Globalization And Capital Flows: Cases of Nigeria And Ghana

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Abstract

This study aimed at examining the effect of globalization on capital flows (capital inflows and capital outflows) in Nigeria and Ghana for the period 1981 to 2019. Secondary data obtained from the World Bank Development Indicators was used to examine this effect. The ADF unit root test was used to test for stationarity of the variables and the result indicated that all variables are stationary at first difference in both countries. The Johansen co-integration test revealed that co-integration exists among the variables in all models used in this study. In Nigeria, the result of the error correction model indicated that globalization has a negative relationship with capital inflows in the current period while the relationship is positive and significant in the first lag. In Ghana, the result of the error correction model indicated that globalization has a positive and significant relationship with capital inflows in both the current period and the first lag. For the effect of globalisation on capital outflows, the error correction result showed that globalization has a positive and significant relationship with capital outflows in Nigeria in both the first lag and the current year. In Ghana however, globalization has a positive relationship with capital outflows in the current period but in the first lag, the relationship is negative and significant. It was then recommended that the issue of insecurity and policy inconsistency so as to allow the free flow of capital into both countries should be looked into. Also, the Nigerian and Ghanaian government should undertake policy measures and reforms that will help in providing sound macroeconomic policies which will create a more stable and conducive environment for investment. Finally, there should be an intensification of government efforts in its anti-corruption campaign as this will improve the country’s image and attract inflow of funds from abroad for investment purposes in both countries.

Introduction

Globalization is the integration of national economies through trade and financial interaction. It involves the movement of goods and services across national borders.

The quest for capital by nations especially developing nations as a complement to domestic savings for growth and development has been in existence for many decades. This is aggravated due to the gap between investments and savings required to sustain economic growth and evidenced by the required attention given to the drive for foreign capital as an crucial means in augmenting the saving-investment in developing countries which are often resource deficient (Balogun, Okafor & Ihayere, 2019). The long run development of an emerging economy like Nigeria would require persistent and massive investment expenditures that can match the dire need for capital. Due to the dynamism of the core economic underpinnings, several means are continuously being explored to attain these goals. One of the measures is to open the trade among nations and accelerate the smooth flow of foreign direct investment (Balogun et al., 2019).

Over the years, globalization has proven to be the most adopted mechanism in dealing with economic development, improving the social welfare of states and strengthening political ties between countries (Onoitem, 2017). It has taken place for centuries and, with time, has accelerated, from the colonization of
the inhabited parts of the world to the appearance of nations, from conquests to independent countries, from sailboats and caravans to steamboats, truck fleet and cargo planes, from trade in a few commodities to global production and distribution networks and to the present explosion of international flows services, capital, and information (Friedman, 2005) as cited in Hassan (2013).

**Literature Review**

### 2.1 Globalisation

Globalisation refers to the process of the intensification of economic, political, social and cultural relations across international boundaries. It is principally aimed at the transcendental homogenization of political and socio-economic theory across the globe. It is equally aimed been a global arena”. It aims at the “trade barriers breakdown increment and the World market. Globalization means the ability of approaching integration of a nation into the world economy. Globalization entails the links among enterprises, institution as well as citizens across national borders. Thus, as a historical process, globalization it is the result of innovation and technological progress by humans.

According to Mutascu and Fleischer (2011), globalization has been seen to generate both positive and negative effects. Some of these positive effects include increased national income through comparative advantage, access to global capital, spread of technology, opportunities for individuals and spread of human rights. Whereas the negative effects may include its ability to weaken the position of those lacking skill or capital, the problem of economic openness in weak states, exploitation of works in poorer countries, destabilizing global capital markets, loss of cultural integrity, an undermined national economic autonomy and so on.

### 2.2 Capital flows

Capital flows can be either capital inflows or capital outflows. A capital outflow has been regarded as a major factor contributing to the foreign debt problem and inhibiting development effects in the third world. The huge amounts of capital outflows experienced by the Less Developed Countries (LDC) and their effects on the national economy have attracted the attention of many economists in recent years. Causes of capital outflows, according to Ajayi (2005) include varying risk perception, exchange rate misalignment, financial sector constraints and repression, fiscal deficits, weak institutions, macroeconomic policy distortions, corruption and extraordinary access to government funds among others.

Lesser and Williamson (1987) defines capital outflows as illegal conveyance of capital aboard which stays unrecorded in the national accounts of developing countries.

Carlvo and Hernandez (1996); Uchenolu (1994); Pierre (1998); Stevens (2003) and Obadan (2004) have attributed capital outflows to macroeconomic mismanagement, policy distortions, exchange rate misalignment and budget deficit respectively. For example, as investors anticipate higher taxes, they
divert their investment abroad. Also, where the local currency is overvalued, it leads to real exchange rate appreciation in order to correct the over valuation. When currency devaluation is expected, investors usually move out their domestic assets and invest in foreign countries in order to avoid the capital loss that will result from devaluation. In order to finance the budget, government usually prints more money, a practice which is inflationary. If inflation persists, individuals will choose to reduce their real holdings of domestic currency in order to protect themselves against the so-called inflation tax. In relation to this, when fiscal deficit is financed through bond sales, domestics resistant may expect that at some future date, their tax base liability may increase in order to pay for national debt. This as it were, induces domestic investors to move their assets to foreign countries to avoid potential tax liability.

Capital flows have myriads of adverse effect on the affected country. According to Deppler and Williamson (1987), capital outflow leads to a net loss investment and growth. Capital outflow perpetuates the debt crises not only through diversion of savings but also because retention of assets and earnings abroad erodes the domestic tax base and lead to more budget deficits that require contracting further debts to finance. Capital outflow can be reversed if the necessary economic policies are put in place. According to Obadan (2004), one way of doing this is to restore confidence in the economy which would require the government to do a number of things with particular focus on the following; strengthening the financial system and improve governance, pursue sound macroeconomic policies and appropriate structure reforms, tackling the weaknesses that are causing capital outflows. He further emphasized, that providing a stable financial and macroeconomic environment is crucial to reducing uncertainty and arresting capital outflows.

2.3 Theoretical literature

2.31 The Investment Diversion Theory

This theory postulates that due to the macroeconomic and political uncertainty in developing country and the simultaneous existence of better investment opportunities in advanced countries like high foreign interest rates, wide array of financial instruments, political and economic stability, favourable tax climate and secrecy of accounts, some unscrupulous corrupt leaders and bureaucrats usually siphon scarce resources from their countries to advanced countries. These funds are therefore, not available for investment at home leading to decline in aggregate investment, low economic growth, hence decline in employment, increase in dependency ratio and high death rate. These negative macroeconomic effects on these countries sometimes motivates the necessity to borrow from abroad to reactivate the domestic economy, which is sometimes further siphon thereby perpetrating external dependency and indebtedness.

2.4 Empirical literature

Ofori Atta (2017) centred his study on the effects of globalization on the manufacturing sector of Ghana having used FDI as a proxy for globalization. The study employed the simple ordinary least squares (OLS) regression and the empirical analysis was conducted using data between 1985 and 2013. It was found that the independent variable ‘MANGH’ was significant to explain the dependent variable FDI
whose influence was negative. This indicated that, there was a negative correlation between FDI and manufacturing in Ghana. The negative effect which emanated from trade, financial sector and exchange rate liberalization, is materialized through stiffer competition, increased cost of production, and loss of confidence by indigenous investors. The study recommended among others that the government of Ghana must revisit policies relating to FDI and trade liberalization in order to salvage the manufacturing sector.

