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Relationship Between Migrants' Remittances, Economic Growth, and Poverty Reduction in Some Selected West African Countries

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Abstract

Given the dominance of remittances as the main source of foreign capital, along with enhanced economic growth in West Africa, the goal of poverty reduction which resonates with the United Nations first objective of sustainable development goal becomes poignant. The goal of this study as it were is to assess the relationship between migrants' remittances and economic growth and poverty reduction in selected West African countries: Nigeria, Ghana and Senegal. The study which secondary data sources covered annual data for the periods 1990 to 2022, using a panel autoregressive distributed lag (PARDL) co-integration test technique. The co-integration relationship shows poverty gap index, remittances, economic growth, inflation rate, unemployment and foreign direct investment were co-integrated. The empirical findings revealed that migrants' remittances and economic growth have significant negative effect on poverty in the long-run, consistent with a priori expectation while inflation revealed an insignificant positive effect on poverty in West Africa in the long-run. The PMG's speed of adjustment parameter (ECT) is rightly signed and statistically significant at 10% level, reinforcing co-integrating relationship. That is 31% disequilibrium in the short-run is corrected annually in the long-run. The study therefore concluded that remittances and economic growth have decelerating-effects on the level of poverty in West Africa in the long-run. The study recommended, among others that (a) Governments need to substantially strengthen and synergize remittances and economic growth as poverty alleviating factors in West Africa; that remittance recipients need sensitization on the need to channel such funds into productive ventures and policies mandating them to do so should be enacted and implemented. Finally, that economic growth in the selected West African countries should be inclusive.

Background to the Study

Migration in West Africa reflects a complex interplay of historical, economic, and socio-political factors, resulting in patterns that are both internal and cross-border. This region has experienced notably high levels of migration, often described as a quintessential aspect of regional integration, where individuals and families relocate in search of better employment opportunities and living conditions. Migration serves not only as a strategy for economic survival but also fosters social networks that sustain remittance flows back to home countries, contributing significantly to local economies. As observed in broader African migration dynamics, poverty is frequently thought to be the primary driver compelling individuals to migrate, yet it is crucial to recognize that migration can also provide a pathway out of poverty and enhance household resilience. Furthermore, emerging evidence illustrates that temporary and circular migrations are predominant, particularly as migrants maintain strong ties to their home communities through remittances, thereby reinforcing interregional connections and development prospects (Ammassari et al., 2006). Understanding these patterns is essential for formulating policies that effectively harness migration as a vehicle for inclusive growth and development in West Africa, and for recognizing the rights and protections needed for migrant populations in the context of their often-precarious circumstances (Crush et al., 2017).

The migration phenomenon is primarily driven by the exchange of remittances, which refers to the monetary, material, and intellectual transfers made by migrants residing overseas to support their families and communities in their countries of origin. Remittances play a crucial role in sustaining several households in the region by offering financial stability, facilitating access to education and healthcare, and occasionally serving as the necessary funds for initiating small-scale entrepreneurial endeavors. Nevertheless, the ramifications of remittances transcend beyond their direct beneficiaries, as they possess the capacity to foster economic expansion and aid in the alleviation of poverty on a broader scale within a nation. The World Bank (2022) reported that migrant remittance serves as a crucial means of household income for countries categorized as low- and middle-income. Interventions aimed at mitigating poverty have been found to have positive effects on various aspects, including enhancing nutritional outcomes, promoting greater birth weight, and increasing school enrollment rates among children residing in economically disadvantaged households. The report highlighted that remittances have a pivotal role in enhancing the resilience of recipient households.

The World Bank Migration and Development Brief (2022) reported a noticeable slowdown in remittance growth, with remittances to low- and middle-income countries (LMICs) increasing by about 5% to reach $626 billion—down from a 10.2% growth in 2021. Sub-Saharan Africa, especially vulnerable to global economic shifts, saw a more modest growth in remittances at 5.2%, reaching a total of $53 billion. Factors such as inflation, rising interest rates, and currency depreciation contributed to this decline in remittance growth, particularly affecting countries with high remittance dependency, such as Nigeria and Kenya. The brief also anticipates a further decrease in remittance growth to

3.9% in 2023 if these adverse conditions persist, highlighting the challenges for households relying on these funds for essential needs like food, healthcare, and education (World Bank Migration and Development Brief, 2022).

According to the International Fund for Agricultural Development (IFAD, 2023), approximately 20% of individuals in Africa engage in the practice of sending or receiving overseas remittances. According to the World Bank (2020), migrant workers remitted approximately $85 billion to their relatives residing on the continent in the year 2019. Since 2009, there has been a significant increase in the volume of remittances directed towards the African continent, with an almost twofold rise seen. Presently, these remittances constitute a notable proportion, surpassing 5%, of the Gross Domestic Product (GDP) in 15 African nations. According to the World Bank's report in 2022, the Gambia exhibits the highest remittance-GDP ratio in the West African region, with a recorded value of 26.8% in 2021. Following this, Cape Verde demonstrates a ratio of 16.8% in the same year, while Guinea-Bissau reports a ratio of 12.2% in 2020. Liberia and Senegal exhibit ratios of 11.0% and 10.5% respectively, both in 2020. Togo and Ghana follow with ratios of 8.6% and 6.1% respectively, both in 2020. Lastly, Mali concludes the list with a ratio of 5.7% in 2020. However, the significance extends beyond the mere magnitude of monetary value.

Remittances serve as a means of delivering monetary resources to individuals residing in impoverished conditions. Remittances are relied upon by a significant number of individuals who are deemed vulnerable, serving as a means to fulfill their fundamental necessities. According to estimates, over 75% of remittances are utilized for the acquisition of nourishing sustenance, as well as the provision of healthcare, education, and housing-related expenditures. Significantly, almost 50% of worldwide remittances are sent to rural regions, which are home to around 75% of the global population living in poverty and experiencing food insecurity. More importantly, around half of global remittances go to rural areas, where three-quarters of the world's poor and food insecure live. Poor households, in particular those headed by women, are more likely to spend remittances to purchase essential goods and services (UNDESA, 2019).

