud University.

Razzaque, M. A. and Bidisha, S. (2008). "Migration and Development: The Bangladesh Case", Chapter 13 in Razzaque, M. A. (ed). *Trade, Migration and Labour Mobility*, Cameron May, London.

Rashed Al Hasan (2006) "harnessing Remittances for Economic Development of Bangladesh" international network of Alternative Financial Institutions. INAFI Bangladesh Working paper Series No. 1.

Ratha, Dilip and Sanket Mohapatra (2007), "Increasing the Macroeconomic Impact on Development", Development Prospect Group, The World Bank, Washington D.C.

Samuel Munzele aimbo and Dilip Ratha "Remittances" Development Impact and Future Prospects World Bank 2005.

Schiopu, I. and N. Siegfried (2006), Determinants of Workers' Remittance: Evidence from the European Neighbouring Region, Working Paper No. 688 European Central Bank.

Siddiqui. T (2004), "Efficiency of Migrant Workers' Remittance: The Bangladesh Case", Asian Development Bank, ADB, Manila.

Siddiqui. T (2005), "International Labour Migration from Bangladesh: A decent work perspective" ILO, Working Paper No 66.

Siddiqui. T (2009), "Migrant Workers' Remittances to Bangladesh: Implecations of Global Recession." www.biiss.org/tasnem.pdf

Sharma. M. and Hassan Zaman (2009), Policy Research Working Paper Series 5018, "Who Migrates Overseas and Is It Worth Their While? An Assessment of Household Survey Data from Bangladesh", The World Bank, Poverty Reduction and Economic Management Network, Poverty Reduction Group.

Selim Raihan, et al (2009), "Remittances and household Welfare: A case Study of Bangladesh". ADB

Straubhaar, Thomas and Florin P. vadean (2006) "International migrant Remittances ad Role in Development" International Migration Outlook: SOPEMI 2006 edition.

The financial express December 30, 2009January 2 &4, 2011.

World Bank (2006), "Global Economic Prospects", Washington D.C.

World Economic Outlook (2005).

World Bank Factbook 2011.

Table-1 Annexure

Country wise Overseas Employment from 1976 to 2011

up to December 2011

Year	KSA	UAE	UK	Kuwait	Libya	Qatar	Oman	Singapore	Bahrain	Japan	Malaysia	Others	Misc. Clearar	Total Employment
1976	217	1989		643	173	1221	113		335			1396		6087
1977	1379	5819		1315	718	2262	1492		870			1870		15725
1978	3212	7512		2243	2394	1303	2877		762		23	2483		22809
1979	6476	5069		2298	1969	1383	3777	110	827			2586		24495
1980	8695	4847		3687	2976	1455	4745	385	1351		3	1929		30073
1981	13384	6418		5464	4162	2268	7352	1083	1392			14264		55787
1982	16294	6863		7244	2071	6252	8248	331	2037			13422		62762
1983	12928	6615		10283	2209	7556	11110	178	2473		23	5845		59220
1984	20399	5185		5627	3386	2726	10448	718	2300			5925		56714
1985	37133	8336		7384	1514	4751	9218	792	2965			5601		77694
1986	27235	8790		10286	3111	4847	6255	25	2597		530	4982		68658
1987	39292	9953		9559	2271	5889	440		2055			4558		74017
1988	27622	13437		6524	2759	7390	2219		3268		2	4900		68121
1989	39949	15184		12404	1609	8462	15429	229	4830		401	3227		101724
1990	57486	8307		5957	471	7672	13980	776	4563		1385	3217		103814
1991	75656	8583		28574	1124	3772	23087	642	3480		1628	585		147131
1992	93132	12975		34377	1617	3251	25825	313	5804		10537	293		188124
1993	106387	15810		26407	1800	2441	15866	1739	5396		67938	724		244508
1994	91385	15051		14912	1864	624	6470	391	4233		47826	3570		186326
1995	84009	14686		17492	1106	71	20949	3762	3004		35174	7290		187543
1996	72734	23812		21042	1966	112	8691	5304	3759		66631	7663		211714
1997	100534	54719		21126	1934	1876	5985	27401	5010		2844	9648		231077
1998	158715	38796		25444	1254	6806	4779	21728	7014		551	2580		267667
1999	185739	32344		22400	1744	5611	4045	9596	4639	7		2057		268182
2000	144618	34034		594	1010	1433	5258	11095	4637	22	17237	2748		222686
2001	137248	16252		5341	450	223	4561	9615	4371	19	4921	5964		188965
2002	163269	25462		15769	1574	552	3854	6856	5421	37	85	2377		225256
2003	162131	37346	166	26722	2855	94	4029	5304	7482	12	28	8021		254190
2004	139031	47012	2055	41108	606	1268	4435	6948	9194	47	224	12448	8582	272958
2005	80425	61978	2793	47029	972	2114	4827	9651	10716	79	2911	16967	12240	252702
2006	109513	130204	1625	35775	104	7691	8082	20139	16355	174	20469	20663	10722	381516
2007	204112	226392	972	4212	1480	15130	17478	38324	16433	164	273201	24489	10222	832609
2008	132124	419355	952	319	5067	25548	52896	56581	13182	133	131762	26222	10914	875055
2009	14666	258348	1253	10	22742	11672	41704	39581	28426	39	12402	35950	8485	475278
2010	7069	203308	173	48	12132	12085	42641	39053	21824	17	919	43873	7560	390702
2011	15030	282734	26	29	89	13168	135260	48666	13928	16	742	50618	7756	568062
Total	**2589228**	**2073525**	**10015**	**479648**	**95283**	**180979**	**538425**	**367316**	**226933**	**766**	**700397**	**360955**	**76481**	**7699951**

