Leveraging Remittances for Sustainable Growth in West African Monetary Zone: The Role of Institutional Quality

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ABSTRACT

This study examines the role of remittances in stimulating West African Monetary Zone growth from 1990 to 2023, focusing on their interaction with institutional quality. Using the panel auto-regressive distributed lagged model, the study reveals that remittances significantly promote long-run growth, but poor institutional quality weakens its impact. Further, control of corruption and the economic freedom index enhance WAMZ growth. Based on these findings, WAMZ governments should channel remittances into productive investments, prioritise institutional reforms, and enforce consistent economic policies. Accordingly, these measures will aid in harnessing remittances for sustainable growth and foster the region's resilience and competitiveness in the global economy.

Keywords: Economic Growth, Institutional Quality, Remittances, West African Monetary Zone
JEL Classifications: F43, O43, F24

1. INTRODUCTION

Over the decades, the West African Monetary Zone has been struggling to achieve sustainable economic growth amidst significant institutional weakness. The region comprising The Gambia, Ghana, Guinea, Liberia, Nigeria, and Sierra Leone is faced with compounded macroeconomic volatility and governance issues (UNECA, 2021). These challenges have led to a constraint in the economic performance of the region as the growth rate dwindled in Nigeria, the largest economy in the region, from 1.18% in 2021 to 0.82% in 2022 and −0.06% in 2023 (UNCTAD stat, 2024). Likewise, Ghana experienced a slow growth rate, dropping to −1.54% in 2020 and 0.8% in 2023 (UNCTAD stat, 2024).

Remittance inflows into the region represent a vital source of foreign exchange, poverty alleviation, and household income despite the existing structural hurdles (World Bank, 2024). As emphasised by Chami et al. (2005), remittances have a great potential to stimulate economic development through their potential to finance key economic areas like education, healthcare, and entrepreneurial ventures. However, remittance developmental impacts are largely dependent on how effectively and efficiently they are used.

According to IOM (2024), remittances are money or goods migrant workers send back home to enhance the consumption of their loved ones. In many WAMZ economies, remittances help to support consumption-based activities. Although they may address the immediate needs of the recipient, they may not translate into long-term economic gains in the region (Ajileye and Anyanwu, 2024). Therefore, to maximise their long-run growth potential, remittances must be channelled into productive investments such as infrastructure, industrial development, and human capital enhancement (Adenutsi, 2014).

Statistical evidence revealed that Sub-Saharan Africa received an estimated sum of US$54 billion in remittance inflows (World Bank, 2023). At the global level, remittances grew at a slow pace

in the year 2023, with sub-Saharan Africa moderate growth of 1.9%. However, regions like the Middle East and North Africa witnessed a decline of 5.3%, while in Europe and Central Asia, remittance dropped to 1.4% (World Bank, 2023). As projected by the International Fund for Agricultural Development (IFAD), migrant workers will send US$5.4 trillion to their communities of origin between 2022 and 2030 (IFAD, 2023). Thus, this highlights an opportunity for the WAMZ region to leverage these inflows through institutional reforms.

Institutional quality encompassing dimensions like control of corruption, economic freedom, regulatory quality, and the rule of law plays a decisive role in shaping how resources are allocated and utilised (North, 1990). According to Acemoglu and Robinson (2012), weak institutional frameworks may divert remittance inflows to unproductive or rent-seeking activities. Thus, this action exacerbates economic inequalities. On the contrary, robust institutional quality can foster sustainable growth, where remittance inflows are used for productive activities such as infrastructure development, healthcare, and education (Ratha, 2013).

The WAMZ region is characterised by poor governance and weak quality of the institutions. This inefficiency remains a persistent challenge in the region, affecting overall economic performance and undermining the potential benefits of remittance inflows. Increasing corruption, limited economic freedom, and persistent government ineffectiveness have hindered the region's ability to utilise remittances effectively for growth. Accordingly, these shortcomings not only widen the inequalities gaps but also limit the ability of remittances to act as a driver of long-term development. Despite institutional quality's significant role in shaping the remittance-growth nexus, empirical research on this dynamic within the WAMZ region remains limited, thus necessitating this study.