Remittances remained a crucial lifeline for the poor and vulnerable people, helping to fulfill their growing need for livelihood assistance all over the world with 78% of all remittances going to low-and middle-income countries globally in 2019, remittances outpaced foreign aid five times over ($714 billion vs. $153 billion) (UNECA, 2020). In the year 2020, Western African nations were the recipients of a total of 27 billion USD in remittances. Nigeria, being the most significant beneficiary within the region, obtained around 64% of the aforementioned aggregate amount, which amounts to 17.2 billion. In 2019, remittances constitute more than 31% and 22% of GDP in Liberia (FPA 2019) and the Gambia respectively (Jeffang 2020).

In the same vein, economic growth is the single most important factor influencing poverty (Brian, Ward, Shanta & Alejandro, 2001). Several statistical studies have demonstrated a

robust correlation between a country's per capita income and its poverty indicators, utilizing several poverty measures including income and non-income factors (Bénabou, 1996). According to Dollar and Kraay (2000), an analysis spanning four decades and 80 nations revealed that the income of the poorest one-fifth of the population increased in tandem with the overall expansion of the economy as measured by per capita GDP. Furthermore, the research revealed that the impact of economic growth on the income of individuals living in poverty was, on average, comparable between countries with low economic growth and those with high economic growth. The relationship between poverty and economic growth has remained consistent in recent times, indicating that there has been no significant alteration. Additionally, it was observed that growth stimulated by policy measures had equally positive effects on the well-being of people living in poverty as it did on the general population (Dollar & Kraay, 2000).

Understanding the dynamics between economic growth and poverty reduction is essential for developing targeted policies that foster sustainable development. Economic growth, characterized by an increase in national production and income, often facilitates improvements in living standards. Nonetheless, the relationship is not linear, as the benefits of growth can accrue unevenly across different social groups. As highlighted in (LaRose et al., 2016), initial social inequalities can act as a crucial determinant in how effectively economic growth translates into poverty alleviation. Countries implementing redistributive policies, such as conditional cash transfers, demonstrate that proactive measures can enhance the growth-poverty nexus.

Many African countries, particularly those in West Africa have experienced a significant outflow of their populace to advanced economies worldwide, driven by the pursuit of improved employment opportunities and living standards for both emigrants and their families remaining in their countries of origin (United Nations Migration, 2020). The facilitation of this movement can be attributed to the elimination of most obstacles to the unrestricted movement of individuals, which occurred with the advent of the new millennium and the globalization of the global economy. This scenario has significant implications for the economies of developing nations. On one hand, brain drain poses a challenge as skilled individuals migrate from these countries. On the other hand, the emigration of individuals from impoverished nations to more affluent ones result in increased income for both the emigrants and their relatives in their country of origin.

The emigrants have consistently and persistently contributed significant financial resources to the economy of West African countries as a result of their economic endeavors in their newfound countries. Based on the preceding information, it can be observed that remittances have emerged as the dominant form of foreign capital inflow in this region. Additionally, they have played a crucial role in addressing the foreign exchange scarcity and mitigating the imbalance in the balance of payments experienced by these countries in the region. There is a prevailing belief that the influx of remittances to developing nations can contribute to the enhancement of individuals' income levels, thereby leading to an improvement in the overall living conditions of recipient families. This is achieved through the facilitation of both consuming and productive endeavors.

Nevertheless, if remittances induce a sense of complacency among beneficiaries toward engaging in productive endeavors, there is a potential for diminished productivity within these nations. Consequently, this could result in a decrease in economic growth and ultimately contribute to an exacerbation of poverty levels. In the field of economics, there exists a widely accepted convention that posits a causal relationship between low income and low levels of saving. This relationship, in turn, is believed to result in diminished levels of investment and productivity. Ultimately, this cyclical pattern culminates in the persistence of high levels of poverty. Despite the substantial inflow of remittances, amounting to US$33.1 billion in 2022 according to the World Bank (2023), which if properly channeled can lead to alleviate poverty to some extent and support the families of emigrants, yet poverty continues to persist as a pervasive issue in the West Africa region. The prevalence of poverty in the region is steadily increasing. According to the United Nations (2022), there was a notable increase of almost 3% in extreme poverty in West Africa during the year 2020. According to the report, there was an increase in the percentage of individuals residing below the poverty line of $1.90 per day, rising from 2.3% in 2020 to 2.9% in 2021. Hence, a preliminary examination of trend analysis revealed a moderately favorable and linear correlation between remittance and poverty in the West African region. The region has experienced significant migration flows in recent decades, driven by factors such as poverty, conflict, and economic instability. Many migrants from this region travel to other parts of Africa, Europe, and North America in search of better economic opportunities. As a result, remittances have become a vital source of external financing for many West African countries. Despite the growing importance of remittances in West Africa, there is limited understanding of their impact on economic growth and poverty reduction in the region. West African countries continue to experience slow economic growth, despite receiving significant remittances. This raises questions about the effectiveness of remittances in promoting economic growth.