Amaefule (2020) examined the impact of the dynamical nature of Foreign Direct Investment (FDI) inflow and Official Development Assistance (ODA) inflow on growth and trade indicators in Ghana and Nigeria. Secondary data sourced from World Development Indicators for the period covering 1970–2017 were utilized. The Nonlinear ARDL Bound F-test showed a long-run relationship between global capital inflows and growth and trade. Specifically, positive FDI inflow generate a positive impact on RGDP in Ghana and negative impact on RGDP in Nigeria while a negative FDI inflow leads to a positive impact on RGDP in Ghana and negative impact on RGDP in Nigeria. Also, positive ODA inflow causes a positive impact on RGDP in Ghana and Nigeria and a negative ODA inflow has a negative impact on RGDP in Ghana and Nigeria. Furthermore, positive and negative ODA inflow has negative and positive impact on trade openness in Ghana and negative impacts in Nigeria.

Duodu and Baidoo (2020) examined the impact of capital inflows on economic growth in Ghana. Using annual time series data, spanning 1984–2018, the autoregressive distributed lag model is employed for the analysis. The results without interaction terms show that remittances have a positive impact on economic growth, whereas external debt and foreign direct investment impact economic growth negatively in the long run. Foreign aid exerts an insignificant impact in both the short and long run. However, the results reveal that external debt significantly impacts economic growth positively when interacted with quality of institutions variable in the long run. The results further reveal that remittances have a positive impact on economic growth in the long run when interacted with quality of institutions variable. It is, therefore, concluded that the quality of institutions in Ghana is crucial for economic growth. Important policy implications aimed at improving economic growth have been provided based on the findings.

Maduka, Madichie and Eze (2017) observes Globalization and Economic Growth: Evidence from Nigeria. Thus, the study uses the contemporary econometric techniques of co-integration and error correction mechanism within the framework of the Pesaran et al. (2001) ARDL model to examine the impact of globalization on economic growth in Nigeria. Using annualized secondary time series data from 1970 to 2015, the study reveals that trade openness; financial integration and foreign direct investment have significant positive impact on economic growth in Nigeria. Thus, adequate mechanism should be put in place to ensure that globalization brings about the desired pace of economic growth.

Igwemma, Egbulonu and Assumpta (2018) examined the impact of capital flight on the Nigerian economy from 1986–2016. Real Gross Domestic Product and Capital Flight were used as the endogenous variables while others were the explanatory variables. Data for these variables were sourced
from the Central Bank of Nigeria (CBN) Statistical Bulletin, World Bank Development Index, Economic and Financial Crimes Commission Bulletins, Tertiary Education Trust Fund Publications and the Federal Ministry of Information Annual Briefings and Extracts (various editions). The variables were found to be integrated of mixed order hence we confirmed the long run relationship existing among the variables using the Bounds test. The simultaneous equation model shows a negative and significant relationship between capital flight and economic growth. Domestic Investment and Interest Rate Differential both have positive relationships with Real GDP while Political Instability, looted Funds, Expenses on Foreign Education and Medical Services were found to have positive and significant impact on Capital Flight. The implication of these findings is that Capital flight have negatively impacted on Economic growth of Nigeria with Foreign Education and Medical Expenses and Looted Funds being the major channels through which huge capital leave the country. It was recommended that our education and health infrastructures should be adequately funded and maintained.

Olunkwa (2018) focused on capital flow components and industrial performance in Nigeria for the period 1980 and 2016. Furthermore, VEC Model is used for the study, while granger causality test is employed to examine the causal link between capital flow components and industrial performance proxied with industry value added. The result affirm that long-run and short-run relationship exists between capital flow components and industrial performance, and no causality exist between workers’ remittance, official development assistance and industry valued, although unidirectional causality exist between foreign capital inflow and industry value added. In addition, the paper recommend that for there to be sustainable improvement in the industrial sector, government have to urgently address the issue of insecurity and policy inconsistency so as to allow free flow of capital, workers’ remittance and foreign investors confidence into the country.

Ikpesu (2019) aims to ascertain the growth effects of capital inflows using investment as a transmission channel between the periods 1981 to 2016 in Nigeria. The study employed the least square regression method to analyse the data. The outcome of the research indicates that capital inflows have a positive and significant effect on the growth of the Nigeria economy. This implies that foreign capital inflows have contributed to the economic growth of the country. Furthermore, the research output also showed that domestic investment has a positive and significant effect on Nigerian economic growth. From the findings of the study, it is concluded that capital inflow and domestic investment has positively contributed to the growth of Nigeria economy. The findings of this study posed significant policy direction. Firstly, the study emphasized the need for government and policy-makers to attract more inflow of foreign capital into the country but the detrimental effect of huge capital inflow into an economy should also be considered. Secondly, the government should determine the optimal capital inflow that would propel investment and growth in the country.

Balogun et. al., (2019) examines the impact of capital flows on economic growth in Nigeria using data covering the period 1981 to 2016 and sourced from the Central Bank of Nigeria. The method of error correction model framework and autoregressive distributed lag was adopted in estimating our specified model. Findings from our estimated model reveal that capital flows significantly affect economic growth
in Nigeria. The study thus recommends that, sound, robust and vigorous economic policies be formulated with the sole purpose of attracting and drawing capital flows into the country that helps to bridge the needed capital for economic growth and development in Nigeria.

Methodology

3.1 Model Specification

From the objectives of the study, it can be observed that capital flows is considered as both inflows and outflows. That is:

\[ CF = f(CI, CO) \]  \hspace{1cm} (3.1)

Where: 
- CI = Capital Inflow (proxied by FDI Inflow)
- CO = Capital Outflow (proxied by FDI outflow)
- CF = Capital Flow

Model 1: Effect of globalization on capital inflow

In order to examine the effect of globalization on capital inflow, the model is given as:

\[ CI = f(GLO, GEX, MS, EXR) \]  \hspace{1cm} (3.2)

Where:
- GLO = Globalization (Trade Openness which is given as \( \frac{(Exports + Imports)}{GDP} \))
- GEX = Government Expenditure
- EXR = Exchange Rate
- MS = Money Supply

Expanding the model further, we have:

\[ CI = \beta_0 + \beta_1 GLO + \beta_2 GEX + \beta_3 MS + \beta_4 EXR + \mu \]  \hspace{1cm} (3.3)

Where: \( B_0 \) is the intercept when the explanatory variables are equal to zero and \( B_1, B_2, B_3, B_4 \) are the coefficients or parameters attached to the explanatory variables. The inclusion of the error term (\( \mu \)) in the model is to capture the impact of the other variables that are not included in the models.

The model is further expressed in its log form as follows:

\[ \ln CI = \beta_0 + \beta_1 \ln GLO + \beta_2 \ln GEX + \beta_3 \ln MS + \beta_4 \ln EXR + \mu \]  \hspace{1cm} (3.4)

This model will be estimated for Nigeria and Ghana.

Model 2: Effect of globalization on capital outflow

In order to examine the effect of globalization on capital outflow, the model is given as:
\[ CO = f(GLO, GEX, MS, EXR) \]
Expanding the model further, we have;
\[ CO = \beta_0 + \beta_1 GLO + \beta_2 GEX + \beta_3 MS + \beta_4 EXR + \mu \]
The model is further expressed in its log form as follows:
\[ \ln CO = \beta_0 + \beta_1 \ln GLO + \beta_2 \ln GEX + \beta_3 \ln MS + \beta_4 \ln EXR + \mu \]
This model was estimated for Nigeria and Ghana.