Previous empirical studies, such as Ajileye and Anyanwu (2024), Ikpesu (2023), and Anyanwu and Erhijakpor (2010), examined the impact of remittances on economic growth and their potential to reduce poverty in Africa. However, most existing studies focus on either the direct effects of remittances or institutional quality in isolation, overlooking the potential synergistic effects of their interaction. Therefore, this study assessed the impact of remittance inflows on WAMZ's economic growth. This study is timely and relevant as the WAMZ region faces governance deficits, reliance on remittances, and the need for regional integration.

This study focused on the WAMZ region due to its unique socio-economic characteristics, which include similar macroeconomic challenges and ongoing efforts toward regional integration. As such, the interplay between remittances and institutional quality is critical for understanding the economic trajectories of WAMZ economies. By addressing the gap in this study, actionable insights into how institutional reforms can enhance the developmental impact of remittances and contribute to the broader economic objectives of the WAMZ region are provided. This study is a recent one, covering the period between 1990 and 2023. This study employed the Panel Auto-regressive Distribution model to examine the long-run and short-run effects of these factors, thus providing a robust empirical estimate.

This study is organised into five sections: Section one presents the introduction. Section two extensively reviews relevant literature, including both theoretical and empirical studies. Section three presents the data sources and methodology adopted. Section four reports the empirical findings and discussion, and Section five concludes with policy recommendations.

2. LITERATURE REVIEW

2.1. Theoretical Review
In developing economies, the relationship between diaspora remittances, economic growth, and institutional quality has gained extensive academic inquiry. The theoretical nexus between remittances and economic growth can be traced to the dual-gap model. This model posits that developing economies often face savings and foreign exchange constraints (Chenery and Strout, 1966). Thus, remittances, a form of external finance, can help to bridge these gaps. As asserted by Ratha and Plaza (2021), remittances are vital cross-border financial transfers that sustain millions of lives in most developing economies. These financial flows are remarkable, especially during global crises like the COVID-19 pandemic. They provide a cushion for migrant loved ones by offering resources for consumption and investment.

The endogenous growth theory also opined that remittances could foster economic growth by enhancing human capital development through increased spending on education, healthcare, and entrepreneurial activities (Romer, 1990; Lucas, 2019). Accordingly, remittances can impact economic growth through the multiplier effect. For instance, when remittances are spent on goods and services, they stimulate demand and create employment opportunities, leading to increased income and further economic activity (Taylor, 2019). However, Adams and Page's (2005) dependency theory argues that reliance on remittances can undermine growth by fostering consumption-led rather than investment-driven growth, thus creating a dependency trap.

Institutional quality, including governance structures, legal frameworks, and policy environments, is critical in determining the extent to which remittances translate into economic growth. Acemoglu and Robinson's inclusive and extractive theory (2012) posits that strong institutions create an enabling environment for economic activities to thrive as they encourage broad participation and equitable access to resources for innovation and productive purposes. On the other hand, extractive institutions concentrate power and wealth in the hands of the few elites. Thus, this centralised power creates imbalance and stifles the growth of the economy. Additionally, Kaufmann et al. (2010) good governance theory also shows the importance of robust, accountable institutions in promoting growth by reducing transaction costs, ensuring property rights, and fostering trust in economic systems (North, 1990). Therefore, high-quality institutions can stimulate growth by channelling funds into productive investments. For instance, effective financial systems can mobilise remittance inflows into credit for businesses. At the same time, sound

governance can ensure that public spending on remittance taxes is directed toward growth-enhancing projects (Acemoglu and Robinson, 2012). Conversely, weak institutions characterised by corruption, political instability, and inefficient bureaucracies may distort the allocation of remittances, leading to suboptimal outcomes (Mauro, 1995).

2.2. Empirical Review
Several empirical investigations have demonstrated the significant role of remittances in fostering economic growth in WAMZ countries. Quartey (2006) emphasised that remittances directed toward consumption may have limited long-term growth effects compared to those channelled into productive investments. This claim is confirmed by a study by Ajileye and Anyanwu (2024), who confirmed that remittances significantly contribute negatively to WAMZ region growth. Likewise, Ngong et al. (2024) study on emerging African countries for the period from 1990 to 2022 revealed a negative contribution of remittances to growth. In addition, Iseghohi and Rolle's (2020) empirical finding on the WAMZ region confirmed a negative long-run impact as more households depend on remittances for consumption than for productive activities.