Source: BMET.

Annexure

Table-2

Workers Category	Category-Wise Workers'			
Year	Professional	Skilled	Semi-skille	Un-skilled	Total
1976	568	1775	543	3201	6087
1977	1766	6447	490	7022	15725
1978	3455	8190	1050	10114	22809
1979	3494	7005	1685	12311	24495
1980	1983	12209	2343	13538	30073
1981	3892	22432	2449	27014	55787
1982	3898	20611	3272	34981	62762
1983	1822	18939	5098	33361	59220
1984	2642	17183	5484	31405	56714
1985	2568	28225	7823	39078	77694
1986	2210	26294	9265	30889	68658
1987	2223	23839	9619	38336	74017
1988	2670	25286	10809	29356	68121
1989	5325	38820	17659	39920	101724
1990	6004	35613	20792	41405	103814
1991	9024	46887	32605	58615	147131
1992	11375	50689	30977	95083	188124
1993	11112	71662	66168	95566	244508
1994	8390	61040	46519	70377	186326
1995	6352	59907	32055	89229	187543
1996	3188	64301	34689	109536	211714
1997	3797	65211	43558	118511	231077
1998	9574	74718	51590	131785	267667
1999	8045	98449	44947	116741	268182
2000	10669	99606	26461	85950	222686
2001	5940	42742	30702	109581	188965
2002	14450	56265	36025	118516	225256
2003	15862	74530	29236	134562	254190
2004	12202	110177	28327	122252	272958
2005	1945	113655	24546	112556	252702
2006	925	115468	33965	231158	381516
2007	676	165338	183673	482922	832609
2008	1864	292364	132825	448002	875055
2009	1426	134265	84517	255070	475278
2010	387	90621	20016	279678	390702
2011	1192	229149	28729	308992	568062
Total	182915	2409912	1140511	3966613	7699951

Source: Bureau of Manpower, Employment and Training (BMET)

Annexure

Table-3

(in million US$)