Furthermore, poverty remains a significant challenge in West Africa, with many countries struggling to reduce poverty levels. The impact of remittances on poverty reduction is not well understood. This is perhaps owing to the fact that the remittance channels in West Africa are often inefficient, with high transaction costs and exchange rates that favor the sender rather than the recipient. This reduces the development impact of remittances. Though several governments in West Africa desire higher remittances to spur growth and reduce poverty, they have nonetheless been unable to developed effective policies to harness the development potential of remittances, including a lack of regulations to protect recipients, limited financial infrastructure, and insufficient investment in sectors that could benefit from remittances. It is owing to foregoing challenges encountered that this study aims to contribute to the existing literature on the relationship between migrants' remittances, economic growth, and poverty reduction in West Africa using sampled three countries, namely Nigeria, Ghana, and Senegal. These countries have been selected based on their significant migration flows, remittance receipts, and economic development challenges, whereas the period of investigation is delineated from 1990-2022: a period of 33 (thirty-three) years. The study shall at the end test the lone hypothesis that there is no long-run relationship between remittance, economic growth, and poverty reduction in West Africa

Review of Related Literature

Conceptual Clarification

Remittances

International remittances are defined as payments made by migrants directly to their families or communities back home, either in cash or in kind, according to the United Nations World Migration Report (2022). A substantial body of literature exists on the topic of remittances, encompassing several aspects including their effect on economic growth and development, the factors driving their occurrence, and the decision-making processes at the household level. The existing body of literature can be broadly categorized into two main strands. While the second strand looks at the microeconomic features of remittances, the first strand focuses on the macroeconomic determinants that affect remittance flows (Kpodar, Mlachila, Quayyum & Vigninou, 2021). Remittances have undergone significant changes, particularly in the context of the COVID-19 epidemic. These changes encompass various aspects, including the adoption of digital payment methods and a decrease in the costs associated with transferring funds from host nations to destination nations. Remittance is a term frequently employed to denote the monetary resources that expatriates transmit to their nation of origin using wire, mail, or online transfer methods. The economic importance of cross-border peer-to-peer fund transfers is significant for numerous developing nations. Remittances have emerged as a significant driver of economic growth in developing nations.

According to Ratha (2005), the act of migrants sending a portion of their earnings back to their relatives in the form of cash or commodities is commonly referred to as workers' or migrant remittances. In many developing economies, these have become the main source of foreign capital due to their rapid growth in recent years. The transfers of money or items from one individual to another, or household, are called remittances. Targeting the individual requirements of recipients, these funds have a propensity to mitigate poverty. Remittances represent the financial inflows received by households from foreign economies, primarily resulting from the temporary or permanent migration of individuals to those nations. Remittances encompass both monetary and non-monetary assets that are transmitted through official channels, such as electronic platforms, as well as unofficial channels, such as the physical transfer of money or products over national boundaries. These remittances primarily consist of financial resources and non-monetary assets that are sent or provided by individuals who have relocated to a different country and have established residency there. Additionally, they encompass the net earnings of cross-border workers, seasonal employees, or other individuals engaged in temporary employment inside an economy where they do not hold permanent residency. Remittances sometimes serve as a significant and consistent financial resource for numerous economies, occasionally surpassing official aid or financial inflows derived from foreign direct investment. According to Ratha (2005), remittances might potentially exert a significant influence on poverty alleviation and serve as a source of financial support for the economic development of recipient economies.

Economic Growth

According to Todaro (2000), economic growth can be defined as the expansion of a nation's aggregate production of goods and services or the augmentation of the quantity of such production within a specified timeframe. The concept of growth is widely recognized as synonymous with economic development, as it is quantified by the yearly percentage increase in the actual production of goods and services. In contrast, economic development is a concept that is characterized by a higher degree of complexity and lacks precise quantification just by monetary measures. There are numerous variables at play, all of which are connected to the existence of humans.

Poverty and Poverty Reduction

According to Guobao (2000), the terms "poverty" and "poverty reduction" have become important catchphrases in the global development agenda, both in terms of new international finance instruments and development objectives. Despite the widespread acknowledgment of the causes of poverty, there remains a dearth of a universally agreed-upon definition, and the quest for effective solutions remains imperative. The multitude of perspectives from which the notion of poverty is observed presents a significant obstacle in establishing a precise definition. This phenomenon arises from the subjective nature of individuals' perceptions, as what one individual may perceive as being poor to another individual may not share the same perspective. Furthermore, there is a difficulty in discerning the demarcation between individuals classified as poor and those who do not fall under this category (Obayelu & Uffort, 2007). According to Bertha (2018), poverty reduction can be defined as the process of eliminating a significant portion of individuals from impoverished living conditions. Poverty reduction, alternatively referred to as poverty alleviation, encompasses a strategic approach aimed at diminishing the prevalence of economic and non-economic poverty within communities, nations, or certain demographic segments (Marco, 2012).

Theoretical Framework and Methodology

Altruism Hypothesis

The literature has proposed the concept of altruistic behavior as a means to elucidate the motivational factors behind a migrant's choice to remit funds. The concept of altruism, originally introduced by the renowned French philosopher Auguste Comte in 1852, serves as a moral philosophy that he endorsed. The altruism theory posits that the sense of duty among individual family members has a significant role in their decision to provide financial support to one another, which can be observed in the context of migrant remittances (Becker, 1991; Stark & Lucas, 1988; Stark, 1991; Rapoport & Docquier, 2006). The idea posits that migrants exhibit a willingness to transfer resources to compensate for the income deficit experienced by their family members, with the intention of either utilizing these resources for personal consumption or directing them toward investment activities. The altruism theory posits that migrants may exhibit a willingness to prioritize the welfare of their relations over their own well-being or personal interests. This behavior is driven by the love and concern they have for the well-being of their relations. Comte posited the notion that individuals possess a moral duty to relinquish self-interest

and prioritize the welfare of others. In his work, "Catéchisme Positiviste," Comte posits that the social perspective is incompatible with the concept of rights, as it is rooted in individualistic principles. As individuals, we are inherently burdened with a multitude of obligations spanning various domains, including those owed to our forebears, successors, and contemporaries. Following our initial arrival into the world, these responsibilities undergo a process of augmentation or accrual, as a considerable duration elapses before we are capable of reciprocating any form of assistance. The concept of "living for others," which serves as the ultimate principle of human morality, provides a clear endorsement alone of our innate tendencies towards kindness and goodwill. These inclinations, which are the fundamental origins of both happiness and moral obligation, are granted explicit validation through this formula. Individuals must dedicate themselves to the betterment of humanity, to which we are wholly interconnected.

