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# Linkages for Migration, Remittances and Economic Growth: Evidences from Bangladesh

Anika Alam Khan [1,*] Shahriar Kabir [1]

[1] Department of Economics, Independent University Bangladesh (IUB), Dhaka, Bangladesh

*Corresponding author, email: samiha.buet@gmail.com

**ABSTRACT:** *The perception of inward remittance flow-led economic growth is framed mostly for cross-country scenarios; however, the country-specific causal link between migration, remittances, and economic growth is little explored. This study examines the migration-remittance-growth linkage for Bangladesh using time-series data from 2001 to 2017 and the Vector Autoregression (VAR) framework. The study identifies one-way negative causality on migration arising from both remittances and economic growth. The study does not find any significant causality between higher economic growth and remittances, nor from migration on economic growth or migration on remittance. Thus, the study suggests that higher economic growth or higher remittance inflow may discourage migration in the long run. Hence, a higher level of income through faster economic growth may end up with a lower level of inward remittance growth. Proper long-term policy design is required to handle such a situation.*

KEYWORDS: Migration, Remittances, Economic Growth, FDI, Institution Quality

## 1. Introduction

Migration generally refers to the permanent or temporary relocation of residents within or outside the country. The first age of mass migration occurred during the 19th and early 20th centuries when 55 to 60 million Europeans migrated to North America. The second one began after second World War, when guest workers were recruited in the United States and European countries, some of whom settled in Canada and the US in the mid-1960s (Martin & Martin 2006).
There are two types of migration: internal and international migration (Skeldon, 2017). The relocation from one administrative unit to another within the same country is internal migration, while the movement outside a national border is international migration. International migrants, especially the temporary migrants, often generate remittances, which are an important source of foreign exchange for many developing countries. Bangladesh is one of the countries heavily dependent on remittance. It is currently the 8th largest remittance recipient in the world (Barai, 2012). From 1980 to 2009, remittance inflows to Bangladesh increased at an average annual rate of 13%, which contributed to economic growth, consumption, saving, and investment (Farid et al, 2009).

Labor demand arising from the uneven pace of economic development among countries is one of the main reasons for migration. Greener pastures push workers in under-developed and developing economics towards relatively developed economics. The fast-paced growth in the newly industrialized Asian economics and the Middle East accelerated the international migration of both professionals and low-skilled workers. The inflows of migrant labor into Malaysia, Hong Kong, and Singapore are examples (Piore 1979; Skeldon, 1992). Relative disparities in the economic development of sending and receiving countries can often motivate migration. However, migration itself can have important impacts on economic development, especially on relatively poorer countries through remittance inflow from migrant workers abroad. Along with national development, a major benefit of remittance-earners is the ability to improve the living standards of household members in the home country. Long term migration enables higher saving rates compared to other migrants (Farid et al. 2009). Besides, migrants extend community social networks of household members (Nguyen et al. 2006). Migration has the substantial and sustainable impacts on trade, aid, foreign investment, communication, and transport. The migrants who who leave the societies behind can be transformed by migration (Sriskandarajah, 2005). Thus, migration is a central focus for many developing and under-developed economies such as Bangladesh, Nepal, Pakistan, Philippines, Indonesia, and some African countries.

Migration, however, does create some downsides as well. First, unskilled migrants may reduce low-skill wages in the destination countries (Borjas, 2003; 2016). As mentioned by Borjas (2016), "*Trump … overlooks my findings that the influx of immigrants can potentially be a net good for the [US], increasing the total wealth of the population. Clinton ignores the hard truth that not everyone benefits when immigrants arrive*." Second, unskilled labor migration from developing countries increases human trafficking (Castles at al. 2006). Third, while internal migration plays an important role in poverty reduction and economic development both rural and urban areas, it also expands urban slums. More than 15 million people in Bangladesh live in the slums; Dhaka alone contains about 3.4 million people in slums (Ishtiaque at al. 2013). Internal migration is a questionable issue.

