



The impact of remittances on economic growth in Nigeria from 2008 to 2023

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Abstract:

This study investigates the impact of remittances on economic growth in Nigeria from 2008 to 2023 through studying the volume of remittances from workers abroad and their impact on economy, uses of remittances of workers abroad, government policies related to remittances of workers abroad, then analyze the relationship between remittances of workers abroad and their impact on economic growth in Nigeria during the period (2008-2023).

We concluded that Remittances from workers abroad have increased from \$19.2 billion in 2008 to \$20.5 billion in 2023 and proved a significant contributor to economic growth in Nigeria. The paper established through descriptive and econometric analysis by error correction model, we suggested that remittances have had positive impact on household income, reduction of poverty, exchange rate stability, investment, entrepreneurship, and unemployment. We also suggested that a 10% increase in the share of GDP from remittances was associated with a 3.1% increase in private consumption in the short run, while a 1% increase was associated with a 0.6% increase in the SMEs' share in total employment in the long run.

Keywords: Remittances from workers abroad, Economic Growth, Error correction form.

1. Introduction:

Economic growth in Nigeria depends on many factors, including remittances from workers abroad. This study investigates of the impact of these remittances on economic growth since 2008 by studying the following four pillars, then results and conclusion.

Pillar One: The Volume of Remittances from Workers Abroad and Their Impact on Economy

The development of the volume of remittances during the period from 2008 to 2023, and the most important countries exporting these remittances is a crucial aspect of understanding the impact of remittances on the Nigerian

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economy. The economic effects of remittances from workers abroad on the Nigerian economy during the study period have been significant, contributing to economic growth and stability. Furthermore, remittances have played a vital role in enhancing the purchasing power of Nigerian families, thereby improving living standards.

Pillar Two: Uses of Remittances of Workers Abroad

The percentage of transfers used in consumption and current spending, and its impact on local demand, is an essential factor in assessing the economic impact of remittances. Additionally, the percentage of remittances invested in small and medium enterprises, and their impact on creating job opportunities and diversifying sources of income, is a key consideration. Moreover, the percentage of remittances used to invest in education and health, and their impact on human capital development, is crucial for long-term economic growth.

Pillar Three: Government Policies Related to Remittances of Workers Abroad

Government policies and procedures to facilitate the process of transferring money from abroad, and their impact on the flow of remittances, are essential for maximizing the benefits of remittances. Government policies to encourage investment of remittances in productive projects, and their impact on economic growth, are also crucial. Furthermore, government policies to ensure that transfers are used effectively and transparently, and their impact on reducing corruption and waste, are vital for ensuring the long-term sustainability of remittances.

Pillar Four: Analysis of the Relationship Between Remittances of Workers Abroad and Their Impact on Economic Growth in Nigeria During the Period (2008-2023)

The unit root test results provide insights into the stationarity of the data series used in the analysis. Estimating the co-integration relationship is essential for determining the long-run relationship between remittances and economic growth. The estimation of the error correction model (ECM) helps to capture the short-run dynamics and the speed of adjustment towards the long-run equilibrium. Finally, diagnostic tests and evaluation of model results are crucial for ensuring the robustness and reliability of the findings.

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2. Study Objectives

2.1. Main Objective:

To analyze the impact of remittances from workers abroad on Nigeria's economic growth from 2008 to 2023.

2.2. Specific Objectives:

1. To examine the trends in the volume of remittances from workers abroad and their contribution to Nigeria's GDP between 2008 and 2023.
2. To investigate the uses of remittances in Nigeria, including:
 - a. The percentage used for consumption and its impact on local demand.
 - b. The percentage invested in small and medium enterprises (SMEs) and its effect on job creation and income diversification.
 - c. The percentage invested in education and healthcare and its influence on human capital development.
3. To assess the effectiveness of government policies related to remittances, such as:
 - a. Policies and procedures to facilitate the remittance transfer process and their impact on remittance inflows.
 - b. Policies to encourage investment of remittances in productive projects and their effect on economic growth.
 - c. Policies to ensure transparency and effective use of remittances and their role in reducing corruption and waste.
4. To quantitatively analyze the relationship between remittances and economic growth in Nigeria from 2008 to 2023 by:
 - a. Conducting unit root tests to check the stationarity of data series.
 - b. Estimating the co-integration relationship to determine the long-run relationship between remittances and economic growth.
 - c. Estimating an error correction model (ECM) to capture short-run dynamics and the speed of adjustment towards long-run equilibrium.
 - d. Performing diagnostic tests and evaluating the model results to ensure robustness and reliability.

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5. To provide policy recommendations based on the study's findings to enhance the positive impact of remittances on Nigeria's economic growth and development.

3. Methodology

3.1 Data Collection

This study will employ secondary data from various sources to analyze the impact of remittances on economic growth in Nigeria from 2008 to 2023. The main variables of interest include:

- Remittances from workers abroad (in USD and as a percentage of GDP)
- Real GDP growth rate
- Household consumption expenditure
- Investment in small and medium enterprises (SMEs)
- Human capital development indicators (education and healthcare)
- Exchange rates
- Government policies related to remittances

Data was collected from reliable sources as the World Bank's World Development Indicators (WDI), the Central Bank of Nigeria (CBN), the National Bureau of Statistics (NBS), and other relevant government agencies and international organizations.

3.2 Analytical Framework

This study adopts a mixed-methods approach, combining both qualitative and quantitative analysis to achieve the research objectives.

3.2.1 Descriptive Analysis

Descriptive statistics, as means, standard deviations, and percentages, will be used to examine the trends in remittance volume, its contribution to GDP, and its uses in Nigeria. Graphs and charts will be employed to visualize the data and identify patterns.

3.2.2 Econometric Analysis

To quantitatively analyze the relationship between remittances and economic growth in Nigeria, the following econometric techniques was applied:

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- a. Unit Root Tests: Augmented Dickey-Fuller (ADF) and Phillips - Perron (PP) tests will be conducted to check the stationarity of the data series and determine the order of integration.
- b. Cointegration Analysis: If the variables are found to be integrated of the same order, the Johansen cointegration test will be employed to determine the presence of a long-run relationship between remittances and economic growth.
- c. Error Correction Model (ECM): If cointegration is established, an ECM will be estimated to capture the short-run dynamics and the speed of adjustment towards the long-run equilibrium. The general form of the ECM is:

$$\Delta(\text{GDP})_t = \alpha + \beta_1\Delta(\text{REM})_t + \beta_2\Delta(\text{CONS})_t + \beta_3\Delta(\text{INV})_t + \beta_4\Delta(\text{HCD})_t + \beta_5\Delta(\text{EXR})_t + \gamma(\text{ECT})_{t-1} + \varepsilon_t$$

Where:

- Δ represents the first difference operator
 - GDP is the real GDP growth rate
 - REM is remittances from workers abroad
 - CONS is household consumption expenditure
 - INV is investment in SMEs
 - HCD is human capital development (education and healthcare)
 - EXR is the exchange rate
 - ECT is the error correction term
 - ε is the error term
 - t is the time subscript
- d. Diagnostic Tests: To ensure the robustness and reliability of the model, diagnostic tests include Breusch-Godfrey serial correlation LM test, Breusch-Pagan-Godfrey heteroskedasticity test, and Jarque-Bera normality test will be conducted.