On the contrary, using the panel ARDL estimation technique on 27 Sub-Saharan African countries for the period from 2000 to 2020, Ikpesu (2023) revealed that remittances significantly contribute to growth, while financial market development yields mixed results. Similarly, Ben Mim and Ben's (2021) study on selected MENA countries for the period from 1987 to 2018 showed that remittances have a positive influence on the selected MENA countries' long-run growth. Coulibaly and Davis (2013) also examined the impact of remittances in 95 countries using panel data. They found that remittances have the potential to drive growth in the countries studied. For a country like Ghana, Adenutsi (2014) found that remittances contribute to poverty reduction and human capital development, thus enhancing economic growth. As evidenced in these previous studies, the growth effects of remittances are often conditional on their usage.

The mediating role of institutional quality in the remittance-growth nexus is a current and ongoing topic of discussion in the empirical literature. For example, Anyanwu and Erhijakpor (2010) observed that remittances have a stronger impact on economic growth in WAMZ countries with better governance indicators, such as political stability and regulatory quality. This finding aligns with the institutional economics perspective, which posits that strong institutions enhance the efficiency of resource allocation (North, 1990). Conversely, in countries with weak institutions, remittances are more likely to be misallocated or diverted for unproductive uses.

Several empirical studies have underscored the critical role of diaspora remittances in driving economic growth. In contrast, others have concluded that remittances have an adverse effect on growth. However, most studies do not examine institutional quality as a key moderating factor in the contest of the West African Monetary Zone. Therefore, this study fills this gap by examining the interaction between remittances and institutional quality in fostering WAMZ's economic growth from 1990 to 2023.

3. RESEARCH METHODOLOGY

This study is motivated by Romer's (1990) and Lucas's (2019) endogenous growth theory. The model challenges traditional neoclassical growth theories by emphasising that growth is driven by internal factors rather than external influences. Additionally, the model highlights the importance of governance and institutional frameworks in fostering an environment conducive to innovation and growth (Adams and Page, 2005).

3.1. Data and Sources
This study employed an annual dataset covering the period 1990-2023, consisting of annual panel data for six WAMZ countries. Table 1 presents the descriptions of the variables and data sources.

3.2. Estimation Methods and Model Specification
This study employed the panel autoregressive distributed lag (PARDL) to assess the short- and long-run effects of remittances and institutional quality on WAMZ's economic growth. This estimation technique follows the framework of Pesaran and Shin (1998) and Pesaran et al. (2001). Accordingly, the PARDL approach is suitable for variables with mixed stationarity levels at level I(0) and the first difference (1), respectively. Also, it addresses endogeneity concerns.

The panel ARDL long-run equation is as follows:

$$
\begin{aligned}
RGDPCG_{it} = {} & \alpha_i + \sum_{j=1}^{p}\beta_1 RGDPCG_{i,t-j} + \sum_{j=0}^{q1}\beta_2 DR_{i,t-j} \\
& + \sum_{j=0}^{q2}\beta_3\, COC_{i,\,t-j} + \sum_{j=0}^{q3}\beta_4\, EFI_{i,t-j} + \sum_{j=0}^{q4}\beta_5\left(DR*COC\right)_{i,t-j} \\
& + \sum_{j=0}^{q5}\beta_6\left(DR*EFI\right)_{i,t-j} + \sum_{j=0}^{q6}\beta_7 TOP_{i,t-j} + \sum_{j=0}^{q7}\beta_8 TOP_{i,t-j} + \varepsilon_{it} \quad (1)
\end{aligned}
$$

Where:
$RGDPCG_{it}$ = Real GDP per capita growth rate for country i at t time
DR_{it} = Remittance inflows for country i at t time
COC_{it} = Control of corruption for country i at t time
EFI_{it} = Economic Freedom Index for country i at t time
$DR_{it} * COC_{it}$ = Interaction term between remittances and control of corruption for country i at t time
$DR_{it} * EFI_{it}$ = Interaction term between remittances and economic freedom index
INF_{it} = Inflation Rate (GDP deflator) for country i at t time
TOP_{it} = Trade as a percentage of GDP for country i at t time
ϵ_{it} = Error term
β_1-β_8 are the long-run coefficients.