This paper aims to examine how migration is influencing the Bangladesh economy through remittance flows. Remittances are assumed to act as an important source of economic growth. Based on these conventional assumptions, the study explores the role of foreign inward remittances on the macro- and socio-economic conditions and suggests some policy measures for the dynamic utilization of remittance income in enhancing the socio-economic development of Bangladesh.

Using time series data from 2001 to 2017 and applying the autoregressive distributed lag (ARDL) framework, this study examines the migration-remittance-growth linkage for Bangladesh. The study identifies one-way Granger causality from both remittance and economic growth on migration. The result confirms that both economic growth and remittance depress migration in the long run. Besides, the study does not find any significant causality between higher economic growth and remittance, as well as reverse causation running from migration to economic growth or from migration to remittance. Thus, the study suggests that remittance levels may not have any direct influence on growth. Instead, higher economic growth or higher remittance inflow may dampen migration in the long run. Especially, higher growth should encourage citizens to return to their home country and participate in domestic economic activities. Thus, in the long run, economic growth may not influence migration. Similarly, the prospect of foreign remittance from migration may not attract citizens if the economy is growing citizens are enjoying substantial earnings increases in the domestic economy. Thus, a higher level of income through faster economic growth may end up with a lower level of inward remittance growth through declining net migration. Hence, the country should pursue growth in the economy from domestic market and government initiatives and should not rely on higher remittances. The study observes substantial evidence to support such policy at least for Bangladesh.

The study is subjected to several data limitations. A serious of uncertainty is existed in migration and remittance data, in sharp contrast to other sources of foreign finance. There is a concern in identifying the key direction in remittance inflow, the political effects of remittance, and some policy options to enhance remittance flows and maximize the benefits.

## 2. **Review of Literature**

### 2.1 Overview of Migration and Remittance Flow in Bangladesh

In Bangladesh, and many other developing countries, international and internal migration have become a defining characteristic since the 1980s. In these countries, the percentage of the population living in rural areas typically exceeds 50%, and the percentage of the rural workforce employed in agriculture is as high as 95% (Taylor, 1999). Overseas migration offers an outlet for frustrated unemployed workers. It stimulates economic growth and reduces rural unemployment – and generates valuable foreign exchange (Hadi, 1999). In 1976, the total remittance to Bangladesh was only USD24 million; by 2013, it had increased to USD14.5 billion (Bangladesh Bank,2013). Migrant workers' remittances have an important impact on the macroeconomic variables of their country of origin. They dramatically increase family household income, which in turn increases consumption and investment. Remittance is different from other external capital inflows, such as foreign direct investment, foreign loans, and aid because of its relatively stable nature. A common challenge for many developing countries is their shortage of foreign currency reserves. Countries with a large remittance inflow are in an

| Table1: Remittance received and paid by developing countries (Billion USD | | | | |
|---|---|---|---|---|
| | **All developing countries** | **Low-income countries** | **Lower middle-income countries** | **Upper middle-income countries** |
| **Total, workers' remittances** | 72.3 | 19.2 | 35.9 | 17.3 |
| as % of GDP | 1.3 | 1.9 | 1.4 | 0.8 |
| as % of imports | 3.9 | 6.2 | 5.1 | 2.7 |
| as % of domestic investment | 5.7 | 9.6 | 5.0 | 4.9 |
| as % of FDI inflows | 42.4 | 213.5 | 43.7 | 21.7 |
| as % of total private capital inflows | 42.9 | 666.1 | 44.9 | 20.2 |
| as % of official flows | 260.1 | 120.6 | 361.7 | 867.9 |
| Other current transfers | 27.2 | 6.1 | 14.0 | 7.1 |
| Workers' remittances and other current transfers | 99.5 | 25.3 | 49.9 | 24.4 |

