Advances in Social Sciences Research Journal – Vol. 12, No. 02
Publication Date: February 25, 2025
DOI:10.14738/assrj.1202.18251.
Hossain, M. S., Chin, L., Said, R., & Ishak, S. (2025). The Impact of Remittances on Economic Growth in a Remittance Receiving Country. Advances in Social Sciences Research Journal, 12(02). 158-182.

The Impact of Remittances on Economic Growth in a Remittance Receiving Country

Md. Shahadat Hossain
*Corresponding author: shahadat.hossain.upm@gmail.com
Department of Economics, School of Business and Economics, Universiti Putra Malaysia (UPM), Malaysia

Prof. Dr. Lee Chin
Department of Economics, School of Business and Economics, Universiti Putra Malaysia (UPM), Malaysia and Econometrics Department, Tashkent State University of Economics, Tashkent, Uzbekistan

Prof. Dr. Rusmawati Said
Department of Economics, School of Business and Economics, Universiti Putra Malaysia (UPM), Malaysia

Prof. Dr. Suryati Binti Ishak
Department of Economics, School of Business and Economics, Universiti Putra Malaysia (UPM), Malaysia

ABSTRACT

The study is to examine the impact of remittances on economic growth, in particular how the development of domestic financial sector influences a country's capacity to take advantage of remittances. Bangladesh's remittances, specifically inflows, are an important source of income support and economic growth. Employing ARDL model on a dataset of 46 years from 1979 to 2024, this study finds that remittances boost growth in Bangladesh with developed financial systems. The study also finds that capital formation is positively associated with economic growth in the long run while remittance is negatively influencing economic growth. Thus, policies should focus on developing the financial system, reducing the cost of remitting and encouraging migrants to send remittances using formal channels.

Keywords: Economic Growth, Remittances, Financial Development, ARDL bounds testing, SDG.

INTRODUCTION

Numerous research studies (Lordache et al., 2023), have demonstrated that remittances engender a multifaceted impact on the trajectory of economic growth, encompassing both advantageous and detrimental consequences. Furthermore, it has been posited by various research that remittance exhibits a negligible impact on the trajectory of economic growth. Consequently, a definitive response to the inquiry regarding the impact on economic growth remains elusive. The presence of contradictory findings may be attributed to the multifarious mechanisms through which remittance can exert its influence on the trajectory of economic growth (De & Ratha et al.,2012). As Asafo (2021) pointed out, the influence exerted by remittance on the expansion of a nation's economy is contingent upon the prevailing socioeconomic circumstances of said country. Moreover, the intricate mechanisms through which this impact manifests itself are multifaceted and potentially unique to each specific nation. It is of utmost importance to ascertain the various elements that exert influence on this effect to modify the procedure appropriately. Traditionally, considerable importance is accorded to the economic advancement of the nation. Given the absence of a universally accepted theory or model elucidating the intricate dynamics between remittance and economic growth, the present study endeavours to illuminate the conceivable pathways by which remittance influences long-term growth. Moreover, it seeks to scrutinise how the level of development and the prevalence of remittance within the economy, as two pivotal socioeconomic factors, configure the impact of remittance on long-term growth (Zerihun,2020). In addition, the positive co-trend of remittances and economic growth shown in Figure 1 is consistent with this theory. This means that as remittances increase, so does economic growth.

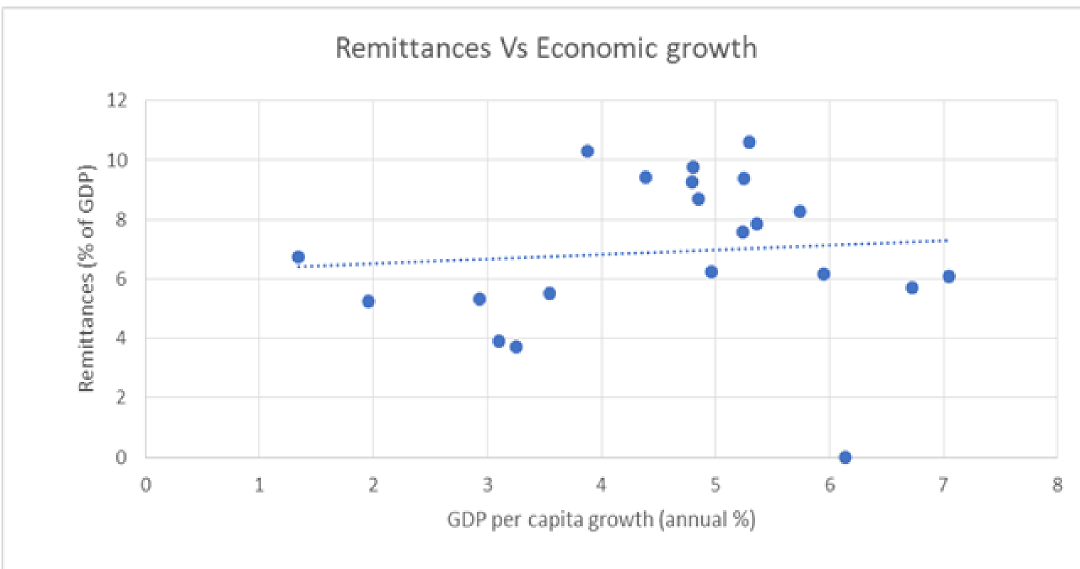

Figure 1: Remittance and Economic Growth

Figure 1 depicted the macroeconomic impact of remittance on economic growth. The scientific literature has elucidated numerous mechanisms by which remittance has influenced economic growth. By virtue of augmenting the aggregate household income, remittances have been known to make a substantial contribution towards the advancement of economic growth. At the macroeconomic level, the impact of remittances was discerned by means of the multiplier effect stemming from a household's consumption of goods and services. Furthermore, the influence of remittances was observed in the investment in human capital, which in turn augmented labour productivity. The provision of remittance additionally presented an opportunity for the augmentation of asset accumulation, the promotion of self-employment, and the investment in small enterprises.

Remittances, which refer to the transfer of money or goods by migrants to their home countries, can have several mechanisms through which they affect economic growth. Here are some key mechanisms:

Remittances provide recipient households with additional income, which can increase their purchasing power and standard of living (De & Ratha, 2012). This increased income can lead to increased consumption, which stimulates the demand for products and services and drives economic growth.

Frequently, remittances flow to lower-income households, assisting in alleviating poverty (Chimhown, Piesse, & Pinder, 2005). As recipient households' incomes increase, they are able to invest in education, healthcare, and productive assets, thereby enhancing their long-term prospects and decreasing the poverty rate. Reducing destitution contributes to economic growth by fostering a more robust and inclusive economy.

Remittances can be a source of capital for beneficiaries, allowing them to invest in entrepreneurial endeavours or establish modest enterprises (Kakhkharov, 2019). This infusion of funds can create employment opportunities, generate income, and contribute to the expansion of the economy.

The influx of remittances has been observed to have the potential to stimulate the development of financial institutions and services in recipient countries (Giuliano & Ruiz-Arranz, 2009). Banks, microfinance institutions, and other financial intermediaries may emerge or expand in order to facilitate remittance transfers and offer a range of financial products to recipients. A robust financial sector is essential for supporting economic growth, investment, and savings.

Remittances may contribute to the financing of infrastructure initiatives in recipient countries. Migrants frequently contribute to community development by investing in infrastructure such as housing, schools, and healthcare facilities. Infrastructure improvements can boost productivity, attract investment, and stimulate economic growth.

Remittances can support investment in human capital, such as education and skills development (Brown & Poirine, 2005). With additional financial resources, households can send their children to school or gain access to improved educational opportunities. A competent labour force is essential for economic growth because it boosts labour productivity and encourages innovation.

By providing a consistent and reliable source of foreign exchange, remittances can contribute to macroeconomic stability (Diaz Gonzalez, 2009). This can assist in balancing trade deficits, accumulating foreign exchange reserves, and stabilising the local currency. The presence of macroeconomic stability fosters investment, trade, and economic growth.

In their host countries, migrants frequently acquire new skills, knowledge, and technologies. When they return to their native countries or maintain close ties, they are able to transmit these skills and knowledge, thereby promoting technological diffusion and innovation. This may result in increased productivity and economic growth. It is essential to recognise that the effects of remittances on economic growth can vary depending on factors such as the magnitude of remittance flows, the efficacy of their use, the economic structure of the recipient country, and the policy environment.

Despite their positive effects, it must be acknowledged that remittances were unable to ensure long-term economic growth or address the structural economic challenges prevalent in underdeveloped nations. These challenges encompassed an unpredictable political climate, volatile economic policies, and the pervasive issue of corruption. The guarantee of economic growth through remittances is contingent upon the preservation of political and economic stability in the recipient country. It is imperative to note that these funds are not allocated towards personal consumption, but rather directed towards investment in productive activities or enterprises. The impact of remittances on a country's economic growth was found to be contingent upon the state of the financial system and the development of financial markets, in conjunction with the unique economic circumstances prevailing in the recipient nation. Remittances have been found to have the potential to contribute to economic growth by mitigating volatility, as they have demonstrated a relatively low sensitivity to fluctuations in the economy. In their study, Giuliano and Ruiz-Arranz (2005) demonstrated that remittances exhibited a tendency to be procyclical for the recipient nation. Conversely, Frankel (2011) and Bettin et al. (2014) demonstrated that remittances typically displayed an anticyclical nature.