The short-run dynamics and adjustment speed to long-run equilibrium are captured using the error correction model (ECM). The panel ECM model equation is as follows:

Table 1: Variable and sources of data

Variables	Descriptions	Data sources
Real GDP per capita growth rate (RGDPCG)	The annual average growth rate per capita is based on GDP in constant 2015 United States dollars.	United Nations Conference on Trade and Development (UNCTAD)
Remittance inflows (DR)	Measured as the ratio of personal remittances received to GDP	World Bank indicators (WDI)
Control of corruption	Control of corruption: Estimates. Measures the extent to which corruption is controlled within a country, with a range of−2.5-+2.5.	World Governance Indicator (WGI)
Economic freedom index	Measured based on 12 qualitative and quantitative factors, which are categorised into rule of law, government size, regulatory efficiency and open markets. Graded on a scale of 1 to 100	Heritage foundation
Trade openness	Measured as total trade (exports+imports) as a percentage of GDP	World Bank indicators
Inflation rate (INF)	Measured as the GDP deflator	World Bank indicators

$$RGDPCG_{it} = \alpha_i + \sum_{j=1}^{p}\beta_1\Delta RGDPCG_{i,t-j}$$

$$+\sum_{j=0}^{q1}\beta_2\Delta DR_{i,t-j} + \sum_{j=0}^{q2}\beta_3\ \Delta COC_{i,\ t-j} + \sum_{j=0}^{q3}\beta_4\ \Delta EFI_{i,t-j}$$

$$+\sum_{j=0}^{q4}\beta_5\Delta\left(DR*COC\right)_{i,t-j} + \sum_{j=0}^{q5}\beta_6\Delta\left(DR*EFI\right)_{i,t-j}$$

$$+\sum_{j=0}^{q6}\beta_7\Delta TOP_{i,t-j} + \sum_{j=0}^{q7}\beta_8\Delta TOP_{i,t-j} + \varepsilon_{it} \qquad (2)$$

Where Δ is the first difference between the variables, β_1-β_8 are the short-run coefficients and θ_i Represents the coefficient of the ECM, which measures the speed of adjustment made towards long-run equilibrium.

4. FINDINGS AND DISCUSSION

4.1. Summary Statistics and Correlation Matrix Test Result

The descriptive statistics from Table 2 highlight significant variability in the dataset across the six variables employed. The mean value of RGDPCG is 1.64, reflecting modest average growth. However, the large range of −44.55 to 169 and high standard deviation of 14.32 indicate fluctuations. The skewness of 7.57 and kurtosis of 95.32 suggest periods of both economic booms and deep contractions. Similarly, DR exhibits a moderate average of 3.78 but is skewed at 2.20. The value of COC reveals poor institutional quality, with a mean of −0.61 and a limited range from −1.54 to 0. The low standard deviation of 0.44 indicates minimal variation among countries.

On the other hand, the EFI shows moderate levels of economic freedom, with an average of 41.80 and a range from 0 to 64.2, skewness of −1.22 and moderate kurtosis of 2.64, suggesting that most countries cluster around higher economic freedom scores. The mean score of INF is 15.71, with deflation of −6.67 and hyperinflation of 168.05. Furthermore, TOP revealed an average of 57.27, indicating moderate openness, a skewness of 2.35 and a kurtosis of 11.76.

The RGDPCG correlation statistics show weak positive correlations with EFI (0.12380) and TOP (0.17656). These outcomes suggest

that higher economic freedom and trade openness may support economic growth in the WAMZ region. However, the negative correlation with COC (−0.15921) implies that poor control of corruption hinders growth in the WAMZ region. Thus, the findings emphasise the role of institutional and policy factors in fostering sustainable economic growth. DR has a positive correlation with EFI (0.31446) and TOP (0.15402). Hence, remittance inflows are more prevalent in economically open and free environments. Conversely, its negative correlation with INF (−0.17949) suggests that inflation could erode the real value of remittances, impacting their economic significance.

Furthermore, COC and EFI exhibit complex relationships. COC is negatively correlated with EFI (−0.39026), suggesting that higher economic freedom does not always translate into better corruption control in th-e WAMZ region. Additionally, COC has a moderate positive correlation with INF (0.25107), revealing the intricate interplay between corruption control efforts and inflationary pressures.