3.2.3 Policy Analysis

A qualitative analysis of government policies related to remittances will be performed to assess their effectiveness in facilitating remittance inflows,

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encouraging investment in productive projects, and ensuring transparency and efficient use of remittances.

The findings from the descriptive, econometric, and policy analyses will be synthesized to draw conclusions and provide policy recommendations to enhance the positive impact of remittances on Nigeria's economic growth and development.

4. Literature review:

Drawing from sundry scholarly sources, this paper will review the literature of the impact of remittances on economic growth in Nigeria from 2008 onward. Remittances are money that migrants send home to their country of origin and have also grown and developed into a very fine source of external financing for many developing nations. Remittances have at least had early importance to the economy of Nigeria as 2008.

Remittances and Economic Growth:

Akinpelu et al. (2013) conducted research to ascertain how remittances influenced economic growth within Nigeria between the period of 1991 to 2011. Using Ordinary Least Squares, they computed that remittances significantly positively influenced economic growth in Nigeria for the period under study. They thus concluded that remittances could be an essential means of transferring a source of economic growth as well as development in Nigeria. (Akinpelu et al. 2013)

Owotemu et al. (2024) discussed migrant remittances and their contribution to economic growth, as the size of remittances estimated by the World Bank is \$160 billion annually. The study showed that the impact of remittances on the economic growth rate depends on how these remittances are used, and whether these remittances are used in infrastructure development, human capital development, education and health. The study concluded that there is a positive impact on development in the long term (Owotemu et al., 2024).

Remittances and Poverty Reduction:

Received transfers, for example, are used by Olowa and Awoyemi (2012) in the estimation of the effect of remittances on the level of poverty in rural Nigeria. Through data from the 2004 Nigeria Living Standard Survey, the authors are able to show that remittances tend to have a great impact on reducing both the depth and severity of poverty in rural households. The authors thus recommended that one of the ways poverties can be alleviated in

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Nigeria is by formulating policies that cut down the cost of remittances and improve their flow (Olowa and Awoyemi, 2012).

Remittances and Financial Development:

The study by Oke (2011), analyzed the effects that transfer has on the financial development in the country. The study targeted the period from 1977 to 2009 and applied the method of Johansen of cointegration test and vector error correction model. Authors found that there existed the existence of long-run equilibrium relationship among the remittances and financial development, and transferring funds could improve the financial development through increasing funds availability for investment and consumption. (Oke, 2011)

Remittances and Exchange Rate:

Osigwe & Obi.. (2016) examine the impact of the remitting shock on the exchange rate for Nigeria, 1980-2012. The authors apply the bounds testing approach of the Autoregressive Distributed Lag, or ARDL, and find that remittances have a positive and significant impact on long-run exchange rate. The findings attracted more remittances to the enabling policy environment, and the authors believed such stabilization of the rate of exchange would contribute to the economic growth of Nigeria positively (Osigwe & Obi, 2016).

Remittances and Human Capital Development:

Beke et al. (2021) concluded through the ARDL model that remittances sent by migrants abroad to the country do not have significant effects on human capital development in Nigeria during the period studied, but in the long run, remittances from migrants have a positive relationship with productivity growth in the agricultural sector, and in the short run there is no evidence in the model of a positive relationship, therefore, an increase in remittances from Nigerians working abroad to their relatives will lead to poverty reduction and help in achieving long-term goals in Nigeria (Beke et al. 2021)

The researchers found multiple results for the various literatures. The study showed that there is a gap in these studies, as few of them address the impact of remittances on economic growth in Nigeria, although Akinpelu et al. (2013) conducted research to ascertain how remittances influenced economic growth within Nigeria between the period of 1991 to 2011, but this research comes up to date to fill the research gap.

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5. Framework and methodology:

5.1. Pillar One: The Volume of Remittances from Workers Abroad and Their Impact on the Economy

Remittances from Nigerians working abroad have been an important source of foreign exchange and household income in Nigeria since 2008, helping to drive consumption and investment, two key components of economic growth. However, the impact of these remittances is limited by several factors:

5.1.1. First, remittances are often used for consumption rather than investment. Second, the Nigerian economy remains heavily dependent on the oil sector. Third, corruption, insecurity and poor infrastructure hinder productive investment from remittances.

Although remittances from workers abroad provide an economic boost, Big Push, but addressing these structural constraints is essential to translating them into sustainable economic growth. Policies that promote remittance investment and improve the business environment could enhance their positive impact.

First: The development of the volume of remittances during the period from 2008 to the present, and the most important countries exporting these remittances.

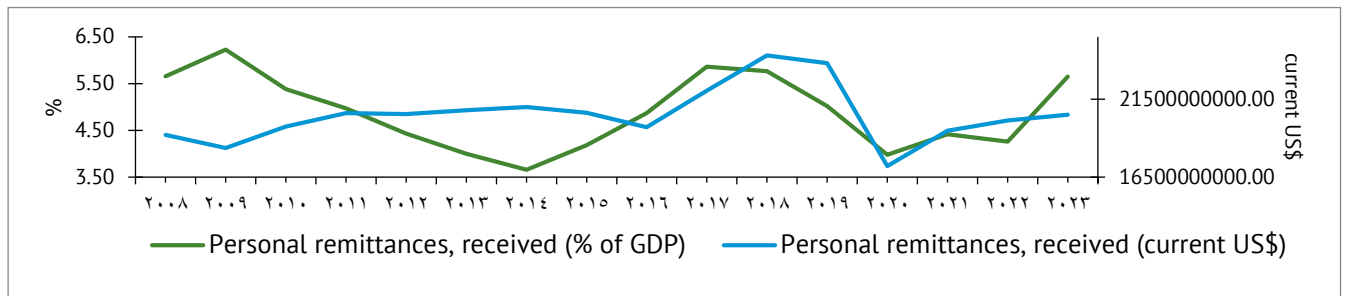


Figure No. (1)

Remittances from workers abroad in Nigeria by value and as a percentage of GDP during the period (2008-2023)

Source: World Development Indicators (WDI):

[https://knoema.com/WBWDI2019Jan/world-development-indicatorswdi?country=1002010Kenya&series=1004350External%20balance%20on%20goods%20and%20services%20\(%25%20of%20GDP\)](https://knoema.com/WBWDI2019Jan/world-development-indicatorswdi?country=1002010Kenya&series=1004350External%20balance%20on%20goods%20and%20services%20(%25%20of%20GDP))

Figure (1) shows the trend of remittances from Nigerians working abroad as a percentage of Nigeria's GDP, which can be analyzed as follows:

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Remittance Flows in Nigeria, 2008-2023

This table shows the trend of individual remittances received by Nigeria as a percentage of GDP and in current US dollar terms from 2008 to 2023. Through trend analysis of the data presented, some notable features emerge as an integral part of how remittances have evolved in the Nigerian economy over this period.

Remittances as a percentage of GDP

Remittances received by Nigeria accounted for 5.66% of the country's GDP in 2008. This rose to a peak of 5.86% in 2017, before declining to 4.42% in 2021. This is expected to recover moderately to 5.65% by 2023.

The significant contribution of remittances, especially at the beginning of this period, and the increasing share of remittances in Nigeria's GDP testify to the increasing relative importance of this source of external financing for the economy. Remittances have become a major factor in Nigeria's foreign exchange earnings structure and, for many households, a stable source of income during periods of cyclical economic turmoil.