Remittances have served as a catalyst for bolstering domestic expenditure, thereby imposing constraints on the government's capacity to engage in further investment. Furthermore, it should be noted that remittances have served as a significant source of foreign currency, thereby fostering a climate conducive to heightened savings and subsequent economic expansion. If remittances were to generate more demand than the economy could meet, they would also have increased imports, resulting in the production of a wide array of goods and services. In this particular circumstance, the absence of remittances had a detrimental impact on the affluence of households. The impact of remittances on economic growth was found to be somewhat influenced by country-specific factors. The impact of remittances was found to be significantly contingent upon public policy, the regulation of remittance flows, the expansion of the financial market, and the establishment of an environment that fostered the utilization of remittances for productive investment.

The relationship between remittances and economic development has been extensively investigated through numerous studies, with the aim of ascertaining the potential advantages of remittances for the economic development of recipient nations. According to the prevailing convictions, it was posited that remittances could potentially facilitate economic growth. This viewpoint is predicated on the premise that money transmitted through financial institutions may enable recipients to request and acquire additional financial products and services. Due to the irregular nature of remittances, beneficiaries may require financial solutions that permit the secure preservation of these funds, even if the majority are not received through banks. Even greater opportunities exist for households that receive remittances through banks to learn about and pursue additional bank products. However, financial services are inefficient when there is an abundance of asymmetric data, financial market externalities, and imperfect competition, resulting in undesirable outcomes such as bank runs, credit restrictions, and fraud (Stiglitz and Weiss, 1991, 1992). Thus, institutional factors, including legal infrastructure, insolvency, disclosure rules, accounting standards, and prudential regulations, are essential for guaranteeing the success of financial liberalisation and fostering the efficient operation of financial markets (Aivazian, 1998).

If banks are more inclined to lend credit to recipients as a result of the perceived stability of the transfers received from overseas, remittances may improve banking credit. In contrast, while remittances can help recipients overcome liquidity constraints, they may result in a decline in credit demand, thereby impeding the development of the credit market. Furthermore, in the event that banks exhibited hesitancy in extending loans to private entities and instead favoured financing the government or maintaining liquid assets, it is plausible that an augmentation in remittances would not have yielded an upsurge in banking credit allocated to the private sector. Lastly, it should be noted that remittances might not have yielded an augmentation in bank deposits, particularly in cases where they were expeditiously utilised or when recipients harboured a sense of apprehension towards financial establishments, prompting them to opt for alternative means of preserving their earnings. Henceforth, the theoretical impact of remittances on the proliferation of the financial sector becomes enigmatic, as it may have manifested as either positive, negative, or insignificant.

In Bangladesh, remittances play a dual role in economic growth, both directly and indirectly through financial development. On one hand, remittances can stimulate economic growth by increasing household income, reducing poverty, and fuelling consumption and investment. On the other hand, they can also pose challenges such as inflationary pressures from increased demand for non-tradable commodities and potential decreases in labour incentives. Financial development is crucial for harnessing the potential benefits of remittances. When recipient households deposit remittances in formal financial institutions and access loanable funds for private sector investment, remittances can contribute to economic growth (Chowdhury, 2011). Moreover, the widespread adoption of mobile financial services, such as bKash, has revolutionized financial inclusion in Bangladesh. These services provide easy and affordable access to financial services, enabling more efficient remittance transfers and utilization. The convenience and accessibility of mobile financial services can enhance the effective utilization of remittances by facilitating better financial intermediation and investment opportunities. However, the effective utilization of remittances for productive investments depends on the financial literacy and awareness of investment opportunities among recipients. Thus, considering the moderating role of financial development in the nexus of remittances on economic growth in Bangladesh is crucial for policy formulation and sustainable economic growth.

This paper is structured as follows. Section 2 provides a brief literature review followed by methodology in section 3. Section 4 details the results obtained from the empirical investigations followed by a conclusion in section 5.

LITERATURE REVIEW

Theoretical Underpinnings of Remittances and Economic Growth

The neoclassical migration theory, rooted in economic principles, seeks to explain labour migration's patterns and impacts on economic development. The foundational works in this theory, such as Hicks, J.R. (1963), Lewis, W.A. (1954), Harris, J.R. & Todaro, M.P (1970), Stark, O., & Bloom, D.E. (1985), emphasize wage disparities as the primary motivator for migration. Hicks (1963) conceptualized migration as a rational choice based on full labour market information, without considering unemployment or relocation costs. Similarly, Lewis (1954) highlighted migration as a response to differences in wage levels between rural and urban areas, suggesting migration as a natural part of the development process. Harris and Todaro (1970) extended this by introducing the idea of expected wages, accounting for the probability of employment in destination countries. These theories collectively underscore the role of economic factors, especially wage differentials, in driving migration decisions. Stark and Bloom (1985) further this discussion by introducing the concept that remittances can act as an incentive for migration, essentially serving as an investment in human capital. Their work suggests that remittances can enhance the well-being and productivity of migrants and their families, thereby potentially influencing economic growth both at the micro and macro levels.

The phenomenon of labour migration can be understood as the movement of individuals from nations characterised by lower wages to those characterised by relatively higher wages, primarily driven by the existence of wage disparities between countries (Kurekova, 2011; Grigorescu, 2024). The assistance provided by remittances in reducing poverty and promoting economic growth has been acknowledged by the World Bank and the Asian Development Bank in 2018 (World Bank, 2019) and many recent studies such as (Adeseye, 2021), (Oladipo, 2020), Khan, (2024), Chowdhury, Dhar & Gazi, (2023).

On the contrary, a heightened inclination to acquire remittances from far-flung nations posed a potential threat to growth, as it engendered the loss of numerous skilled personnel, a phenomenon commonly known as brain drain (Topxhiu & Krasniqi, 2017) that requires significant attention to understand whether it applies in the developing countries contexts or not specially in the context of Bangladesh. According to the neoclassical growth theory, it has been posited that the occurrence of human capital losses could potentially exert an adverse impact on the trajectory of economic growth (Dutta & Saikia, 2024). Furthermore, in the case of nations that had already attained economic and financial progress alongside a stable credit market, it was observed that remittance exhibited a positive correlation with the advancement of their financial sector (Chowdhury, et al., 2023; Khan, 2024; Dutta & Saikia, 2024). Therefore, the neoclassical migration theory has been most suitable theories to explore the impact of remittances on the economic growth.

Along this line of thought Lundahl (1985) employed a model of two factor - labour and capital - and two commodity - traded and non-traded goods - to investigate the impact of international migration and remittances on real income of the migrants' source countries. The model assumed migration and remittances take place and movement of capital is fixed. In addition, wages are assumed to be higher abroad than what is obtainable in migrants' home country and immigration is controlled.

Lundahl (1985) showed that emigration of labour will increase the output of traded goods at the expense of non-traded goods if the former is capital intensive. Owing to excess demand for non-traded goods which is further reinforced by the inflows of remittances there will be a rise in the relative price of non-traded goods. Consequently, this increases the real income of non-migrants as wages increase, but reduces the real income of capitalists. Therefore, the net effect on economic growth will depend on the extent of emigration, remittances and marginal propensity to consume non-traded goods, the increase of which might negates the external competitiveness as production in traded goods declines.

In the same way, a classic work by Djajic (1986) examined the role of remittances in determining the effect of migration on welfare of non-migrants in a small open economy producing both traded and non-traded goods. He demonstrated that large inflows of remittances could give rise to increased demand for non-traded output that results in an increase in the relative prices and wages accruing to labour, thereby leading to improvement in the welfare of both remittance and non-remittance receiving households. He further noted that when the inflows of workers' remittances surpass certain threshold level equivalent to the value of output the emigrants would have produced in their country of origin, migration that generates remittances improve terms of trade and growth performance in source countries.

In a general equilibrium framework, Kugler (2006) investigated the impact of workers' remittances on economic growth by looking at their effects on human capital formation and labour market performance of the receiving countries. His model assumed imperfect labour and credit markets that respectively gave rise to intense job search and credit constraints. Within the outline of his model, he argued that when human capital is supposed to be the engine of economic growth, under certain conditions workers' remittances have the potential to relax households' liquidity constraints and enhance investment in education that boost the overall supply of human capital and generate spill-over effects of job opportunities that reduces unemployment rate in remittance receiving countries.

In this framework, Guha (2013) demonstrated that inflows of exogenous remittances increase consumption demands in both sectors of the economy, which raises the relative price of non-tradable sector and reduce aggregate labour supply as remittance recipients substitute labour with leisure. The increase in the relative price of non-tradable sector further creates factor reallocation that drains labour away from the tradable sector leading to its contraction. Consequently, a diminution of the tradable sector leads to loss of external competitiveness and lower economic growth.