4.2. Stationarity Test

This study employed Levin, Lin, and Chu (LLC), Pesaran and Shin (P and S), augmented Dickey-Fuller (ADF), and Phillips-Perron (PP) unit root test on all the variables. The outcome in Table 3 revealed that at a 5% level of significance, RGDPCG, COC, EFI, INF, and TOP are stationary at level I(0). At the same time, DR is stationarity at level first difference I(1). The findings provide a foundation for subsequent analyses, such as co-integration tests and dynamic panel ARDL estimation methods.

4.3. Co-Integration Test Result

The Johansen-Fisher panel co-integration test result presented in Table 4 indicates the presence of long-run relationships among the variables for the West African Monetary Zone (WAMZ). At the "None" hypothesis, both the trace test (Fisher Stat = 76.71, P = 0.0000) and the max-eigenvalue test (Fisher Stat = 48.47, P = 0.0000) reject the null hypothesis of no co-integration. Accordingly, this outcome implies that the variables are cointegrated, confirming the existence of a long-term equilibrium relationship. Also, at the "At most 1" hypothesis, both tests show statistical significance at a significance level of 5%. These results suggest a stable long-run relationship exists between the dependent and independent variables under consideration, thus emphasising the importance of targeted policies to maintain macroeconomic stability in the WAMZ.

Table 2: Descriptive statistics and correlation statistics result

	RGDPCG	DR	COC	EFI	INF	TOP
Mean	1.641244	3.780248	−0.611993	41.80239	15.70733	57.26607
Median	1.790000	1.483910	−0.694107	52.30000	9.915583	49.33500
Maximum	169.0000	27.07507	0.00000	64.20000	168.0530	270.6200
Minimum	−44.5500	0.000000	−1.536518	0.000000	−6.666699	0.00000
Standard deviation	14.31878	5.240176	0.443632	22.84361	22.11684	40.53223
Skewness	7.565026	2.195840	0.112948	−1.222463	3.796329	2.349019
Kurtosis	95.31799	8.294672	1.795498	2.644879	21.22842	11.75676
Observation	201	201	201	201	201	201
Countries	6	6	6	6	6	6
RGDPCG	1	0.01302	−0.15921	0.12380	0.012716	0.17656
DR	0.01302	1	−0.12892	0.31446	−0.17949	0.15402
COC	−0.15921	−0.12892	1	−0.39026	0.25107	−0.01886
EFI	0.12380	0.31446	−0.39026	1	−0.23716	0.04699
INF	0.01272	−0.17949	0.25107	−0.23716	1	−0.02569
TOP	0.17656	0.154022	−0.01886	0.04699	−0.02569	1

Source: E-Views 12 Output

Table 3: Panel unit root test results

Test	At level					
	RGDPCG	DR	COC	EFI	INF	TOP
LLC	−4.62494	0.60880	−1.56532	−2.87605	−7.46649	−0.28726
P&S	−5.23818	1.99564	−0.84168	−2.42527	−7.25003	−1.64265
ADF	51.5853	4.96076	12.7430	26.3601	74.3585	19.8294
PP	82.4450	5.75009	32.4815	23.2062	86.3382	49.8103
Order	1 (0)		1 (0)	1 (0)	1 (0)	1 (0)
	At first	Difference				
LLC	−8.17024	−6.71231	−0.34412	−8.54250	−9.14715	−6.29081
P&S	−12.2240	−8.13383	−6.56027	−7.27027	−12.0588	−9.97058
ADF	130.005	83.8677	68.4635	72.6875	129.205	104.490
PP	148.396	144.918	144.264	124.686	172.935	136.185
Order	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)

Source: E-Views 12 Output. ***, **,*Indicates significance level at 1%, 5%, and 10% respectively

Table 4: Johansen fisher panel co-integration test result

Hypothesised No. of CE (s)	Fisher stat* (From trace test)	Prob	Fisher Stat* (From Max -Eigen)	Prob
None	76.71	0.0000	48.47	0.0000
At most 1***	37.70	0.0002	27.09	0.0075
At most 2	17.26	0.1400	12.87	0.3786
At most 3	10.17	0.6013	7.794	0.8010

Source: E-views 12 output

Table 5: Pedroni residual co-integration test

Test	Statistic	Prob.	Statistic	Prob.
Panel v-statistics	−1.9605	0.9750	−1.3342	0.9089
Panel rho-statistics	−0.7646	0.2223	−1.0021	0.1581
Panel PP-statistics	−13.6484	0.0000***	−9.5580	0.0000***
Panel ADF-statistics	−5.5961	0.0000***	−4.7884	0.0000***
Group rho-statistics	−1.0590	0.1448		
Group PP-statistics	−12.5489	0.0000***		
Group ADF-statistics	−3.9956	0.0000***		