Sources: IMF, Balance of payment year 2001, World Bank, World Bank development 2001

advantageous position in managing their balance of payment. Remittance flows are the second-largest source of foreign financing for developing countries in the last two decades. Table 1 shows the remittance received and paid by developing countries in 2001. Workers' remittance receipts of developing countries stood at $72.3 billion, which was nearly two times higher than the other current transfer payments. Remittance to low-income countries was larger than middle-income countries. Dependence on inward remittance for the developing countries is observed with an upward trend even in recent years. Remittances are more stable than private capital flows. Private capital flows often move pro-cyclically, thus increasing incomes during booms and depressing them during the recession. Countries could increase remittance flows by building upfinancial sector infrastructure and facilitating international travel. In return, it will bring more funds into formal channels. In line with the above scenario, this paper intends to explore how the growth channel works among migration, remittances, and GDP per capita in Bangladesh.

### 2.2 Overview of Migration and Global Remittance Flow

Over the last ten years, global remittance has increased by ten-fold. It represents nearly 50% of GDP in certain countries (Adams Jr, 2005). In recent years, the number of the international migrant's around the world has continued to increase rapidly. The total number of migrants was 173 million in 2000. It increased to 220 million in 2010 and reached 258 million in 2017. Most of the international migrants live in Asia or Europe (80 and 78 million respectively), followed by Northern America (58 million), Africa (25 million), Latin America and the Caribbean (9.5 million), and Oceania (8.4 million) (International migration, 2017). In 2006 however, 150 million migrants worldwide transferred over US$ 300 billion to their country of origin (IFAD, 2010).

| Table 2: Remittance flows (US$ billions) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| **Inward remittance flows** | | | | | | | | | | |
| Developing countries | 228.6 | 279.5 | 324.8 | 302.9 | 335.7 | 377.9 | 400.7 | 416.2 | 431.1 | 440.5 |
| World | 330.3 | 398.6 | 460.2 | 429.4 | 463.7 | 525.9 | 547 | 572.3 | 592.9 | 601.3 |
| **Outward remittance flows** | | | | | | | | | | |
| Developing countries | 28.7 | 33.3 | 40.9 | 42.2 | 42.1 | 45 | 52.2 | 59.2 | 58.8 | |
| World | 240.7 | 294.4 | 345.9 | 330.6 | 334.1 | 367.1 | 383.1 | 422 | 427.8 | |

Sources: World Bank, Migration and remittances factbook 20 16

Sociologists and economists have explained migration levels in terms of "push-pull" factors (Datta, 2004). Push factors include insufficiency of jobs, inequity in jobs, low wages, bad working environment, poverty, civil conflict, social unrest, political and religious persecution in the country of origin. The pull factors include the search for better wage jobs, lower unemployment, better education, and health services, better working environment, improved quality of life, political and religious freedom.

Akkoyhnlu and Vickerman (2000) and Solimano (2003) have highlighted a possible "Dutch disease" effect of remittances, a negative impact on the economy of the remittance-receiving country. Eventually, the flow of remittances could lead to the increased price of exportable products, which jeopardizes the competitiveness of the domestic tradable goods sector. This phenomenon mainly occurs under three cases: first, when remittances are externally determined; second, when remittances are countercyclical and finally, where remittances act like capital inflows. Empirical evidence on the effects of "Dutch disease" for a country like Bangladesh is however insubstantial.

### 2.3 Remittance Flow and Development

The economic literature could not find a conclusive link between remittance and development in the 1970s and 1980s. One reason may be that remittances are mainly being used to finance consumption and non-productive investment (such as large houses), expenditures with little impact on local economic productivity (Rempel and Lobdell 1978; Lipton 1980; Massey 1988). More recently, researchers and policymakers have increased their interest on the economic impact of migration and remittances. The most important link between migration and welfare of the households in the origin country is often remittances. Migration produces large inflows of valuable foreign currency, which enables some domestic workers to get training and jobs. Migrant workers working abroad learn

new skills to deal with the latest technologies and, after returning to their country of origin, they can demonstrate their new skills, technology and knowledge acquired from abroad. Disseminating of these skills contributes immensely to the development.