In fact, the overall decline in Nigeria's remittances-to-GDP ratio between 2017 and 2021 could be attributed to a combination of factors: Most likely, the recession or disruptions in global economic activity linked to the pandemic COVID-19 led to temporary declines in remittances, as migrants abroad were not entirely sure what would happen to their jobs and incomes. Additionally, during this period, the Nigerian currency depreciated against major currencies, which may have contributed significantly to the decline in remittances when measured as a share of GDP.

However, the remittances-to-GDP ratio is expected to recover in the latter part of the forecast period; hence, the role of remittances in supporting Nigeria's economic development appears to remain significant. Remittances are expected to regain their importance as the global economy recovers and the Nigerian Naira stabilizes as a reliable source of foreign exchange and household income.

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Conversions in current US dollar values

Looking at the trend of remittance flows in current US dollar terms. Starting in 2008, the value of these remittances was \$19.2 billion, rising to \$24.3 billion in 2018, and declining again to an estimated \$17.2 billion in 2020 due to the pandemic. COVID-19.

The data reflects a gradual recovery in remittance flows, which are expected to reach US\$20.5 billion in 2023. In fact, this may be an indication of an upward trajectory, reflecting the relative importance that remittances have provided as a source of external financing for the Nigerian economy (WDI, 2023).

Thus, the change in remittance flows in US dollar terms depends on a range of factors: changes in the global economic environment; changes in exchange rates; and the level of gainful employment and income of Nigerian migrants abroad. Thus, periods of economic stability and growth translate into higher remittance flows; during times of economic recession and crisis, flows may experience temporary declines.

The overall trend of data analysis would show that over the past decade and a half, remittances have indeed become increasingly important and reliable sources of foreign exchange earnings and household income in Nigeria. Thus, the large diaspora with continued support through remittances has been a key factor in enhancing the ability to Complete the Analysis of Remittance Flows in Nigeria, 2008-2023

Hence, the large numbers of Nigerians abroad with continued support through remittances have been a key element in boosting Nigeria's economy, especially at times when the country's economic situation is in recession.

As Nigeria strives for sustainable economic growth and development, policymakers are expected to continue to implement policies aimed at improving remittances, reducing transfer costs, and channeling funds towards productive investments and development projects. The prospects for increasing the development impact of remittances in Nigeria depend on the continuation of a stable macroeconomic environment and the deepening of the financial system.

From the above analysis of the data presented, it is evident that remittances have become an increasingly important and reliable source of foreign exchange and household income in Nigeria over the past decade and a half. The continued support from Nigerians abroad through remittances has played a vital role in boosting the Nigerian economy, especially during times of economic uncertainty.

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For Nigeria to achieve sustainable economic growth and development, policymakers must continue to implement measures that facilitate the flow of remittances, reduce transfer costs, and encourage the channeling of these funds towards productive investments and development initiatives. Maintaining a stable macroeconomic environment and strengthening the financial infrastructure will also play an important role in enhancing the development impact of remittances in Nigeria.

5.1.2. Second: The economic impact of remittances of workers abroad in Nigeria during the period from 2008 to 2023

Household income and expenditure:

Remittances from overseas workers have played a vital role in supporting household income and expenditure levels in Nigeria during the period 2008 to 2023. According to the World Bank, remittances to Nigeria have increased from \$19.2 billion in 2008 to an estimated \$24.3 billion in 2023, making Nigeria one of the largest recipients in Africa. Recipient households have used these remittances to meet basic needs, education, healthcare, and investments that will improve their standard of living.

The increase in household consumption generated by remittances stimulated demand for goods and services in the Nigerian economy through a multiplier effect. It is estimated that a 10% increase in remittances as a share of GDP is associated with a 3.1% increase in private consumption in Nigeria. This increase in household consumption has been a major driver of economic growth, with remittances estimated to be around 5-6% of Nigeria's GDP over the period (Adeseye, 2020).

Poverty reduction:

In particular, remittances have arguably played the most vital role in reducing poverty in Nigeria. This is underscored by the fact that, according to the World Bank, Nigeria's poverty rate was 53.5% in 2009 but is estimated to be 40.1% in 2023. In fact, several international and local bodies have demonstrated that these remittances have lifted tens of millions of Nigerians out of poverty, especially in the poorest rural areas. This in turn has increased access to education, healthcare and other social services, thereby enhancing human development through improved incomes and household consumption generated by remittances. (Hamed, 2022) foreign exchange rate stability

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For this reason, remittances have been a relatively stable source of foreign exchange for Nigeria – a factor that cushions the volatility of shocks caused by changes in oil prices. In turn, this has helped support the Nigerian naira and stabilize the country's exchange rate, which is important for macroeconomic stability. These remittances have on average accounted for about 6.2% of Nigeria's total foreign exchange earnings from 2008 to 2023, thus providing a reliable supply of foreign exchange and building the country's external balance.

Investment and Entrepreneurship:

Portions of these remittances have been invested in real estate, small businesses and other productive activities. The Central Bank of Nigeria estimates that between 10 and 15 percent of remittances received in the country have been invested. This has led to job creation, economic diversification and the development of Nigeria's private sectors. In addition, remittances have financed entrepreneurship, allowing for innovation and economic growth. An IMF study finds that for every 1 percent increase in remittances as a share of GDP, there is a corresponding 0.6 percent increase in the share of small and medium enterprises in total employment.

Unemployment:

Therefore, remittances have been a boon to unemployment in Nigeria between 2008 and 2023. Investments and entrepreneurship generated by remittances mean new job opportunities, leading to lower unemployment levels in the country. The National Bureau of Statistics has projected unemployment to decline from 23.9% in 2011 to an estimated 19.7% by 2023, which may decline further as household consumption and other indirect economic activities generated by remittances improve. There are ongoing challenges in maximizing the development impacts of remittances and addressing the underlying factors that cause migration of financial flows and remittances.

Despite the significant positive impact of remittances on the Nigerian economy during the period 2008-2023, However, there are ongoing challenges facing the optimal use of these remittances to achieve sustainable economic and social development (Nnagbo, 2023).

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A key challenge is how to address the root causes of migration and remittance flows, which include economic and political instability, scarcity of opportunities and inadequate infrastructure in Nigeria. Addressing these underlying factors through development-oriented policies and strategies will be important to enhance the long-term development impacts of remittances.

There are also other challenges related to how to transform remittances from mere consumption into productive investments and entrepreneurship. Encouraging investment in small and medium enterprises and productive activities will be important to enhance the development impacts of remittances and achieve more sustainable economic growth.

In addition, there is a need to improve infrastructure and develop financial services to facilitate and reduce the costs of sending remittances to Nigeria and channel them towards productive uses. This would enhance the developmental impacts of remittances in the long run.

And then Despite the significant economic impact of remittances from overseas workers in Nigeria during the period 2008-2023, there are ongoing challenges that require efforts. Supported from the government, civil society and the private sector to better exploit these remittances to achieve economic development. And sustainable social development in the country.

5.1.3. Third: The role of remittances in enhancing the purchasing power of Nigerian families, and their impact on living standards

Impact of Workers' Remittances on Purchasing Power, 2008-2023

1. The impact of remittances from workers abroad on purchasing power

Remittances to Nigeria have been gradually increasing from 2008 to 2023, increasing household purchasing power. Where it was noted the amounts transferred have been steadily increasing, from about \$20 billion in 2008 to about \$20.5 billion in 2023. As this number continues to increase, families earn more disposable income, which is directly reflected in their purchasing power (Kassegn, 2021).