Pure altruism posits that individuals should exhibit benevolence and willingly relinquish personal interests or resources for the betterment of others, without anticipating any reciprocation. The act of sacrifice may manifest through the allocation of tangible resources, temporal commitment, or exertion of effort. An individual who engages in altruistic giving does not anticipate receiving any form of compensation, whether it be direct or indirect, for their actions. The existing work on altruism in migrant remittance decision theory has primarily been based on utility theory (Becker, 1981; Stark & Lucas, 1985; Stark, 1991; Osili, 2007). This theory posits that migrants engage in remittance activities to maximize their predicted benefit. The categorization of the remittance decision as solely altruistic is subject to scrutiny (Lianos, 1997). While it may result in benefits for others, a more suitable characterization would be moral egoism (Nowell-Smith, 1959; Norman, 1983). An altruistic act is characterized by the absence of any anticipated or reciprocated advantages. According to Leiter (2004), the act of altruism can be perceived as lowering and demeaning to oneself, as it necessitates prioritizing the needs and interests of others over one's own. The author posits that engaging in such conduct impedes an individual's endeavor to cultivate personal growth, achieve exceptional performance, and foster originality. Nevertheless, he expressed a moral need to assist individuals who are less capable than oneself. The aforementioned analysis elucidates that constructing a theory of altruism grounded in the normative utility theory of an individual's pursuit of wealth maximization presents an inherent contradiction. If the proposition of altruism is embraced as a theoretical framework elucidating the phenomenon of remittance behavior among migrants, it inevitably raises an unresolved inquiry on the underlying motivations that drive migrants to engage in altruistic acts. Given that this theory posits that migrants engage in remittance activities to maximize their predicted benefit which includes investment to drive growth and hence poverty reduction, it is thus adopted for this study.

Model Specification

Although several variables have been identified by the literature as determinants of poverty levels, the study's main priority is to investigate the impact of remittance inflow and economic growth on poverty in the selected West African countries. With poverty

gap index (PGI) as the dependent variable, other variables such as remittances, GDP per capita, inflation, exchange rate, and foreign direct investment, will be treated as explanatory variables (see Equation 1). We employ Panel Autoregressive Distributed Lag (PARDL) Model to explore the impact of remittances and economic growth on poverty. We therefore express poverty as a function of remittances and economic growth.

$$PGI_{it} = f(REM_{it}, GDPC_{it}) \qquad Eqtn\ 1$$

Under this model, the functional form with other control variables for the current analysis is given below

$$PGI_{it} = f(REM_{it}, GDPC_{it}, INF_{it}, UNE_{it}, FDIY_{it}) \qquad Eqtn\ 2$$

These variables will be converted into natural logarithms in this study in order to capture their elasticity value and relieve them from the heteroscedasticity problem. The econometric form can be written as:

$$PGI_{it} = \beta_{0i} + \beta_{1i} lnREM_{it} + \beta_{2i} lnGDPC_{it} + \beta_{3i} INF_{it} + \beta_{4i} UNE_{it} + \beta_{5i} lnFDIY_{it} + \mu_i + \delta_t + \varepsilon_{it} \ldots Eqtn\ 3$$

Where the subscript *i* stands for the country, subscript *t* is the year, μ_i stands for country-specific effects, δ_t stands for time-varying effects common to all the countries, ε_{it} is the idiosyncratic error term, *PGI* is the poverty indicator, and *REM, GDPC, INF, UNE, FDIY* are remittances, gross domestic product, inflation, exchange rate, and foreign direct investment, respectively.

Equation (3) is transformed into panel autoregressive distributed lag model as follows

$$\Delta PGI_{it} = \alpha_{0i} + \delta_{1i} PGI_{it-1} + \delta_{2i} lnREM_{it-1} + \delta_{3i} lnGDPC_{it-1} + \delta_{4i} UNE_{it-1} + \delta_{5i} INF_{it-1} + \delta_{6i} lnFDIY_{it-1} + \sum_{j=1}^{p-1} \beta_{1i} \Delta PGI_{it-j} + \sum_{j=1}^{q-1} \beta_{2i} \Delta lnREM_{it-j} + \sum_{j=1}^{q-1} \beta_{3i} \Delta lnGDPC_{it-j} + \sum_{j=1}^{q-1} \beta_{4i} \Delta INF_{it-j} + \sum_{j=1}^{q-1} \beta_{5i} \Delta UNE_{it-j} + \sum_{j=1}^{q-1} \beta_{6i} \Delta lnFDIY_{it-j} + \varepsilon_{it} \qquad \ldots Eqtn\ 4$$

Long-run Model

$$PGI_{it} = \delta_{1i} PGI_{it-1} + \delta_{2i} lnREM_{it-1} + \delta_{3i} lnGDPC_{it-1} + \delta_{4i} UNE_{it-1} + \delta_{5i} INF_{it-1} + \delta_{6i} lnFDIY_{it-1} + \varepsilon_{it} \qquad \ldots Eqtn\ 5$$