In a poor country like Bangladesh, these inflows can cause a macroeconomic impact in several ways (Siddiqui, 2003). For example, higher growth of the economy can be achieved if the remittance-receiving families use a significant part of their remittance for productive investment. Similarly, if they spend these transfers on education and health, they contribute to the long-run growth of the economy through human capital development. In the short run, remittances add to the growth of output in the economy if the remittance-receiving families spend most of these transfers on consumption. Education, health, access to information, and socio-economic indexes are on the rise in areas receiving remittances. A refugee and migratory movement research unit (RMMRU) study found that extent of migration in a region has an inverse relationship with its poverty rate.

Giuliano et al. (2009) concludes that remittances have improved the growth rate in remittance-receiving countries through three main channels, namely capital accumulation, labor force participation, and total factor productivity. On the other hand, inflows in the form of remittances may have an adverse effect on the economic growth of the receiving country due to decrease in labor force participation (De Haas, 2005). Many households in the country may recognize remittance inflows as an alternative to labor income.

Chen (2009) established a migration model to find the odds of migration as a function of human capital. An adequate average human capital threshold is crucial for economic growth. The data further suggest that, if households recognize a high probability of migration in the future, they will invest more in their education. More human capital will eventually generate a higher probability of migration.

Islam (2011) analyzed the blueprint and socio-economic benefits of migration and explained the impacts of remittances in the national economy of Bangladesh. He proposed two channels through which migration supports the country's development process. The first is to decrease poverty; the second is to add remittance to the economy. Murshid et al (2002) explored the probability and challenges of officially routing remittances through national and multinational banks. They estimated a simple remittance multiplier for Bangladesh equaling 3.33. It implies that a Bangladesh Tk.1 crore gain in remittances will increase the national income by Tk.3.33 crore. However, there are various layers of agents and institutions involved in the remittances transfer process (Siddqui, 2004): government ministries, training institutes, civil society, commercial banks, the central bank, investment instruments, specialized bank accounts, legal framework governing remittance flows and money laundering protection vehicles. Remittance transfers could reduce transaction costs if coordination among these institutions improved.

Studies on the effects of remittances on developing counties poverty rates are mixed. Adams (2005) and Taylor et al (2005) concluded that remittances reduced both the level and harshness of poverty in Guatemala and Mexico.

Adams (2006) also concluded that inflows of remittances improved the poverty situation of the 'poorest of the poor' based on a large household survey in Ghana. A World Bank (2006) research project showed that remittances reduced the poverty level by 6% in Bangladesh, 5% in Ghana, and 11% in Uganda. In a cross-country study, Ratha (2009) found that a 10% increase in remittance caused poverty reduction by 3.5%. On the other hand, migration may have a negative relationship with GDP when migration increases: for example when skilled or experienced workers from Bangladesh migrate GDP goes down.

## 3. Data and Methodology

The vector autoregression (VAR) model is convenient for the analysis of multivariate time series. It is a natural extension of the univariate autoregressive model to a dynamic multivariate time series. The VAR model has proven to be especially beneficial for defining the dynamic behavior of economic and financial time series and for estimation.

This study examines the effects of GDP, remittances, and net migration at the macroeconomic level, by using VARmacro model of the following form:

$$\mathrm{GDP}_t = \alpha_0 + \alpha_1 \mathrm{gdp}_{t-1} + \alpha_2 \mathrm{remit}_{t-1} + \alpha_3 \mathrm{netmig}_{t-1} + \alpha_4 \mathrm{fdi}_{t-1} + \alpha_5 \mathrm{IQ}_{t-1} + \varepsilon_1 \quad (1)$$

