

INTERDEPENDENCE BETWEEN TRADE OPENNESS, FINANCIAL DEEPEENING AND ECONOMIC PERFORMANCE IN NIGERIA: EVIDENCE FROM VAR AND GRANGER CAUSALITY

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ABSTRACT

The paper explored the interdependence between trade openness, financial deepening and economic performance in Nigeria within the period of 1981 and 2018 using data from World Bank Report. GDP denotes economic performance. While trade openness by net inflow % of GDP and total trade as % of GDP, whereas; financial deepening as M2/GDP and CPS/GDP all representing independent variables. The paper conducted the stationarity and the long-run test using ADF and PP and the Johannsen Cointegration Test. The result shown that all the variables are integrated at I(1) with evidence of no long-run relationship. The paper further conducts the VAR and the granger test to check for their interdependence and direction of causality. The paper uncovers that trade openness (net inflow % of GDP and total trade as % of GDP) impact economic performance. While financial deepening (as CPS/GDP and M2/GDP) exerts no impact on economic performance in Nigeria. The result further shown that there is unidirectional causality from net inflow % of GDP and total trade as % of GDP to gross domestic product in the trade openness model. And also, unidirectional causality from M2/GDP to GDP in the financial deepening model. While, the interdependence modelling reveals a unidirectional causality running from net inflow % of GDP and M2/GDP to GDP. And from CPS/GDP to total trade as % of GDP and net inflow % of GDP to M2/GDP. And finally bidirectional causality between to total trade as % of GDP and GDP in Nigeria under the period of investigation. Hence, the paper recommends that more attention should be placed on trade openness due to the growing importance of international trade rising from the interconnection of markets.

Keywords: Trade Openness, Financial Deepening, Economic Performance, VAR, Granger Causality

JEF Classification: F43, C55, C32, B22, F15

INTRODUCTION

Trade openness is the liberalization of international trade across borders in term of finance, free foreign trade and free movement of capital and labour to promote more integration amongst countries (Igudia, 2004). Trade openness is the flexibility of a country international trade policies and the accessibility of foreign investors to a host country (Gupta et al., 2020). Trade openness spur output, enhance efficient allocation of resources, enhance standard of living through increase income, promotes knowledge and technological dissemination, and improved healthy competition in domestic and international markets.

While, Financial Deepening is the enhancement of financial institutions product and service delivery coverage to effectively mobilized saving for investment (Sackey & Nkurumah, 2012), it increases the scope of financial service delivery, increase innovation and promote economic growth through financial sector development and performance.

Trade openness and economic growth and financial deepening and growth has been documented in several finance academic literature separately both in the developed and developing economics (Abinabo and Abubakar, 2023; Bunje et al, 2022; Oppong-Baah et al, 2022; Andabai & Ogiriki, 2018; Karras, 2003 and Ogbebor & Okungbowa 2021; Ajudua & Odishika 2022; Samuel-Hope et al, 2020). In addition, most of these studies explored difference method of data analysis: on Trade openness and economic growth (Andabai and Ogiriki (2018) utilized VECM, Karras (2003) panel analysis, Abinabo and Abubakar (2023) ECM, Oppong-Baah et al (2022) employed pooled ordinary least squares (OLS), based on random effects, Bunje et al (2022) utilized GMM, Ogbebor & Okungbowa (2021) ECM on financial deepening: Ajudua and Odishika (2022) ECM, Samuel-Hope et al, (2020) ARDL

It is on this background, that this paper modelled the impact of trade openness and financial deepening on economic performance in Nigeria separately and jointly using VAR and the granger test to check for their interdependence and direction of causality capturing trade openness by net inflow % of GDP and total trade as % of GDP, whereas; financial deepening as CPS/GDP and M2/GDP as against earlier studies

Theoretical Review

This paper theorized on the Solow-Swan growth theory and the financial intermediation theory. The Solow-Swan Growth developed by Solow (Solow (1956) and Swan (1956). The theory believed that population growth rate, technological innovations, investment through capital accumulation are drivers for economic growth and the volume of international trade. While, the financial intermediation theory is based on Mckinnon (1973) and Shaw (1973) Framework who both expounded that financial intermediation is an engine for growth through effective mobilization of funds (saving) from the surplus unit to the deficit unit for investment, promotion of innovation and entrepreneurship development.

Empirical Review

Andabai and Ogiriki (2018) visited financial deepening and the growth of the Nigerian economy using data from CBN statistical Bulletin spanning the period between 1990 and 2017. The paper modelled market capitalization, credit to private sector and total bank deposits as independent variables and GDP as dependent variable. The paper utilized VECM and granger causality as method of data analysis. The paper uncovers a long-run relationship and unidirectional causality from financial deepening to GDP. Karras (2003) also visited the extant literature on trade openness and economic growth between 1951 and 1998 and between 1960 and 1997 for 56 and 105 countries respectively using panel data. The result shows that trade openness exerts positive significant impact on economic growth in all the data set under the period of investigation. Using ECM, Abinabo and Abubakar (2023) also find that trade openness positively and significantly impact growth in Nigeria based on time series data sourced from CBN Statistical Bulletin between the period of 1990 and 2021. The paper highlights the need for government to stimulate international trade through the formulation and implementation of import and export friendly policies with more caution/conscience in preventing/avoiding dumping goods in Nigeria.