Nonetheless, a study by Drinkwater et al. (2006) developed a dynamic labour matching model with capital and credit constraints to analyse the connection between international remittances and deficiencies in the labour and capital markets of migrants' origin countries. Their model assumed migration of certain workers who remit their earnings to relatives back home for consumption, savings and investment reasons. In addition, investors are assumed to face certain limitations in raising optimal capital. The authors opined that in this scenario, remittances have two conflicting effects on labour market performance of the remittance-receiving countries. On the one hand, inflows of remittances have the potential to reinforce unemployment among non-migrants' by prolonging job-search particularly when employers' bargaining power is lower compared to the migrants' wage limit. On the other hand, international remittances made available for investment can ease credit constraints encountered by firms and generate capital stocks and employment opportunities that reduces unemployment rate in migrants' origin countries.

In a two-period model, Naiditch and Vranceanu (2009) examined the impact of remittances on recipients' work efforts. In their model, migrants are altruistic and information between migrants and remittance-recipients on economic conditions is asymmetric. The authors showed that when optimal labour supply depends on labour wages, remittances and trade-off between leisure and consumption occur, transfer of remittances can lead to moral hazard problems. Remittance-recipients who are economically better-off might pretend to be in poor economic conditions by decreasing their hours of work to increase leisure in order to manoeuvre the migrants' expectations and obtain more remittances. This may result in a reduction in the aggregate labour supply of the remittance-receiving developing countries and hinders economic growth.

Empirical Evidence of Remittances-Growth Nexus

In numerous nations, remittances have exceeded foreign direct investment as the predominant source of inflow, while government assistance has been propelled by the movement of funds between developing and affluent nations (Hassan, Chowdhury, & Bhuyan, 2016; McKenzie, 2018). Furthermore, the reduction in transaction costs and the facilitation of money transfers resulting from technological advancements have engendered a surge in remittance flows originating from affluent nations (Ratha, 2017). The burgeoning phenomenon of remittance was anticipated to retain its significant presence in the forthcoming years. However, extant scholarly investigations pertaining to the influence of remittance on gross domestic product (GDP) have yielded conflicting outcomes in relation to particular countries (Meyer & Shera, 2017; Ratha, 2017).

In their scholarly discourse, Clemens and McKenzie (2018) presented a compelling argument refuting the purported beneficial impact of remittance on a nation's Gross Domestic Product (GDP). In a comparative analysis, Ratha (2017) discovered that remittance had a positive impact on the economic growth of a nation. This was achieved through the au augmentation of foreign exchange reserves, the fulfilment of external debt obligations, and the utilisation of remittance as a safeguard against capital flight. Meyer and Shera (2017) acknowledged remittance as a significant source of income and a novel financial phenomenon, given its global economic impact.

The utilization of expatriates' remittances was observed to encompass five principal objectives: the repayment of debts, the acquisition of land, the procurement of food and clothing, the construction of residences, and the accumulation of savings (IOM, 2005). In their study, Njangang, Noubissi, and Nkengfack (2018) made a significant discovery regarding the impact of remittance on the local economies of receiving nations. They found that remittance had a positive effect on these economies, as it resulted in an increase in their size. This conclusion was further substantiated by the investigation conducted by Adams and Page in 2005. Furthermore, Siddique, Shehzadi, Manzoor, and Majeed (2016) unveiled that remittance played a significant role in the percentage of GDP and the mitigation of poverty. According to Ratha (2003), remittances exerted a substantial influence on the local purchasing power and levels of consumption, resulting in a rational and advantageous impact across various domains. This assertion is further substantiated by recent research, which demonstrated the pivotal significance of remittance in various nations that receive remittances (Adams & Cuecuecha, 2013; Abadi, Techane, Tesfay, Maxwell, & Vaitla, 2018; Kumar, 2019). Furthermore, the study conducted by Arif Raza, Friemann, and Suleman (2019) showcased the substantial impact of remittance on the realm of higher education within the nations receiving such funds. Arif et al. (2019) further revealed that the funds provided by expatriates were utilised for the purpose of educating their offspring and other members of their kin, thereby making a significant contribution to the sustained progress of the overall economy.

Furthermore, it should be noted that remittance has played a crucial role in establishing a solid groundwork for the advancement of financial markets and the evolution of monetary policy in emerging economies. This has facilitated their ability to devise and execute timely policies, as evidenced by the research conducted by Giuliano and Ruiz-Arranz in 2009. In their study, Giuliano and Ruiz-Arranz (2009) posited that remittances exerted constraints on the credit capacity of individuals belonging to lower-income brackets. Simultaneously, they facilitated the allocation of capital and served as substitutes for the dearth of financial development. Henceforth, the economic progress of a nation is duly ensured. The aforementioned assertion is bolstered by the scholarly investigations conducted by Fayissa and Nsiah in 2010 and 2013. Their academic research unearthed a significant correlation between remittance and the advancement of economies across sixty-four nations.

However, it should be noted that the provision of family remittances has the potential to restrict the engagement of individuals in the labour force. Furthermore, it can have adverse effects on the tradable products sector, primarily through the amplification of real exchange rates (Amuedo-Dorantes & Pozo, 2004; Chami et al., 2008; Hassan & Holmes, 2013). In this regard, it was asserted by Rodrik (2008) that the overvaluation of the real exchange rate primarily impeded economic development in the long term. As posited by Rodrik (2008), the production of tradable goods was observed to have been disproportionately impacted by market failures. Furthermore, it becomes evident that remittances impede growth and productivity in nations that receive them, as they are allocated towards the consumption of imported commodities readily available in the market rather than being directed towards productive investments (Lipton, 1980; Brown & Ahlburg, 1999; Nyasha, 2019). According to Nyasha (2019), it was observed that the adverse impact of remittance on economic growth could potentially be attributed to the allocation of remittance towards the consumption of nondurable goods, as opposed to durable goods consumption and productive economic endeavours. Barguellil, Zaiem, and Zmami (2013) also encountered incongruous outcomes regarding the influence of remittance on economic growth in their research. The inquiry revolved around the potential direct and indirect advantages of remittance to specific nations that receive such funds. However, it was posited that these effects would dissipate in numerous other countries.

As per Polat's (2018) findings, the intricate nature of a nation's economic growth, regardless of its developmental status, poverty level, or level of development, necessitates a comprehensive examination of the impact of remittance on economic growth. This impact is contingent upon the influence of remittance on diverse macroeconomic indicators, including the real exchange rate, investments (capital accumulations), labour supply within recipient households, and the financial development of recipient countries. In the present context, it was observed that conflicting studies suggested the possibility of remittance exerting a negative impact on the economic growth of the recipient country. This was attributed to two main factors: the distortion of labour incentives within recipient families and the potential appreciation of the real currency rate. Furthermore, it should be noted that remittance has been utilised to finance both physical capital and human capital investments, thereby making significant contributions to overall economic growth. Furthermore, in the event that remittances were allocated predominantly towards consumption rather than investment, it is plausible that such a phenomenon would have aided in the mitigation of consumption fluctuations and facilitated economic stability by bolstering the Gross Domestic Product (GDP). Furthermore, a considerable body of recent research has elucidated the advantageous influence of remittance on the economic growth of the nation that receives such remittance. However, it is worth noting that certain research studies have uncovered adverse effects or an absence of correlation between these two variables or small effect remittances on growth (Cazachevici, Havranek, & Horvath, 2020). Moreover, it is also observed that remittances have different impact as these enhance economic growth in Asia but not in Africa (Cazachevici, et al., 2020).

In this regard, the studies conducted by Chami et al. (2005), Barajas et al. (2009), and Roa and Hassan (2011) revealed that remittances had either a negative impact on economic growth or no discernible effect (Ambrosius, Campos-Vázquez, & Esquivel, 2023). This assertion is corroborated by the research conducted by Ruiz et al. (2009), wherein inconsistent findings were unearthed during the examination of the correlation between growth rates and remittance. This was achieved by adopting a non-linear perspective, as opposed to a linear one, in assessing the relationship between remittance and growth. Furthermore, a positive and significant correlation was established between remittance and economic growth under the assumption that the impact of remittance on growth followed a linear pattern. Nevertheless, upon the consideration of non-linearity, the aforementioned link becomes nullified. The current literature contains various inconclusive studies that have presented evidence regarding the potential impact of remittance on economic growth (Senbeta 2013; Cazachevici, et al., 2020; Ambrosius, et al., 2023). In the study conducted by Senbeta (2013), the focus was placed on investigating the origins of growth by means of transmission mechanisms, as opposed to analysing the impact of remittance on growth. In the study conducted by Senbeta (2013), it was observed that remittance, despite its beneficial impact on capital accumulation, was accompanied by inefficient investments that ultimately resulted in a reduction in total factor productivity. Consequently, the veritable impact of remittance on economic development remained uncertain. These arguments have been further supported from the study conducted by Anwar, Mang, & Plaza, (2024), who argued that remittances increase inequality in the South Asian region. In this regard, Adams and Page (2005) outlined the positive and negative effects of remittances that have been outlined below:

On the contrary, a significant and robust correlation was discovered between economic growth and remittance. In the aforementioned study, Mundaca (2005) examined the advantageous impact of remittance on the economic growth of the recipient nation. The author posited that the development of financial markets could potentially enhance the enduring contribution of remittance to economic growth. This assertion is further substantiated by the study conducted by Dahal (2014), wherein a positive correlation was discovered between remittance and the accumulation of human capital as well as the development of financial institutions. Furthermore, it was discovered by Williams (2018) that remittance exerted a deleterious impact on the proliferation of democratic institutions characterised by substandard quality. However, as the democratic system underwent enhancements and achieved greater transparency, the aforementioned effect transitioned into a positive one. As per Williams (2018), when a nation's democracy is fortified, families that stand to gain from such advancements exhibit a greater propensity to allocate their resources towards the development of small enterprises and the cultivation of human capital. This, in turn, facilitates an augmentation of the growth rate within the economy. Moreover, a study conducted by Feeny et al. (2014) revealed that remittance had minimal influence on the development or transformation of the economies of industrialised nations.