3.2 Sources of Data

This study employed time series data for the period 1981 to 2019. It utilizes secondary data obtained from the World Bank Development Indicator.

3.3 Estimation Techniques

Unit Root Test, Johansen Co-integration test, Error Correction Mechanism (ECM), Granger Causality Test and Residual Diagnostics Tests were all employed in the analysis of the data.

3.4 Apriori Expectation

For model 1, the apriori expectation is given as:
\[ \beta_1 > 0, \beta_2 > 0, \beta_3 < 0, \beta_4 < 0 \]
For model 2, the apriori expectation is given as:
\[ \beta_1 > 0, \beta_2 < 0, \beta_3 < 0, \beta_4 > 0 \]
Where \( B_0 \) is the intercept when the explanatory variables are equal to zero and \( B_1, B_2, B_3, B_4\) are the coefficients or parameters attached to the explanatory variables. The inclusion of the error term (\( \mu \)) in the model is to capture the impact of the other variables that are not included in the models.

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Discussion Of Results

4.1 Augmented Dickey Fuller (ADF) Test (Stationarity Test) for Nigeria

This test is conducted using the 5 per cent level of significance. The variables are therefore stationary when the p-value of the ADF test statistics is less than 0.05 and also when the test statistics are greater than the MacKinnon critical values at 5 percent significance level. The tables below present the results of the ADF unit root test for both Nigeria and Ghana.

The ADF unit root test results for Nigeria revealed that all variables are stationary only at first difference, that is, the variables are integrated of order one. This is due to the fact that the probability values of the ADF test statistics are less than 0.05 and that the ADF test statistic values are greater than the MacKinnon critical value at 5 per cent significance level.

Table 4.1 Stationarity Test Result for Nigeria
| Variables | ADF Test Statistic | Probability Value | Order of Integration | Max Number of Lags |
|-----------|-------------------|------------------|---------------------|-------------------|
| LNCI      | -10.227711        | 0.0000           | I(1)                | 9                 |
| LNCO      | -16.79571         | 0.0000           | I(1)                | 9                 |
| LNEXR     | -5.200040         | 0.0001           | I(1)                | 9                 |
| LNGEX     | -5.493306         | 0.0001           | I(1)                | 9                 |
| LNGLO     | -7.389263         | 0.0000           | I(1)                | 9                 |
| LNMS      | -4.423612         | 0.0012           | I(1)                | 9                 |
| 5% Critical Value | -2.943427 |                     |                     |                   |

Source: Author's Computation from Eviews (2021)

4.2. STATIONARITY TEST FOR GHANA

Similarly, the ADF unit root test result for Ghana revealed that all variables are stationary only at first difference, that is, all variables are integrated of order one. This is due to the fact that the probability values of the ADF test statistics are less than 0.05 and that the ADF test statistic values are greater than the MacKinnon critical value at 5 per cent significance level.

### Table 4.2

| Variables | ADF test statistics | Probability value | Order of Integration | Max Number of Lags |
|-----------|---------------------|-------------------|---------------------|-------------------|
| LNCO      | -5.298624           | 0.0001            | I(1)                | 9                 |
| LNCP      | -6.243743           | 0.0000            | I(1)                | 9                 |
| LNEXR     | -3.445044           | 0.0155            | I(1)                | 9                 |
| LNGEX     | -6.049925           | 0.0000            | I(1)                | 9                 |
| LNGLO     | -5.800226           | 0.0000            | I(1)                | 9                 |
| LNMS      | -6.732332           | 0.0000            | I(1)                | 9                 |
| 5% Critical Value | -2.943427 |                     |                     |                   |

Source: Author's Computation from Eviews (2021)

4.3 Results for the Effect of Globalization on Capital Flows in Nigeria and Ghana
4.3.1 Johansen Co-integration Test for Nigeria

The Johansen co-integration test for the capital inflow model for Nigeria revealed that co-integration exists among the variables employed for this study. The Trace test indicates the presence of one co-integrating equation and similarly, the Max-Eigen value test also indicates the presence of one co-integration equation. This implies that co-integration exists among the variables and that a long run relationship exists among the variables.

Table 4.3.1
Johansen Co-Integration Test Result of Model 1(one) For Nigeria

| Series: LNCI LNGLO LNGEX LNMS LNEXR |
|--------------------------------------|
| **Unrestricted Cointegration Rank Test (Trace)** |
| Hypothesized | Trace | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Probability |
| None * | 0.665695 | 78.66775 | 69.81889 | 0.0083 |
| At most 1 | 0.447351 | 38.12681 | 47.85613 | 0.2965 |
| At most 2 | 0.212831 | 16.866084 | 29.79707 | 0.6993 |
| At most 3 | 0.160215 | 7.330088 | 15.49471 | 0.5396 |
| At most 4 | 0.023227 | 0.869525 | 3.841466 | 0.3511 |
| Trace test indicates 1 co-integrating eqn(s) at the 0.05 level |

| **Unrestricted Cointegration Rank Test (Maximum Eigenvalue)** |
| Hypothesized | Max-Eigen | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.665695 | 40.54094 | 33.87687 | 0.0069 |
| At most 1 | 0.447351 | 21.94217 | 27.58434 | 0.2234 |
| At most 2 | 0.212831 | 8.854553 | 21.13162 | 0.8440 |
| At most 3 | 0.160215 | 6.460563 | 14.26460 | 0.5548 |
| At most 4 | 0.023227 | 0.869525 | 3.841466 | 0.3511 |
| Max-eigen value test indicates 1 co-integrating eqn(s) at the 0.05 level |

Source: Author’s Computation from Eviews (2021)

4.3.2 Johansen Co-Integration Test Result of Model 1(one) For Nigeria
The Johansen co-integration test result on the effect of globalization on capital inflows in Ghana reveals that co-integration exists among the variables the model. The Trace test as well as the Max-Eigen value test indicates the presence of two co-integrating equations. This implies that long run relationship exists among the variables.

| Series: LNCI LNEXR LNGEX LNGLO LNMS |
|---------------------------------------|
| **Unrestricted Cointegration Rank Test (Trace)** |
| Hypothesized | Trace | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.891278 | 143.8388 | 69.81889 | 0.0000 |
| At most 1 * | 0.627917 | 61.73736 | 47.85613 | 0.0015 |
| At most 2 | 0.298760 | 25.15775 | 29.79707 | 0.1559 |
| At most 3 | 0.191506 | 12.02624 | 15.49471 | 0.1557 |
| At most 4 * | 0.106359 | 4.160693 | 3.841466 | 0.0414 |

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

| **Unrestricted Cointegration Rank Test (Maximum Eigenvalue)** |
| Hypothesized | Max-Eigen | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.891278 | 82.10141 | 33.87687 | 0.0000 |
| At most 1 * | 0.627917 | 36.57961 | 27.58434 | 0.0027 |
| At most 2 | 0.298760 | 13.13151 | 21.13162 | 0.4402 |
| At most 3 | 0.191506 | 7.865544 | 14.26460 | 0.3925 |
| At most 4 * | 0.106359 | 4.160693 | 3.841466 | 0.0414 |

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

Source: Author’s Computation from Eviews (2021)

4.3.3: Error Correction Model for Model 1(One) for Nigeria

The ECM result on the effect of globalization on globalization in Nigeria is presented in the table above. The value of the R squared is given as 0.613055 which implies that the model is a good fit and that
changes in capital inflows can be attributed to changes in the independent variables by about 61 per cent. The probability value of the F statistics given as 0.010685 implies that all the independent variables employed for this study significantly determine capital inflows in Nigeria. The value of the Durbin Watson statistic is greater than the value of the R squared indicating the absence of spurious regression. The coefficient of the ECM is negative, less than one and statistically significant at the 5 per cent level of significance. This conforms to apriori expectations and implies that the speed of adjustment to long run equilibrium is quick (about 88 per cent).