Short-run Model

$$\Delta PGI_{it} = \theta_i \left[y_{it-j} - \lambda'_i X_{it} \right] + \sum_{j=1}^{p-1} \beta_{1i} \Delta PGI_{it-j} + \sum_{j=1}^{q-1} \beta_{2i} \Delta lnREM_{it-j} + \sum_{j=1}^{q-1} \beta_{3i} \Delta lnGDPC_{it-j} + \sum_{j=1}^{q-1} \beta_{4i} \Delta INF_{it-j} + \sum_{j=1}^{q-1} \beta_{5i} \Delta UNE_{it-j} + \sum_{j=1}^{q-1} \beta_{6i} \Delta lnFDIY_{it-j} + \varepsilon_{it} \qquad \ldots Eqtn\ 6$$

We derived the following equation in order to compute the error correction version of Equation (6)

$$\Delta PGI_{it} = \theta_i ECT_{it-1} + \sum_{j=1}^{p-1} \beta_{1i} \Delta PGI_{it-j} + \sum_{j=1}^{q-1} \beta_{2i} \Delta lnREM_{it-j} + \sum_{j=1}^{q-1} \beta_{3i} \Delta lnGDPC_{it-j} + \sum_{j=1}^{q-1} \beta_{4i} \Delta INF_{it-j} + \sum_{j=1}^{q-1} \beta_{5i} \Delta UNE_{it-j} + \sum_{j=1}^{q-1} \beta_{6i} \Delta lnFDIY_{it-j} + \varepsilon_{it} \quad \ldots Eqtn\ 7$$

A Priori Expectation

The *A priori* expectations for the explanatory variables in the model are guided by economic theory to ascertain if the parameter estimate conforms to expectations. These are presented as

$$\beta_0 > 0, \beta_1 > 0, \beta_2 < 0, \beta_3 < 0, \beta_4 > 0, \beta_5 < 0, and\ \beta_6 < 0$$
$$\delta_1 > 0, \delta_2 < 0, \delta_3 < 0, \delta_4 > 0, \delta_5 < 0, and\ \delta_6 < 0$$

We will be using the poverty gap index (PGI) which measures how intense poverty is. The poverty gap measure possesses a distinct benefit in comparison to the headcount ratio. This analysis demonstrates the extent of poverty by approximating the average distance between individuals living in poverty and the poverty line. The poverty line utilized in this index is set at 1.9 (PPP, current international $) per day, which is regarded as the benchmark for measuring absolute extreme poverty.

Remittances, economic growth, and foreign direct investment (FDI) are negatively related to poverty reduction, while exchange rate and inflation rate are positively related. According to the Resource Transfer Hypothesis (Ratha, 2003), remittances increase household income and living standards thereby reducing poverty. Trickle-Down Economics (Kuznets, 1955) suggests economic growth creates jobs and income opportunities thereby reducing poverty. The Investment-Led Growth Hypothesis (Solow, 1956) posits FDI transfers technology and develops human capital, driving economic growth and poverty reduction. Conversely, the Currency Devaluation Hypothesis (Krugman, 1998) indicates exchange rate depreciation increases import costs and prices, exacerbating poverty. The Inflation Tax Hypothesis (Friedman, 1969) shows inflation reduces purchasing power and savings, increasing poverty. These relationships are supported by empirical studies and theoretical frameworks, providing a foundation for understanding the complex interactions between economic factors and poverty reduction.

Data Analysis and Interpretation

Unit Root Test

Table 1 shows the unit root test conducted on the variables in level form. However, the four tests' techniques demonstrated INF is stationary in level form at 1% significance level.

Table 1: Unit Root Test at Level

Variable	LLC	Fisher-ADF	Fisher-PP	IPS W-stat
PGI	-0.311	2.283	1.655	0.983
logREM	-1.330	4.355	8.993	0.313
GDPC	-2.215**	12.792**	34.436***	-1.875**
INF	-2.929***	21.551***	27.931***	-3.209***
UNE	1.186	4.281	2.666	1.105
FDIY	0.932	7.926	7.947	0.932

Note: *** and *** indicates statistical significance at 5% and 1%, respectively.*

Source: Author's Computation.

Following the non-stationarity of the PGI, REM, UNE, and FDIY variables in level form, a further test for stationarity was conducted at first difference and the result contained in Table 2. Evidence from the four different unit root tests in Table 2 reveals that the remaining series attained stationarity in first difference at various significance levels. Furthermore, the stationarity of the response variables (PGI) only in first difference, and the mix stationarity status of the regressors further validate the PARDL technique adopted for this study.

Table 2: Unit Root Test at First Difference

Variable	LLC	Fisher-ADF	Fisher-PP	IPS W-stat
PGI	-5.441***	37.637***	71.773***	-5.353***
PHCR	-5.861***	35.815***	68.908***	-5.124***
logREM	-5.110***	45.544***	86.630***	-6.285***
GDPC	-	-	-	-
INF	-	-	-	-
UNE	-1.751**	21.566***	30.994***	-2.988***
logFDIY	-4.151***	38.274***	79.249***	-5.322***

Note: *** and *** indicates statistical significance at 5% and 1%, respectively.*
Source: Author's Computation.

Co-integration Test
Presented in Table 3 is the panel co-integration test output.

Table 3: Panel Co-integration Test

Kao Test	Statistic	Probability
Modified Dickey-Fuller t	-0.936	0.175
Dickey-Fuller t	-1.882	0.030**
Augmented Dickey-Fuller t	-2.484	0.007***
Unadjusted modified Dickey-Fuller t	-4.486	0.000***
Unadjusted Dickey-Fuller t	-3.435	0.000***
Pedroni Test		
Modified Phillips-Perron t	2.181	0.015**
Phillips-Perron t	1.735	0.041**
Augmented Dickey-Fuller t	1.005	0.157
Westerlund Test		
Variance ratio	1.452	0.073*

Note: **, **, and *** indicates statistical significance at 10%, 5%, and 1%, respectively.*

Source: Author's Computation.