Lartey (2013, p. 1038) underscored the significance of global remittance, asserting that it "constituted nearly one-third of the total cash inflows to impoverished nations." Consequently, a multitude of studies scrutinised the ramifications and influence of remittances dispatched by labourers on the economic advancement of their respective nations, primarily through capital accumulation and other associated 48 mechanisms. Furthermore, it was discovered by certain scholars that an elevated level of remittance was correlated with a reduction in poverty and a surge in growth rates (Adams and Page, 2005; Acosta et al., 2008). In their study, Gupta, Patillo, and Wagh (2009) posited that the presence of significant remittance inflows engendered the advancement of human capital investment, concurrently mitigating consumer volatility and fostering economic stability. Nevertheless, it was contended by other scholarly investigations that the augmentation of remittance could potentially contribute to the establishment of nascent financial systems in developing countries. This would be achieved through the mitigation of credit limitations, thereby facilitating a favourable enhancement of capital accumulation and subsequent economic growth (Lartey, 2013; Woodruff & Zenteno, 2007). In contrast, previous studies have posited that augmented inflows of remittances could potentially have adverse effects on recipient nations in the long run, as they have the potential to diminish the labour pool of the households receiving such remittances (Amuedo Dorantes & Pozo, 2006b; Hanson, 2005). The aforementioned argument could be substantiated by invoking the Dutch disease apprehension previously addressed in the present investigation. It is worth noting, however, that a limited number of studies have explored the direct correlation between remittance and economic development. Furthermore, it must be noted that these studies have yielded inconclusive results regarding the influence of remittance on a nation's economic development and performance.

A comprehensive examination of the recent research pertaining to the correlation between economic growth and remittance reveals that the precise influence of remittance on the economic growth of nations remains uncertain, thereby leading to inconclusive findings. Nevertheless, a segment of the scholarly inquiry pertaining to the influence of remittance on economic growth has furnished corroborative findings and contended for a favourable correlation between remittance and economic growth. However, there are no previous studies that support the moderating effect of financial development that creates a significant gap in the current literature. Therefore, the study has been conducted to fill this gap by incorporating financial development as a moderator in the relationship between remittances and economic growth.

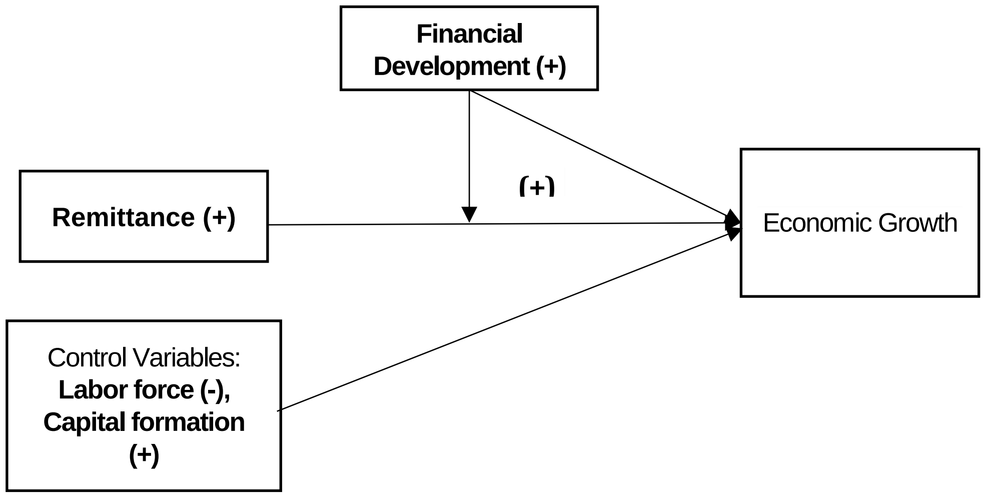

Figure 2: Research Framework

The research framework, as depicted in Figure 2, illustrated the relationship between financial development, remittance, and economic growth. Based on the conducted study, it was postulated that the remittance provided by migrants could potentially contribute to the enhancement of economic development within the recipient economy. According to Avsar, and Chin et al., (2020), as well as McKenzie and Rapoport et al., (2010), it has been observed that remittance had a direct positive impact on the beneficiaries and also had an indirect positive effect on others. Indirectly, the alteration of supply occurred as remittances alleviated the fiscal limitations of receivers and enhanced their consumption expenditures. The aforementioned phenomenon exhibited a positive multiplier effect on the economy.

Furthermore, remittance resulted in an augmentation of both human and physical investment. The availability of cash for investment was ensured by the increased savings from remittance inflows, thereby leading to the expansion of the financial sector and consequently exerting a direct impact on economic growth (Aggarwal, Demirgüç-Kunt, & Pera, 2011; Chiodi, Jaimovich, & Montes-Rojas, 2012).

DATA AND METHODS

Data

The practical study for the Objective was centred on examining the impact of remittance on the economic growth of Bangladesh. The time series data spanning from 1979 to 2024 were retrieved from the World Bank's World Development Indicator (WDI) database. Table 2 encompassed elucidations pertaining to the variables.

Table 2: List of Variables

Variable	Proxy	Data Source
Panel A: Dependent Variable		
Economic growth	Gross domestic product (in million US$)	WDI
Panel B: Explanatory Variables		
Remittance inflows	The remittance as a GDP percentage	WDI

Labour	Labour force participation is proxy by population 15–64 years of age	WDI
Capital formation	Gross fixed capital formation in US$.	WDI
Financial Development	Domestic credit in the private sector as a GDP percentage	WDI

Methods

We transform GDP, REMIT, GFC, LF, and TFP by taking natural logs. The ARDL bounds testing approach to cointegration underpins our analysis. The results of primary interest will be those that allow us to disentangle the short-run and long-run statistical associations between remittances and GDP. We choose the ARDL approach over the other cointegration techniques because it has several attractive features. First, it requires a simple single equation set-up that generally leads to fewer losses of degrees of freedom. In addition, there are fewer parameters to estimate when compared to other approaches that, for example, use vector auto regression model specifications.

$$\Delta y_t = \beta D_t + (\rho - 1) y_{t-1} + \sum_j^p \psi_j \Delta y_{t-j} + \epsilon_t$$

With the ARDL approach, it is also possible to examine the dynamics of time series variables that may be stationary at different orders of integration as long as the order of each variable is less than two (Pesaran, Shin, & Smith,2001). For determining the existence of long-run relationships with small sample sizes, the ARDL has a greater efficacy when compared to the Johansen cointegration technique (Ghatak & Siddiki, 2001). Further, other cointegration approaches generally require symmetry in the data generating process. In other words, the optimal lag length selected within the testing framework must be the same across all variables. The ARDL approach does not impose this restriction. Further, Odhiambo (2009) notes that the ARDL approach will still be valid even if some of the variables are endogenous.

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \cdots + \beta_p Y_{t-p} + \delta_1 X_t + \delta_1 X_{t-2} + \cdots + \delta_q X_{t-q} + \varepsilon_t$$

In compact form: ARDL (p,q): $Y_t = \beta_0 + \sum_{i=1}^{p} \beta_i Y_{t-i} + \sum_{i=0}^{q} \delta_i X_{t-i} + \varepsilon_t$

$$\Delta \ln(EG) = \alpha + \beta_1 \ln(LF) + \beta_2 \ln(GFC) + \beta_3 \ln(REM) + \beta_4 \ln(FD) + \beta_5 \ln(REM*FD) + \varepsilon$$

In this equation: Δln (EG) represents the first-difference of the natural logarithm of the dependent variable (e.g., Economic growth rate), ln (LF) represents the natural logarithm of the Labor force variable, ln (GFC) represents the natural logarithm of the gross fixed capital formation variable, ln (REM) represents the natural logarithm of the remittance's variable, ln (FD) represents the natural logarithm of the financial development variable, ln (REM*FD) represents the natural logarithm of the interaction term variable, α is the intercept term.