Capital inflows in the first lag have a negative relationship with capital inflow in the current period while capital inflow in the second lag has a positive relationship with capital inflow in the current period. This relationship is insignificant in both the first and second lag. In the current period, globalization has a negative and significant relationship with capital inflows in Nigeria. This does not conform to apriori expectations and it implies that a one per cent increase in globalization will lead to a decrease in capital inflow by about 31 per cent. This can be attributed to the fact that the business climate as well as the economic performance in Nigeria is not attractive to business people and so, capital flows into the country will reduce. In the first lag however, this relationship is positive and significant meaning that a one per cent increase in globalization will cause capital inflows to increase by about 33 per cent. This relationship conforms to apriori expectations. Government expenditure in both current and one year lagged period has a positive relationship with capital inflow in Nigeria. A one per cent increase in government expenditure will lead to a 67 per cent increase in capital inflows in the current period and a 13 per cent increase in capital inflows in the lagged period. This relationship also conforms to apriori expectations. It implies that as government expenditure increases, capital inflow also increases.

Exchange rate has a positive and significant relationship with capital inflows in both the current period and one period lag. This means that as the exchange rate depreciates, capital inflow increases. This relationship conforms to apriori expectations as well. The Money supply in Nigeria has a positive relationship with capital inflows in the current period as well as the first and second lag. This relationship is consistent with the apriori expectations of this study. It implies that as money supply increases, capital inflows also increases. The effect is however highest in the current period. In the current period, a one per cent increase in the Money supply will lead to a 32 per cent increase in capital inflows.
### Table 4.3.3
**Error Correction Model Test Result for Model 1 (Nigeria)**

| Variable        | Coefficient | Standard Error | t-Statistic | Probability |
|-----------------|-------------|----------------|-------------|-------------|
| C               | -0.066599   | 0.118037       | -0.564223   | 0.5781      |
| D(LNCCI(-1))    | -0.007841   | 0.309754       | -0.025313   | 0.9800      |
| D(LNCCI(-2))    | 0.164640    | 0.195383       | 0.842653    | 0.4081      |
| D(LNGL)         | -0.313339   | 0.142629       | -2.196888   | 0.0406      |
| D(LNGL(-1))     | 0.326421    | 0.080168       | 4.071702    | 0.0003      |
| D(LNGEX)        | 0.671688    | 0.083681       | 8.026739    | 0.0000      |
| D(LNGEX(-1))    | 0.126940    | 0.268748       | 0.472338    | 0.6411      |
| D(LNEXR)        | 0.911857    | 0.086526       | 10.53854    | 0.0000      |
| D(LNEXR(-1))    | 0.586716    | 0.052856       | 11.10031    | 0.0000      |
| D(LNMS)         | 0.316170    | 0.727088       | 0.434844    | 0.6677      |
| D(LNMS(-1))     | 0.220104    | 0.740748       | 0.297137    | 0.7690      |
| D(LNMS(-2))     | 0.217967    | 0.081397       | 2.677831    | 0.0116      |
| ECM(-1)         | -0.879904   | 0.376831       | -2.335009   | 0.0286      |

Durbin-Watson stat 1.985167  
Adjusted R-squared 0.411171  
Prob(F-statistic) 0.010685  
R-squared 0.613055  
F-statistic 3.036668

**Source:** Author’s Computation from Eview (2021)

### 4.3.4: Error Correction Model for Model 1(One) for Ghana

The error correction result for the effect of globalization on capital inflows for Ghana is presented in table 4.3(b) above. The results showed that the model is a good fit given its R squared value of 0.956052 for the joint significance of the model, the probability value of the F statistic indicates that all the independent variables used for this study significantly determine capital inflows in Ghana. Also, the value of the Durbin Watson statistic which is greater than the value of the R squared indicates the absence of spurious regression. The ECM coefficient of -0.936443 and its corresponding probability value of 0.0473 conforms to apriori expectations where the ECM is expected to be negative and statistically significant at
the 5 per cent level of significance. The ECM coefficient implies that the speed of adjustment to long run equilibrium is about 94 per cent which is quick.

The short run result for Ghana shows that capital inflow in the first lag is a positive and significant determinant of capital inflows in the current period. In the second lag however, this relationship is negative. That is, capital inflow in the second lagged period has a negative relationship with capital inflow in the current period. Exchange rate in both the current and one year lagged period has a positive relationship with capital inflows in Ghana. This conforms to apriori expectations. It implies that as exchange rate depreciates, capital inflow increases in Ghana. In the second period lag, exchange rate has a negative and significant relationship with capital inflows implying that exchange rate appreciation leads to a reduction in capital inflow by about 61 per cent, ceteris paribus. Government expenditure in the current period has a positive and insignificant relationship with capital inflows in Ghana. In the one period lag however, this relationship is statistically significant but also positive which conforms to apriori expectations. Globalization in Ghana in both the current period and the one year lagged period has a positive relationship with capital inflows. This relationship is also statistically significant in both periods at the 5 per cent level of significance. The positive sign of the coefficients of globalization in Ghana implies that as the degree of globalization increases, capital flows into the country also increases. This relationship conforms to apriori expectations. The finding of this study as regards the relationship between globalization and capital inflows corroborates the findings of Duodu and Baidoo (2020) where a positive relationship was found to exist between globalization and capital inflows. The relationship between the Money supply and capital inflows in both the current year and one period lag is positive. This relationship conforms to apriori expectations and indicates that as the Money supply increases by one percent, capital inflows will increase by about 46 per cent in the current period while in the one year lagged period, capital inflows will increase by about 105 per cent, ceteris paribus.
### Table 4.3.4
Error Correction Model Test Result for Model 1 (Ghana)

| Variable          | Coefficient | Standard Error | t-Statistic | Probability |
|-------------------|-------------|----------------|-------------|-------------|
| C                 | -0.089322   | 0.203999       | -0.437854   | 0.6656      |
| D(LNCI(-1))       | 0.743488    | 0.357100       | 2.082019    | 0.0487      |
| D(LNCI(-2))       | -0.045727   | 0.179379       | -0.254921   | 0.8011      |
| D(LNEXR)          | 0.509130    | 0.781207       | 0.651722    | 0.5210      |
| D(LNEXR(-1))      | 0.653770    | 0.129154       | 5.061925    | 0.0000      |
| D(LNEXR(-2))      | -0.116475   | 0.041677       | -2.794725   | 0.0096      |
| D(LNGEX)          | 0.512665    | 0.445125       | 1.151734    | 0.2613      |
| D(LNGEX(-1))      | 0.471946    | 0.195625       | 2.412507    | 0.0232      |
| D(LNGLO)          | 0.326421    | 0.080168       | 4.071702    | 0.0003      |
| D(LNGLO(-1))      | 0.263466    | 0.088414       | 2.979902    | 0.0052      |
| D(LNMS)           | 0.456432    | 0.139964       | 3.261067    | 0.0031      |
| D(LNMS(-1))       | 1.046951    | 0.915742       | 1.143281    | 0.2647      |
| ECM(-1)           | -0.936443   | 0.446829       | -2.095753   | 0.0473      |
| Durbin-Watson stat | 1.663858    | Adjusted R-squared 0.949185 | Prob(F-statistic) 0.000000 |
| R-squared 0.956052 | F-statistic 139.2251 |

Source: Author’s Computation from Eviews (2021)

### 4.3.5 Residual Diagnostics Tests for Nigeria

To test the residuals for normality problem, the Jarque –Bera normality test was conducted and the result showed a P-value of 0.795831 which is greater than 0.05. This implies that the model is normally distributed. The Breusch-Godfrey Serial Correlation LM Test result has a P-value of 0.6481 which also is greater than 0.05 thereby signifying that the residuals are not serially correlated and similarly, the Breusch-Godfrey Heteroskedasticity reveals the absence of heteroskedasticity in the model given its associated p-value of 0.1899 which is greater than 0.05.

