

Can Remittances Impact Economic Development? Review from Micro and Macro Perspectives

Md. BakhtiarUddin

Assistant Professor, Department of Economics, JatiyaKabiKaziNazrul Islam University, Trishal, Mymensingh, Bangladesh

Abstract: This paper attempts to review the micro and macro links between remittances and economic development. Remittances can affect economic development through many micro channels such as wellbeing of households, formation of human and physical capital, increase of household's collateral and creditworthiness, creation of microenterprises. On the other way around, remittances can impact economic development via micro channels such as increasing international reserves and solving problem of balance of payment, promoting financial development, reducing output volatility, establishing macroeconomic stability, falling fertility, alleviating poverty and so on. However, large remittance inflows can deter economic development through so called Dutch Disease effect and premature deindustrialization. This paper also investigates the remittance-development links in the case of Bangladesh and finds the presence of both micro and macro channels in the economy of Bangladesh.

Keywords: Economic development, financial development, human capital, Remittances

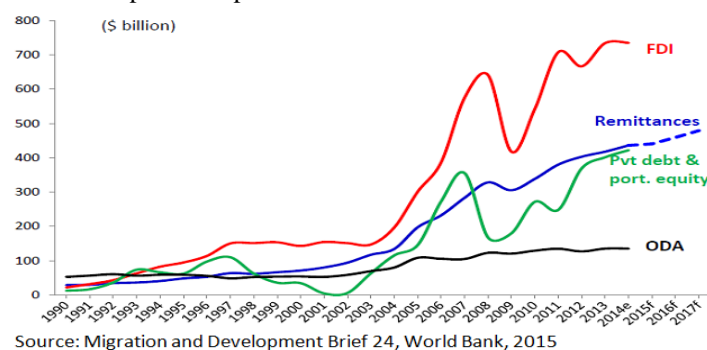
I. Introduction

Generally, there is labour shortage in developed countries, whereas in developing countries labour surplus exists. To bridge the gap between demand and supply, labour from developing countries migrates to developed countries. However, people from developing countries can migrate to developed countries for many other socio-cultural and political reasons. Expert professionals from developed countries migrate to developing countries for economic reasons as well. The economic migrants not only change their plights but also help economic development of their home country by sending remittances regularly. Several studies show multifaceted benefits of remittances in labour sending countries (See Rapoport and Docquier 2005, Ratha 2005). In some countries, remittances account for a good percent of GDP. In some countries, remittances outweigh foreign direct investment (FDI) and official development assistance (ODA) (WB 2015). In many countries, export of goods is the main source of foreign currency earnings. Thus, remittances may affect economic development of the home country in many ways.

This paper attempts to review the links between remittances and economic development. Light will be shed on both micro and macro channels of development emanated from remittances. At micro level, remittances can increase household's wellbeing through smoothening of consumptions. It also can pave the way of investment in both human and physical capital. At macro level, remittance inflows may promote economic development through solving the problem of balance of payment, promoting financial development, reducing output volatility.

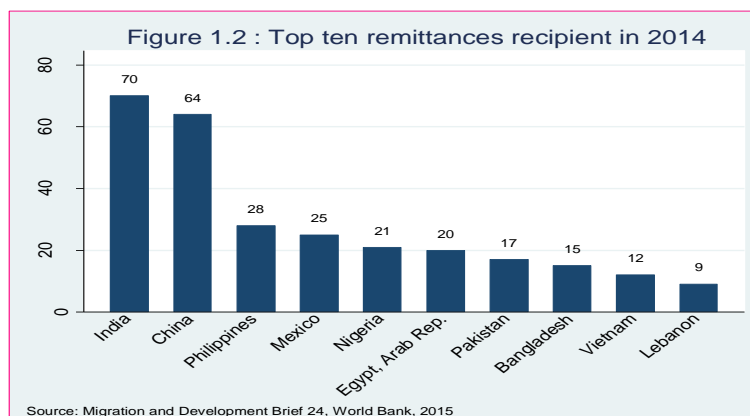
Remittances Scenario

According to World Bank (2015) statistics total remittance flows in the developing countries were \$436 billion in 2014 with an increase of 4.4 percent over 2013. This Remittance amount is higher than the official development assistance and private capital flows (Figure 1.1). Even, the trend of remittances have been stable than foreign direct investment and private capital inflows.