To start our analysis, we test for unit roots to verify that our variables are integrated of order at most one, a necessary requirement for the ARDL technique. As we are examining macroeconomic variables over 46 years, there could also be structural breaks in the time path of the variables. To account for this possibility, we conduct the augmented dickey fuller (ADF)unit root testing with the possibility of structural breaks. After establishing orders of integration with unit root testing, the remainder of the empirical approach is undertaken in three steps. First, we assess if a long-run relationship exists among the variables using the ADRL -approach. To do this, we formulate an unrestricted error correction model with an appropriate lag length determined by Akaike Information Criteria (AIC). The determination of the existence of a long-run relationship is made on the basis of lower and upper bound critical values that are provided by Pesaran et al. (2001). The lower bounds impose the restriction that all variables are I (0) and the upper bound impose the restriction that all variables are I (1). The null hypothesis of no cointegration is rejected if the calculated F-statistic is higher than the upper bound value. Alternatively, if the F-statistic value is less than the lower bound value then we fail to reject the null hypothesis that there is no long-run relationship among the variables. If the F-statistic is between the lower and upper bound critical values, we conclude that the test is inconclusive.

Second, if the results from the first step indicate that there is a long-run relationship, we then estimate the long-run and short-run models. These results will shed light on the short-run and long-run dynamics between GDP and remittances. A key requirement for the sensibility of a long-run equilibrium relationship is that the sign of the error correction term is negative, statistically significant at conventional levels, and less than one in absolute terms. Third, using a series of diagnostic tests, we check for normality (Jarque-Berra), serial correlation (Breusch–Godfrey), heteroskedasticity (Breusch–Pagan-Godfrey), and misspecification (Ramsey's RESET, regression error specification tests). We also check whether the models are dynamically stable overtime by reporting two structural stability tests, namely the cumulative sum of recursive residual (CUSUM) and the cumulative sum of squares of recursive residuals (CUSUM of squares). The latter two tests are important as they assess whether the parameters and their variances are stable over the sample period and, thus, whether meaningful inference can be drawn from the ARDL results on the relationship between GDP and remittances.

RESULTS AND DISCUSSION

Unit Root and ARDL Bounds Testing

In order to investigate the time series characteristics of the data, both the Phillips–Perron and Augmented Dickey-Fuller tests were carried out. The findings are displayed in Table 3, as presented below. Based on the findings, it was determined that none of the variables exhibited stationarity in relation to the level. However, they did demonstrate stationarity when considering the first difference.

Table 3: Unit Root Test for Stationarity

Variables	Phillips–Perron test				Augmented Dickey-Fuller Test				Remark
	At level		At first difference		At level		At first difference		
	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.	
EG	-0.64	0.43	-15.73	0.00	-0.93	0.77	-4.78	0.00	I(1)
REM	-1.61	0.47	-4.80	0.00	-1.50	0.53	-4.77	0.00	I(1)
FD	-1.07	0.72	-6.97	0.00	-1.06	0.72	-6.69	0.00	I(1)
LF	0.13	0.96	-6.21	0.00	0.18	0.97	-6.94	0.00	I(1)
CF	-1.33	0.61	-4.72	0.00	0.73	0.77	-6.97	0.00	I(1)
REMxFD	0.14	-0.69	-4.91	0.00	0.14	0.69	-4.71	0.00	I(1)

Note: EG: Economic Growth, REM: Remittances, FD: Financial Development, LF: Labor forces, CF: Capital formation.

Table 4: Co-Integration Relationship's Bounds Test Results

Calculated F-value: 14.18		
Significance level	Critical bounds	
	Lower bounds	Upper bounds
10%	2.26	3.35
5%	2.62	3.79
1%	3.41	4.68

The results of the bounds test with two lags are presented in Table 4. The co-integration bounds test has provided evidence that the variables did, indeed, possess a long-term relationship with each other. The F-test statistic computed in the study exceeded the upper bound of the critical value as determined by Pesaran et al. (2001) at the specified level of significance. Based on the aforementioned findings, it was ascertained that the assumption negating the presence of co-integration among the variables in the model could be refuted. The outcomes that had successfully passed the diagnostic tests for the long-term model were enumerated in the panel located at the bottom section of Table 5.

Table 5: ARDL Model's Estimated Long-Term Coefficients. Dependent Variable: EG

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
REM	-0.51	0.29	-1.78	0.08
FD	-0.06	0.07	-0.87	0.39
CF	0.22	0.11	2.06	0.05
LF	-0.16	0.24	-0.67	0.51
REMXFD	0.01	0.01	1.92	0.06
Diagnostic test				
Jarque–Bera normality test			0.5872	0.7456
Breusch–Godfrey serial correlation test			0.7389	0.6872
Heteroskedasticity Test: Harvey			0.2451	0.2321

Note: The selected model is ARDL (1, 0, 0, 0, 0, 0)

In conjunction with the Financial Development (FD), Labour Force (LF), and Capital Formation (CF) in Bangladesh, Table 5 provides an estimation of the long-term correlations between Economic growth (EG) and the inflow of workers' remittances (REM). Upon extensive analysis, it was determined that the REM coefficients exhibited both significance and negativity in the long run. There could be many reasons for the negative relationship between EG and REMs in the long rurn, however, this finding has been similarly to the previous studies conducted by Chami, Fullenkamp, and Jahjah (2005), Le (2009), Singh et al. (2010), Raimi and Ogunjirin (2012), and Nwosa and Akinbobola (2016). The justification on the negative impact of the remittances on the economic growth in long run could be due to a number of factors, for example, dutch disease could be one of the reasons. It is because many Bangladeshi employees failed to expeditiously remit their earnings to their home country that creates unforeseen negative impact in the long term. Furthermore, the lack of influence of workers' remittances on EG in the short-run findings is apparent that could also be the reason for the negative relationship between EG and REMs in the long run. However, given the positive and significant nature of the capital formation coefficient, it can be inferred that an increase in capital has played a pivotal role in fostering the overall economic growth of the nation. The aforementioned discovery received support from Sutradhar (2020) as well as Xia, Qamruzzaman, and Adow (2022).

Based on the positive and statistically significant interaction term, it was determined that remittances had a beneficial impact on economic growth in cases where financial development was substantial. This observation has demonstrated that remittances alone were insufficient in stimulating economic growth in Bangladesh despite its status as a significant recipient nation relative to its size. The observation, in particular, ascertained that such was indeed the circumstance. Due to the inadequate level of financial inclusion in Bangladesh, the prevalent means of money transfer employed by Bangladeshi individuals was the traditional wire transfer facilitated by money transfer operators, a method that frequently incurred high costs. The nascent stage of financial technology, which facilitates the facilitation of money transfers in a more accessible, convenient, and economical manner, is characterised by a restricted range of available goods and services. Nevertheless, the utilisation of electronic and digital payment methods experienced growth as a result of the ongoing modernization of payment system infrastructure, heightened consciousness, and the substantial rate of mobile phone penetration. The potential for remittances to stimulate economic growth arises in the presence of heightened financial development.

Table 6 : ARDL's Short-Run ECM Results. Dependent Variable: EG

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (EG (-1))	-0.26	0.13	-1.96	0.06
D (CF (-1))	0.27	0.26	1.03	0.31
D (FD (-1))	0.16	0.18	0.89	0.38
D (LF (-1))	0.34	0.50	0.68	0.50
D (REM (-1))	0.70	0.71	0.98	0.33
D (REMXFD (-1))	-0.02	0.02	-0.76	0.45
ECM (-1)	-1.05	0.22	-4.80	0.00

The Error Correction Model of EG was thoroughly discussed in detail in Table 6. The statistical significance of the lagged error correction terms in all equations was observed at the 1% level, indicating their importance in the analysis. Furthermore, the obtained results were deemed satisfactory in terms of their adequacy. The presence of the predicted negative sign served as evidence indicating a co-integrating relationship between the dependent variable and the independent variable.

Suppose that the coefficient of the lagged error correction term fell within the range of -1 to -2. The fluctuations were suppressed in the equilibrium route due to the presence of the lagged error correction term. The lagged error correction term in the short-run model was observed to possess a coefficient of -1.05, signifying that the process of error correction exhibited fluctuations around the long-run value in a manner that mitigated its direct convergence towards the equilibrium trajectory. In alternative terms, the process of error correction was mitigated. Nevertheless, subsequent to the culmination of this process, the rapid progression towards convergence onto the equilibrium trajectory was observed (Narayan and Smyth, 2006; Babazadeh & Farrokhnejad, 2012). Henceforth, it was observed that an error correction coefficient of -1.05 denoted the rectification of 105% of the short- and long-run error over a given duration. In other words, the entirety of the error from the preceding period, along with an additional 5% of the new error, was amended through an opposing adjustment, commonly referred to as the Explosive Equilibrium. It indicates that a coefficient greater than 1 suggests that the system is over-adjusting to the disequilibrium. This means the variable not only corrects the deviation but overshoots the equilibrium, possibly leading to oscillations around the equilibrium point rather than converging smoothly. It was posited that the process of adjusting the real exchange rate from the short-run to the long-run exhibited a general tendency towards instability, characterised by rapid and overshooting movements in both the short-run and long-run equilibria.