In summary, the residual diagnostic tests result reveals that the residual is not serially correlated, there is an absence of heteroskedasticity, and that the model is normally distributed.
4.3.6 Residual Diagnostics Tests for Ghana

To test the residuals for normality problem, the Jarque –Bera normality test was conducted and the result showed a P-value of 0.347327 which is greater than 0.05. This implies that the model is normally distributed. The Breusch-Godfrey Serial Correlation LM Test result has a P-value of 0.2231 which also is greater than 0.05 thereby signifying that the residuals are not serially correlated and similarly, the Breusch-Godfrey Heteroskedasticity reveals the absence of heteroskedasticity in the model given its associated p-value of 0.5469 which is greater than 0.05.

In summary, the residual diagnostic tests result reveals that the residual is not serially correlated, there is an absence of heteroskedasticity, and that the model is normally distributed.

4.4 Granger Causality Test Result for Model 1 (Nigeria)

The Granger causality test result on the effect of globalization on capital inflows in Nigeria is presented in the table above. The result above shows that exchange rate Granger causes capital inflows in Nigeria while capital inflow does not Granger cause exchange rate in Nigeria. A unidirectional relationship is also evident in the case of globalization and capital inflows. While capital inflow Granger causes globalization, globalization does not Granger cause capital inflows in Nigeria.

A relationship of no causality exists between government expenditure and capital inflows as well as between the Money supply and capital inflows in Nigeria. That is, government expenditure does not Granger cause capital inflows and vice versa. Also, the Money supply does not Granger cause capital inflows and vice versa.
Table 4.4  
Granger Causality Test Result for Model 1 (Nigeria)

| Null Hypothesis:                        | Obs | F-Statistic | Prob. |
|-----------------------------------------|-----|-------------|-------|
| LNEXR does not Granger Cause LNCI       | 37  | 4.09603     | 0.0261|
| LNCI does not Granger Cause LNEXR       |     | 0.32956     | 0.7217|
| LNGEX does not Granger Cause LNCI       | 37  | 3.10481     | 0.0586|
| LNCI does not Granger Cause LNGEX       |     | 3.20798     | 0.0537|
| LNGLO does not Granger Cause LNCI       | 37  | 0.18233     | 0.8342|
| LNCI does not Granger Cause LNGLO       |     | 4.11869     | 0.0256|
| LNMS does not Granger Cause LNCI        | 37  | 1.65318     | 0.2074|
| LNCI does not Granger Cause LNMS        |     | 2.91490     | 0.0687|

Source: Author’s Computation from Eviews (2021)

4.5 Granger Causality Test Result for Model 1 (Ghana)

The Granger causality test result on the effect of globalization on capital inflows in Ghana is presented in the table above. From the result above, it is evident that a bi directional relationship exists between exchange rate and capital inflows. Exchange rate Granger causes capital inflows in Ghana and capital inflows also Granger cause exchange rate in Ghana. Unidirectional relationship exists between government expenditure and capital inflows. While government expenditure Granger causes capital inflows, capital inflow does not Granger cause government expenditure.

The result further showed that a relationship of no causality exists between globalization and capital inflows as well as between the Money supply and capital inflows in Ghana.
Table 4.5
Granger Causality Test Result for Model 1(one) (Ghana)

| Null Hypothesis                  | Obs | F-Statistic | Prob.  |
|----------------------------------|-----|-------------|--------|
| LNEXR does not Granger Cause LNCI| 37  | 6.85461     | 0.0033 |
| LNCI does not Granger Cause LNEXR|     | 11.3681     | 0.0002 |
| LNGEX does not Granger Cause LNCI| 37  | 4.18885     | 0.0242 |
| LNCI does not Granger Cause LNGEX|     | 0.46042     | 0.6351 |
| LNGLO does not Granger Cause LNCI| 37  | 3.19160     | 0.0545 |
| LNCI does not Granger Cause LNGLO|     | 0.30985     | 0.7357 |
| LNMS does not Granger Cause LNCI | 37  | 0.48721     | 0.6188 |
| LNCI does not Granger Cause LNMS |     | 0.64822     | 0.5297 |

Source: Author’s Computation from Eviews (2021)

4.6.0 Results for the Effect of Globalization on Capital Outflows in Nigeria and Ghana

4.6.1: Johansen Co-integration Test for Model 2 in Nigeria

The Johansen co-integration test for the capital outflow model for Nigeria revealed that co-integration exists among the variables employed for this study. The Trace test indicates the presence of two co-integrating equations. The Max-Eigen value test similarly indicates the presence of two co-integration equations. This implies that a long run relationship and integration exists among the variables.
### Table 4.6.1
Johansen Co-Integration Test Result of Model 2 (two) for Nigeria

| Series: LNCO LNGLO LNGEX LNMS LNEXR |
|-------------------------------------|
| **Unrestricted Co-integration Rank Test (Trace)** |
| Hypothesized | Trace | 0.05 |
| No. of CE(s) | Eigen value | Statistic | Critical Value | Prob.** |
| None * | 0.841824 | 128.9939 | 69.81889 | 0.0000 |
| At most 1 * | 0.613455 | 60.76414 | 47.85613 | 0.0020 |
| At most 2 | 0.295152 | 25.59533 | 29.79707 | 0.1412 |
| At most 3 | 0.226917 | 12.65375 | 15.49471 | 0.1281 |
| At most 4 | 0.081143 | 3.131103 | 3.841466 | 0.0768 |

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

| **Unrestricted Cointegration Rank Test (Maximum Eigenvalue)** |
| Hypothesized | Max-Eigen | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.841824 | 68.22974 | 33.87687 | 0.0000 |
| At most 1 * | 0.613455 | 35.16880 | 27.58434 | 0.0044 |
| At most 2 | 0.295152 | 12.94159 | 21.13162 | 0.4576 |
| At most 3 | 0.226917 | 9.522643 | 14.26460 | 0.2452 |
| At most 4 | 0.081143 | 3.131103 | 3.841466 | 0.0768 |

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

**Source:** Author's computation from Eviews (2021)

### 4.6.2: Johansen Co-Integration Test Result of Model 2 for Ghana

From the Johansen co-integration test result above, the Trace test as well as the Max-Eigenvalue test indicates the presence of two co-integrating equations. This implies that long run relationship exists among the variables.
4.6.2 Johansen Co-Integration Test Result of Model 2 for Ghana

| Series: LNCO LNEXR LNGEX LNGLO LNMS |
|--------------------------------------|
| **Unrestricted Co-integration Rank Test (Trace)** |
| Hypothesized | Trace | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.918146 | 143.0823 | 69.81889 | 0.0000 |
| At most 1 * | 0.653654 | 62.99195 | 47.85613 | 0.0010 |
| At most 2 | 0.414742 | 29.06180 | 29.79707 | 0.0606 |
| At most 3 | 0.196463 | 11.91930 | 15.49471 | 0.1608 |
| At most 4 * | 0.142511 | 4.919885 | 3.841466 | 0.0265 |