Source: Migration and Development Brief 24, World Bank, 2015

Chinese and Indian Diasporas are the biggest and scattered across the world. These have been because of the huge population size of these two countries and lack of better employment opportunities. In 2014, India was the top ranked remittance recipient country in the world. China was the second ranked remittances recipient (Figure 1.2). In terms of remittances as percentage of GDP, Tajikistan is the top ranked country where remittances account for 49 percentage of GDP. In Kyrgyz Republic and Nepal, remittances account for 32 and 29 percentage of their GDP, respectively. In these countries, remittances have become the main source of foreign currency earnings (WB, 2015).



Remittance-Economic Development Mechanisms (Macro Level)

At macro level remittance inflows can affect many macroeconomic indicators such as international reserves position and balance of payment, human and physical capital accumulation, financial development, output volatility, macroeconomic stability, fall in fertility, poverty alleviation and so on. In the later section, all of these macro channels will be discussed in details.

Foreign Exchange Reserve and Balance of Payment

For industrialization in developing countries remittances can play vital role through building foreign exchange reserves, thereby increasing volume of capital goods import. Technology dependency has changed its trajectory from the early period of industrialization i.e. industrialization in Europe and USA in the 18th and 19th centuries. At that time countries innovated their own technology and produced capital goods at home. But, for the late industrializers of the nineteenth century and onward, technology and capital goods have to be imported from the advanced economies (see Amsden 1989). Some well performing exporting countries face current account deficit because of heavy dependency on capital imports. Take for example, South Korea had been experiencing current account deficits in the period of industrialization and in 1970s faced chronic shortage of foreign exchange. One of the major causes behind current account deficit was heavy dependency of capital goods import. Therefore, increased foreign exchange reserve accumulated by remittance inflows can pave the way for industrialization through easing the way of technology and capital goods imports. On the other hand, some developing countries also face balance of payment problem. To correct balance of payment problem countries have to resort to external financial institutions to borrow foreign exchange. External borrowing may come with unexpected conditionality. Even acute shortage of foreign exchange deteriorates country's creditworthiness. Volatile exchange rate also affects international trade negatively, at least to one party, as contracts of orders are made much earlier than the time of delivery. Steady inflow of remittances can guard countries against this sort of shocks.

Physical and Human Capital Accumulation

Remittances affect accumulation of human capital thereby affecting economic development. Accumulation of physical capital directly enhances total production whereas human capital affects economic development via increasing productivity. Low level of production in developing countries can be attributed to low productivity of both human and physical capital. Investment in education and health enhances human capital which is believed to be doubly effective for economic development. Firstly, most of the developing countries are overburdened with excessive population. Excess population creates problem of unemployment along with other social troubles which necessitates some public expenditure exerting pressure on development funding. If whole population is turned into human capital, then it releases some public expenditure for development allocation. Secondly, enhanced human capital increases productivity of both labour and capital which help increase gross domestic product (GDP). Return on human capital investment for poorer people is much higher than that of the richer people. That is why the poor people want to investment in human capital

while the rich people are interested in physical capital investment. If the capital market is imperfect, the poor has limited access to it. Consequently, the poor people have to forgo investment in human capital if their wealth is not well enough to finance human capital investment. (see Barro 2000). Inflows of remittances can substitute the lack of perfect capital market thereby increasing investment in human capital. This human capital investment has both macro and microeconomic impacts on economic development.