Long-run Estimated Output
Contained in Table 4 are the long-run estimates for the PMG and the MG. The PMG outputs showed that remittance has a significant negative long-run effect on poverty. The result demonstrates that a percentage rise in remittance level in the long-run, will lead to a

2.79% decline in the level of poverty in these countries. Furthermore, the output is revealed to be significant at the 1% level. Likewise, GDP per capita exhibits inverse long-run effect with poverty, its coefficient shows that a percentage rise in GDP per capita will decline poverty by 0.65 at the 5% significance level in the three economies. However, inflation was revealed not have any significant long-run effect on poverty, although its coefficient suggests a percentage rise in its value will increase poverty by 0.07%. Similarly, unemployment expressed insignificant adverse effect on poverty; indicating that a percentage increase in the unemployment rate will produce an insignificant 0.30% fall in poverty levels in the long-run. Furthermore, foreign direct investment showed an insignificant negative effect on poverty in the long-run. The result revealed that a percentage increase in FDIY in the long-run will decline poverty levels insignificantly by 0.09% in these economies.

Also captured in Table 4 is the MG long-run estimated outputs which significantly mirrored the PMG results but with minor deviations in the coefficient values and significance levels. The result however revealed that a unit rise in remittance will produce a 6.75% fall in poverty levels in the long-run, significant at the 10% level. Likewise, a unit increase in GDP per capita will yield a significant drop of 1.5% in poverty levels in the long-run at the 5% statistical significance level. Although inflation and unemployment showed adverse long-run effects on poverty, their impact was not significant. While a percentage rise in inflation and unemployment will produce a deceleration of poverty by 0.83% and 0.74%, respectively, these effects were reported to be statistically insignificant. Similarly, a percentage rise in FDIY in the long-run shows poverty also rising by 0.58%, however the effect is statistically insignificant.

Table 4: Long-run Estimates

	PMG estimates			MG estimates		
Variable	**Coefficient**	**Std. Err.**	**z-stat.**	**Coefficient**	**Std. Err.**	**z-stat.**
logREM	-2.792***	0.248	-11.27	-6.745*	3.732	-1.81
GDPC	-0.654**	0.324	-2.02	-1.502**	0.642	-2.34
INF	0.067	0.042	1.60	-0.827	0.856	-0.97
UNE	-0.302	0.233	-1.30	-0.735	2.969	-0.25
FDIY	-0.086	0.195	-0.44	0.582	1.458	0.40

Note: **, **, and *** indicates statistical significance at 10%, 5%, and 1%, respectively.*

Source: Author's Computation.

Short-run Estimated Results

Presented in Table 5 are the PMG and MG short-run estimates. Contrary to the long-run PMG output, remittance is shown to have a significant positive effect on poverty level. The result expressed that a percentage increase in remittance will yield a 0.93% increase in poverty levels in the short-run at 10% significance level. Similarly, a percentage increase in GDP per capita will produce a 0.24% rise in poverty at 10% significance level in the short-term. However, short-term inflationary effects are revealed to be insignificant. Table 5 demonstrates that a percentage rise in inflation will produce a statistically

insignificant 0.09% decline in poverty level in these economies in the short-run. In contrast, unemployment has a significant positive short-term effect on poverty in these economies. Specifically, a percentage rise in unemployment will yield a 0.02% rise in poverty levels in the short-run, which is statistically significant at 10% levels.

On the other hand, FDIY has an insignificant positive short-term effect on poverty. The result expressed that although a percentage increase in FDIY will produce a 0.02% rise in the level of poverty in these economies, however, the output is revealed to be statistically insignificant. In addition, the PMG's speed of adjustment parameter (ECT) is revealed to be rightly signed and statistically significant at 10% level. The value of the coefficient which is approximately -0.31, indicates that about 31% disequilibrium is being corrected for annually before long-run equilibrium can be achieved in these economies. Thus, it is estimated that about thirty-nine months will be required for adjustment to long-run equilibrium path in the event of short-term distortions. Further revealed in Table 5 is the MG short-run output and contrary to its long-run estimate, remittance is shown to have a significant positive effect on poverty level. The result expressed that a percentage increase in remittance will yield a 1.17% increase in poverty levels in the short-run at 1% significance level. Likewise, a percentage increase in GDP per capita will produce a 0.35% rise in poverty at 1% significance level in the short-term. However, short-term inflationary effects are revealed to be insignificant. Table 5 demonstrates that a percentage rise in inflation will produce a statistically insignificant 0.02% decline in poverty level in these economies in the short-run. Similarly, UNE and FDIY have insignificant adverse and positive short-term effects, respectively on poverty in these economies. Specifically, a percentage rise in unemployment and FDIY will yield a 0.31% decline and 0.08% rise in poverty levels, respectively in the short-run, which are not statistically significant.

Also, Table 5 showed that the MG's ECT is rightly signed and statistically significant at 10% level. The value of the coefficient which is approximately -0.35, suggests that about 35% short-run disequilibrium is being corrected for annually before long-run equilibrium can be achieved in these economies. Thus, it is estimated that about thirty-three months will be required for adjustment to long-run equilibrium path in the event of short-term disequilibrium.

Table 5: Short-run Estimates

	PMG estimates			MG estimates		
Variable	**Coefficient**	**Std. Err.**	**z-stat.**	**Coefficient**	**Std. Err.**	**z-stat.**
ECT	-0.309*	0.158	-1.96	-0.355*	0.1641	-2.16
ΔlogREM	0.931*	0.492	1.89	1.174***	0.384	3.06
ΔGDPC	0.235*	0.132	1.78	0.348***	0.093	3.74
ΔINF	-0.091	0.073	-1.24	-0.015	0.010	-1.46
ΔUNE	0.016*	0.009	1.74	-0.311	0.549	-0.57
ΔFDIY	0.019	0.265	0.07	0.080	0.346	0.23
C	22.678**	11.407	1.99	38.995***	5.644	6.91

Note: **, **, and *** indicates statistical significance at 10%, 5%, and 1%, respectively.*

Source: Author's Computation.