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

| **Unrestricted Cointegration Rank Test (Maximum Eigenvalue)** |
| Hypothesized | Max-Eigen | 0.05 |
| No. of CE(s) | Eigenvalue | Statistic | Critical Value | Prob.** |
| None * | 0.918146 | 80.09035 | 33.87687 | 0.0000 |
| At most 1 * | 0.653654 | 33.93015 | 27.58434 | 0.0067 |
| At most 2 | 0.414742 | 17.14250 | 21.13162 | 0.1654 |
| At most 3 | 0.196463 | 6.999416 | 14.26460 | 0.4892 |
| At most 4 * | 0.142511 | 4.919885 | 3.841466 | 0.0265 |

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

Source: Author's computation from Eviews (2021)

4.6.3 Error Correction Model (ECM) for Model 2 (Nigeria)

The ECM result on the effect of globalization on capital outflow in Nigeria is shown in table below. The value of the R squared is given as 0.507674 which implies that the model is a good fit and that changes in capital inflows can be attributed to changes in the independent variables by about 51 per cent. The probability value of the F statistics given as 0.000185 implies that all the independent variables employed for this study significantly determine capital outflows in Nigeria. The value of the Durbin Watson statistic is greater than the value of the R squared indicating there is no autocorrelation. The coefficient of the ECM is negative, less than one and statistically significant at the 5 per cent level of
significance. This conforms to apriori expectations and implies that the speed of adjustment to long run equilibrium is a bit slow, that is, about 43 per cent.

The short run result indicates that capital outflows in the one year lagged period have a positive relationship with capital outflows in the current period. Exchange rate has a positive and significant relationship with capital outflows in Nigeria in the current period. In the current period, a depreciation of the exchange rate leads to an increase in capital outflows. In the one year lagged period however, a depreciation of exchange rate leads to a decline in capital outflows. The relationship between exchange rate and capital outflows only conforms to apriori expectations in the current period where the relationship is positive and significant. Government expenditure in both the current and the one year lagged period has a negative relationship with capital outflows in Nigeria. This relationship is only significant in the current period and it conforms to apriori expectations. It implies that as government expenditure increases by one per cent, capital outflows decrease by about 23 per cent in the current period and by about 60 per cent in the one year lagged period. Globalization in both the current period and the one year lagged period has a positive and statistically significant relationship with capital outflows in Nigeria. This implies that as the degree of globalization increases, capital outflows will also increase. This relationship conforms to apriori expectations. The relationship between the Money supply and capital outflows in Nigeria is positive in the current period as well as the one year lagged period. This implies that as the Money supply increases, capital outflows also increase. However, in the second lag period, the relationship between the Money supply and capital outflows in Nigeria is negative and insignificant.
### Error Correction Model Test Result for Model 2 (Nigeria)

| Variable              | Coefficient | Standard Error | t-Statistic | Prob. |
|-----------------------|-------------|----------------|-------------|-------|
| C                     | 0.267254    | 0.201557       | 1.325945    | 0.1973|
| D(LNCO(-1))           | 0.012720    | 0.077114       | 0.164948    | 0.8704|
| D(LNEXR)              | 0.318568    | 0.074478       | 4.277348    | 0.0002|
| D(LNEXR(-1))          | -0.136009   | 0.025462       | -5.341659   | 0.0000|
| D(LNEXGEX)            | -0.421053   | 0.144611       | -2.911626   | 0.0073|
| D(LNGEX(-1))          | -0.603887   | 0.396713       | -1.522227   | 0.1410|
| D(LNGLO)              | 0.214746    | 0.066967       | 3.206738    | 0.0033|
| D(LNGLO(-1))          | 1.230032    | 0.293392       | 4.192456    | 0.0004|
| D(LNMS)               | 1.739082    | 1.362743       | 1.276163    | 0.2141|
| D(LNMS(-1))           | 0.235318    | 0.059584       | 3.949322    | 0.0004|
| D(LNMS(-2))           | -0.113131   | 1.162954       | -0.097279   | 0.9233|
| ECM(-1)               | -0.430662   | 0.178079       | -2.418384   | 0.0235|

**Source:** Author’s computation from Eviews (2021)

### 4.6.4 Error Correction Model (ECM) for Model 2 (Ghana)

The error correction result for the effect of globalization on capital inflows is presented in the table below. The results showed that the model is a good fit given its R squared value of 0.782309 for the joint significance of the model, the probability value of the F statistic indicates that all the independent variables used for this study significantly determine capital inflows in Ghana. Also, the value of the Durbin Watson statistic which is greater than the value of the R squared indicates the absence of autocorrelation. The ECM coefficient of -0.964828 and its corresponding probability value of 0.0108 conforms to apriori expectations where the ECM is expected to be negative and statistically significant at the 5 per cent level of significance. The ECM coefficient implies that the speed of adjustment to long run equilibrium is about 96 per cent which is quick.

From the result above, capital outflow in the lagged period had a negative and significant relationship with capital outflows in Ghana. Exchange rate has a negative relationship with capital outflows in Ghana in the current period as well as the second period lag. This implies that as exchange rate depreciates,
capital outflows decreases. This relationship does not conform to apriori expectations. In the first period lag, the relationship between exchange rate and capital outflows is however positive and significant which conforms to apriori expectations. Government expenditure in the current period has a positive but insignificant relationship with capital outflows indicating that an increase in government expenditure by one per cent will cause capital outflows to also increase by about 135 per cent. In the lagged period, government expenditure has a negative relationship with capital outflows in Ghana indicating that a one per cent increase in government expenditure in the lagged period will lead to a decline in capital outflow by about 93 per cent. This relationship conforms to apriori expectations in the lagged period. In the current period, globalization has a positive and significant relationship with capital outflows in Ghana. This means that as the degree of globalization increases, capital outflow also increases. This relationship conforms to apriori expectations and can be explained that capital outflow also increases because globalization encourages investing and training abroad. This relationship is similar to that of Klobodu and Adams (2016) where they found a negative relationship between capital outflows and globalization in Ghana. In the one year lagged period, globalization has a negative and significant relationship with capital outflows in Ghana which does not conform to apriori expectations. The relationship between the Money supply and capital outflows in Ghana is negative in the current period but positive in the one year lagged period.
Table 4.6.4
Error Correction Model Test Result for Model 2 (Ghana)

| Variable           | Coefficient | Std. Error | t-Statistic | Prob.   |
|--------------------|-------------|------------|-------------|---------|
| C                  | -0.052868   | 1.143306   | -0.046241   | 0.9636  |
| D(LNCO(-1))        | -0.275170   | 0.082350   | -3.341449   | 0.0020  |
| D(LNEXR)           | -0.875286   | 4.748831   | -0.184316   | 0.8557  |
| D(LNEXR(-1))       | 0.584563    | 0.088921   | 6.573964    | 0.0000  |
| D(LNEXR(-2))       | -0.629961   | 0.228502   | -2.756912   | 0.0115  |
| D(LNGEX)           | 1.354905    | 2.628682   | 0.515431    | 0.6122  |
| D(LNGEX(-1))       | -0.931312   | 2.668150   | -0.349048   | 0.7309  |
| D(LNGLO)           | 1.230032    | 0.293392   | 4.192456    | 0.0004  |
| D(LNGLO(-1))       | -0.368972   | 0.159808   | -2.308847   | 0.0318  |
| D(LNMS)            | -6.518757   | 7.603212   | -0.857369   | 0.4019  |
| D(LNMS(-1))        | 3.329356    | 5.875918   | 0.566610    | 0.5776  |
| ECM(-1)            | -0.964828   | 0.341212   | -2.827650   | 0.0108  |