Remittances Improve Macroeconomic Stability, Reduce Output Volatility

Remittance inflows are proved to be automatic stabilizer. It improves macroeconomic stability and reduces output growth volatility. Output growth volatility may arise for various exogenous shocks such as changes through terms of trade, civil war, political instability, vulnerability of debt crisis; persistent country characteristics such as country size, per capita income, degree of financial development etc; and some institutional quality factors. Chami, Hakura and Montiel (2009) showed robust evidence that remittances have a negative effect on output growth volatility in a large sample of remittances recipient countries. This finding indicates that remittance flows stabilize output volatility.

Impact on Fertility

Remittance inflows reduce fertility rate among the recipient countries. Large size of population in most of the developing countries is one of the main setbacks for development. In a largely populated country government has to spend substantial amount of tax revenue for social safety net and family planning programs which creates fiscal constraints for economic development. Naufal and Vargas-Silva (2009) finds negative relationship between remittances and fertility rates in a sample of 59 countries.

Promote Financial Development

Remittances promote financial development which increases investment thereby accelerating growth of output. Although there is little evidence that remittance inflows can cause long run growth of output, some authors show the effect of remittances on growth via financial development and creation of effective aggregated demand for consumption goods (see Giuliano and Ruiz-Arranz, 2005; Ratha 2005). Potential entrepreneur channels remittance money towards productive investments to ease liquidity constraint in such a country where the financial market is not very much developed. As a result, remittances can promote economic growth in less financially developed countries. Even if remittances are consumed only they can have positive multiplier effects on growth through creation of aggregate demand (Ibid).

Poverty Alleviation

Remittances help alleviate poverty in developing countries. Adams and Page (2005) showed that remittance inflows have significant impact on reduction of poverty. With a panel data of 71 developing countries they found that, on an average, a 10 percent increase in the share of international migrant in the a country's population would lead to a 2.1 percent decline in the share of people living on less than 1 US dollar per day. A similar 10 percent increase in per capita official international remittances would lead to a 3.5 percentage decline in the share of people living in poverty. Which suggest that remittances have greater impact on poverty alleviation rather than migration, because usually permanent migrants remit less than the temporary migrants. Poverty alleviation has direct effects on economic development. Poverty-inequality literatures confirm that reduction of poverty and inequality stimulates economic growth. With the existence of inequality and poverty government tends to impose heavy tax to finance redistribution fund which distorts economic activities, whereas extreme poverty and inequality may lead to socio-political instability which is also bad for economic development (see Alesina and Rodrick 1994, Alesian and Peroti 1996). Hence, reduction of poverty is beneficial for economic development.

Microeconomic Mechanisms

There are some micro level studies on remittance-economic development relationship. Most of the macro study found no direct causal relationship between international remittance transfers and economic growth. Take for example, Barajas et al (2009) found no causal relation between remittances and growth. The authors investigated remittance effect taking data from 84 remittance recipient countries for the 34-years' time period. The logic behind this pessimistic finding is that remittance only increase consumption not investment. It increases household welfare only. However, it can affect growth via other micro and macro channels. Here we will shade some light on the micro channels.

Household Wellbeing and Insurance

Micro level study shows that remittances have significant impact in the remittance recipient households. Remittance inflows smoothen household consumption, enhances family welfare in terms of

spending in health and education. Households use remittances as insurance against income shocks as well. To cope with the different negative shocks to income such as unwanted weather condition--flood, storm, crop failure--and sudden medical needshouseholds send family members abroad for remittances. Yang and Choi (2007) finds that remittances work as insurance in Philippines. Due to rainfall shocks the replacement rate of household domestic income by remittances is roughly 60 percentages among the recipient households. Yang (2008) showed that during the Asian financial crisis depreciation of local currency in Philippines lead to greater remittance inflows. Estimated elasticity of local currency depreciation and remittances inflows was 0.6. The inflows lead to accumulation of capital and entrepreneurship in origin households. Child schooling increases, as a result child labour falls. Household also increases labour supply in own enterprises.