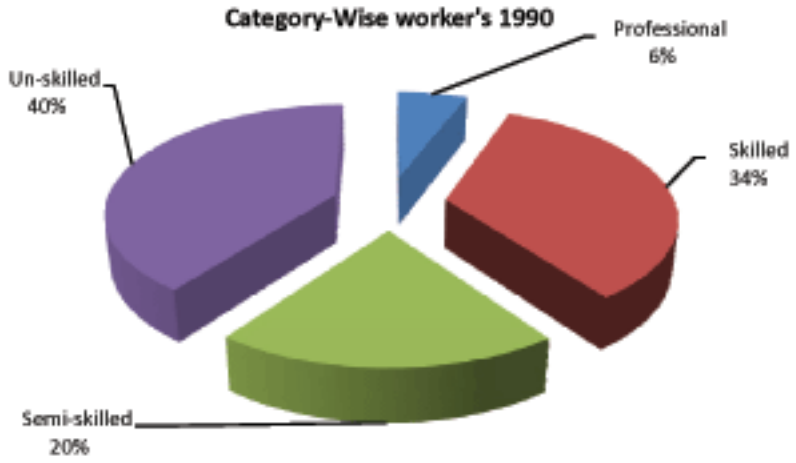
Country-Wise Workers' Remittances

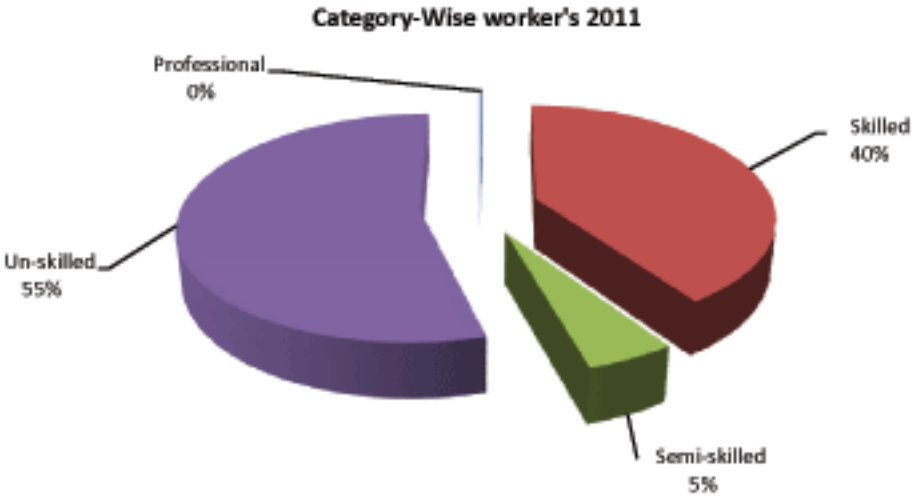
Year	KSA	UAE	UK	Iraq	Kuwait	USA	Libya	Qatar	Oman	Singapore	Germany	Bahrain	Iran	Japan	Malaysia	Others	Total
1980-81	83.88	65.59	104.9	16.25	19.09	32.99	13.94	13.67	5.91	0	10.27	1.26	0.84	0	0	12.58	381.18
1981-82	120.91	55.49	69.27	25.04	22.97	31.86	20.26	15.98	10.37	0	9.05	2.48	2.62	0	0	32.18	418.47
1982-83	199.72	78.68	84.55	56.3	44.94	39.52	30.89	28.99	12.65	4.04	6.89	3.68	1.08	0	0	27.56	619.48
1983-84	215.1	59.8	70.6	42.2	50.5	36.8	29.4	30.2	24.1	6.6	4.8	8.1	0.5	0	0	11.9	590.6
1984-85	153.7	42.1	50.9	27.4	37.6	32.4	22.9	22.1	27.5	3.4	3.5	6.8	1.6	0	0	9.7	441.6
1985-86	180.4	54	77.6	22.6	62.3	38.7	15.9	22.3	54.1	2.4	3.1	9.4	1.1	0	0	11.91	555.81
1986-87	216.3	60.9	92.8	21.6	101.3	43.2	12.9	38.4	53.4	2.6	7	11.3	3.9	0	0	31.85	697.45
1987-88	226.5	62.4	88.3	17.5	96.3	61.5	12	45.7	51.8	2	7.6	12.3	4.1	0	0	49.43	737.43
1988-89	219.5	61.1	67.3	11.2	96.4	84.2	10.1	44.9	44.8	2	5.2	12.4	4.9	14.8	0	92.02	770.82
1989-90	226.7	55.15	58.5	8.48	89.33	83.03	8.58	40.14	40.58	2.26	5.29	14.35	2.18	84.64	0	38.99	758.2
1990-91	264.45	80.91	68.86	1.51	9.17	57.29	4.22	59.41	49.48	2.01	6.74	16.49	2.65	89.57	0	51.28	764.04
1991-92	315.68	79.56	57.15	0	66.9	55.43	1.67	48.07	60.55	1.52	9.93	20.2	2.03	71.12	0	58.16	847.97
1992-93	388.83	78.35	48.31	0	115.15	69.41	1.91	53.86	61.95	2.49	14.05	22.39	1.04	39.35	1.7	45.21	944
1993-94	443.15	88.11	48.5	0	185.17	78.68	1.91	56.16	73.05	2.31	13.03	27.31	0.55	31.64	10.2	29.02	1088.79
1994-95	476.88	81.35	47.03	0	165.43	111.88	1.01	72.18	81.27	2.94	8.06	33.73	0.31	31.43	50.01	34.12	1197.63
1995-96	498.19	83.71	41.27	0	174.27	115.38	0.18	53.29	81.72	4	4.84	30.09	0.08	22.99	74.44	32.61	1217.06