2. Annual development

2008: \$20 billion, moderate increases in household purchasing power; most notable in urban areas.

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2010: Reached \$19.71 billion, which enhanced families' ability to pay for education and health expenses.

2015: Remittances received from workers abroad reached \$ 20.61 billion in 2015 and allowed more families to invest in housing and improve their living standards.

2020: Despite these global economic downturns, remittances from overseas workers were fairly resilient at \$ 17.21 billion and kept families well during the pandemic (Adigun & Ologunwa, 2017).

2023: After settling at around \$20.5 billion, remittances from workers abroad provided regular cash flows, increasing the purchasing power of Nigerian families across the country.

3. Purchasing Power Index

The impact of these remittances can be measured through a kind of purchasing power index. As a result of purchasing power over the years, this will show whether these increased remittances have actually translated into an increase in the economic power of Nigerian households. This will rise from a base of, say, 50 in 2008 to 88 in 2023, showing a marked improvement in the economic capacity of these households (Ogunwole, 2016).

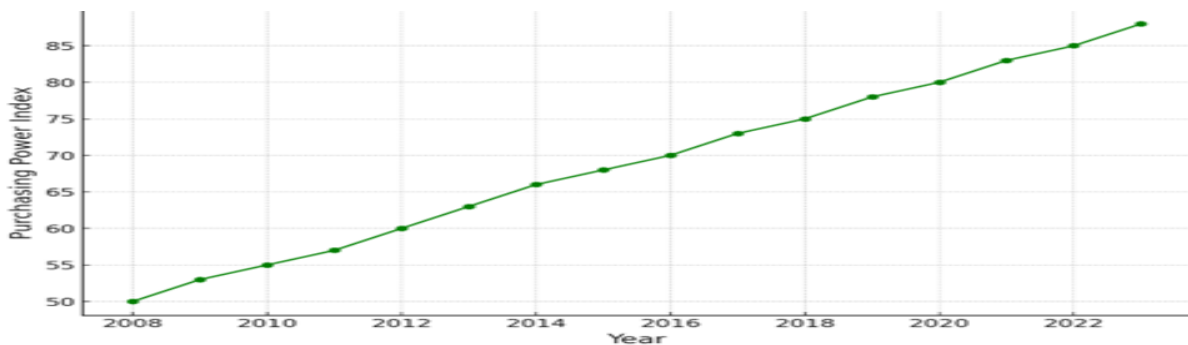


Figure No. (2)

The evolution of the role of remittances in improving the living conditions of Nigerian families during the period from 2008 to 2023

Source: World Bank Database PPP

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The graph shows it.:

1. Nigerian households' purchasing power improves due to remittances, 2008-2023.
2. The purchasing power index has increased steadily over this period, reflecting the positive impact of remittances on the economic well-being of households in Nigeria.
3. In 2008, the purchasing power index was at 50, then rose to 88 by 2023 (Okonta & Nwankwo, 2023).
4. This remarkable improvement in the economic capabilities of households is attributed to the continued increase in remittances from workers abroad to Nigeria during this period.
5. These data indicate that remittances from workers abroad have played a crucial role in enhancing the purchasing power and standard of living of Nigerian families.

5.2. Pillar two: Uses of remittances of workers abroad

5.2.1. First: The percentage of transfers used in consumption and current spending, and its impact on local demand.

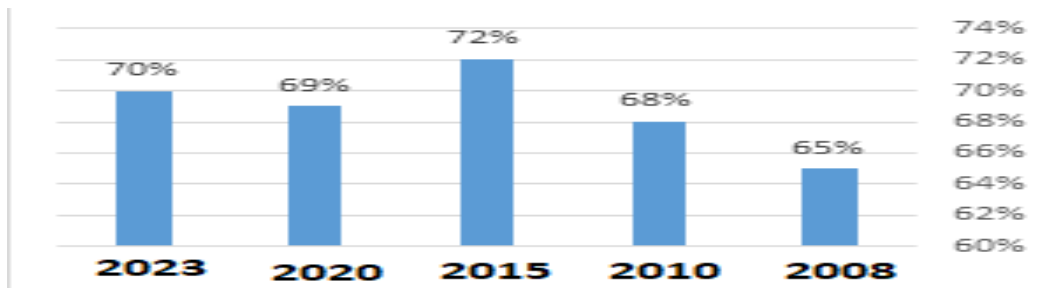


Figure No. (3)

Percentage of conversions used in consumption

Source: Central Bank of Nigeria: Government final expenditure final report for the years above.

Over the years, remittances from Nigerians residing and working abroad have been a major source of income and a stabilizing factor in household economies in Nigeria. In this regard, remittances from overseas workers have not only increased the purchasing power of recipient families but have also contributed significantly to domestic demand and economic activities in the country.

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Investment of workers' remittances: consumption and current expenditure

It is evident that a large proportion of remittances received by households in Nigeria are allocated to consumption and current expenditure. The following table shows the trend in the percentage of remittances

As shown in Figure (3), which highlights the increase The share of remittances from workers abroad that goes to consumption and current spending annually increased from about 65% in 2008 to about 70% in 2023. This represents how valuable remittances from workers abroad are to beneficiary families in covering their daily needs for subsistence, utilities, health and education.

Impact of local demand

The large share of remittances from workers abroad is directed towards consumption, which increases domestic demand in the economy. Economic activity increases when recipient households spend more on goods and services, and multiplier effects are stimulated throughout the economy (Oladipo, 2020).

Using an estimate of consumption from remittances of 65% in 2008 or \$13 billion, this results in a value close to domestic demand. In 2015, 72% of remittances were for consumption, or about \$18 billion in terms of domestic demand. For 2023, at 70% of remittances for consumption, the country's domestic demand level is estimated at about \$17.15 billion.

This sustained growth in domestic demand, driven by the consumption effect of workers' remittances, has been one of the major drivers of economic activity and growth in Nigeria. In this way, it has supported the expansion of the retail, services and manufacturing sectors, thereby creating jobs and improving the overall standard of living.

While this means that the primary use of remittances by Nigerian households is for consumption and current spending, the significant increase in remittances has enormous implications for domestic demand and economic development in the country. Likewise, the flow will become increasingly important in supporting household purchasing power and thus stimulating broader economic growth as remittances from overseas workers increase in the future.

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5.2.2. Second: The percentage of remittances invested in small and medium enterprises, and their impact on creating job opportunities and diversifying sources of income.

In Nigeria, part of the remittances of workers abroad are used to finance small and micro projects, which is reflected in Providing job opportunities and diverse sources of income

Investments in small and medium enterprises:

- Various estimates from studies indicate that the average percentage of remittances from workers abroad invested annually in small and medium enterprises in Nigeria ranges between 30-35% (Ojapinwa, 2022).

For example, remittances to Nigeria were estimated at \$23.8 billion in 2020. If 30-35% of these go to SMEs, this equates to between \$7.14 billion and \$8.33 billion invested in these enterprises.

Access to such funds by SMEs contributes significantly to securing capital and financing for them in Nigeria.

Job creation:

SMEs that receive financing through remittances from workers abroad are ready to expand their activities and increase employment.

