Review Article

Remittances Flow to India: Trends and Determinants

Abstract

This paper investigates the trends in flow of remittance to India using Semi-log Linear Model on the data set starting from 2000 to 2011. We divide the entire dataset into Pre global economic crisis period (2000-2007) and Post global economic crisis period (2008-11). Our result reveals that the flow of remittances is declined during the post global economic crisis period. Amongst the Asian countries under the study and whose immigrants have larger presence in USA, Europe and Middle East, remittance flow coming from them to India and China is severely affected due to recession in these countries. However, Pakistan, Bangladesh, Nepal are not much affected because of their workers are not in information technology sector and in the high skilled industries.

Key words: Remittance, India, Semi-log Linear Model, Global Crisis.

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1. Introduction

Emerging Market Economies (EMEs) are facing the several financial problems and shocks emanating from falling inflows of foreign capital and their export earnings. Furthermore, currency depreciation is a prominent problem being faced by India, China, Indonesia, and Thailand and many more in the last one year or so due to the global financial crisis in general and US turmoil in particular. Remittance flow to developing countries is increasing rapidly since the adoption of New Economic Programmes (NEPs) in these countries.

However, the size of remittance is determined by macro and micro economic factors at remitters and recipients country level. Personal factors also decide the size of remittance. A close ties and personal-affection of labor migrants with their families at home country makes impact on remittance decision. If home economy is doing well and interest rates offered on NRI deposits are reasonably rewarding compared to the economy where these migrants work, in that case remittance flow would be more.

Remittance is considered to be a potential and unilateral source of external finance. It remains quite stable for some years. It is not a pro cyclical in nature. Another notable feature of remittance is that it does not create any obligation for the recipient country. However, there will be either service cost of capital or investment income to be paid for some capital inflows. In some cases, future payment would be involved. In addition to this, in some cases, trade of goods or service would be attached to inflow of capital.

It initiates the process of growth in the recipient country, increase level of investment, give push to consumption level and helps in reducing poverty to a certain extent in the developing countries. In the recent period, it has been observed that remittance is being used for financing deficit budget in the developing countries too. Despite knowing the benefits of remittance, there is a dearth of good research that explains the determinant of remittance, its size, and why flow of remittance flows toward developing countries?

Present paper begins with introduction. Section 2 deals with objectives of the paper. Section 3 is on literature review. Section 4 gives an account of the importance remittances to India and other neighboring countries. Section 5 deals with data and methodology that we used in this paper. Section 6 analyses the impact of US and Europe slow down on the remittance flow to India and neighboring counties. Section 7 concludes the paper.

2. Objectives of the study

Being a fast developing country and second largest skill manpower holding country in the world, study searches for the contribution of remittance in poverty reduction and inequality reduction. This endeavor will add new literature by filling up the gap in the present literature and may also add a new theory or thinking of remittance. Globalization is being understood as movement against the social and economic stability and equality but this study may prove or disprove this notion by rejecting or accepting the hypothesis. The following objectives are crafted for pursuing the present study:

1. To understand the world trends in the flow of remittance in general and India as specific.
2. To find out the possible impact of remittance on the recipient country in the macro perspectives.
3. To know the impact of remittance flow on poverty reduction if any.
4. To understand the impacts of global down turn on the flow of remittance to India and other Asian countries.

3. Literature review

There are few prominent studies, in which the reasons of remittance are documented by Elbadawi and Rocha (1992); Lucas and Stark (1985); Johason and Whitelon (1974); Swamy (1981). All these studies explained macroeconomic and personal factors that pushed the flow of remittance to home country. We therefore, try to fill up this gap by taking a case of India for studying trends and determinants remittance flow pre economic reform periods and post economic reforms and also the post Global economic crisis of 2008.

Studies conducted by (Ratha, 2007) concluded that 11 percentage point reduction in poverty in Nepal is over the last decade. Further, using household survey data he revealed that percentage of poor people living below the poverty line reduced by 11% in Uganda, 6% in Bangladesh and 5% in Ghana. As (Kapur, 2003) observed that direct effects of remittance on poverty are greater than the foreign aid. The transaction cost in foreign aid is more due to the prevalence of corruption and poor governance system in developing countries.

Azeez and Begum (2009) took review of the international remittance and its importance for developing countries. They observed that China and India were the highest remittance receiving countries in the world in 2005. As they pointed out that remittance have three distinct advantages at recipient countries namely micro and macro benefits and improvement in BOP and foreign exchange stock. Kapur (2003) observed that effects of remittance on poverty alleviation and its role in long term growth of countries were not studied in the earlier literature deals with remittance due to the non availability of data. Further, he suggested to developing countries to adopt more liberal policies for increasing flow of capital and remittances towards them.