Increase Household Collateral and Creditworthiness

Remittances can increase household collateral and creditworthiness. If any household has low or no collateral then the household has limited or no access to credit. Even if they are able to manage credit, then the rate of interest would be higher due to risk of default. Because of high cost of credit poor household cannot reap the benefit of credit which impedes investment possibility. Remittance inflows increase the collateral as well as creditworthiness in the recipient household. A migrant sending household can use future remittances as collateral for any credit. These micro effects have positive impacts on macro level as increase in household collateral and creditworthiness increases efficiency of financial market pushing down the cost of credit and widens the scope of investment (Barajas et al. 2009).

Negative Impacts of Remittances on Economic Development

Although remittances have multifaceted benefits at both micro and macro levels, it is not beyond adversities. Remittances have some negative impacts on economic development as well. One of the main arguments is the brain drain. If skilled manpower migrates to another country, there will be loss of public expenditure spent on producing human capital and production level will fall as well. Arguably, if people, educated or trained by remittance money, migrate abroad to earn remittances again, then the accumulated human capital does not have any effects on the economic development in the origin country. But this negative effect may not be very significant in countries where unemployment problem is very acute. Remittances can also reduce labour force participation rate. If the migrants don't have much control on the remittances, household labour supply can decrease due to increased household income. Even the returned migrants may reduce their labour supply if the income effect outweighs the substitution effect or if the returned migrants' reservation wage increases.

Another negative effect at macro level is the so called Dutch Disease, real exchange rate appreciation due to remittance inflows. If real effective exchange rate appreciates, the export volume of tradable sector will decrease since there will be loss in international competitiveness. Because of increased income, consumption of untradeable sector will increase. Price level and real wage will also increase that will deter growth of output in tradable sector (see Acosta et. al 2009, Amuedo-Dorantes and Pozo 2004).

Premature deindustrialization is another great concern of the negative consequences of international transfers like remittances. The term 'premature deindustrialization' was first used by Dasgupta and Singh (2006) (as cited in Rodrik, 2015). Due to inflows of international transfers, service sector grows disproportionately, while the exportable manufacturing sector shrinks. Industrialization follows inverted 'U' pattern, first it increase with the increase in income then reaching the peak it falls--stage of deindustrialization begins--since service sector becomes dominant. Remittance inflows may prevent developing countries from reaching the peak of industrialization or make it happen premature deindustrialization. Deindustrialization in the developing countries takes place at the income level which is much smaller than the income level at which deindustrialization starts in developed countries which bars developing countries to reach convergence in income (ibid). Remittances also can increase inflation and distort sectoral investment.

If remittance money does not go back abroad through widening of the current account, a large inflow will increase money supply. As a result, inflation will increase. Inflows of remittances may distort sectoral investment by attaching too much importance to non-tradable sector, especially the real estate sector. Remittance inflows may widen current account deficit as well. If increased consumption demand induced by remittance income is not met by non-tradables, import demand will increase which put pressure on current account deficit (See Lopez, Monila and Bussolo 2008).

At micro level remittances may not increase welfare of the households if migrants borrow money at higher interest rate or sell productive assets such as land or livestock to finance the migration cost. In that case the sending household may face severe trouble in the initial years of migration. In these years household welfare may decrease rather than increasing. For example, Gibson et al. (2009) find that migrant sending household in Tonga experiences 20-25 percent fall in income. Ownership of livestock, durables and access to financial

services is lower compared to the similar non-migrant household. Migration has also negative effect on food intake and health status in those households.

Country Case

I would like to shed some light on remittance-economic development relationship for a specific country. I will discuss the relationship for Bangladesh from both macroeconomic and microeconomic perspectives. According to World Bank (2015) statistics Bangladesh was ranked eighth in terms of remittance receipt in 2014 and remittance inflows accounted for 9 percent of its GDP in 2013. About 77 percent of its international reserves in 2013 came from worker's remittances. Remittances account for 44 percent of total export earnings in 2014.