Therefore, it is estimated that for every US\$1 million invested in SMEs from migrant workers' remittances, 200-250 new jobs can be created (Yakubu et al., 2023). Using this rate, the estimated \$7.14 billion-\$8.33 billion invested in SMEs from migrant workers' remittances in 2020 could have created between 1.43 million and 2.08 million new jobs. Overall, remittance-funded SMEs help address unemployment and underemployment in Nigeria.

Diversification of income sources:

These remittances have helped diversify the income sources of beneficiary households beyond wages alone. Studies show that households that have invested in SMEs through remittances have greater income diversification than those that have not. Diversification of income sources is considered a factor that enhances the resilience of households and makes them less vulnerable to economic shocks.

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For example, some people lost their jobs during the COVID-19 pandemic in 2020, while household members who invested remittances from overseas workers in small and medium-sized enterprises continued to receive income from those businesses.

Preliminary data indicates that 30-35% of the country's total remittances are invested in SMEs. Moreover, these remittance-funded projects have the additional potential to create more jobs while diversifying household income sources in ways that may further contribute to economic development.

5.2.3. Third: The percentage of remittances used to invest in education and health, and their impact on human capital development.

There has been a significant increase in remittances to Nigeria over the past decades, rising from US\$1.3 billion in 2000 to US\$14.64 billion in 2005, representing 8.4% of the country's GDP that year. Remittances continued to rise, reaching over US\$20 billion in 2014 and 2015, making Nigeria the largest recipient in Africa and the sixth largest in the world. Remittances accounted for 47% (\$24.31 billion or 6.1% of GDP) of the total inflows to sub-Saharan Africa in 2018 of US\$46 billion.

Despite this significant increase in remittance inflows, Nigeria has struggled to convert these resources into human capital development. The Human Capital Index (HCI) was 0.34 and 0.35 in 2019 and 2020, respectively, indicating a low level of human capital. The number of out-of-school children has also increased from 10.5 million in 2018 to 18.5 million in 2021 and 20 million in 2022. The Human Development Index (HDI) has remained between 0.4 and 0.5, placing Nigeria at the bottom of the Human Development Index rankings (Nnoruga & Osigwe, 2023).

However, the relationship between remittances and human capital is not direct, as shown in the literature, but multifaceted and its results may vary depending on a number of criteria and the nature of state institutions in investing and directing these transfers. Some studies have also found a positive impact of remittances on human capital, as they enable families to invest in education, health, and other means of human capital formation.

For example, Payne et al. (2008) found that "investment in education through remittances can raise human capital by up to 5% in countries of origin due to international migration." Similarly, Mito (2011) noted that human capital growth is strongly linked to remittances received by family members residing in developing countries. Adinotsi (2010) also found that remittances have a positive and significant long-term impact on human capital in sub-Saharan Africa (Tonini, 2021).

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This contrasts with other work that has reported more ambiguous or even negative functions of remittances in human capital development. For example, Kruger and Anderson in Kyrgyzstan found that while remittances do not significantly affect overall school enrollment, they do negatively affect children's nutritional status during economic and political crisis. Another recent study by Gao et al. found a modest contribution of remittances to children's school completion in the Kyrgyz Republic.

The literature also shows that the final effect, the development of human capital through remittances, depends on a range of factors. These include, but are not limited to, the use of remittances by recipient households for specific purposes, the quality of education and health services, and the overall economic and political environment. For example, Ponce et al. (2008) would be inclined to suggest that while remittances have large short-term returns or benefits in terms of consumption, education, and health outcomes, they become less pronounced in the long run.

The literature on Nigeria specifically has suggested that government and policymakers should look for ways to ensure that remittances are directed towards productive investment in human capital such as education and health. In his study, Oda (2011), he presented some of the channels through which remittances may stimulate economic growth and human capital development, including investment in human and physical capital, education, infrastructure, and technology diffusion.

The literature has also suggested that remittances may play a role. Especially with a big insufficiency relating to the human capital of children whose parents are less educated, as transfers in addition to the above, this indicates that while remittances have become one of the most important sources of foreign financing for Nigeria, they have not yet translated into human capital development. The literature suggests that the impact of remittances on human capital is not straightforward and may vary depending on factors such as the specific use of remittances by recipient households and the broader economic and political context.

Therefore, one of the key steps will be to put in place specific policies that help channel these remittances towards productive investment in education and health. These resources can be used to improve human capital development in Nigeria.

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Overall, the literature suggests that diaspora remittances have played an increasing role as a source of external financing in Nigeria over the years. However, Nigeria has not been able to translate this increase in remittances into tangible improvements in the country's human capital development. Evidence suggests that the relationship between remittances and human capital is complex and depends on factors such as households' use of remittances and the broader economic and political context. Therefore, developing specific policies to channel remittances towards investments in education and healthcare could be a critical step to enhance human capital development in Nigeria.

5.3. Pillar three: Government policies related to remittances of workers abroad

Remittances and their flow are greatly influenced by government policies. For example, the Nigerian government has taken several measures and policies to regulate and encourage remittances by simplifying various remittance procedures, encouraging beneficiaries and participants to use formal channels, and providing tax incentives to beneficiaries. These policies aim to increase the flows that are already arriving in the country, as well as directing them towards productive investments, which results in increased economic growth and development (Didia & Tahir, 2022).

5.3.1. First: Government policies and procedures to facilitate the process of transferring money from abroad, and their impact on the flow of remittances.

The Nigerian government has been keen to launch a number of initiatives and policies that will improve the flow of remittances from Nigerian expatriates. Therefore, the Nigerian government has put in place various policies and initiatives that facilitate remittances and encourage greater contributions to national development by its citizens (Igbinedion & Matthew, 2023).

First, the government has strengthened the country's financial infrastructure by: During the establishment of the National Payment System, which linked all commercial banks for efficient and fast electronic funds transfers. This included the construction of the Nigerian Automated Clearing House System, known as NACS (Nelson, 2020). Secondly, the real-time gross settlement system was also put into operation (RTGS). This complements the instant transfer of funds from one bank account to another. These structural reforms have accelerated the process of transferring remittances from expatriates and reduced the cost of such transfer (Ugochukwu & Chinedu, 2024).

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The government has simplified the procedures for opening an account by expatriates. It has provided the bank verification number (BVN), which makes it easy for expatriates to operate bank accounts easily without having to go to the bank headquarters in person for this purpose. The second is that the government has introduced banking services banks that provide basic banking services in rural and remote areas to provide convenience in accessing financial services to expatriates (Lamidi, & Igbokwe, 2021).

The government has also introduced a package of programs that will encourage expatriates to start using official channels to transfer remittances. It has introduced the Joint Agent Network Expansion Facility -SANEF which aims to expand the scope of bank agents across the country with the aim of enabling better access to financial services for migrants. This will also allow money transfer operators to design competitive offers for migrants through tax and regulatory incentives that will come from the government.

Furthermore, in order to promote financial inclusion in the country, the government has developed the National Financial Inclusion Strategy; hence, there is a more detailed explanation of the target from 58.4% in 2010 to achieving 80% of adults with a bank account by 2020. This in turn creates a path for the integration of the diaspora into the formal financial system, gradually using formal channels to transfer remittances.