The conclusion that can be derived from the data presented in Table 6 is that the remittances sent by expatriate workers to their home country in the previous year had a minimal immediate impact on the gross domestic product (GDP) of the nation. The unforeseen insignificance impact in the short term can be elucidated by the observation that a significant proportion of Bangladeshi workers refrained from expeditiously remitting their earnings to their respective households subsequent to their accrual.

However, the presence of a feeble financial sector, distinguished by exorbitant transaction expenses and limited availability of financial products, hindered migrants from transmitting funds to their families through banking institutions. Consequently, for the purpose of augmenting remittances, it was imperative for the government to undertake measures aimed at bolstering our institutions, thereby mitigating the impact of foreign sanctions to the greatest extent feasible. The utilisation of online banking for the purpose of cash transfer constituted an additional factor that impeded the growth in the number of remittances received within the nation. However, according to the findings, this study proposes that policymakers should implement reforms in the financial sector to address the structural challenges within the country and reduce the expenses associated with remittance transactions. This would have incentivized migrants to utilise the financial channel for their money transfers.

Based on the findings of the diagnostic tests, it was observed that the residuals adhered to a normal distribution, and no indications of serial correlation were detected in the model. This observation furnished additional evidence that instilled trust in the veracity of the outcome. The CUSUM and CUSUMSQ test statistics, as depicted in Figures 3 and 4, fulfilled the essential constraints imposed by the 5% significance level. Based on the provided statistical data, it is observed that nearly all projected coefficients maintained a consistent state throughout the duration of the estimation period.

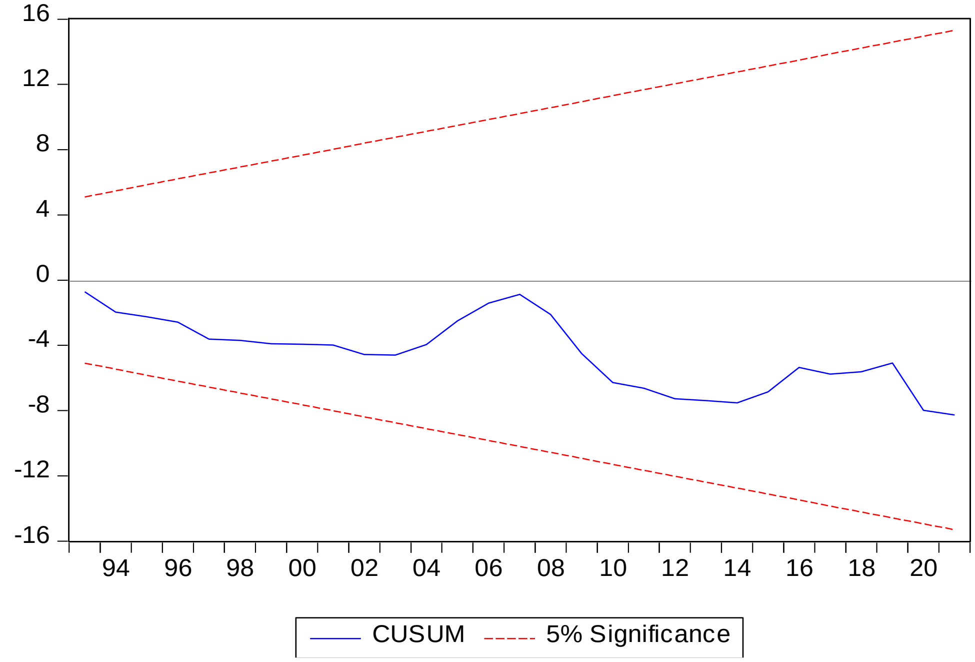

Figure 3: CUSUM Test

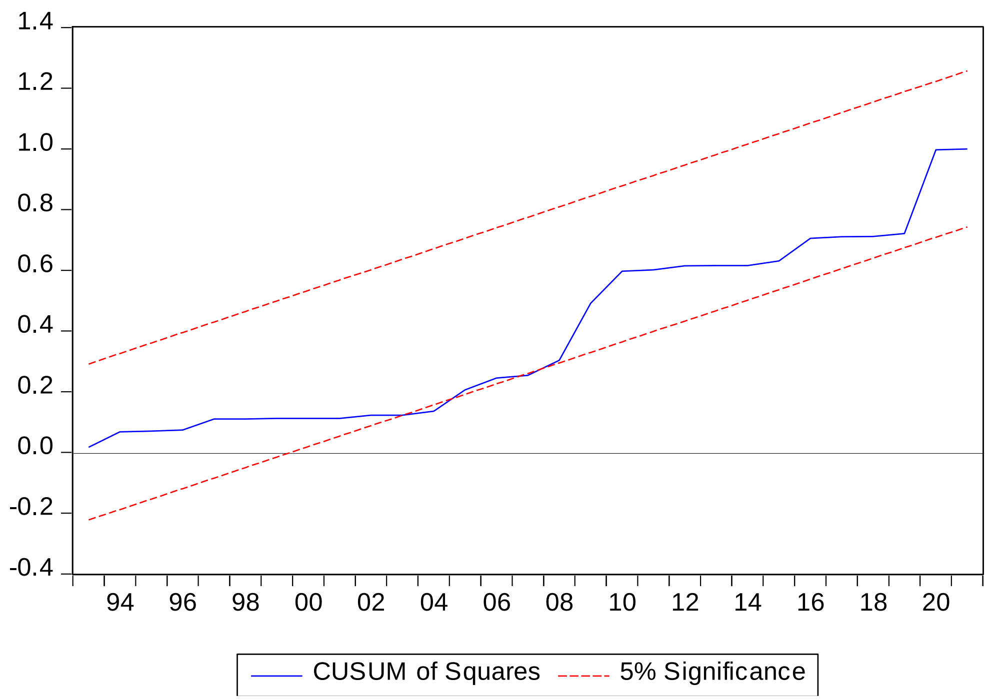

Figure 4: CUSUMSQ Test

CONCLUSION

The study's findings suggested that remittances, which were transmitted by migrant workers, exerted a noteworthy and unfavourable impact on the pace of economic growth in Bangladesh, the recipient country of said remittances. Several reasons can be attributed to the enduring negative correlation observed between remittances and GDP over time. First and foremost, it is noteworthy to mention that the potential ramifications of skilled labour outflows on the gross domestic product (GDP) of smaller nations, such as Bangladesh, have been extensively explored in scholarly literature. Several notable studies have shed light on this matter. Their collective findings indicate that the departure of skilled workers may have adverse implications for the GDP of these countries. Secondly, it is noteworthy that the considerable majority of individuals hailing from Bangladesh who embarked on a journey away from their homeland were not derived from the most disadvantaged socioeconomic strata, nor were they characterised by a lack of proficiency in their respective fields of labour. Indeed, it must be acknowledged that those individuals were, in actuality, among the most gifted and astute individuals across the globe. Their areas of expertise encompassed vital domains such as healthcare and education. The individuals in question would frequently depart from their homeland, driven by both their financial means and their desire to enhance their economic circumstances further.

Discussions and Policy Implications

The initial observation made by the study indicated that remittances exerted a substantial and adverse impact on the economic growth of Bangladesh. However, it was determined that the impact was indeed favourable in the context of enhanced financial development. Due to the exorbitant expenses associated with transmitting funds to their country of origin through established channels, remittances have had an adverse impact on the economic progress of Bangladesh. This phenomenon can be attributed to its discouraging effect on Bangladeshi labourers in promptly remitting their earnings to their country of origin. Therefore, it was imperative that the policy focused on reducing the expenses associated with remittances and promoting the adherence of migrants to lawful channels for sending such remittances. Furthermore, it is imperative that the government place significant emphasis on the expansion of the financial system. The proliferation of mobile banking systems has resulted in a surge in remittances in several developing nations, including India (Islam, 2018). Bangladesh could indeed have employed such approaches to facilitate the circulation of cash with the assistance of the latest mobile technology.

The formal transmission of remittance money in Bangladesh was impeded by several factors, with the foremost being a dearth of information regarding the procedural intricacies entailed in the overseas money transfer process. Additionally, the rural regions of Bangladesh suffered from an inadequate banking infrastructure, while the banking hours were protracted, and the bank fees were relatively exorbitant. The utilisation of unlicensed remittance companies such as Hundi by Bangladeshi migrants was a prevalent practise. The responsibility of controlling and monitoring all remittance transactions in Bangladesh lies with the Bangladesh Bank (BB), which serves as the nation's central bank. In light of its capacity to mitigate the perils associated with money laundering and other illicit financial activities, it is imperative that the BB undertake measures to actively foster diverse incentives aimed at promoting the formal transmission of remittances. The aforementioned measure would have fostered a state of equilibrium in terms of the government's payment and credit ratings.

Limitations and Recommendations for Future Research

In the estimation process for the study employed a population ranging in age from 15 to 64 years old as a control variable to represent labour force participation.

