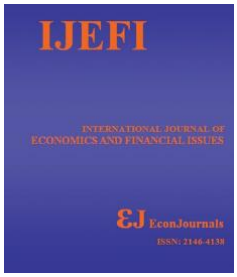

International Journal of Economics and Financial Issues

ISSN: 2146-4138

available at http: www.econjournals.com

International Journal of Economics and Financial Issues, 2025, 15(6), 262-270.

The Effect of Capital Flows on Poverty Gap in West African Countries

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Received: 27 April 2025 **Accepted:** 08 September 2025 **DOI:** https://doi.org/10.32479/ijefi.20569

ABSTRACT

Poverty gap reduction is highly imperative because, it increases sustainable development among developing economies, increases economic growth, and enhances standards of living. Incidentally, studies have shown that poverty gap is increasingly widening and has become a challenging concern in West Africa. Studies have also shown that optimal utilization of capital flows can solve poverty gap problem in West Africa. This study examined the effect of capital flows on the poverty gap in West African countries. The study adopted an ex post facto research design and evaluated the effect of capital flows on macroeconomic performance in W/A for 33 years (1991-2023). Data were extracted from the World Development Index and the International Monetary Fund The validity and reliability of the data were premised on the global recognition of WDI as a reputable source. Descriptive and inferential System Generalized Method of Moments (GMM) statistics were used to analyze the data at the 0.05 level of significance. The study result showed that capital flows jointly had a significant effect on the poverty gap in West Africa. The study recommends that West African countries should consider optimally utilizing capital flows to invest in opportunities capable of bridging poverty gap in West Africa.

Keywords: Capital Flows, Diaspora Remittances, Foreign Direct Investment, Foreign Aids, Portfolio Investment, Poverty Gap
JEL Classifications: E23, F35, G11

1. INTRODUCTION

The concern of poverty gap in the region, the West Africa had an approximate total external governmental debt of 164 billion dollars as of 2021. With debt levels of over 79.54 billion and 21.91 billion dollars, respectively, Nigeria and Ghana were found to have the highest in the area. The lowest numbers, however, were recorded by Guinea-Bissau and the Gambia, at 823 million and 381 million dollars, respectively (Sasu, 2022). Majani (2022) reported that the consumer price index with a roughly 1,581 and 1,349 points, respectively, Ghana and Guinea have the highest consumer price indexes (CUPIXs) in West Africa as of 2021. Lower consumer price indexes of about 1,471 points and 1,269 points, respectively, were recorded by the two nations the year before. Conversely, Senegal, with a CUPIX of roughly 135 points in 2021, had the lowest CUPIX in the African sub-region (Statista, 2023).

Studies have written extensively of the challenge of poverty gap pandemic ravaging West African countries (Adegbie et al., 2023; Okunade, 2021; Effiong et al., 2022). According to Omoniyi (2022), poverty gap is defined as the percentage of a statistical measures that indicates the extent a nation's population living below a specified income threshold otherwise called poverty line. Many reasons have been offered for Africa's failure to lower its high rate of extreme poverty. One is the over-dependence on natural resources for development rather than rural and agricultural development, which accounts for 85% of Africans' incomes. In addition to poor asset ownership and limited access to public services, the higher initial poverty levels also make it harder for households to benefit from growth (Orji et al., 2020). Poverty is also exacerbated by poor government, corruption, and severe income disparity. Because of Africa's high fertility rates, economic growth rates result in less growth in per capita income. The number

of impoverished people will increase as a result of Africa's rapid population expansion, even while the rate of extreme poverty is expected to decline.

The high rates of poverty and fragility in West African countries may also be explained by a number of other factors, including low educational attainment, high levels of educational inequality, and a dearth of good jobs (Onwuteaka et al., 2023). Therefore, improving educational achievements for everyone (SDG 4) and expanding employment possibilities for everyone (SDG 8) would be top priorities in West Africa in order to perhaps escape the poverty-fragility trap that the region appears to be trapped in. While education and work possibilities provide the most likely path out of poverty, a population with higher levels of education is more likely to be tolerant. The effectiveness of these policy measures, however, depends on peace and stability and has a longer time horizon. Okafor et al. (2021) posited that capital flows are viable channels to improve the capital base of the countries to initiate and provide incentives and prospects in reducing the escalating wave of poverty in West African countries. Nguyen et al. (2021) stated that capital flows are closely correlated with poverty gap reduction. In the midst of poverty gap prevalence in West African countries, studies have shown that sufficient capital inflows have the capacity in creating huge opportunities and investments in mitigating the challenges of poverty and the widening gap in the West African countries. Capital flows have the propensity and ability to improve the capital base of the countries towards increasing and bridging gap of infrastructural deficits, provision of quality education, improve healthcare facilities and improve the living standards of the citizens.