Source: E-Views 12 Output. ***, **,*indicates significance level at 1%, 5%, and 10% respectively

Pedroni residual co-integration test presented in Table 5 also provides further evidence of co-integration among the variables. The panel PP-statistics (P = 0.0000) and panel ADF-statistics (P = 0.0000) strongly reject the null hypothesis of no co-integration, as do their group equivalents. This result underscores a robust long-run relationship in the WAMZ region. Consequently, the long-run and short-run impact of these variables is examined using the panel autoregressive distributed lag model (PARDL).

4.4. Long-Run and Short-Run Impacts

The panel ARDL results presented in Table 6 provide an understanding of the impact of remittances and institutional quality on economic growth within the WAMZ region. From the outcome, remittance inflows exhibit a positive and significant impact on economic growth, though at a 10% level of significance. The result shows that all things being equal, a one-unit increase in remittance

inflows contributes 3.119 units to economic growth at a probability value of 0.0664. Consequently, this finding suggests that remittance inflows serve as an essential source of foreign capital, foreign exchange, and household income. Thus, the WAMZ region should leverage remittances for investment activities, which will help to stimulate sustainable growth. This outcome is supported by the findings of Ikpesu (2023) and Iseghohi and Rolle (2020) but opposed by the finding of Ajileye and Anyanwu (2024), whose study concluded that remittance inflows have an adverse effect on growth in the WAMZ region.

Institutional quality, measured by control of corruption, emerges as a critical determinant of long-run growth. The findings indicate that a one-unit increase in the control of corruption will significantly foster WAMZ region economic growth by 5.3423

Table 6: Impact of remittances and institutional quality on economic growth in the WAMZ region

Variable	Coefficient	Std.Error	t-Statistic	Probability
Selection model	(1,2,2,2,2,2,2,2)			
Long run impact				
DR	3.1191	1.6803	1.8563	0.0664*
COC	5.3423	1.4778	3.6149	0.0005***
EFI	0.1149	0.0279	4.1088	0.0001***
DR_COC	−2.4183	0.8004	−3.0214	0.0032***
DR_EFI	−0.0771	0.0252	−3.0581	0.0029***
INF	−0.0263	0.0398	−0.6602	0.5107
TOP	0.0682	0.0136	5.0113	0.0000***
Short run impact				
D (DR)	4.6549	5.4825	0.8491	0.3979
D (COC)	−13.0045	4.0757	−3.1907	0.0019***
D (EFI)	−0.0231	0.0825	−0.2805	0.7797
D (DR_COC)	3.0488	1.7567	1.7356	0.0858*
D (DR_EFI)	−0.03001	0.0947	−0.3169	0.7520
D (INF)	−0.0796	0.0717	−1.1112	0.2692
D (TOP)	−0.0158	0.1049	−0.1509	0.8804
ECMt−1	−0.6946	0.1291	−5.3795	0.0000***
Constant	−6.6381	4.2381	−1.5663	0.1205
Wald test				
F-Statistics	17.50607	(7, 98)	0.0000***	
Chi-square	122.5425	7	0.0000***	

Source: E-Views 12 Output. ***, **,* indicates significance level at 1%, 5%, and 10% respectively

units, all things being equal. Accordingly, this outcome emphasised the importance of reducing corruption in promoting economic stability and growth. Given the persistent governance challenges faced by WAMZ countries, this result highlights the necessity for reforms that enhance transparency, accountability, and efficient rule of law (Besley and Persson, 2022). Additionally, the economic freedom index also contributes significantly to growth with a coefficient of 0.1149 units increase. Hence, policies that will promote market liberalisation, property rights protection, and reduced regulatory burdens are essential for achieving sustained economic development in the region (Acemoglu and Robinson, 2012; Kaufmann et al., 2010).