Remittances, regarded as private profits, did not contribute to the development of individuals or sustainable economic growth over the long term. In order for remittances to exert a lasting influence on economic growth, it is imperative that sound national economic policies and development initiatives be implemented by relevant institutions. Hein de Haas (2007) posited that in the absence of political transformations, a nation is unable to achieve enduring development. Therefore, a notable increase in social protection, an enlargement of investment opportunities, and the establishment of political confidence emerged as indispensable factors. The development impact of remittances was influenced by the capacity and desire of families to invest, the resources that were accessible to them, and the socioeconomic position of households. The recognition of the significance of this in terms of the country's overall progress had to be undertaken by the government of Bangladesh. In developing countries, it was observed that households did not invariably engage in investment endeavours that facilitated economic advancement.

Consequently, the undertaking of regulating the productive investment of remittance inflows necessitated meticulous research, alongside the formulation of exemplary action plans and strategies. It was deemed imperative to undertake additional research in order to optimise the potential benefits that could be derived from allocating these transfer incomes towards the advancement of a nation's economic growth. Consequently, a compelling necessity arose for conducting extensive research on the ramifications of alterations in household expenditures induced by remittances on the overall economy of Bangladesh.

While it is true that remittance inflows have been associated with positive impacts on economic growth, it is important to acknowledge that they can also give rise to negative feedback effects that impede economic performance in the countries receiving them. Based on the research findings, it has been determined that one of the adverse consequences observed is a decline in export competitiveness resulting from an appreciation in the real exchange rate. It is projected that additional development challenges, namely brain drain and the impact of moral hazard on recipients of remittances, would have been heightened due to the inflow of remittances. The aforementioned phenomenon is brought about by the emigration of individuals possessing exceptional qualifications, whereas the latter is manifested by means of the wealth effect, which diminishes the motivations of recipients of remittances to augment the labour force. Future research endeavours could have been undertaken to investigate the impact that remittances had on the brain drain and labour supply in nations that were recipients of remittances. The inquiry regarding the potential detriments to economic growth and welfare in these economies resulting from macroeconomic adjustments subsequent to the arrival of remittances is a matter of utmost significance. Another crucial consideration was the identification of policy combinations that were deemed worthwhile to pursue in order to address these issues. The aforementioned items were set aside for the purpose of subsequent investigation.

The matter concerning the inter-relationship between remittances, alterations in spending behaviour, and economic growth were of a highly intricate nature, entwined with a diverse array of social, economic, political, and institutional facets. In order to conduct a comprehensive investigation into the ramifications of remittances, it was imperative to collect meticulous information from both the sender and the receiver.

This study didn’t analyse the seasonable effect analysis. Specially it is important analyse the seasonable effect of remittances that are sent in different seasons for example, on Ramadan, Eid and other festivals. How remittances sent during the seasons and festivals could be an effective vein for future studies. Moreover, Bangladesh, is a Muslim majority country where remittance levels fluctuation during throughout Eid occasions could bring difference in the various outcomes. Hence, future researchers are recommended to conduct studies in this area of research. Moreover, future studies can include technology as a moderator in their study that could be advantageous and introduce novelty in the methodology by introducing innovation into body of literature.

Competing Interests and Funding

Authors disclose that there are no financial or non-financial interests that are directly or indirectly related to the work submitted for publication in this journal and this research did not receive any funds.

References

Abduvaliev, M., & Bustillo, R. (2020). Impact of remittances on economic growth and poverty reduction amongst CIS countries. Post-Communist Economies, 32(4), 525-546.

Abida, Z., & Sghaier, I. M. (2014). Remittances, Financial Development and Economic Growth: The Case of North African Countries. Romanian Economic Journal, 17(51), 137-170.

Adeniyi, O., Ajide, K., & Raheem, I.D. (2019). Remittances and output growth volatility in developing countries: Does financial development dampen or magnify the effects? Empirical Economics, 56(3), 865-882. https://doi.org/10.1007/s00181-017-1375-6

Adeseye, A. (2021). The effect of migrants' remittance on economy growth in Nigeria: An empirical study. Open Journal of Political Science, 11(01), 99-112.

Washington. Aggarwal, R., & Peria, M. S. M. (2006). Do workers' remittances promote financial development? (Vol. 3957). World Bank Publications.

Anarfo, E. B., Amewu, G., & Dzeha, G. C. (2020). Financial inclusion and migrant remittances in sub-saharan Africa: A panel VAR approach. International Journal of Social Economics, 47(7), 809-829. https://doi.org/10.1108/IJSE 10-2019-0612

Anjum, S., Farooq, F., Chaudhry, I. S., Ali, S., Ahmed, W., & Waqas, H. (2022). Analyzing The Effect of Foreign Capital Movements on Human Development in Developing Countries: A System GMM Approach. International Journal of Management Research and Emerging Sciences, 12(2). 187

Anwar, A., Mang, C. F., & Plaza, S. (2024). Remittances and inequality: A meta-analytic investigation. The World Economy. 48(1), 1-42.

Ashwani Saith (1989) "Macro-Economic Issues in International Labour Migration: A Review." Working Paper Series No. 48, Pages: 1-44

Ara, A. (2021) Over 0.1m went abroad with jobs in eight months. https://thefinancialexpress.com.bd/trade/over-01m-went-abroad-with-jobs-in eight-months-1617433792.

Asafo A., S. (2021). The dynamics of remittances impact: a mixed-method approach to understand Ghana's situation and the way forward. Social Sciences, 10(11), 410-424.

Azizi, S. (2020). Impacts of remittances on financial development. Journal of Economic Studies (Bradford), 47(3), 467-477. https://doi.org/10.1108/JES 01-2019-0045

Azizi, S. (2021). The impacts of workers' remittances on poverty and inequality in developing countries. Empirical Economics, 60(2), 969-991.

Bandura, W. N., Zivanomoyo, J., & Tsaurai, K. (2019). "Remittances, financial development and economic growth: A case of southern African development community, Acta Universitatis Danubius. OEconomica, 15(4), 67-82

Basnet, H. C., Donou-Adonsou, F., & Upadhyaya, K. (2019). "Workers' Remittances and the dutch disease: Evidence from south Asian countries. International Economic Journal,33(4), https://doi.org/10.1080/10168737.2019.1666291 662-678.

Basumatary, R. (2020). Are migrant sending households better off? evidence from a flood Prone District in North-Eastern India. Asian Man (The)-An International Journal, 14(1), 77-86. 188

Bettin, G., & Zazzaro, A. (2012). Remittances and financial development: substitutes or complements in economic growth? Bulletin of Economic Research, 64(4), 509-536.

Cazachevici, A., Havranek, T., & Horvath, R. (2020). Remittances and economic growth: A meta-analysis. World Development, 134, 105021.

Chowdhury, E. K., Dhar, B. K., & Gazi, M. A. I. (2023). Impact of remittance on economic progress: evidence from low-income Asian Frontier countries. Journal of the Knowledge Economy, 14(1), 382-407.

Chowdhury, M. B. (2011). Remittances flow and financial development in Bangladesh. Economic Modelling, 28(6), 2600-2608.

Clemens, M. A., & McKenzie, D. (2018). Why don't remittances appear to affect growth? The Economic Journal, 128(612), F179-F209.

Das, A., & Sethi, N. (2020). Effect of foreign direct investment, remittances, and foreign aid on economic growth: Evidence from two emerging South Asian economies. Journal of Public Affairs, 20(3), e2043.

Djajić, S. (1986). International migration, remittances and welfare in a dependent economy. Journal of Development Economics, 21(2), 229-234.

Donou-Adonsou, F., & Sylwester, K. (2016). Financial development and poverty reduction in developing countries: New evidence from banks and microfinance institutions. Review of development finance, 6(1), 82-90.

Drinkwater, S., Levine, P., & Lotti, E. (2006). Labor market and investment effects of remittances (No. 1906). School of Economics, University of Surrey.

Dutta, U. P., & Saikia, B. (2024). Remittances and economic growth: empirical analysis from a panel of selected Asian Nations. Millennial Asia, 15(1), 5-23.

Faini. R. (2007). "Remittances and the brain drain: do more skilled internationals remit more?" The World Bank Economic Review, 21 (2): 177-191. https://doi.org/10.1093/wber/lhm006

Feeny, S., Iamsiraroj, S., & McGillivray, M. (2014). Remittances and economic growth: larger impacts in smaller countries? The journal of Development Studies, 50(8), 1055-1066.

Fisera, B., & Workie Tiruneh, M. (2023). Beyond Balassa-samuelson effect: Do remittances trigger the dutch disease? Eastern European Economics, 61(1), 23-65. https://doi.org/10.1080/00128775.2022.2102038

Financial Express, (2021) Minister Kamal bins CPD suggestion for checking income source of remitters. https://thefinancialexpress.com.bd/economy/minister kamal-bins-cpd-suggestion-for-checking-income-source-of-remiters 1628133401

Fraj, S. H., Hamdaoui, M., & Maktouf, S. (2018). Governance and economic growth: The role of the exchange rate regime. International economics, 156, 326-364.

Gaaliche, M. A. K. R. A. M., & Gaaliche, M. Z. (2014). The causal relationship between remittances and poverty reduction in developing country: using a non-stationary dynamic panel data. Atlantic Review of Economics: Revista Atlántica de Economía, 1(1), 1.