The main objective of this study to investigate the extent poverty gap prevalence and effect of capital flows in alleviating poverty concern and the widening gap among the citizens in West Africa. While some fewer studies have attempted the problem of poverty in specific West African countries, but there is a dearth of studies studying and researching the effect of capital flows on poverty gap using a selection of ten West African countries as considered in this study. Evidently, this study is unique and significant as it is considering the significance of capital flows from different sources like diaspora remittances, foreign direct investment, foreign aids, and portfolio investment using selected West African countries of Ghana, Liberia, Gambia, Sierra Leone, Nigeria, Togo, Cote d'Ivoire, Benin, Burkina-Faso, and Senegal. This study provides a novelty in research as it provides and bridges the gap of insufficient empirical evidence of the implications of poverty gap and significance of capital flows in solving the long-aged problem of poverty in West African countries.

Consequently, in addressing the problem of poverty gap and filing the identified gaps in literature, this study considers the following research objective, question and hypothesized as follows:
Objective: To assess the influence of capital flows on poverty gap in West Africa.
Research Question: How do capital flows influence poverty gap in West Africa?
Hypothesis (H_0): There is no significant influence of capital flows on poverty gap in West Africa.

The rest of the study was formatted in this manner: In section 2, the study provided the literature review and theoretical framework. In section 3, the methodology was provided. In section 4, the data analysis, results and discussions were considered. In section 5, the conclusion, recommendation, limitations of the study and suggestion for further studies were presented.

2. LITERATURE REVIEW

2.1. Conceptual Review

2.1.1. Poverty gap

Poverty has been defined in diverse ways by different scholars, because poverty differs greatly across countries as a result of diversity in nation's economic development. However, all the scholars acknowledge the fact that irrespective of a nation's economic development, poverty is a global phenomenon, with some common characteristics (Akinbode et al., 2020). For instance, Omoniyi (2022) posited that poverty gap in Nigeria refers to the average shortfall of the income or consumption levels of the poor population from the poverty line, expressed as a percentage of the poverty line. It provides an indication of the intensity and depth of poverty by measuring how far below the poverty line individuals or households fall on average. Lawal et al. (2022) defined capital flows as the movement of money for trade, budget managers output, or investment, in most instance between countries and can take the form of capital expenditures for operations, research and development (R&D) and investment capital are examples of how this happens in organizations. Unlike the headcount ratio, which merely indicates the proportion of people living below the poverty threshold, the poverty gap accounts for the severity of poverty by considering the degree of deprivation experienced by the poor (Baba and Afroz, 2023).

2.1.2. Diaspora remittances

According to Adarkwa (2015), the destination country and the transfer type are just two factors that can affect how long it takes for the transaction to be processed as remittances from the diaspora and sums of money sent by people who have left their home country to live abroad. West Africa is only one of several underdeveloped countries that depend on these remittances for survival. The importance of diaspora remittances as a possible source of foreign direct investment (FDI) for African countries is significant. West Africa may effectively utilize this important resource for its economic growth and development by comprehending the variables that drive diaspora remittances as well as the opportunities, difficulties, and opportunities they present. Remittances from the diaspora to Nigeria, Ghana, Gambia or any of the West African countries are currently driven by a number of variables, primarily related to the black tax and people are motivated to work overseas and send money home by financial incentives including greater pay and job prospects in the host nation, hence remittance transfers are also motivated by duties to family members and the desire to provide for them (Omoyele et al., 2021; Abina, 2023; Cole and Akintola, 2021).

2.1.3. Foreign direct investment

Evidence of such a relationship can be found in the ownership of 10% or more of the voting power of an enterprise in one economy by an investor in another economy and because it forges strong, enduring connections between economies, foreign direct investment (FDI) is a crucial component of global economic integration (Leonard & Ihensekhien, 2020, Aguguom, 2019). FDI can play a significant role in economic development and serves as a vital conduit for the transfer of technology between nations. It also facilitates international trade by providing access to foreign markets. In a strict sense, foreign direct investment only includes the construction of new facilities and a long-term management stake in a business that operates in a different economy than the investor's. Asamoah et al. (2019) noted that the balance of payments indicates that FDI is the total of equity capital, long-term capital, and short-term capital. FDI typically include joint ventures, management involvement, and the transfer of technology and knowledge.