Test of Hypothesis

In this sub-section, the lone hypothesis stated earlier in the study is tested.

Ho_1: There is no long-run relationship between remittance, economic growth, and poverty reduction in West Africa

By using the result in Tables 4, this hypothesis is tested with the z-statistic. Output in Table 4 had revealed the coefficients for remittance as -2.792, indicating that a percentage increase in remittance will produce a 2.792% reduction in poverty in the long-run. The z-statistic value for the coefficient is presented in the Table 4 as -11.27, and is within the 0.01% confidence intervals of –2.58 z – value 2.58. Also, Tables 4 captured the long-run coefficient for GDP per capita as -0.654. Furthermore, the result has the z-statistic for the variable as -2.02, which is within the 0.01% confidence intervals of –2.58 z – value 2.58. Therefore, since the calculated z-values falls within this confidence interval, the alternative hypothesis that there is long-run association between remittance, economic growth and poverty in West Africa is validated and the null hypothesis rejected.

Discussion of Findings

Result in Table 4 had revealed that in the long-run, remittance have a significant negative effect on poverty levels in West Africa. This means that as the volume of remittances increases, the level of poverty will decline. This finding aligns with the works of Bang, Mitra & Wunnava (2022), Musakwa & Odhiambo (2021) and Mindaugas, Kristina & Kotryna (2020) that in low-income economies, remittances can significantly reduce the level of poverty. Specifically, the output indicates that remittances can decelerate poverty levels in West Africa. Hence, remittances may have played significant role in taking a lot of persons out of poverty over time in West Africa. Over the past three decades, the region had experienced increase in remittance inflow, and Nigeria as the lead recipient. Similarly, the PGI for West Africa for the same period had consistently declined from 26.16% to 19.02% and 10.55%. Thus, indicating that majority of the remittance funds are being used by households to meet their basic needs, which has helped in elevating their standard of living.

Similarly, the long-run effect of economic growth on poverty was revealed to be significantly adverse for West Africa. Thus, implying that, as the economies in West African countries continue to improve, poverty level on the other hand will decline in the long-run which is in tandem with Lawal, Adegun, Aderemi, and Dauda (2022). Empirically, since the effect of economic growth on income inequality is usually minimal, therefore, when there is an improvement in economic growth, the general income level also rises, including income of the poor in the society; which drives down the level of poverty in the long-run. Furthermore, by improving the level of economic productivity, it is anticipated that such increase will translate to higher per capita income, and lower the pace of growth in poverty levels for West African economies.

Conclusion

Based on the empirical findings in this study, it is concluded that remittance and economic growth have a decelerating-effect on the level of poverty in West African countries in the long-run. However, while remittance has a significant tendency to lower the level of poverty in the long-run, its short-term effect is significantly poverty-enhancing in West African economies due to the culture of dependency and failure to invest their remittance receipts in profitable ventures that can help to reduce poverty. Deriving from the foregoing conclusion, the following is recommended for policy implementation. The government should implement policies to increase access to formal financial services, enabling migrants to send remittances through official channels, as well as offer training, mentorship, and funding opportunities to migrants and their families to start businesses, creating jobs and stimulating local economies. Secondly, to reduce poverty, targeted social protection frameworks such as cash transfers, healthcare and education support to benefit vulnerable households and individuals should be design and implemented. The government should also establish microfinance institutions that offer loans and other financial services to recipients of remittances, enabling them to invest in income-generating activities. Finally, the government should not only establish safe and regular migration channels to reduce the risks associated with irregular migration and promote the protection of migrants' rights, but also provide capacity-building support to West African countries to enhance their ability to manage migration, remittances, and development effectively.

References

Ammassari, S., Black, R., Crush, J., McLean Hilker, L., Mouillesseaux, S., Pederby, S., Pooley, C., & Rajkotia, R. (2006). Migration and development in Africa: An overview (No. 1). Scholars Commons @ Laurier.

Bang, J. T., Mitra, A., & Wunnava, P. V. (2022). Hollowing out the middle? Remittances, poverty, and income inequality in Nigeria*, Migration and Development, 11*(3), 543-559. https://doi.org/10.1080/21632324.2020.1806599 (Original work published 2022)

Becker, G. S. (1981). *A treatise on the family*, Harvard University Press, Cambridge.

Bertha, Z. O. (2018). *Military expenditure, economic growth, and foreign policy implications: The case of Ghana and Nigeria within the ECOWAS*, Handbook of Research on Military Expenditure on Economic and Political Resources, 22. DOI: 10.4018/978-1-5225-4778-5.ch002

Bénabou, R. (1996). Inequality and Growth. *NBER Macroeconomics Annual, Volume II*, ed. by Ben Bernanke and Julio Rotemberg (Cambridge, Mass.: MIT Press).

Brian, A., Ward, B., Shanta, D., & Alejandro, I. (2001). *Macroeconomic policy and poverty reduction*, The IMF's poverty reduction and growth facility: A Factsheet, Retrieved January 24, 2023, from https://www.imf.org/external/pubs/ft/exrp/macropol/eng/

Comte, A. (1852). *Catéchisme positiviste*, Paris: Librairie Garnier Frères

Dollar, D. & Kraay, A. (2000). Growth is good for the Poor, World Bank Development Research Group (unpublished; Washington, D.C., World Bank). 1-56.

Guobao, W. (2001). *Poverty reduction pattern research- research on PRC's poverty reduction through labour mobility*, International Conference on NGO Poverty Reduction Policy; China Poverty Reduction Research Series: China Economic Press.