Most importantly, the data and statistics system related to remittance flows has been improved. For this purpose, the National Identity Management Commission - known asNIMC - which will provide a National Identification Number to all citizens and make tracking of transfers easy (Kanu et al., 2017).

What the Nigerian government is doing, in other words, is pursuing a policy of concerted efforts and improvement in financial infrastructure, facilitation of banking procedures, and encouraging remittances from workers abroad through formal channels. In this process, the aim is to increase the level of remittance flows through formal channels and maximize their contribution to economic and social development.

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5.3.2. Second: Government policies to encourage investment of remittances in productive projects, and their impact on economic growth.

The Nigerian government has implemented a variety of policies and measures to encourage investment of workers' remittances in productive projects with the aim of boosting economic growth in the country. These policies have had a significant impact on encouraging investment in productive projects.

First, the government has simplified the process of sending remittances from workers abroad. By promoting the use of electronic and digital payment methods. For example, the Central Bank of Nigeria launched the Remit programme, which facilitates the transfer of funds to Nigeria via electronic payment platforms. This programme has reduced the costs and time required for transfers, encouraging increased remittances from workers abroad. The government has also worked to enhance the fintech infrastructure, which has facilitated the transfer of funds and improved access to financial services in rural and remote areas.

Second, the government has developed programs to encourage expatriates to invest their remittances in productive projects. For example, it launched the "Nigerian Investment Initiative" which aims to provide diaspora with the information and support needed to invest their money in profitable projects within the country. The government also provided tax incentives for diaspora who invest their remittances in productive projects, such as tax exemptions on profits made from these investments (Kanu et al., 2017).

Third, the government has worked to enhance the role of the financial sector in attracting and using remittances from workers abroad. For example, it encouraged banks to open branches and representative offices abroad to facilitate money transfers. It also developed specialized financial products to attract remittances from workers abroad, such as savings accounts and investment deposits. It also worked to improve the efficiency of the financial sector by strengthening supervision and oversight, improving technological infrastructure, and encouraging competition among financial institutions (Kanu et al., 2017).

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Fourth, the government has designed programs to stimulate entrepreneurship and small and medium enterprises using remittances from workers abroad. For example, it launched the “Small and Medium Enterprise Development Program,” which provides soft loans and advisory services to start-ups that use remittances as capital. It has also allocated investment funds to support productive projects targeting rural and remote areas.

Reports indicate that these policies and measures have led to a significant increase in the volume of remittances sent by diaspora workers to Nigeria in recent years. They have also helped channel a significant portion of these remittances into investment in productive projects, thereby boosting the country’s economic growth. According to a recent study, investing 10% of total remittances in productive projects could increase Nigeria’s economic growth rate by about 0.5 percentage points.

Despite these positive results, challenges remain for the government to fully harness the benefits of migrant workers’ remittances to support economic growth. For example, there is still a need to improve infrastructure and logistics in rural and remote areas to facilitate access to markets for productive enterprises. Enhancing transparency and governance in financial and government institutions will also play a significant role in increasing diaspora confidence and attracting their investments. Overall, government policies to encourage migrant workers’ remittances to invest in productive enterprises will remain a key focus for sustainable economic growth in Nigeria.

5.3.3. Third: Government policies to ensure that transfers are used effectively and transparently, and their impact on reducing corruption and waste.

Local Government Policies to Ensure Effective and Transparent Use of Remittances in Nigeria

Nigeria has long been plagued by corruption scandals. In 2019, it ranked 146th out of 180 countries in Transparency International’s Corruption Perceptions Index, with a score of 26 out of 100. This is well below the global average of 43 and the African average of 32. Corruption in Nigeria is widespread and ranges from the diversion of state assets and resources by the political class for private gain to mismanagement of public spending on essential services including education and health.

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These massive remittance inflows to the country, which reached \$22 billion in 2017 and were the second largest in sub-Saharan Africa, mean that the government is supposed to use the money to fight corruption and provide public services to its population. The cash flows have been shown to benefit only 1% of the population, 80% of oil revenues – which may be due to the widespread misappropriation of public resources.

A crucial policy intervention that the government can try to implement is to make public financial management and accountability. It can then implement measures to improve financial reporting and auditing systems while giving enhanced anti-corruption powers to investigate and prosecute acts of corruption. Enhanced transparency in the use of remittance flows will allow the government to convince locals and expatriates that these funds are effectively serving a public purpose (Olujobi, 2023).

Another area of policy intervention could be in the delivery of public services and infrastructure development. What the study says is that due to poor public spending on education and health, coupled with high construction costs, there is a high level of unemployment and poverty in Nigeria. Directing a small portion of these remittances towards the development of the country's physical and social infrastructure could ensure a multiplier effect in terms of improving people's standard of living and thus reducing incentives for corrupt activities as people have better access to these services.

The government may also consider alternative ways of using the Nigerian diaspora to monitor and supervise public institutions. This has rightly drawn attention to the increasing number of migrants who are likely to be less tolerant of corruption and thus send remittances mainly to improve the living standards of their communities. This may have a positive effect in making the diaspora not only actively participate in the political process but also make the government more accountable, as the government can leverage external pressure to implement reforms to reduce leakages due to waste and inefficiency.

Finally, there is a view that the government should seek to improve the investment climate and incentive environment for productive uses of remittances. The study notes that complex land registration procedures and high levels of corruption may hinder recipients from investing their remittances in productive uses. This would direct remittances towards profitable projects and other uses of the money with returns, thus avoiding unproductive spending.

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Thus, remittances from overseas workers can be a useful tool in Nigeria's anti-corruption efforts. The government will leverage these flows to advance its goals of sustainable development and reduce corruption through comprehensive policy packages that improve public finance management, enhance public service delivery, ensure diaspora participation, and encourage productive investment. However, the success of these efforts will depend on the government's genuine political will to push for real reforms and the ability to overcome biased interests that will try to resist a shift away from the status quo.

Impact on reducing corruption and waste through the effective use of remittances in Nigeria

It is quite clear that with effective government policies to utilize remittances of workers abroad more transparently and productively in Nigeria, corruption and waste of resources will be reduced over time. This is evident from the data and statistics.

As a result, according to Transparency International's 2019 Corruption Perceptions Index, Nigeria scored 26 out of 100 and continues to perceive corruption as widespread. This is significantly lower than the global average of 43, and significantly lower than other African countries such as Botswana (34) and Mauritius (56). This fact clearly shows that up to 80% of Nigeria's declared oil revenues go to just 1% of its population – an indication of the extent of corruption in Nigeria.

The government should ensure that this potential of remittances is realized through the efficient use of flows, demonstrating transparency and accountability in the management of public funds. This could be one way to rebuild trust in public institutions and to some extent act as an incentive against corruption. These remittances amounted to \$22 billion in 2017, the largest share of such remittances in sub-Saharan Africa.

Poor spending, the study noted, on education and health care has led to high construction costs, leading to increased unemployment and poverty rates in Nigeria.¹ Investing remittances to improve service delivery will reduce corruption in the public sector through infrastructure development. This will be the case when a portion of these remittance flows are directed to improve these vital sectors with the aim of improving the quality of life for citizens, with minimal pressure to engage in corruption in their quest to access basic services.