2.1.4. Foreign aids

Nguyen et al. (2021) showed that financial resources, goods (like food or military hardware), technical assistance, and training are some examples of the various forms of foreign help. The resources may come in the form of grants or credits with special conditions (like export credits). Official development assistance is the most prevalent kind of foreign aid; it is help provided to advance development and fight poverty. In order to help a nation obtain diplomatic recognition and support for its membership in international organizations, foreign aid can also be utilized to further that nation's diplomatic objectives (Misbah et al., 2020; Ait-Sahalia and Dacheng, 2019). Acemoglu and Robinson (2019) noted that foreign aid can also be used to promote a nation's exports (for example, by implementing programs that mandate the receiving nation buy manufactured items or agricultural products from the donor nation) and to disseminate its language, culture, or religion.

2.1.5. Portfolio investments

Investments in the form of a collection of assets, or a portfolio, include deals in stocks, bonds, and other debt instruments as well as equity and securities like common stock. Nwaokoro (2016) noted that a portfolio investment consists of many investment vehicles and securities like bonds and equities, while a diverse portfolio helps distribute the risk of potential loss due to one or a few of them performing below expectations. Baghebo and Apere (2014) showed that, in contrast to direct investment, which would need an active management role, portfolio investment involves passive or hands-off ownership of assets. Since portfolio investment can be separated into two primary groups: Purchasing financial assets with the intention of holding onto them for a long period means making a strategic investment based on the assets' potential for long-term growth or income generation. Exchange-traded funds (ETFs), stocks, bonds, mutual funds, and other securities are just a few examples of the financial instruments into which money can be allocated as part of portfolio investment management.

2.1.6. Exchange rates

Mushtaq and Siddiqui (2016) noted that a nation's currency may also be strong or weak. Regarding national exchange rate policy, there is no consensus in the economic research (unlike on trade, where free trade is deemed best). Instead, political factors are reflected in national exchange rate systems. Money dealers will quote varying purchasing and selling rates in the retail currency exchange market. The majority of trades are made in or out of local money. The foreign exchange rates at which money dealers will purchase and sell foreign currency are known as the buying and selling rates, respectively. Kutum (2015) remarked that a dealer's margin (or profit) in trading will be factored into the quoted rates; if not, the margin may be made up in commissions or another means. Additionally, quotes for cash, document-based transactions, and electronic transfers may differ. It has been argued that the higher rate on documentary transactions makes up for the extra time and expense involved in document clearance. Conversely, the kind of exchange rate regime that a country applies to its currency is up to it. The three primary forms of exchange rate regimes are hybrid, pegged, or free-floating (Tervala, 20119; Abina, 2023).

2.2. Theoretical Review

2.2.1. International capital flow theory

John Maynard Keynes proposed the international capital flow theory in the year 1930 and over the years, many economists have added to the idea of foreign capital flows, but John Maynard Keynes offered one important suggestion. Keynesian economics, which encompasses his theories of capital flows, implies that capital movements can have a big effect on both national economies and the stability of the world economy (Richard, 1974). American economist Jacob Viner is frequently credited with developing the first comprehensive theory of foreign capital movements (Adler and Dumas, 1975; Dunning, 1979).

Viner covered several topics related to international economics, including capital flows, in his 1937 landmark book "Studies in the Theory of International Trade." Numerous economists who came after Viner were influenced by his contributions, which established the foundation for later advancements in the theory of international capital flows. Although capital flows present chances for expansion and development, they also present difficulties that call for cautious policy management in order to optimize gains and reduce risks for all parties concerned. The assumptions of the international capital flow theory are considered from the prior studies understanding. For instance, according to the idea, capital flows freely across borders in the absence of any restrictions like capital controls or tariffs. This is known as perfect capital mobility. This suggests that cash can be moved to any location where investors believe returns would be higher.