International Fund for Agricultural Development (2023). *Improving the management of remittances and their use for development impact in Africa,* Retrieved February 21, 2023, from https://www.ifad.org/en/prime-africa

Jeffang, K. (2020). COVID-19: Gambia Faces Brunt with Looming Cut in Remittances, *The Chronicle. 9* April.

Kpodar, K., Mlachila, M., Quayyum, S., & Vigninou, G. (2021). *Defying the Odds: Remittances during the COVID-19 Pandemi*c, Working Paper 21/186, International Monetary Fund.

Lawal, N. A., Adegun, E. A., Aderemi, T. A., Dauda, R. O. S. (2022). Migrant remittances, growth and poverty reduction: ARDL- Bounds test and granger causality approach, *Izvestiya Journal of Varna University of Economics, 66*(1-2), 74 – 90. DOI: 10.56065/IJUEV2022.66.1-2.74

Lianos, T. P. (1997). Factors determining migrant remittances: the case of Greece, *International Migration Review, 31* (1), 72–87.

Marco, T. (2012). *Responsible management education in practice: The principles and processes for educating socially responsible and world engaged leaders,* Handbook of Research on Teaching Ethics in Business and Management Education, 18. DOI: 10.4018/978-1-61350-510-6.ch031

Mindaugas, B., Kristina, M. & Kotryna, R. (2020). Effects of remittances on poverty: Evidence in CEE countries, *Organizations and Markets in Emerging Economies 11*(1), 69–82. DOI: https://doi.org/10.15388/omee.2020.11.24

Musakwa, M. T. & Odhiambo, N. M. (2021*). Remittance and poverty Nexus in Botswana: A Multi-variate approach*, Unisa Economic Research Working Paper Series, 32, 2-29.

Obayelu, A. E. & Uffort, L. (2007). *Comparative analysis of the relationship between poverty and underground economy in the highly developed*, Transition and Developing Countries; *MPRA Paper No 2054*

Ratha, D. (2005). Remittances: A lifeline for development, *Finance and Development: A Quarterly Magazine of the IMF, 42*(4). Retrieved January 14, 2023, from https://www.imf.org/external/pubs/ft/fandd/2005/12/basics.htm

Crush, J., Tawodzera, G., McCordic, C., & Ramachandran, S. (2017). *Refugee entrepreneurial economies in Urban South Africa*, Waterloo, ON: Southern African Migration Programme. SAMP Migration Policy Series No. 76.

Front Page Africa (2019). *Diaspora Liberians to suspend remittances to Liberia. 29 July 2019*, Available at: https://frontpageafricaonline.com/front-slider/(open in a new window)

Auguste, C. (1852). *Catéchisme positiviste*, Paris: self-published; reprinted, Paris: Garnier Freres, 1966. Translated as: *The Catechism of Positive Religion*, London: Trubner, 1891.

Becker, G. S. (1981). *A treatise on the family*, Harvard University Press, Cambridge.

Friedman, M. (1969). *The optimum quantity of money and other essays*, Chicago: Aldine.

Krugman, P. (1998). *Fire-sale FDI,* University of Princeton, Mimeo.

Kuznets, S. (1955). Economic growth and income inequality, *American Economic Review, 45*(26), 1–28.

Leiter, M. P., & Maslach, C. (2004). *Areas of Work life: A structured approach to organizational predictors of job burnout. In P. Perrewé, & D. C. Ganster (Eds.),* Emotional and Physiological Processes and Positive intervention strategies (Vol. 3, 91-134). Oxford: Elsevier. https://doi.org/10.1016/S1479-3555(03)03003-8

Lianos, T. P. (1997). Factors determining migrant remittances: The case of greece, *International Migration Review, 31*(1), 72-87. https://doi.org/10.1177/019791839703100104 (Original work published 1997)

Norman, R. J. (1983). *The moral philosophers: An introduction to ethics,* Oxford University Press, New York.

Nowell-Smith P. H. (1959). *Ethics,* Middlesex: Penguin.

Ratha, D. (2003). *Workers' remittances: An important and stable source of external development finance,* Global Development Finance, World Bank, Washington DC.

Stark, O. & Lucas, R. E. B. (1988). Migration, remittances, and the family, *Economic Development and Cultural Change, 36* (4), 465–81.

Stark, O. (1991). *The migration of labour*, Cambridge: Basil Blackwell.

Todaro, M. P. (2000). *Economics of development and Planning*, Pearson Educational Publishers.

UNECA (2020). *ONE and ECA Report on Remittances urge governments to help preserving this Lifeline for Africa hindered by the COVID-19*, Retrieved January 14,2023, from https://www.uneca.org/storys/one-and-eca-report-remittances-urge-governments-help-preserving-lifeline-africa-hindered

United Nations Department of Economic and Social Affairs (UNDESA) (2019). *International migrant Stock 2019. United Nation reports*, Retrieved January 7, 2023, from https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates19.asp

United Nations High Commissioner for Refugees. (2022). *West Africa situation.*

United Nations Migration (2020). *World migration report. International Organization for Migration*. Geneva, Switzerland.

World Bank (2022). *Migration and development brief.*

World Bank (2020). *Nigeria releases new report on poverty and inequality in country.* January 19, 2023, from https://www.worldbank.org/en/programs/lsms/brief/nigeria-releases-new-report-on-poverty-and-inequality-in-country

World Bank (2022). *Remittances grow 5% in 2022, Despite Global Headwinds. press release*, Retrieved January 25, 2023, from https://www.worldbank.org/en/news/press-release/2022/11/30/remittances-grow-5-percent-2022

World Bank (2023). *Metadata glossary: Poverty gap at national poverty lines (%).* https://databank.worldbank.org/metadataglossary/millennium-development-goals/series/SI.POV.NAGP