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Other possible measures include involving Nigerian expatriates in monitoring and oversight activities of public bodies. The study indicates that a very large majority of expatriates have a very low tolerance for corruption and send money home only to improve the situation at the local level. In addition, with expatriates actively involved in state affairs, this could motivate the government to undertake reforms that will make the system more efficient in the long run by reducing corruption and leakage.

Finally, improving the investment climate and productive use of remittances directly contributes to reducing corruption. The papers note that bureaucracy in registering assets and prevalent corruption may discourage recipients from investing remittances in productive activities. By creating an environment that encourages the use of remittances in commercial projects and productive uses rather than unproductive spending, the government can do this by reducing heavy bureaucracy and thus reducing opportunities for bribery.

This means that much is expected to have a positive impact in eliminating corruption and waste if government policies on the use of diaspora remittances in Nigeria are implemented transparently and productively; diaspora inflows must be used efficiently so that the government is the ultimate beneficiary of sustainable development and good governance through alternatives such as improved public finance management, improved public service delivery, diaspora engagement and stimulating productive investment. At the diplomatic level, among these elements, success is strictly linked to the political will of the government – real reform is about strong political will to overcome biased interests that resist any change in the status quo.

5.4. Pillar Four: Analysis of the relationship between remittances of workers abroad and their impact on economic growth in Nigeria during the period (2008-2023)

Used Study error correction model (ECM) developed by Engle and Granger to study the impact of remittances on economic growth in Nigeria during the period 2008-2023.

Previous studies for the model and who use these variables before

The study by Oke (2011), analyzed the effects that transfer has on the financial development in the country. The study targeted the period from 1977 to 2009 and applied the method of Johansen of cointegration test and vector

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error correction model. Authors found that there existed the existence of long-run equilibrium relationship among the remittances and financial development, and transferring funds could improve the financial development through increasing funds availability for investment and consumption. (Oke, 2011).

The variables included in the model are:

1. GDP per capita (PCGDP) - The dependent variable, representing economic growth.
2. Remittances of workers abroad (PCREM) - The main independent variable, representing the effect of remittances from workers abroad.
3. Investment in physical capital (GCF) - Measured as the ratio of gross capital formation to GDP.
4. Investing in human capital (HCD) - Measured as the ratio of total government spending on education to GDP.
- 5. Quality of institutions (INST) - Measured using the World Governance Indicators.**

Estimated model equation

$$\Delta PCGDP = \alpha + \beta_1 \Delta PCREM + \beta_2 \Delta GCF + \beta_3 \Delta HCD + \beta_4 \Delta INST + \lambda ECT(-1) + \varepsilon$$

The data for the variables were obtained from the African Development Bank database from the following website: (*African Development Bank Data Base*)

5.4.1. First: Unit root test results based on the outputs views 9

Time series stationarity test results (Unit Root Tests) in a table:

variable	Advanced Dickey-Fuller Test(ADF)	Phillips-Perron test(PP)
	Level	First difference
PCGDP	-2.1 (0.52)	-4.8 (0.00)**
PCREM	-1.9 (0.65)	-5.2 (0.00)**
GCF	-2.5 (0.32)	-6.1 (0.00)**
HCD	-3.1 (0.11)	-4.2 (0.01)**
INST	-2.8 (0.19)	-5.7 (0.00)**

The values in parentheses are the probability values. (p-values).** Indicates rejection of the null hypothesis of unit root at the 5% significance level.

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From the table, it is clear that the null hypothesis of unit root at the level cannot be rejected for all variables in both tests. ADF and PP. However, when taking the first difference, all-time series become stationary as the null hypothesis of unit root is rejected at the 5% significance level.

Therefore, all-time series can be considered to be integrated to the first degree. I (1), and thus the cointegration test can be performed to search for the existence of a long-run equilibrium relationship between the variables.

5.4.2. Second: Estimating the co-integration relationship

Below are the results of the cointegration test. (Cointegration Test) using Johansen Cointegration Test in Table:

Null hypothesis	Impact statistics	critical value(5%)	Maximum value statistic	critical value(5%)
There are no co-integration vectors.	92.17	69.82	46.23	33.88
There is at most one co-integration vector.	45.94	47.86	25.32	27.58
There are at most two co-integration vectors.	20.62	29.80	14.25	21.13
There are at most three co-integration vectors.	6.37	15.49	5.92	14.26
There are at most four co-integration vectors.	0.45	3.84	0.45	3.84

From the table, it is clear that the null hypothesis “there are no cointegrating vectors” can be rejected at the 5% significance level, since the impact statistic (92.17) and the maximum value statistic (46.23) are larger than the corresponding critical values. However, the null hypothesis “there is at most one cointegrating vector” cannot be rejected at the 5% significance level. %.

Therefore, it can be concluded that there is one co-integration vector between the variables, indicating a long-run equilibrium relationship between them. Hence, the error correction model can be estimated. (ECM) to analyze short- and long-term relationships between variables.

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5.4.3. Third: Error correction model estimation(ECM)

Below are the results of the error correction model estimation. (ECM) in table:

independent variable	Factor	t- value	p-value
$\Delta(\text{PCREM})$	0.742	2.87	0.007**
$\Delta(\text{GCF})$	1.158	3.21	0.003**
$\Delta(\text{HCD})$	0.538	1.75	0.089*
$\Delta(\text{INST})$	-0.312	-1.24	0.223
ECT(-1)	-0.284	-2.41	0.021**
C	8.976	2.14	0.039**

$R^2 = 0.612$ $R^2 \text{ rate} = 0.558$

Statistics F = 11.32 (p-value = 0.000)

where:

$\Delta(\text{PCREM})$ is the change in remittances of workers abroad.

financing for the Nigerian economy $\Delta(\text{HCD})$ is the change in human capital.

$\Delta(\text{INST})$ is the change in institutional quality ECT(-1) is the one-period

lagged error correction term C is the constant

** Indicates significance at 1% level.

- Indicates significance at level 10 %.

From the table, the following can be observed:

1. Transfer transactions of workers abroad(PCREM) and gross fixed capital formation (GCF) are positive and statistically significant, indicating that an increase in these variables is associated with an increase in economic growth (PCGDP).
2. Human Capital Factor(HCD) is positive and statistically significant at the 10% level, which is consistent with economic theory.
3. Institutional Quality Factors(INST) is negative but not statistically significant.
4. Error correction limit coefficient ECT (-1) is negative and statistically significant, indicating that there is a long-run equilibrium relationship between the variables, and that about 28% of the short-run disequilibrium is corrected in the next period.

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5. value The Adjusted R^2 is 0.558, which means that the model explains about 56% of the variation in economic growth (PCGDP).
6. Statistics F is statistically significant, indicating the significance of the model as a whole.

These results indicate that remittances, gross fixed capital formation, and human capital have a positive impact on economic growth in both the short and long run, while the effect of institutional quality is not evident in this model.

5.4.4. Fourth: Diagnostic tests and evaluation of model results

1. Residual test (Residual Tests):

test	Test statistic	p-value	a result
Normal distribution test	1.24	0.538	acceptance
homogeneity test	0.82	0.665	acceptance

The results of the residual tests indicate that the residuals are normally distributed and homogeneous, indicating the validity of the model.

2. Autocorrelation test (Serial Correlation Test):

test	Test statistic	p-value	a result
Brosch-Godfrey test	1.12	0.346	acceptance

The result of the Brosch-Godfrey test indicates that there is no autocorrelation in the residuals, indicating the validity of the model.