2.2.2. Philip's curve theory

Philip' curve theory was propounded by a British economist, William Philip in the early year of 1958. Philip's theory centered on the influenced macroeconomic thought and policy discussions since its inception. Pikulina et al. (2017) opined that the theory assumes that while the initial formulation provided a useful framework for understanding the short-run relationship

between inflation and unemployment, subsequent developments and empirical challenges have led economists to refine their understanding of how inflation expectations, supply-side factors, and policy interventions shape the economy. Rasiah et al. (2017) noted that despite its limitations, the Phillips Curve remains a cornerstone in macroeconomic analysis, providing insights into the complex dynamics of inflation, unemployment, and economic policy. The theory also assumes that individuals, private and corporate organizations expect that the past and present inflation have great impact on future and current economic price as well as the consumer price index (Phimmavong, 2017). The theory assumes that if workers and corporate bodies expect higher inflation, there is need to negotiate higher wages and shifts the curve upwards over time, because long-run Philip curve is vertical, with an implication of no permanent trade between inflation and unemployment (Pikulina et al., 2017).

2.3. Empirical Review

From Mauritania, Abdullah et al. (2024) investigated the complex association between inflation and economic growth in Mauritania using a threshold regression model. The analysis spanned from 1970 to 2018, offering a comprehensive evaluation of the inflation-growth dynamics within the country. By employing the regime change model, the goal was to pinpoint a critical inflation threshold where the relationship with economic growth. The methodology adopted allowed the study detect potential asymmetries and nonlinearities relationship, yielding valuable insights for policymakers. Consistent with prior research, the findings revealed a nonlinear correlation between the consumer price index and economic growth, influenced by macroeconomic factors. Furthermore, the study results demonstrated a positive impact of inflation on economic growth when inflation remains below the threshold of 5.53%. However, beyond this threshold, the relationship turned negative. The result of the study of Abdullah et al. (2024) was found to be consistent with some other previous studies who had documented significant effects (Bojang and Suliswanto; 2024; Baba and Afroz, 2023; Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). On the contrary, the study found that the other studies did not find significant effects, such as the studies by (Okafor, et al., 2021; Sule et al., 2021; Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Oke and Ruth, 2021).

The aim of Oloke et al. (2022) research was to explore the link between foreign capital inflows and human capital development in Nigeria from 1990 to 2020. Secondary data from the World Development Indicators formed the basis of this study, which employed the FMOLS method for analysis. The results revealed a negative and significant correlation between trade openness and human capital development. Similarly, FDI and portfolio investment showed a significant inverse relationship with human capital development in Nigeria. Conversely, official development assistance exhibited a direct and significant association with human capital development at a 10% significance level, while the exchange rate demonstrated a positive and significant relationship. However, both external debt and remittances displayed insignificant positive relationships with human capital development in Nigeria. Overall, the majority of foreign capital inflows in Nigeria were found to have a significant and negative impact on human capital development. Consequently, the study suggests that policymakers in Nigeria should allocate foreign capital inflows towards human development-oriented programs in the country. The result of the study of Oloke et al. (2022) found to be consistent with some other previous studies who had documented negative effects (Balogun et al., 2019; Iballi et al., 2022; Ibrahim et al., 2023; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Siddique et al., 2021; Acheampong, 2020; Ozigbu, 2020). On the contrary, the study found that the other studies found significant effects, such as the studies by (Acemoglu and Robinson, 2019; Baghebo and Apere, 2014; Bitetto et al., 2023; Timothy et al., 2023; Akarara and Ouseibai, 2022; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Onyekwelu, 2022; Kanu, 2015).

Ajisafe and Okunade (2021) examined the impact of the financial market and domestic investments on the influx of foreign direct investments into Nigeria. Utilizing a retrospective research approach, they analyzed secondary time-series data from the National Bureau of Statistics. Their investigation encompassed the repercussions of the financial market on various economic indicators such as gross domestic product, inflation, interest rates, and exchange rates. Through regression analysis, they found a positive association between foreign direct investment and the activities of the financial market and domestic investment in Nigeria. The result of the study of Ajisafe and Okunade (2021) was found to be consistent with some other previous studies who had documented significant effects (Baba and Afroz, 2023; Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). On the contrary, the study found that the other studies did not find significant effects, such as the studies by (Okafor, et al., 2021; Sule et al., 2021; Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Oke and Ruth, 2021).