$$\mathrm{remit}_t = \beta_0 + \beta_1 \mathrm{gdp}_{t-1} + \beta_2 \mathrm{remit}_{t-1} + \beta_3 \mathrm{netmig}_{t-1} + \beta_4 \mathrm{fdi}_{t-1} + \beta_5 \mathrm{IQ}_{t-1} + \varepsilon_2 \quad (2)$$

$$\mathrm{netmig}_t = \gamma_0 + \gamma_1 \mathrm{gdp}_{t-1} + \gamma_2 \mathrm{remit}_{t-1} + \gamma_3 \mathrm{netmig}_{t-1} + \gamma_4 \mathrm{fdi}_{t-1} + \gamma_5 \mathrm{IQ}_{t-1} + \varepsilon_1 \quad (3)$$

Here, *GDP* refers to real GDP, *remit* to inward remittances, *netmig* to net migration, *fdi* to foreign direct investment, and *IQ* refers to institution quality at the national level. In this model, GDP, inward remittance, and net migration appear as policy variables, while In FDI and institutional quality appear as control variables. Data were obtained from the World Bank development (2018) indicators database for the period 2001 to 2017.

Statistical inference becomes problematic when non-stationary series are used in regression analysis, one as a dependent variable and the other as an independent variable (Narayan and Popp, 2010). Moreover, results can be nonsense in a regression when non-stationary time series data is used. So, non-stationary time series data are not favorable. If data are non-stationary purely due to unit-roots, they can be brought back to stationary by the linear transformation of differencing. There are different approaches, that can be used to test for stationarity. In this paper, the augmented Dickey-Fuller (ADF) test is used to check for unit root.

For an autoregressive lag model with first difference lag 3 (lag length is selected based on majority decision between AIC, SC, and HQ criteria), the following variables were defined: *dgdp* (first difference of per capita gdp), *dremit* (first difference of personal remittances received), *dnetmig* (first difference of net migration), *dfdi* (first difference of foreign direct investment), *dIQ* (first difference of institution quality). To regulate the causal relationship among *dgdp*, *dremit* and *dnetmig*, the granger causality test is undertaken with the VAR framework to the non-cointegration relationship. We selected the optimal lag length by using the VAR model.

| Table 3: Augmented Dickey-Fuller test for unit root | | | | | |
|---|---|---|---|---|---|
| Variable | P value for z(t) | Test Static | 1% critical value | 5% critical value | 10% critical value |
| *gdp* | 0.9473 | -0.975 | -4.143 | -3.497 | -3.178 |
| *dgdp* | 0.0000*** | -5.882 | -4.143 | -3.497 | -3.178 |
| *remit* | 0.5175 | -2.151 | -4.270 | -3.552 | -3.211 |
| *dremit* | 0.0000*** | -8.167 | -4.242 | -3.540 | -3.204 |
| *netmig* | 0.8448 | -1.453 | -4.380 | -3.600 | -3.240 |
| *dnetmig* | 0.0969* | -3.141 | -4.380 | -3.600 | -3.240 |
| *iql* | 0.5249 | -2.138 | -4.380 | -3.600 | -3.240 |
| *diql* | 0.0007*** | -4.684 | -4.380 | -3.600 | -3.240 |
| *fdi* | 0.5374 | -2.116 | -4.270 | -3.552 | -3.211 |
| *dfdi* | 0.0000*** | -6.748 | -4.270 | -3.552 | -3.211 |

| Table 4 Estimation Results for Regressions on First Differences | | | |
|---|---|---|---|
| Variables | ΔGDP | ΔRemittance | ΔMigration |
| L1. ΔGDP | 0.575** (0.24) | 0.120 (0.60) | -5.426** (2.59) |
| L1. Δremittance | -0.002 (0.10) | 0.197 (0.25) | -5.409*** (1.08) |
| L1. Δmigration | -0.006 (0.01) | -0.007 (0.04) | -0.058 (0.17) |
| ΔFDI | 0.026 (0.02) | -0.112** (0.05) | 0.667*** (0.24) |
| ΔIQ | -0.003 (0.004) | -0.024** (0.01) | 0.084 (0.05) |
| Constant | 0.038 (0.03) | 0.147** (0.07) | 1.105*** (0.30) |