1996-97	587.15	89.64	56.19	0.06	211.46	157.03	0.45	53.16	94.45	6.66	3.08	31.52	0.45	25.59	94.21	64.3	1475.4
1997-98	582.99	106.87	65.09	0.06	213.14	203.14	0.53	57.82	87.6	7.69	4.51	32.43	0.91	23.05	78.11	61.48	1525.42
1998-99	685.49	125.34	54.04	0	230.22	239.41	0.14	63.94	91.93	13.04	5.14	38.94	0.12	39.42	64.52	54.05	1705.74
1999-2000	916.01	129.86	71.79	0	225.01	241.3	0.04	63.73	93.01	11.63	4.7	41.8	0	34.56	54.04	61.84	1949.32
2000-01	919.61	144.28	55.7	0	247.39	225.62	0.1	63.34	83.65	7.84	3.84	44.05	0	10.74	30.6	45.34	1882.1
2001-02	1147.95	233.49	103.36	0	285.75	356.24	0	90.6	103.27	14.25	6.11	54.12	0	14.14	46.85	45	2501.13
2002-03	1254.31	327.4	214.12	0	338.59	458.05	0.16	113.55	114.06	31.07	9.57	63.72	0.22	18.24	41.4	77.51	3061.97
2003-04	1386.03	373.46	297.54	0	361.24	467.81	0.13	113.64	118.53	32.37	12.12	61.11	0.38	18.73	37.06	91.82	3371.97
2004-05	1510.46	442.24	375.77	0	406.8	557.31	0.27	136.41	131.32	47.64	10.1	67.18	0.52	15.99	25.51	120.77	3848.29
2005-06	1696.96	561.44	555.71	0	494.39	760.69	0.18	175.64	165.25	64.84	11.9	67.33	1.87	9.41	20.82	215.45	4801.88
2006-07	1734.7	804.84	886.9	0	680.7	930.33	2.61	233.17	196.47	80.24	14.91	79.96	2.36	10.17	11.84	309.27	5978.47
2007-08	2324.23	1135.14	896.13	0	863.73	1380.08	0.36	289.79	220.64	130.11	26.87	138.2	3.24	16.29	92.44	397.53	7914.78
2008-09	2859.09	1754.92	789.65	0	970.75	1575.22	1.25	343.36	290.06	165.13	19.32	157.43	3.28	14.12	282.22	463.46	9689.26
2009-10	3427.05	1890.31	827.51	0	1019.18	1451.89	1.46	360.91	349.08	193.46	16.5	170.14	4.49	14.74	587.09	673.59	10987.4
2010-11	3290.3	2002.63	889.6	0	1075.75	1848.51	5.2	319.36	334.31	202.33	25.64	185.93	2.32	15.21	703.73	749.5	11650.32

Source:Foreign Exchange Policy Department , Bangladesh Bank.