Algaeed (2021) investigated the inflow of external debts, foreign remittances, and the development of the capital market. The study aimed to assess the potential effects of capital market development on foreign remittances and external debt inflows in Saudi Arabia over a 34-year period from 1985 to 2018. Employing autoregressive distributed lag and pooled regression analysis, the research demonstrated a positive impact of capital market development and its proxies on external debt inflows and foreign remittances in Saudi Arabia during the study period. The result of the study of Algaeed (2021) was found to be consistent with some other previous studies who had documented significant effects (Amador et al., 2021; Baba and Afroz, 2023; Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). On the contrary, the study found that the other studies did not find significant effects, such as the studies by (Ali and Audi, 2023; Okafor, et al., 2021;

Sule et al., 2021; Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Umoh et al., 2023).

Okafor et al. (2021) conducted an empirical analysis of the causal relationship between financial deepening, financial market development, and economic growth in Nigeria. They utilized time series data spanning 25 years, sourced from the Central Bank of Nigeria and other relevant bureaus. The findings of their regression analysis revealed a long-term relationship between financial deepening, financial market development, economic growth, and foreign direct investment in Nigeria. The result of the study of Okafor et al. (2021) was found to be consistent with some other previous studies who had documented significant effects (Baba and Afroz, 2023; Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). On the contrary, the study found that the other studies did not find significant effects, such as the studies by (Okafor, et al., 2021; Sule et al. (2021); Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Oke and Ruth, 2021).

Okunade (2021) investigated the correlation between institutional financial market thresholds, financial openness, and trade financial performance in African countries. The study employed secondary sourced time series data extracted from the capital and economic performance of the selected African countries employed for the study. The results of the regression analysis emphasized the significance of financial market development for achieving financial openness in an economy. Furthermore, the study highlighted a long-term significant relationship between institutional market thresholds and foreign trade relations, financial openness, and foreign direct investments across selected African nations. The result of the study of Okunade (2021) was found to be consistent with some other previous studies who had documented significant effects (Adegbie et al., 2023; Timothy et al., 2023' Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). On the contrary, the study found that the other studies did not find significant effects, such as the studies by (Okafor, et al., 2021; Sule et al., 2021; Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Ndiweni and Bonga-Bonga, 2021).

3. METHODOLOGY

This study examined the effect of capital flows on the poverty gap of selected West African countries, utilizing the System Generalized Method of Moments (GMM) approach provides several advantages, such as addressing potential endogeneity issues and accommodating unobserved heterogeneity in the data. To substantiate the findings, the study tests the hypothesis on the significance of capital flows on the poverty gap. The analysis also employs diagnostic tests, including the AR(1) and AR(2) tests for autocorrelation and the Hansen and Sargan tests for over identifying restrictions and instrument validity.

3.1. Dependent Variable

The study employed poverty gap as the sole dependent variable of the study. Poverty Gape (PVG) was measures as the poverty gap at year end in each of the years under consideration as an average shortfall of the total population's income or consumption from the poverty line, expressed as a percentage of that line by summing the income deficits of all individuals below the poverty line and dividing by the total population.

3.2. Independent Variable

The study explored the following identified properties as measures capital flows:

(i) Diaspora Remittances (DSR) = Diaspora Remittances was as a percentage of GDP
(ii) Foreign Direct Investment (FDIV) = FDIV as a percentage of GDP,
(iii) Foreign Aids (FRA) = Foreign Aids as a percentage of GDP, and
(iv) Portfolio Investments (PTI) = Portfolio Investments as a percentage of GDP

3.3. Model Specification

$$Y_{it} = f(X_{it}) \quad (1)$$

$$PVG_{it} = \alpha_0 + \phi_1 DSR_{it} + \phi_2 FDI_{it} + \phi_3 FRA_{it} + \phi_4 PTI_{it} + \varepsilon_{it} \quad (2)$$

Where,

PVG = Poverty Gap, DSR = Diaspora Remittances, FDI = Foreign Direct Investment, FRA = Foreign Aids, PTI = Portfolio Investment, α_0 = regression intercept which is constant, while ϕ_1- ϕ_4, = the coefficient of the explanatory variables, ε is the error term of the model, i = cross-sectional variable, t = time series variable.

4. DATA ANALYSIS, RESULTS AND DISCUSSIONS

The study assessed the influence of capital flows on the poverty gap (PVG) in West Africa. The analysis ultimately rejects the null hypothesis (H_0), positing that capital flows have no significant effect on poverty gaps, and supports the acceptance of the alternative hypothesis (H_1) (Table 1).