Durbin-Watson stat 1.717640  Adjusted R-squared 0.698582  Prob(F-statistic) 0.000002
R-squared 0.782309  F-statistic 9.343558

Source: Author's computation from Eviews (2021)

4.6.5 Residual Diagnostics Tests for Model 2 (Nigeria)

While testing for normality problem, the Jarque –Bera normality test was used and the result showed a P-value of 0.009546 which is less than 0.05. This implies that the model is not normally distributed. The Breusch-Godfrey Serial Correlation LM Test result has a P-value of 0.7726 which is greater than 0.05 thereby signifying that the residuals are not serially correlated and finally, the Breusch-Godfrey Heteroskedasticity reveals the absence of heteroskedasticity in the model given its associated p-value of 0.1506 which is greater than 0.05.
Table 4.6.5
Residual Diagnostic Test Results for Nigeria

| Residual Diagnostic Test                        | STATISTICS  | PROBABILITY |
|------------------------------------------------|-------------|-------------|
| Jarque-Bera normality test                     | 9.303186    | 0.009546    |
| Breusch-Godfrey Serial correlation LM test     | 0.261070    | 0.7726      |
| Heteroskedasticity : Breusch Pagan Godfrey     | 1.638494    | 0.1506      |

*Source: Author’s computation from Eviews (2021)*

### 4.6.6: Residual Diagnostic Test Results for Model 2 (Ghana)

In order to test for normality, the Jarque –Bera normality test was used and the result showed a P-value of 0.000000 which is less than 0.05. This implies that the model is not normally distributed. The Breusch-Godfrey Serial Correlation LM Test result has a P-value of 0.0911 which is greater than 0.05 thereby signifying that the residuals are not serially correlated and finally, the Breusch-Godfrey Heteroskedasticity reveals the absence of heteroskedasticity in the model given its associated p-value of 0.9830 which is greater than 0.05.

Table 4.6.6
Residual Diagnostic Test Results for Ghana

| Residual Diagnostic Test                        | STATISTICS  | PROBABILITY |
|------------------------------------------------|-------------|-------------|
| Jarque-Bera normality test                     | 521.7392    | 0.000000    |
| Breusch-Godfrey Serial correlation LM test     | 2.767048    | 0.0911      |
| Heteroskedasticity : Breusch Pagan Godfrey     | 0.278007    | 0.9830      |

*Source: Author’s computation from Eviews (2021)*

### 4.6.7 Granger Causality Test Result for Model 2 (Nigeria)

Unidirectional relationship exists between exchange rate and capital outflows, between government expenditure and capital outflows and between the Money supply and capital outflows in Nigeria. While exchange rate Granger causes capital outflow, capital outflow does not Granger cause exchange rate. Also, government expenditure Granger causes capital outflows while capital outflows do not Granger cause government expenditure in Nigeria. Finally, the Money supply Granger causes capital outflow while capital outflow does not Granger caused the Money supply. The result further showed that a relationship of no causality exists between globalization and capital outflows. That is, globalization does not Granger cause capital outflows and capital outflow does not also Granger cause globalization in Nigeria.
### Table 4.6.7
Granger Causality Test Result for Model 2 (Nigeria)

| Pairwise Granger Causality Test | Obs | F-Statistic | Prob. |
|---------------------------------|-----|-------------|-------|
| LNEXR does not Granger Cause LNCO | 37  | 4.41739     | 0.0202|
| LNCO does not Granger Cause LNEXR |     | 1.17917     | 0.3205|
| LNGEX does not Granger Cause LNCO | 37  | 7.79891     | 0.0017|
| LNCO does not Granger Cause LNGEX |     | 0.86736     | 0.4297|
| LNGLO does not Granger Cause LNCO | 37  | 0.95671     | 0.3949|
| LNCO does not Granger Cause LNGLO |     | 1.96424     | 0.1568|
| LNMS does not Granger Cause LNCO | 37  | 5.18289     | 0.0112|
| LNCO does not Granger Cause LNMS |     | 0.26524     | 0.7687|

*Source: Author’s computation from Eviews (2021)*

#### 4.6.8 Granger Causality Test Result for Model 2 (Ghana)

From the result below, bidirectional relationship exists between exchange rate and capital outflows in Ghana as exchange rate Granger causes capital outflows and capital outflow Granger causes exchange rate. Unidirectional relationship exists between government expenditure and capital outflows. While capital outflows Granger causes government expenditure in Ghana, government expenditure does not Granger cause capital outflow in Ghana. A relationship of no causality exists between globalization and capital outflows as well as between capital outflows and the ratio of money supply to GDP in Ghana.
Table 4.6.8
Granger Causality Test Result for Model 2 (Ghana)

| Pairwise Granger Causality Test | Obs | F-Statistic | Prob. |
|--------------------------------|-----|------------|-------|
| LNEXR does not Granger Cause LNCO | 32 | 4.53195 | 0.0185 |
| LNCO does not Granger Cause LNEXR | | 8.97079 | 0.0008 |
| LNGEX does not Granger Cause LNCO | 32 | 0.39091 | 0.6796 |
| LNCO does not Granger Cause LNGEX | | 3.34056 | 0.0481 |
| LNGLO does not Granger Cause LNCO | 32 | 0.26260 | 0.7710 |
| LNCO does not Granger Cause LNGLO | | 1.17581 | 0.3239 |
| LNMS does not Granger Cause LNCO | 32 | 0.21214 | 0.8102 |
| LNCO does not Granger Cause LNMS | | 0.19767 | 0.8218 |

Source: Author’s computation from Eviews (2021)

Conclusion And Policy Recommendations

5.1 Conclusion

This study focused on examining the effect of globalization on capital flows (capital inflows and capital outflows) in two selected West African countries which are Nigeria and Ghana. The study found out that in the short run in Nigeria, globalization has a negative relationship with capital inflows in the current year. This means that as globalization improves in the current year, capital inflows which consist of foreign direct investment declines. This relationship does not conform to a priori expectations and can be attributed to the fact that corruption and political instability exists in the Nigerian system thereby discouraging capital inflow. In the one period lag however, globalization has a positive relationship with capital inflows. In the case of capital outflows, globalization has a positive relationship with capital outflows in Nigeria. This also can be attributed to the fact that globalization has encouraged investment in other countries aside Nigeria which then leads to capital outflows for the purpose of investment in those countries.

In Ghana, globalization has a positive relationship with capital inflows indicating that as globalization improves in the country, capital inflows increase. The reason for this is due to the fact that the business environment or other political factors does not affect the easy flow of funds into the country. Capital outflow in the current period has a positive relationship with globalization in Ghana. This implies that as globalization increases, capital outflow also increases. Again, this can be attributed to the fact that globalization has also encouraged investment in other countries aside Ghana which then leads to
capital outflows for the purpose of investment in those countries. In the one period lag however, the relationship is negative, implying that as globalization improves, capital outflow decline.