Annexure

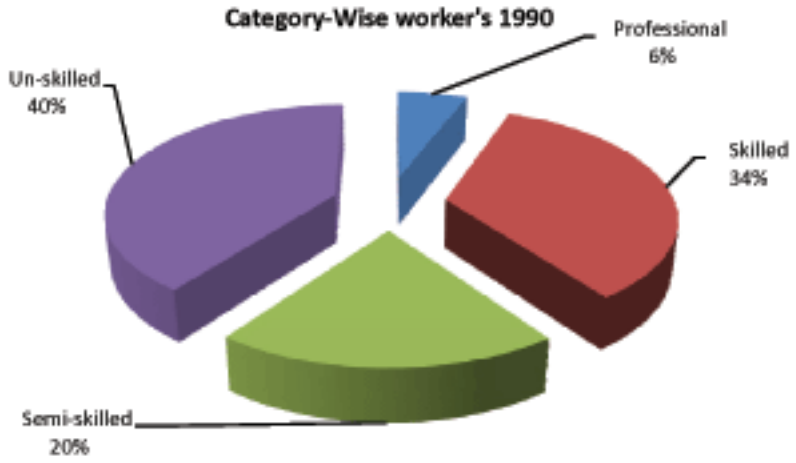
Chart-2

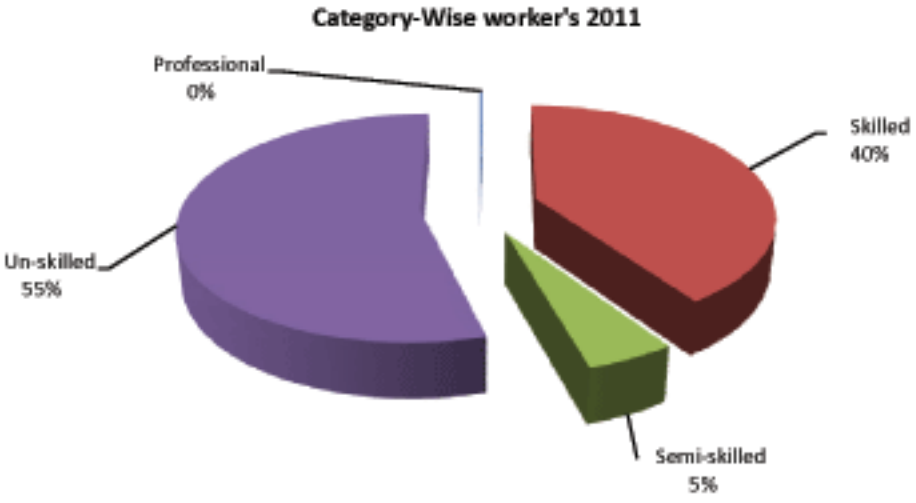




Annexure

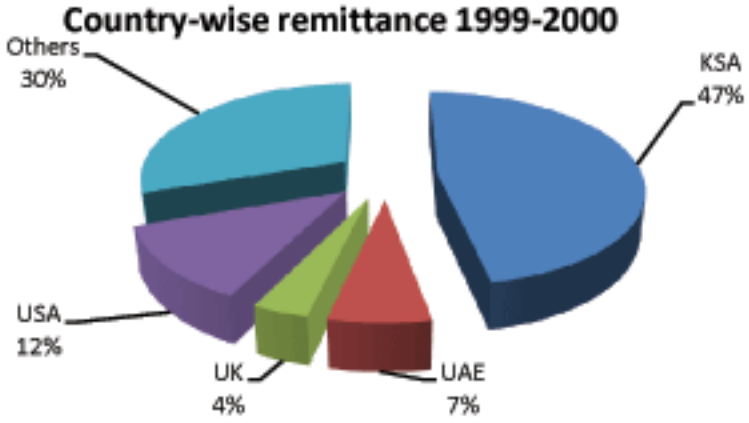
Chart-2

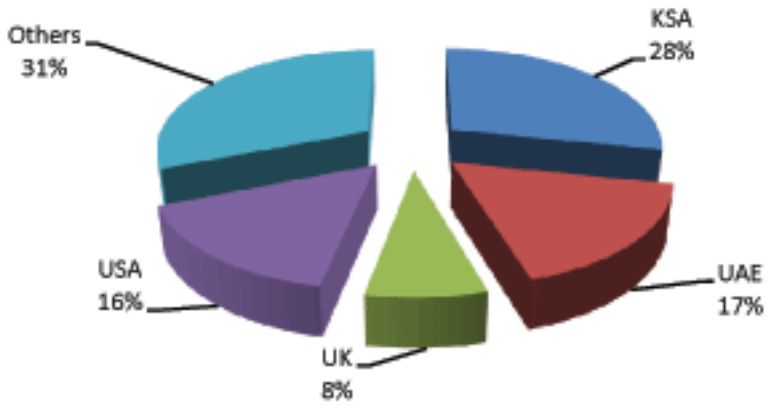




Annexure

Chart-3





BOX: Migration management and Policies to Boost up Remittances **Annexure**

The government of Bangladesh adopted various steps to ensure a smooth flow of migration and to encourage inflow of remittances since 2001. There are five key government ministries which deal with international labour migration: the Ministry of Expatriates' Welfare and Overseas Employment; the Ministry of Home Affairs; the Ministry of Foreign Affairs; the ministry of Finance and the Ministry of Civil Aviation and Tourism. The Bureau of Manpower, Employment and Training (BMET) is the executing agency of the Ministry of Expatriates' Welfare and overseas Employment in respect to processing labour migration. The private agencies work under license from the government. After obtaining permission from the BMET, the agencies recruit workers as per the specifications of the foreign employers and then execute the procedures involved in their deployment. Over time, the recruiting agencies became organized under the Bangladesh association of international Recruiting Agencies (BAIRA).The government also enacted an Overseas Employment policy in 2006.

Besides, at present government has given highest priority to the manpower export sector. In this regards in budget FY10-11government has made a commitment to establish an Expatriate Welfare Bank in FY 2009-10 and formulated a draft Act in this connection. Government has created Immigration and Skill Development Fund in the last budget and allocated Tk. 70 crore towards this fund. A new project has been taken up to establish 30 new Technical Training Centers and 5 new marine technology Institutes in 35 districts. It is mentioned in budget 2010-11 that worker are not going abroad in a proportionate rate from different regions of Bangladesh. In this regard, it highlighted in the budget that the National Skill Council can make a significant contribution to manpower development in the overall context of the country and in establishing appropriate coordination among the concerned ministries and divisions.