According to Bangladesh Bureau of Manpower, Employment and Training (BMET) up to 2015 about 9.2 million (about 5.75% of total population) Bangladeshi workers are working abroad. Bangladesh is mostly populated country and job opportunities are not created in line with the increasing demand. Therefore, out-migration solves the problem of unemployment. The migrant workers are mostly unskilled and come from rural areas. This unskilled labour migration substitutes international trade as suggested by Mundell (1957). According to him factor mobility is the substitute for international trade. Falling behind in export sectors (due to lack of capital and other impediments) instead, Bangladesh has been exporting unskilled or semi-skilled manpower abroad, especially to the GCC¹ countries, thus earning substantial amount of remittances. This influx of remittances has profound impact on the economy of Bangladesh.

At macro level remittances contribute to the foreign exchange reserves and balance of payment. At micro level remittances have significant impact on households' wellbeing through increase in income and expenditure. International Organization for Migration (IOM) had conducted a remittances household survey, first of its kind, in Bangladesh in 2009. According to the survey report, remittances account for 61 percent of the migrant family. About 60 percent households improve their food intakes. About 89 percent households benefit in gaining access to educational opportunities. Remittances also had significant impact on accessing to medical services along with better medication as Bangladesh lacks formal health insurance (IOM 2010).

In line with the IOM survey Bangladesh Bureau of Statistics (BBS) conducted a household survey on use of remittances. BBS survey reveals that remittances account for 78 percent of total income in the remittance receiving households. At the national level about 84 percent remittances received is spent on expenditure heads while remaining 16 percent is saved. Expenditure heads include food and non-food durables, medical, house repairing, festivals and so on. About 25 percent remittance receiving households invest some part of the remittances (BBS 2014).

Raihan et al. (2009) find positive impacts of remittances on the Bangladesh economy at both macro and micro levels. Because of remittances growth during 2000-2005, the poverty head count ratio declines by 1.7 out of 9 percentage point decline in the period. They also find positive and significant role of household wellbeing through consumption and investment in health and education. Hatemi and Uddin (2013) also finds long-run equilibrium relationship between remittance and poverty reduction in Bangladesh. Although there is no evidence of remittances impacting growth directly, it has impact on economic development through building foreign reserves and solving the problem of balance of payment and unemployment, formation of human and physical capital and so on. However, excessive foreign reserve may erode external competitiveness. Huge inflows of remittances cause real exchange rate appreciation in Bangladesh which, in turn, loses competitiveness in export market (Chowdhury and Rabbi 2013). Remittance inflows can widen income inequality among the remittances receiving and non-receiving households. In rural Bangladesh, generally people from relatively wealthy family migrate abroad to earn remittances. On an average remittances receiving households' income exceeds the income of the non-receiving households which indicates rising income inequality in the rural Bangladesh (Osmani and Sen 2011).

At micro level, investment in human capital has indirect effect on economic development. Arguably, remittances have increased purchasing power in rural Bangladesh as well as increased effective demand which have positive impact on economic development.

II. Conclusion

Remittance inflows have become stable and in some cases it outweighs the ODA inflows to developing countries. Although there is no evidence of direct relation between remittance inflows and economic growth, it can promote economic development via many more macro and microeconomic channels. Remittances promote economic development through poverty alleviation, increasing household welfare, financial development, reducing fertility. It also broadens the way of industrialization in the developing countries through steady supply of foreign currency. Increased supply of foreign currency removes the import constraint for capital goods import

¹GCC countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

to boost up industrialization. Investment in education and health by remittance recipient households bears direct impact on productivity and indirect impact on total production. Remittance inflows also create effective demand for goods and services which increases total production as well. Remittances receipt is also beneficial for the growth of manufacturing sector (Dzansi 2013).

Excessive remittance inflows, however, may have some negative consequences on economic development. It can take toll on the economy in the form of 'Brain Drain', 'Dutch Disease' and rise in inequality. To reap the maximum benefit of remittances, policy planners should pay much head to effective use of remittances. Otherwise, the costs associated with remittances may outweigh the benefits. So far we have discussed in the country case study, remittances have both positive and negative consequences in Bangladesh. However, analyzing the country characteristics of Bangladesh it is easily discernable that remittance inflows are much more important for the economic development of Bangladesh.

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