Notes: Figures in parenthesis are the standard deviation, ***Statistical significance at the 1% level, **Statistical significance at the 5% level

## 4. Results and Discussion

### *4.1 Unit root test*

The z(t) value at the level is 0.9473 GDP (shown in Table 3), which is not significant. After taking the first difference *dgdp*, p value for z(t) is significant. Thus, the null hypothesis of the Dickey-Fuller test is rejected. Therefore, the first difference time series *dgdp* is stationary. Similarly, all five variables are found stationary at first difference: *dremit*, *dnetmig*, *dfdi*, *dIQ*.

### 4.2 VAR model

Estimation results for Equations 1, 2, and 3 are presented in Table 4. In equation1, we can see that if GDP increases one unit in the previous year, the current year

GDP will be increased by 0.575 unit holding all other variables constant with significant coefficient. In equation 2, we notice that if FDI increases by one-unit, current year remittance will be decreased by 0.112 unit holding all other variables constant, and the coefficient is significant.

When IQ increases by one unit, the remittance will be decreased by 0.024 unit in the current year. Finally, equation 3 shows that, if GDP increases by one unit in the previous year, migration will be decreased 5.426 unit holding all other variables constant. If remittance increases by one unit in the previous year, then the current year migration will be decreased by 5.409 unit holding all other variables constant. If FDI increases by one unit then the current year migration will be increased by 0.667 holding all other variables constant.

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### 4.3 Granger causality

As per the granger causality test presented in Table 5, both Δ*dgdp* and Δ*dremit* granger cause Δ*dnetmig*, implying that change in real GDP and remittance flows influence net migration in Bangladesh. The granger causality result complies with the VAR result that GDP growth and higher remittance flow may reduce net migration in long run. Surprisingly, no significant causality is observed between GDP and remittance, and no reverse causality is observed towards remittance and GDP from migration. The finding of granger causality is summarized in Figure 1.

The negative influence of GDP and remittance on net migration indicates an

Table 5: Short-run and long-run Granger causality test results

| Dependent variable | Δdgdp | Δ*dremit* | Δ*dnetmig* |
|---|---|---|---|
| *dgdp*, *dremit*, d*dnetmig* | | 0.197<br>(0.25) | -5.409***<br>(1.08) |
| Δ*dgdp* | - | 0.04027[0.841] | 4.3936[0.036]** |
| Δ*dremit* | 0.00029[0.986] | - | 25.06[0.000]*** |
| Δ*dnetmig* | 0.1379[0.710] | 0.03006[0.862] | - |

Notes: Figures in parenthesis are the p-values, ***Statistical significance at the 1% level, **Statistical significance at the 5% level

important behavioral change among Bangladeshi people. During the early growth stage in the 1980s and 1990s, there were fewer work opportunities within
Bangladesh. This led people to explore work opportunities overseas. However, the economic condition of Bangladesh has changed in the 21st century. The national economy has become much stronger, which enhances domestic work opportunities. Besides, the inward remittance flow from temporary immigrants has improved the financial condition of family members in their home country. Such socio-economic changes encourage migrants to return to Bangladesh in the long run, as well as discourage family members from migrating abroad. As a result, the analysis of data covering the period of 2001-2017 shows that the more the economy grows and the more the remittance flows towards Bangladesh, net migration tends to decline.