The variable diaspora remittances (DSR) has a significant negative effect on the poverty gap, with a coefficient of −0.1776 and a P-value of 0.0366. This result implies that increased remittances correspond to a reduction in poverty gap, highlighting the vital role that remittances play in alleviating poverty. This finding resonates with existing literature, which posits that remittances enhance household income, improve access to education and health services, and ultimately lead to better living standards.

The coefficients for foreign aid (FRA) and portfolio investment (PTI) are positive (0.0332 and 1.3449, respectively) but statistically insignificant, with P-values of 0.4292 and 0.5833. This suggests that, contrary to expectations, foreign aid and portfolio

Table 1: Poverty gap and capital flows

Variables	System GMM2				
	(1)	(2)	(3)	(4)	(5)
	Coef.	aster	Se	Tstat	Pval
L.PVG	0.7672	***	0.0689	11.1355	0.0000
DSR	−0.1776	**	0.0724	−2.4519	0.0366
FDI	−1.1786		2.1394	−0.5509	0.5951
FRA	0.0332		0.0401	0.8277	0.4292
PTI	1.3449		2.3639	0.5689	0.5833
Constant	3.5604	**	1.4356	2.4801	0.0350
Model diagnostics					
Observations	320				
No of Country	10				
Hansen_test	7.394 (0.389)				
Sargan_test	0.346 (0.623)				
AR (1)_test	−2.412 (0.042)				
AR (2)_test	−0.099 (0.719)				
No. of Instr.	9				
F - Stat.	117.62				
Prob > F.	0.000				

Source: Scholar's Computations (2024). PVG: Poverty gap, DSR: Diaspora Remittances, FDI: Foreign Direct Investment, FRA: Foreign Aids and PTI: Portfolio Investment. Significance value in square bracket ( ). "aster" represents the significance level, where *** denotes a 1% significance level, ** denotes a 5% significance level, and * denotes a 10% significance level

investments do not significantly affect poverty gap in the context of West Africa. These results also raise critical questions about the effectiveness of foreign aid in alleviating poverty, suggesting that mere inflows of funds may not translate into tangible benefits for the poorest segments of society.

Moreover, the lack of significant effects from FDI, with a coefficient of −1.1786 and a P-value of 0.5951, indicates that foreign direct investment may not have a direct impact on poverty alleviation in the region. This could be attributed to various factors, including the nature of FDI in West Africa, which may not necessarily target sectors that benefit the poor directly or may contribute to job creation in ways that do not alleviate poverty.

The lagged poverty gap (L.PVG) exhibits a strong positive coefficient of 0.7672, accompanied by a highly significant p-value of 0.0000. This finding indicates a persistence in poverty dynamics within the region. This aligns with theoretical expectations where socio-economic conditions evolve gradually, and historical factors play a significant role in shaping current poverty trends.

4.1. Model Diagnostics

The model diagnostics provide crucial insights into the robustness and reliability of the findings. The Hansen test statistic of 7.394 with a P-value of 0.389 indicates that the over-identification restrictions are not rejected, which affirms the validity of the instruments employed in the analysis. Similarly, the Sargan test statistic of 0.346 and a P-value of 0.623 further support the reliability of the model.

The autocorrelation tests are equally significant. The AR(1) test statistic of −2.412 and a P-value of 0.042 suggest the presence of first-order autocorrelation, which is expected in dynamic panel models. However, the AR(2) test statistic of −0.099 and a P-value of 0.719 indicate no evidence of second-order autocorrelation, confirming the appropriateness of the GMM estimation method used in this analysis.

The model employs 9 instruments for 10 cross-sectional units, which is within the acceptable range for econometric analysis. This favorable instrument count strengthens the credibility of the results and alleviates concerns related to overfitting. The appropriate use of instruments enhances the robustness of the estimates, contributing to the overall validity of the findings.

The results ($F(4, 9) = 117.62$; Prob. = 0.000) prompt a rejection of the null hypothesis (H_{03}) that posits no significant effect of capital flows on poverty gaps in West Africa. The evidence supports the acceptance of the alternative hypothesis (H_3), indicating that capital inflows, particularly diaspora remittances, have a meaningful impact in reducing poverty levels in the region.