4. The importance of remittance flow to India and other neighboring countries

Basically, remittance flow is treated as unilateral transfer that does not create any obligation of repayment. The remittance flow is send by Non-Resident of Indian (NRI) and Foreign National of Indian origin (FNIO) to their home country for meeting living expenses, to buy property, spend money on permanent improvement in agricultural land, investment in equity, deposits in banks, treating illness, meeting education expenses of the relatives of family at home. They also transfer gold, silver and give gifts to their home relatives. In the RBI data on balance of payment, it is shown in the current account as private transfer. However, other kinds of transfer include the NRI deposits and official transfer from the countries of government and agencies to India are shown in the capital account of BOP.

In the America Indian immigrants are on third number with total population of 3.40 Million. Out of that near about 1 Million people have voting right because they are green card holders of America. The Chinese are on the top of the immigrants 3.79 Million and Philippines are 3.42 Million. The immigrants from Pakistan and Bangladesh are 4, 09,000 and 1, 47,300 respectively (US Census, 2010 by NGO). It is not that Indians have gone to only USA but their presence is in UK 15 Million.

The Middle East counties are third largest contributor in total remittance to India. In Saudi Arabia and UAE Indian immigrants are near about 17 million each. In Oman and Qatar 5 lakh each, further, in Kuwait and Bahrain 3.5 and 5.7 lakh respectively. In addition to this, presence of Indian in Europe is also significant and they are residing in France (3 lakh), Germany (70,500), Netherlands (2 lakh) and Australia (4.50 lakh) of which 2 .13 lakh are pregnant residents (Ministry of Overseas India affair, 2013).

Table 1 Relative Importance of Remittance Flow to India and other Asian Counties

(Percentage of remittance flow to GDP)

year	India	China	Pakistan	Bangladesh	Nepal
2000	2.71	0.40	1.45	4.25	2.02
2001	2.89	0.49	2.02	4.32	2.44
2002	3.00	0.70	4.91	5.62	11.21
2003	3.40	0.88	4.76	5.96	12.18
2004	2.59	1.01	4.02	6.30	11.3

2005	2.45	0.39	3.90	7.16	14.9
2006	2.98	0.41	4.01	8.45	16.06
2007	3.10	0.50	4.18	9.59	16.79
2008	4.08	0.50	4.29	12.31	21.73
2009	3.60	0.45	5.38	13.70	23.22
2010	3.12	0.56	5.49	13.32	21.74
2011	3.40	0.55	5.81	13.79	22.22
2012	3.60	0.58	6.10	13.90	23.22

Source: Data is compiled from World Development Indicators, World Bank on line country specific data, www.worldbank.org.

Table 2 Personal Remittance as Percentage of GDP and Trade Balance

Country	**Remittance / GDP (in percent)**				**Remittance/trade balance (in percent)**			
	1981	2000	2005	2011	1981	2000	2005	2011
India	1.69	2.71	2.65	3.40	40.00	74.1	96.62	44.95
China	0.30	0.40	0.39	0.55	12.82	16.69	7.00	13.59
Pakistan	7.35	1.45	3.90	5.81	75.00	98.20	100.0	114.67
Bangladesh	1.92	4.17	7.15	10.78	24.5	118.4	110.72	101.82
Nepal	-------	2.02	14.9	22.22	------	22.19	100	92

Source: Data is compiled from World Development Indicators, World Bank on line country specific data MetaData, www.worldbank.org

Note: percentage of Remittance/trade balance is calculated by researcher using data mentioned above data source. 2) Data on remittance to Nepal for year 1981 is not reported at data source.

India's trade balance has been negative except for few years. The negative trade balance shows that import obligations in the current account are more than export receipts. Consistent negative trade balance argument is supported by development imperatives. In order to have a development in the economy and argumentation in investment, increasing import is accepted a policy and no other choice left with the country. In this context, the remittance flow has come to rescue and save the economy by bridging the gap in the current account deficit of India. The following tables show the relative importance of remittance flow to India and other Asian countries.

It can be seen in the Table 1 and 2 that, though the percentage of remittance flow to GDP is small in India, which is in the range of 2.45 to 4.08 for the period 2000 to 2012, but it has been bridging the gap of trade deficit to the extent of 96.62% in 2005 and subsequently 45% in 2011. In China, percentage of remittance flow to GDP is in the range of 0.39 to 1.01 and in Pakistan, it was 1.45 to 6.10, for Bangladesh it is in the range of 4.25 to 13.90 and further, in the case of Nepal it was in the range of 2.02 to 23.22. Amongst these Asian countries, Bangladesh, and Nepal receives more remittance of their foreign exchange reserve. Hence for them, it is immensely important source of funding. Remittance proportion in GDP of China is very limited that shows that either Chinese people have not gone out or might have gone in limited numbers or they might have not accepted in the other countries due to lack of skills, dearth of high end technical knowledge and more crucial one is, English language as constraint in the earlier decade of 1990s.

Other two countries where the percentage of remittance to GDP is quite more comparing it with other countries under the study, reasons are being that many unskilled and semi-skilled workers have migrated from the Pakistan, Bangladesh and Nepal. Study made by (Kock and Sun 2011) on the remittance flow to Pakistan found that the surge in remittance flow to Pakistan is occurred due to more semi skilled and high skilled workers migration despite recession in Gulf cooperation council (GCC). Then other reason is that the size of their GDP is too small than Indian and China. Hence the small size of remittance shows high percentage to GDP and trade balance. Shown in the Table 2 that, the role of remittance in bridging the gap of deficit in current account (BOP) for Pakistan, Bangladesh and Nepal is not only vital but also beyond that, it is used for reducing poverty in these countries.