In addition, the interaction terms of remittances with control of corruption and economic freedom index reveal negative but significant coefficients in the long run. The findings showed that a one-unit increase in the remittances interaction with control of corruption and economic freedom index would result in 2.4183 units and 0.0771 units decrease in WAMZ region growth, respectively. Thus, the positive effects of remittances are diminished in the presence of poor institutional quality or limited economic freedom. This outcome suggests that remittance inflows are more effective in environments where corruption is controlled and markets function efficiently. For WAMZ countries, these findings emphasise that institutional and policy improvements are conditions for maximising the developmental impact of remittances. So, without these structural reforms, remittances may fail to translate into meaningful economic growth and instead contribute to rent-seeking or unproductive uses (North, 1990; Mauro, 1995).

Trade openness with a significant positive coefficient of 0.0682 units increase in growth reinforces the role of globalisation in fostering growth. This result suggests that improving trade

infrastructure, reducing tariff and non-tariff barriers, and encouraging regional trade agreements can bolster WAMZ's economic performance. Conversely, the inflation coefficient shows an insignificant and negative effect of −0.0263 units decrease in growth. This outcome indicates that while price stability is crucial for macroeconomic management, its direct influence on long-term growth in WAMZ should be minimised.

In the short run, the results of remittances inflow do not exhibit significant immediate effects on economic growth. All things being equal, one unit increase in remittances will increase growth by 0.3979 units. On the contrary, the negative and significant coefficient of −13.0045 units highlights the detrimental short-term effects of corruption on growth. This finding underscores the urgency of addressing governance challenges in WAMZ countries, as corruption can erode investor confidence, misallocate resources, and hinder economic activity. The lack of significance for the economic freedom index, the interaction of diaspora remittance with control of corruption and economic freedom index, inflation rate, and trade openness in the short run suggests that their effects materialise over time and require sustained policy consistency.

The error correction term ECMt-1 is highly significant, with a negative coefficient of −0.6946. This finding indicates a strong convergence toward long-run equilibrium. Consequently, approximately 69% of any deviation from the long-term relationship is corrected in the subsequent period. Hence, this outcome demonstrates the stability of the WAMZ region's economic system. Also, it suggests that while short-term shocks may disrupt growth, the WAMZ region has mechanisms to return to its long-run equilibrium, likely through policy adjustments and market corrections.

Furthermore, the Wald test results with F-statistics of 17.50607 and probability of 0.0000 confirm the joint significance of the

explanatory variables, attesting to the model's robustness. These outcomes provide insights for policymakers in the WAMZ, emphasising the importance of enhancing institutional quality, promoting economic freedom, and leveraging remittance inflows and trade openness to boost growth in the region. Furthermore, they highlight the need for targeted interventions to ensure that remittances contribute meaningfully to growth, particularly by addressing governance challenges and fostering an enabling environment for productive investment.

5. CONCLUSION

This study provides fresh insights into the significant role of remittance inflows in driving sustainable economic growth within the West African Monetary Zone (WAMZ). Focusing on the interaction between remittances and institutional quality, it offered new evidence on how governance and economic freedom mediate remittance growth, which is underexplored in the previously existing literature. This study employed the Panel ARDL model to analyse both the short and long-run relationships, thus providing robust empirical evidence that will guide WAMZ region policymakers to maximise the developmental impact of remittance inflows. Based on the empirical outcome of this study, in the long run, remittance inflows have the potential to drive WAMZ's growth through investment in productive activity. However, its effectiveness is hinged on the strength of the institutional framework, specifically in controlling corruption and fostering economic freedom. In addition, the interaction effects of control of corruption and the economic freedom index stressed that poor institutional quality in the WAMZ region would undermine the positive contributions of remittances in the long run. Thus, with a robust institutional framework, remittance inflows will stimulate growth in the region.

Furthermore, this study revealed the positive role of trade openness in enhancing regional integration and global competitiveness. This insight emphasised the need for the WAMZ region to embrace globalisation while addressing structural weaknesses. The inflation rate demonstrates a negligible influence on WAMZ growth. The finding also stressed the resilience of the WAMZ economies by showing the ability of the region's growth to recover from short-term shocks and align with long-term growth trajectories.

Based on these findings, this study recommends that WAMZ governments and policymakers should implement strategies that will aid in channelling remittance inflows toward productive investments in areas such as infrastructure development, entrepreneurship, and education. They should also prioritise institutional reforms and enforce consistent economic policies. Accordingly, these measures will not only aid in harnessing remittances for sustainable growth but also foster the region's resilience and competitiveness in the global economy.

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