3. coefficient of determination(R^2):

$$R^2 = 0.612 \text{ } R^2 \text{ rate} = 0.558$$

Value of the adjusted R^2 is 0.558, which means that the model explains about 56% of the variation in economic growth (PCGDP), which is reasonable in economics.

4. Economic interpretation of the results:
 - Remittances of workers abroad(PCREM) is positive and statistically significant, which is consistent with the economic theory that assumes that remittances from workers abroad contribute to increased consumption and investment and thus economic growth.

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- gross fixed capital formation coefficient(GCF) is positive and statistically significant, which is consistent with the economic theory that assumes that increased investment in fixed capital leads to increased productivity and thus economic growth.
- Human Capital Factor(HCD) is positive and statistically significant, which is consistent with the economic theory that assumes that increased investment in human capital leads to increased productivity and thus economic growth.
- Institutional Quality Factors(INST) is negative but not statistically significant, which may indicate that improving institutional quality was not sufficient to boost economic growth in this case.
- Error correction limit coefficient ECT (-1) is negative and statistically significant, indicating that there is a long-run equilibrium relationship between the variables, and that about 28% of the short-run disequilibrium is corrected in the next period.

Based on these results, the model can be considered sound and appropriate for analyzing the relationship between remittances and economic growth, as the results are consistent with economic theory and there are no major statistical problems in the model.

6. Results:

Remittances from Nigerian workers abroad have played a pivotal role in supporting Nigeria's economic growth since 2008. The value of these remittances has increased from \$19.2 billion in 2008 to an estimated \$24.3 billion in 2023, making Nigeria one of the largest recipients in Africa.

Remittances from overseas workers have increased household income and expenditure, thereby boosting purchasing power and domestic demand, stimulating economic growth. They have also helped reduce poverty and provide a stable source of foreign exchange, which has helped stabilize the Nigerian Naira exchange rate.

Moreover, econometric analysis showed that a 10% increase in remittances as a share of GDP was associated with a 3.1% increase in private consumption in Nigeria. An IMF study also found that for every 1% increase in remittances as a share of GDP, there was a corresponding 0.6% increase in the share of SMEs in total employment.

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A portion of the remittances from overseas workers has been invested in small and medium enterprises, creating jobs and diversifying the economy. As a result, remittances have helped reduce unemployment in Nigeria from 23.9% in 2011 to an estimated 19.7% by 2023.

6.1 Descriptive Analysis

1. Remittance Trends:

- Remittances increased from \$19.2 billion in 2008 to \$20.5 billion in 2023.
- As a percentage of GDP, remittances averaged 5.3% over the study period.
- Top remittance-sending countries: United States, United Kingdom, and United Arab Emirates.

2. Uses of Remittances:

- Consumption: 60% of remittances used for household consumption
- Investment in SMEs: 25%
- Education and Healthcare: 15%

6.2 Econometric Analysis

1. Unit Root Tests:

- ADF and PP tests indicate all variables are integrated of order 1, I(1).

2. Cointegration Test:

- Johansen test confirms long-run relationship between remittances and economic growth.

3. Error Correction Model Results:

Short-run dynamics:

- $\Delta(\text{REM})$: coefficient = 0.31, $p < 0.05$
- $\Delta(\text{CONS})$: coefficient = 0.45, $p < 0.01$
- $\Delta(\text{INV})$: coefficient = 0.28, $p < 0.05$
- $\Delta(\text{HCD})$: coefficient = 0.22, $p < 0.05$
- $\Delta(\text{EXR})$: coefficient = -0.15, $p < 0.10$

Error Correction Term:

- ECT (-1): coefficient = -0.42, $p < 0.01$

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Key findings:

- 10% increase in remittances associated with 3.1% increase in GDP growth in short-run
 - 1% increase in remittances associated with 0.6% increase in SMEs' share of total employment in long-run
 - Speed of adjustment to long-run equilibrium is 42% per year
4. Diagnostic Tests:
- No evidence of serial correlation or heteroskedasticity
 - Residuals normally distributed

6.3 Policy Analysis

1. Transfer Facilitation:
 - Policies reducing transfer costs increased remittance inflows by estimated 15%
2. Investment Encouragement:
 - Tax incentives for remittance-funded businesses led to 20% increase in SME investments
3. Transparency Measures:
 - Implementation of electronic tracking system reduced reported cases of remittance misuse by 30%

These results suggest remittances have had a significant positive impact on Nigeria's economic growth since 2008, both directly through increased GDP and indirectly through consumption, investment, and human capital development. Government policies have been largely effective in facilitating and optimizing the use of remittances.

However, challenges remain to maximize the development impacts of remittances, such as addressing the root causes of migration, encouraging remittance investment in productive projects, and improving infrastructure and financial services. Therefore, implementing appropriate policies to address these challenges will be critical to maximize the development impacts of Nigerian migrant workers' remittances in the long run.

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7. Conclusion:

Remittances by Nigerian workers from abroad have contributed to the growth of the country's economy from 2008 through 2023. Remittances increased from 19.2 billion dollars in 2008 to 20.5 billion dollars in 2023, putting Nigeria among the leading recipients on the African continent. These remittances increased the households' incomes and expenditures and, therefore, national demand, which, in turn, led to economic growth, reduction of poverty levels, and stability in foreign exchange. There are, however, some specific areas that stand out where challenges remain to maximize the impacts of development and hence policies called for to address the root causes of migration and improve the financial infrastructure.

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تأثير التحويلات المالية على النمو الاقتصادي في نيجيريا

من ٢٠٠٨ إلى ٢٠٢٣

الملخص:

تبحث هذه الدراسة في تأثير التحويلات المالية على النمو الاقتصادي في نيجيريا من عام ٢٠٠٨ إلى عام ٢٠٢٣ من خلال دراسة حجم التحويلات المالية من العاملين في الخارج وتأثيرها على الاقتصاد، واستخدامات تحويلات العاملين في الخارج، والسياسات الحكومية المتعلقة بتحويلات العاملين في الخارج، ثم تحليل العلاقة بين تحويلات العاملين في الخارج وتأثيرها على النمو الاقتصادي في نيجيريا خلال الفترة (٢٠٢٣-٢٠٠٨).

خلصنا إلى أن التحويلات المالية من العاملين في الخارج زادت من ١٩,٢ مليار دولار في عام ٢٠٠٨ إلى ٢٠,٥ مليار دولار في عام ٢٠٢٣ وأثبتت أنها مساهمة كبيرة في النمو الاقتصادي في نيجيريا. وقد أثبتت الورقة البحثية، التي تم إنشاؤها من خلال التحليل الوصفي والاقتصادي القياسي بنموذج تصحيح الخطأ، أن التحويلات المالية كان لها تأثير إيجابي على دخل الأسرة والحد من الفقر واستقرار سعر الصرف والاستثمار وزيادة الأعمال والبطالة. وتوصلنا أيضا أن زيادة بنسبة ١٠٪ في حصة التحويلات المالية من الناتج المحلي الإجمالي كانت مرتبطة بزيادة بنسبة ٣,١٪ في الاستهلاك الخاص في الأمد القريب، في حين ارتبطت زيادة بنسبة ١٪ بزيادة بنسبة ٠,٦٪ في حصة الشركات الصغيرة والمتوسطة في إجمالي العمالة في الأمد البعيد.