5. Data and Methodology

Various research papers mentioned that getting data on remittance flow and it uses in the home country is a big constraint. The available data may not be in desired way and incomplete due to not reported to data agencies or may be in disaggregated form. We complied on line data from World Development Indicators of World Bank, Online data of Reserve Bank of India (RBI) Mumbai from the Handbook of Statistics on Indian Economy, World Economic Outlook Data Base of IMF and Department Of Commerce, Bureau of Economic Analysis, National Economic Accounts, USA., The Times of India, Ministry of International Affairs, Government of India. We used time series data that have yearly frequency for the econometric analysis in the present paper.

Data period chosen for observing the recent trends in remittance flow to India and other Asian countries is 2000 to 2011. And to see the impact of new economic reforms and recent slowdown in the globe on remittance flow, we use yearly data for the period 1981 to 2012.

In the Present study, econometric analysis begins with semi log linear model. This model is preferred for calculating compounded annual growth rate (CAGR) over yearly growth rate and instant growth rate. The following equation is used for measuring CAGR.

$y_t = \alpha_o + \beta_t + e_t$-- (1)

After taking natural log of y_t

Log Remittance = α_o+year$_t$+e_t --- (2)

Where Log (y_t) is dependant variable (Log remittance) and α_o is constant and β_t is independent variable (time) and e_t is error term. We converted the remittance value into natural log value, then it is regressed on independent variable time and thereafter by taking antilog of the coefficient of β_t , further 1 is deducted from it and by multiplying the output with 100 , we calculated Compounded Annual Growth Rate (CAGR) of remittance flow for various countries.

6. Impact of US and Europe slow down on remittance flow to India and neighboring counties

We use Semi Log Linear Model shown as equation 1 in this paper for empirically investigating the impact of US financial crisis and also the global economic crisis on the flow of remittance to these countries. The results of the model are presented in Table 3. We divided the study period starting from 2000 to 2011 for pre and post global crisis and whole period. The logic behind dividing study period into three periods is to verify the impact of global economic crisis in general and US financial crisis particular. The results show that for India, CAGR of remittance flow was 15 percent before the crisis period and after the crisis, it went down by 5.39 percent whereas for whole period, it was increased by 16.29 percent. In the case of China, remittance flow received by 33.86 percent and 6 percent for the pre and post global crisis periods respectively.

In fact, size of remittance for China was quite limited in the beginning period; however, later from 2004 onwards it started competing with India and came on same level of footing in securing remittance. The English education drive undertaken by China way back in 1999 resulted into more migration of high skilled manpower to America and Europe.

Table 3 Trends in Remittance Flow in the Different Periods

(Compounded Annual Growth Rates in Percent)

Country	**Pre global crisis period**	**Post global crisis period**	**Whole period**
	2000 to 2007	**2008-2011**	**2000-2011**
India	15.03	5.39	16.29
China	33.86	6.06	25.99
Pakistan	25.16	19.21	20.91
Nepal	47.24	13.44	39.60
Bangladesh	18.86	9.54	19.49

Source: Data is compiled from World Development Indicators, World Bank on line country specific data, www.worldbank.org

Note: Compounded Annual Growth Rates (CAGR) is calculated by researcher using Semi Log Linear Model.

During the span of study period, remittance received to china is grown by 26 percent CAGR. In the case of other Indian neighbor countries are concerned, the CAGR of remittance flow was excellent for Pakistan, Bangladesh and Nepal during the pre global crisis period. It is not much affected by global crisis; hence the GAGR of remittance recorded much above the India and China. The reason could be that their workers are not engaged in IT and high skilled sectors.

7. Conclusions

After comparing CAGR for pre and post global crisis, we conclude that India's remittance flow decelerated by 9.64%, China by 27.8%, Pakistan by 5.95%, Nepal by 9.32% and Bangladesh by 33.8 %. The decelerating trends in remittance flow to India other Asian countries urge to governments of these countries to learn a lesson from this episode of global financial turmoil that not to depend too much on remittance flow for filling up gap in current account deficit and so much so and further, to have more remittance and flow of NRI deposits funds, send more workers to aboard by making a suitable, friendly policies on migration by joining hands with our trading partner countries.

In this regard, Indian government is constantly making a dialogue with Barack Obama, President of America to remove restrain on issuance of H1B and L1 category visa to Indian workers and high skilled manpower aspiring to go to America. The British government recently hiked the processing fees of visa to Indians, on this issues government of India is talking with UK government. Recently, Ministry of Overseas has been constituted by Indian government to promote the migration of Indians and understand the views of NRI and Indian national living abroad as permanent citizen. *Indian Diaspora Days* are celebrated every year to understand their views on investment policies and constant appeal is made to them to invest in India.

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