5.2 Recommendations

The following recommendations were made as regards Nigeria;

- The negative relationship between globalization and capital inflows is caused by the uncondusive business environment in Nigeria. The business environment in Nigeria should be well developed so as to encourage both local and foreign investors.
- Also, macroeconomic stability especially exchange rate stability should be achieved. A stable exchange rate regime or system helps to encourage foreign investors and protect the value of the local currency.
- Corruption should be tackled. Institutions that have been set up by the government to tackle corruption in the country should be given the right to act independently and should also be funded to ensure efficiency in carrying out their duties. This will help to encourage the flow of capital into the country.
- An enabling environment will also help to reduce the amount of capital outflows in the country. Most investors prefer to carry out their business in other countries because the Nigerian business environment is not conducive enough for them to engage in business activities in. It is therefore very important for the government to provide an enabling environment to help increase the flow of capital into the country and also to help reduce capital flight.
- Efforts need to be taken by government and policy makers to boost the performance of the all sectors negatively impacted by globalization. Economic diversification in the oil sector which is the largest contributor to GDP in recent time in the country should be encouraged and other sectors such as the manufacturing, agriculture and solid minerals sectors should be invested in.
- The government should determine the optimal capital inflow that would propel investment and growth in the country and so, government and policy-makers need to attract more inflow of foreign capital into the country while also considering the detrimental effect of huge capital inflow into the Nigerian economy.

In Ghana however, the following recommendations were proposed by the researcher;

- Since globalization has a positive relationship with capital inflows in Ghana, it is important for the Ghanaian government to ensure that the enabling business environment in Ghana is maintained. This will further encourage capital inflows into the economy which will then lead to an increase in economic growth.
- Likewise in Ghana, an enabling environment will also help to reduce the amount of capital outflows in the country as most investors prefer to carry out their business in other countries where the business environment is conducive enough for them to engage in business activities in.
• Sound, robust and vigorous economic policies should be formulated with the sole purpose of attracting and drawing capital flows into the country that helps to bridge the needed capital for economic growth and development in Ghana.

Generally, the issue of insecurity and policy inconsistency so as to allow the free flow of capital into both countries is very important. Also, the government needs to implement policies that will promote domestic investment and discourage capital flight from both countries. The Nigerian and Ghanaian government should undertake policy measures and reforms that will help in providing sound macroeconomic policies which will create a more stable and conducive environment for investment and the expansion of economic activity to ensure that capital inflow impacts positively on the economic growth of both countries. Competitive economic environments that will be attractive to foreign investors are essential in maximizing the benefits from capital inflows in Nigeria and Ghana. Appropriate monitoring commissions should be set up to ensure judicious use of credit and funds from abroad and available foreign currencies for uses that are beneficial to the economy. Government should create an enabling environment to encourage more inflow of funds from abroad. Also, there should be an intensification of government efforts in its anti-corruption campaign as this will improve the country’s image and attract inflow of funds from abroad for investment purposes in Nigeria and Ghana.

Declarations

1. **ETHICS APPROVAL AND CONSENT TO PARTICIPATE:** Not applicable

2. **CONSENT FOR PUBLICATION:** Not applicable

3. **AVAILABILITY OF DATA AND MATERIAL:**

Dataset used and/or analysed during the current study are available on World Bank databank.

4. **COMPETING INTERESTS:** Authors declared that they have no competing interest.

5. **FUNDING:**

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6. **AUTHORS’ CONTRIBUTIONS**

Danladi D. Jonathan- He analysed the dataset of variables under consideration

Ogundipe A.- He gather the theoretical literature and the dataset

Falaye M. H. – She interpreted and proofread the manuscript

Barka, R. James- She gather the theoretical literature for the study
The authors read and approved the final manuscript

7. ACKNOWLEDGEMENTS: Not applicable

8. AUTHORS’ INFORMATION: Not applicable

References

1. Adams S, Klobodu M. K & Lamptey R. O (2017). The effects of capital flows on economic growth in Senegal. *Journal of Applied Economic Research*. [https://doi.org/10.1177/0973801016687869](https://doi.org/10.1177/0973801016687869)

2. Adeleke, O., Akinola, M. & Ifeacho, C. (2013). Globalization And Economic Development In Nigeria. *Journal of Research in Humanities and Social Science*. 1 (4): 06-14.

3. Adeolu, F. (2007). “Globalization Implication on Nigeria Economy.” Ibadan: SOSON Press.

4. Adesoye, A. (2015). 'Modeling Zones of the World-Economy: A Polynomial Regression Analysis (1964-1994)'. New York: State University of New York at Binghamton: Fernand Braudel Center.

5. Adeyemi, N. (2013) “Tele Options for Community Business: an opportunity for economic growth in Africa” Africa Notes (October) pp1-3. Adler, V. (1956). “Globalization: Confronting fear About Open Trade.” Washington, D.C: Brookings Institute Press.

6. Agoba, A., Agbloyor, E., Gyeke-Dako, A., & Acquah, M. (2020). Financial globalization and institutions in Africa: The case of foreign direct investment, central bank independence and political institutions. *Journal of Institutional Economics*, 16(6), 931-953. doi:10.1017/S1744137420000193

7. Amaefule, C. (2020). Global Capital Inflows, Growth, and Trade Indicators in Ghana and Nigeria: Evidence from Asymmetric Co-integration Framework. European Journal of Sustainable Development Research, 4(4), em0130. [https://doi.org/10.29333/ejosdr/8246](https://doi.org/10.29333/ejosdr/8246)

8. Duodu, E. & Baidoo S. T (2020). The impact of capital inflows on economic growth of Ghana: Does quality of institutions matter? *Journal of Public Affairs*. [https://doi.org/10.1002/pa.2384](https://doi.org/10.1002/pa.2384)

9. Gabriel, B.T., Okafor J., & Ihayere O.B. “Capital Flows and Economic Growth in Nigeria: An Econometric Approach”. *International Journal of Research -GRANTHAALAYAH* 7, no. 9 (September 30, 2019): 183–199.

10. Igwemma, A. A., Egbulonu, K. G., & Assumpta, C. N. (2018). Capital flight and the Nigerian economy (1986-2016). International Journal of Development and Economic Sustainability, 6(4), 11-28.

11. Maduka, A., Madichie, C. & Eze, Eze, Globalization and Economic Growth: Evidence from Nigeria (August 16, 2017). International Journal of Social Science and Economic Research, Vol. 2(8), August 2017, Available at SSRN: [https://ssrn.com/abstract=3053987](https://ssrn.com/abstract=3053987)

12. Martinez, E. & Garcia, A. (1997). “What is Neo-liberalism?” National Network for Immigrant and Refugee Rights, January 1, 1997, (posted at CorpWatch.org).

13. Mihai, M & Anne-Marie Fleischer (2011). Economic Growth and Globalization in Romania. *World Applied Sciences Journal* 12 (10): 1691-1697

14. Obadan, A. (2004). “A Systematic Approach to International Relations.” Lagos: Concept Publications.
15. Saibu, M. O & Akinbobola T. O. (2014). Globalization, Foreign Direct Investment and Economic Growth in Sub Saharan Africa. *Journal of Economics and International Finance*. Vol. 6(3), pp. 62-68, March, 2014 DOI: 10.5897/JEIF2013.0531

**Figures**

![Graph](image.png)

**Figure 1**

CUSUM Test Result for Nigeria
Figure 2
CUSUM Test Result for Ghana

Figure 3
CUSUM Test Result for Nigeria
Figure 4

CUSUM Test Result for Ghana