Gammage, S. (2006). Exporting people and recruiting remittances: A development strategy for El Salvador? Latin American Perspectives, 33(6), 75-100.

G. Bettin, A. F. Presbitero, N. Spatafora (2014) "Remittances and Vulnerability in developing countries" The World Bank Economic Review 31 (1):1-23, DOI: 10.1093/Weber/lhv053

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. Journal of development economics, 90(1), 144-152.

Golder, U., Rumaly, N., Hossain, M. K., & Nigar, M. (2023). Financial progress, inward remittances, and economic growth in Bangladesh: Is the nexus asymmetric? Heliyon, 9(3). 191

Grigorescu, D. L. (2024). Financial effect of remittances. Theoretical & Applied Economics, 31(1). 115-125.

Guha, P. (2013). Macroeconomic effects of international remittances: The case of developing economies. Economic Modelling, 33, 292-305.

Guinigundo, D. C (2007). "Leveraging Remittances for Development and Poverty Alleviation". International Forum on Remittances, Washington DC.

Harris, J. R., & Todaro, M. P. (1970). Migration, unemployment and development: A two-sector analysis. The American Economic Review, 60(1), 126-142.

Hart, C. (2001). Doing a literature search: a comprehensive guide for the social sciences. Sage.

Hasan, M. (2021) Remittance inflow to Bangladesh accounted for 6.6% of GDP in 2020. https://www.dhakatribune.com/business/2021/05/18/remittance inflow-to-bangladesh-accounted-for-6-6-of-gdp-in-2020

Hassan, M. Kabir, & Sanchez, Benito & Yu, Jung-Suk, (2011). Financial development and economic growth: New evidence from panel data, The Quarterly Review of Economics Finance, Elsevier, vol. 51(1), pages: 88-104, February

Hassan, G. M., & Shakur, S. (2017). Nonlinear effects of remittances on per capita GDP growth in Bangladesh. Economies, 5(3), 25.

Hines, A. L., & Simpson, N. B. (2019). Migration, remittances and human capital investment in Kenya. Economic Notes: Review of Banking, Finance and Monetary Economics, 48(3), e12142.

Hossain, M. (2020). Macroeconomic Policy, Economic Growth and Poverty Reduction in Bangladesh: An Overview. Bangladesh's Macroeconomic Policy: Trends, Determinants and Impact, 1.

Inoue, T., & Hamori, S. (2016). Do workers' remittances promote access to finance? Evidence from Asia-Pacific developing countries. Emerging Markets Finance and Trade, 52(3), 765-774.

IOM, (2021) SNAPSHOT- BANGLADESH REMITTANCES 2019-2020. https://bangladesh.iom.int/sites/bangladesh/files/publication/Remittance_Rep ort_19May2021.pdf

Ito, K. (2019). Remittances and dutch disease: Evidence from Georgia. Post Communist Economies, https://doi.org/10.1080/14631377.2018.1537733 31(4), 500-506.

Ito, K. (2019). Remittances and dutch disease: Evidence from Panel data for 18 developing countries. International Economic Journal, 33(1), 1-8. https://doi.org/10.1080/10168737.2019.1569709

Itskhoki, O., & Mukhin, D. (2021). Exchange rate disconnect in general equilibrium. Journal of Political Economy, 129(8), 2183-2232.

J.E. Stiglitz, A. Weiss (1991, 1992) “Asymmetric Information in Credit Markets and its implications for Macro-Economics” Oxford Economic papers, Vol. 44, No. 4, Pages: 694-724

J.M. Arranz, P. Giuliano, M. Ruiz-Arranz (2005) “Remittances, Financial Development, and Growth.” Journal of Development Economics 90 (1):144 152, DOI: 10.1016/j.jdeveco.2008.10.005

Kakhkharov, J., & Rohde, N. (2020). Remittances and financial development in transition economies. Empirical Economies, https://doi.org/10.1007/s00181-019-01642-3 59(2), 731-763.

Khan, I. (2024). Analyzing the impact of positive and negative remittance inflow shocks on economic growth of India. Journal of Economic Studies, 51(2), 338-356.

Khan, M. K., Teng, J. Z., & Khan, M. I. (2019). The effect of migrant remittances on economic growth: An ARDL approach. Engineering Economics, 30(4), 434 441.

Khan, Z. S. and Islam, S. (2013). "The effects of remittances on inflation: evidence from Bangladesh." Journal of Economics and Business Research, 19(2): 198-208. Retrieved from: http://www.uav.ro/jour/index.php/jebr/article/view/94.

Lartey, E. K. (2013). Remittances, investment and growth in sub-Saharan Africa. The Journal of International Trade & Economic Development, 22(7), 1038 1058.

Lewis, W. A. (1954). Economic development with unlimited supplies of labour. The Manchester School, 22(2), 139-191.

Lordache, M., Matei, M., & Țițan, E. (2023). Global Connections: Examining the Role of Remittances in Economic development. Journal of Social and Economic Statistics, 12(2), 53-71.

Lundahl, M. (1985). International migration, remittances and real incomes: effects on the source country. The Scandinavian journal of economics, 647-657.

Masuduzzaman, M. (2014). "Workers' remittance inflow, financial development and economic growth: a study on Bangladesh." International Journal Economics and Finance, 6(8): 247-267. https://doi.org/10.5539/ijef.v6n8p247

Meyer, D., & Shera, A. (2017). The impact of remittances on economic growth: An econometric model. EconomiA, 18(2), 147-155.

Naiditch, C., & Vranceanu, R. (2009). Migrant wages, remittances and recipient labour supply in a moral hazard model. Economic Systems, 33(1), 60-82.

Nyamongo, E. M., Misati, R. N., Kipyegon, L., & Ndirangu, L. (2012). Remittances, financial development and economic growth in Africa. Journal of Economics and Business, 64(3), 240–260.

Odugbesan, J. A., Sunday, T. A., & Olowu, G. (2021). Asymmetric effect of financial development and remittance on economic growth in MINT Economies: An application of panel NARDL. Future Business Journal, 7(1), 1-9. https://doi.org/10.1186/s43093-021-00085-6

Oladipo, O. S. (2020). Migrant Workers' Remittances and Economic Growth: A Time Series Analysis. The Journal of Developing Areas, 54(4).75-88.

Orekoya, S., & Tijani, I. (2023). Do Diaspora Remittances Contribute to Human Capital Development in Nigeria? African Journal for yhe Psychological Studies of Social Issues, 26(3).

Quibria, M. G. (1997). International migration, remittances and income distribution in the source country: a synthesis. Bulletin of Economic Researchs, 49(1), 29-46.

Qutb, R. (2021), "Migrants' remittances and economic growth in Egypt: an empirical analysis from 1980 to 2017", Review of Economics and Political Science, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/REPS-10 2018-0011

Ratha, A., & Moghaddam, M. (2020). Remittances and the Dutch disease phenomenon: Evidence from the bounds error correction modelling and a panel space. Applied Economics, https://doi.org/10.1080/00036846.2019.1710452.

Shah, A., & Lerche, J. (2020). Migration and the invisible economies of care: Production, social reproduction and seasonal migrant labour in India. Transactions of the Institute of British Geographers, 45(4), 719-734.

Shapiro, A. F., & Mandelman, F. S. (2016). Remittances, entrepreneurship, and employment dynamics over the business cycle. Journal of International Economics, 103, 184-199.

Siddique, H. M. A., Majeed, M. T., & Shaheen, A. (2016). Impact of Remittances and Education on Economic Growth and Poverty: Evidence from Pakistan. International Journal of Economics and Empirical Research, 4(10), 538-551.

Stahl, Charles, and Fred Arnold (1986). Overseas Workers' Remittances in Asian Development. International Migration Review 20: 899–925.

Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. The American Economic review, 75(2), 173-178.

Stark, Q. (1980). On the role of urban-to-rural remittances in rural development.

Straubhaar, Thomas and Vadean, Florin (2006) "International Migrant Remittances and Their role in Development.'' International Migration Outlook, OECD Publishing, Paris; Pages: 139-161. ISBN: 978-92-64-03628-4

Sutradhar, S. R. (2020). The impact of remittances on economic growth in Bangladesh, India, Pakistan and Sri Lanka. International Journal of Economic Policy Studies, 14(1), 275-295.

Taylor, E. J. (1999). The new economics of labour migration and the role of remittances in the migration process. International migration, 37(1), 63-88.

TBS Report, (2024) Bangladesh remittance inflow maintains positive trend, grows 17.06%. https://www.tbsnews.net/economy/bangladeshi-expats-send-home 199-billion-december-768178.

World Bank, (2023) Remittance Flows Continue to Grow in 2023 Albeit at Slower Pace. https://www.worldbank.org/en/news/press release/2023/12/18/remittance-flows-grow-2023-slower-pace-migration development-brief.

World Economic Forum. (2020). Here's what you need to know about Bangladesh's rocketing economy. Geneva: World Economic Forum.

Zerihun, M. F. (2020). Remittances and Economic Growth: Evidence from Ethiopia, Kenya, and Uganda. African Human Mobility Review, 6(3).