4.2. Discussion of Findings

In this Model, the study examined the implications and effect of capital flows on poverty gap in selected countries. While some individual elements in the model exerted significant effects, some others exhibited insignificant effect. Notwithstanding, in conclusion, the model showed that capital flows had a significant effect on poverty gaps based on the result of the F-Statistics using the combined explanatory variable of capital flows. These results are in consonant with some prior studies who have documented significant effects (Oke and Ruth, 2021; Baba and Afroz, 2023; Effiong et al., 2022; Ajisafe and Okunade, 2021; Nguyen et al., 2021; Orji et al., 2020; Ehigiamusoe and Lean, 2019; Malefane and Odhiambo, 2018; Olukumi and Umar, 2021; Rehman, 2021). For instance, Ding and Sui (2021) studied capital inflows and macroeconomic performance and interest rate the pull and push factors using a Panel-VAR models, dynamic system GMM, and regression analysis in the G20 nations. Based on stock-market liquidity and local credit, the results demonstrated a considerable relationship between foreign capital flows and domestic financial development. The study found that based on the estimation conducted, the push factors like changes in the price of crude oil and the expansion of the global economy significantly impacted on international capital flows.

On the contrary, some studies failed to find significant effects but an inverse results, such as the studies by (Nguyen et al., 2021; Awad, 2021; Okafor, et al., 2021; Sule et al., 2021; Ojiambo and Ocharo, 2016; Olatunji and Shahid, 2015; Onwuteaka et al., 2023; Omoniyi, 2022; Amador, et al., 2021; Oke and Ruth, 2021; Ajisafe and Okunade, 2021). Example, Siddique et al. (2021) conducted a study on the effects of interest rates and the ratio of credit to the private sector on foreign direct investments and external debt inflows in France, examining determinants of foreign direct investment in the country. The research also considered financial inclusion through factors like transportation, education, and energy consumption. They utilized Vector Error Correction Models, unit roots, and panel integration techniques. The findings indicated that interest rates, inflation rates, and the ratio of credit to the private sector were negatively and insignificantly related to foreign direct investments and the role of financial inclusion.

5. CONCLUSION AND RECOMMENDATIONS

This study investigated the possible effect of capital flows on poverty gap in West African. The study selected ten (10) West African countries using purposive sampling technique that enabled the study selected Ghana, Liberia, Gambia, Sierra Leone, Nigeria, Togo, Cote d'Ivoire, Benin, Burkina-Faso, and Senegal were selected based on availability of data (countries with the required and adequate data), common characteristics in terms of language (Anglophone and Francophone) for easy selection (Giammanco and Gitto, 2017) and population stratification of the countries. In addressing the problem of poverty gap concern, the study. The study employed System Generalized Method of Moments (System GMM) that accounted for potential endogeneity and unobserved heterogeneity in the data. The findings reveal critical dynamics that inform our understanding of the economic landscape in West Africa. To substantiate the findings, the study tested the hypothesis on the significance of capital flows poverty gap. The analysis also employs diagnostic tests, including the AR(1) and AR(2) tests for autocorrelation and the Hansen and Sargan tests for overidentifying restrictions and instrument validity. In conclusion, the findings provide substantial evidence of the significant effects of capital flows on poverty gaps in West Africa. While the lagged poverty gap demonstrates a strong persistence, the negative relationship between diaspora remittances and poverty reinforces their critical role in alleviating poverty. These insights contribute to a more comprehensive understanding of the economic dynamics in West Africa and highlight the importance of tailored policy interventions that consider the unique challenges faced by the region.

Based on the result on the effect of capital flows on poverty gap as found in this study, the study then recommends that the government in each of the countries in West Africa should address structural weaknesses and should leverage on opportunities for collaborations with poverty reduction agencies like the United Nations Sustainable Goals policies aimed at reducing the severity of poverty among the developing economies. In addition, the study recommends that policies should be geared towards implementing social safety nets, conditional cash transfers and target subsidies to reduce poverty severity index and inequalities in West Africa.

Some limitations were encountered in course of this study. For instance, the findings of this research are applicable only to characteristics and features of the selected components of capital flows and poverty gap performance and the peculiarity of the data collected from the selected countries. Secondly, the study considered only ten (10) countries in West Africa for thirty-three (33) years. Future studies could consider including more West African countries and for more years beyond the 10 countries and 33years used in this study. In addition the study employed System Generalized Method of Moments (System GMM), further study could consider use of pooled panel data for the estimation.

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