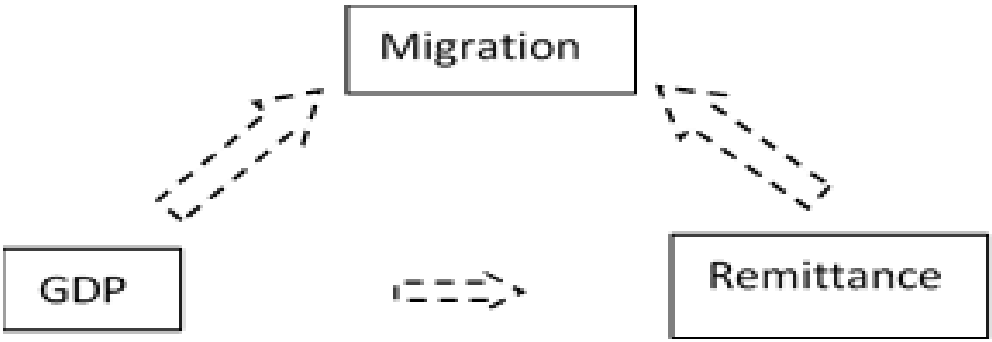


Figure 1: Linkage between GDP, Remittance and migration in Bangladesh

*Arrows indicates granger causality

Interestingly, despite the suggestion from existing literature that the reverse causality would exist from net migration to GDP or remittance flows (Azam and Gubert, 2002; Mochebelele and Winter-Nelson, 2000), this study does not generate significant reverse causation. Similarly, the study does not find any significant causal relationship between GDP and remittance, which is a contrast with existing literature (Taylor et al., 1992; Abdih et al., 2009). A rational explanation for such an unexpected result could be the observation period itself. During 2001-2017, there was a relatively faster economic growth in the Bangladeshi economy, initiated by many contributing factors. Hence the direct effect of net migration and remittance inflow could be limited. However, there might be significant indirect influences of net migration and remittance on GDP growth, via small investments, poverty reduction, and increased supply of skilled workers (Taylor et al., 1992; Abdih et al., 2009). Capturing those indirect effects were out of scope to this study.

Among the control variables, FDI and institutional quality negatively influence remittance. Here, the inverse relation between FDI and remittance flow could be due to a balance of payment effect. When inward FDI drops, the central

bank/policymakers introduce motivation tools to attract inward remittance. Thereby, the amount of capital inflow is maintained. The inverse relation between institutional quality and remittance could be explained through the concept of a private safety net. When national institutions being weaker, citizens have less reliance on public support via the social safety net. Thus, the urge for ensuring necessary social services (education, healthcare etc.) via private options increases. As a result, workers from abroad remit more money to ensure a safer life for their family members at home. Besides, these two inverse relations, a positive relationship is observed between FDI and migration. As FDI increases, the demand for high skilled labor increases at home compared to the less skilled labor. As a result, less skilled labor tends to migrate overseas

## 5. Policy Implication

We tested the relationship between remittances and net migration and their interactions with economic development. We could not find substantial support for the thesis that net migration and remittances have induced much economic growth in Bangladesh. Instead, economic growth and inward remittance flow tend to reduce net migration.

This negative impact of remittance and growth on migration has important policy implications. First, higher domestic economic growth might motivate immigrant workers to return to Bangladesh. If these returning workers could be trained up to play a role as investors or entrepreneurs, more job opportunities can be created by utilizing the skill and remittances generated by the returning immigrant workers. Otherwise, the returning immigrant workers could create pressure on the existing employment opportunity and become a burden for the existing workforce.

## 6. Conclusion

This study aims to explore the linkage between growth, remittances, and migration for Bangladesh. The two main variables selected for the study are remittance and economic growth. In a developing country like Bangladesh, the supply of remittance from migrant workers has been prominent in recent years. Remittances often provide a significant source of foreign exchange. They also increase national income, national finances, imports, and contribute to the balance of payment position. Overall, remittance plays an important role in economic development in many countries (Puri and Ritzema, 2001). However, this study finds that remittance and higher GDP discourage migration in the long run. Hence, the policymakers need to design an effective policy that can accommodate more workers within the domestic economy. Otherwise, declining net migration will create severe unemployment pressure on the economy. Building and supporting more entrepreneurs through expanding the SME sector and by providing extensive technical training could be an effective way out of this crisis.

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