A number of steps haven taken by Bangladesh Bank to boost up remittance inflow. Some notable steps are: 40 banks have been allowed for establishing 885 drawing arrangements with 300 exchange houses all over the world for collecting remittances, (of which approximately 650 drawing arrangements with 250 exchange houses are operative now). To have better control on the remittance collection, establishment of exchange houses/branch offices abroad by local banks is being encouraged. Under this arrangement some banks have already established their offices abroad to collect remittances by their own. This is to mention here that 69 exchange houses/branch offices/representative offices abroad of 24 local banks are permitted for onward sending of remittances to the country. Bangladesh Electronic Funds Transfer Network (BEFTN) was inaugurated from 28 February 2011, with other funds transfer activities, will facilitate the quick delivery of remittances to beneficiaries through bank-to-bank clearing systems. For enhancing distribution network, to accelerating and simplifying the delivery process of inward remittances, some Micro Finance Institutions (MFIs) have been involved. Till now 16 MFIs are allowed to perform the job of remittance distribution. Banks (Bank Asia Ltd., BRAC Bank Ltd., Dhaka Bank Ltd., Trust Bank Ltd., Mercantile Bank Ltd., Citibank N.A and Sonali Bank Ltd.) are now allowed to distribute remittance using the countrywide outlets of different mobile operators like Grameen phone, Banglalink & Robi. To increase the competition among the money transmitters, commercial banks are instructed to amend the contracts with some Multinational Money Remitters/ Exchange Houses through their mutual understanding to remove "Pay Cash Exclusivity Clause" or any other such clause that can a ceilling on the competition in the market among the related parties.