On the context of cross countries analysis. Oppong-Baah et al, (2022) used panel data between Nigeria and Ghana for the period of 1998 and 2017 to explored the impact of trade openness and economic growth using pooled OLS based on random effect the paper used investment, real exchange rate, inflation and trade openness as explanatory variables and GDP as predatory variables. The paper uncovers that real exchange rate and trade openness significant and positively exert economic growth. While, investment and inflation rate impact on economic growth is insignificant the paper affirmed the need for government to pay more attention on trade openness

and real exchange rate to achieved the desire objectives of economic growth. While, measures should be established to control the level of inflation rate to minimize its negative effect

While, on generalized methods of moment's (GMM) and pooled ordinary least square based on fixed effect regression, Bunje et al (2022) used panel data of 52 Arican countries between 2000 and 2018 to estimate the impact of trade openness on growth using four basic measures: the ratio of export to GDP, export plus import to GDP, the ratio of import to GDP and their join effect index. The result show that trade openness exerts negative effect on GDP from the fixed effect model. While, the pooled ordinary least square least (POLS) revealed a mixed effect: there is nonlinearity when the countries are divided into sub-regions, while result from Northern Africa is sturdy in terms of GDP. Finally, import negatively affect growth. While, export spur growth.

Ogbebor and Okungbowa, (2021), used ECM as method of data analysis resulting from the cointegration test to evaluate the likely impact of financial deepening on growth in Nigeria. The paper documents a long-run relationship between growth and the level of financial sector development. The paper calls for a formidable policy that emphasizes on financial inclusion and friendly credit provision to promote financial sector development and engender economic growth.

Onwumere et al., (2012) expounded on financial deepening and economic growth in Nigeria theorizing on the supply leading hypothesis by using market liquidity, market capitalization, economic velocity, money stock diversification and M3 velocity to captured financial deepening between 1992 and 2008. They found that market liquidity and M3 velocity causes growth. While market capitalization, economic velocity, and money stock diversification have no impact on growth in Nigeria. Therefore, the need for policies implementation that will sustain the efficiency of capital and increase supply of money to stimulate economic growth.

Ajudua and Odishika (2022) used ARDL to estimate the short-run and long-run impact of financial deepening and economic growth using secondary data sourced from CBN Statistical Bulletin within the period of 1986 and 2020. The paper identified a positive impact of liquid liabilities, market capitalization and money supply on growth. On the contrary, lending rate and credit to private sector has no significant impact on growth.

Samuel-Hope et al, (2020) investigate the interdependence between economic growth and financial deepening covering the period of 1981 and 2018 based on ARDL estimation. Financial deepening is represented by credit to private sector, money supply, saving and time deposit of commercial banks. The study found long-run insignificant impact with GDP

Data and Econometric Model

The paper focussed on interdependence between trade openness, financial deepening and economic performance in Nigeria using data sourced from World Bank Report for the period 1981 to 2018. Economic performance is proxied by GDP. While trade openness is proxy by net inflow % of GDP and total trade as % of GDP, whereas; financial deepening as CPS/GDP and M2/GDP. To model, the separate and join impact of trade openness, and financial deepening on economic performance. The model specification can be expressed as follows:

$$GDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + u_i \dots \dots \dots (1)$$

$$GDP_t = \beta_0 + \beta_1 M2/GDP_t + \beta_2 CPS/GDP_t + u_i \dots \dots \dots (2)$$

$$GDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + \beta_3 M2/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (3)$$

To ensure normality and uniformity in the interpretation of parameters. The GDP is logged, leading to Eqn. 4, 5, and 6 respectively.

$$LnGDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + u_i \dots \dots \dots (4)$$

$$LnGDP_t = \beta_0 + \beta_1 M2/GDP_t + \beta_2 CPS/GDP_t + u_i \dots \dots \dots (5)$$

$$LnGDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + \beta_3 M2/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (6)$$

Where: FDI/GDP , TT/GDP , $M2/GDP$, and CPS/GDP denote net foreign direct investment inflow % of GDP, total trade as % of GDP as measures of trade openness. While, Money supply as % of GDP, and total credit to the private sector as % of GDP as financial deepening parameters respectively.

Method of data Analysis

The paper conducted the stationarity test using ADF and PP unit root test follow by Johannsen Cointegration test to check for the presence of long-run relationship. Having established the evidence of no long-run. The paper proceeds with the VAR and the granger causality test to check for their interdependence.

VAR

The paper adopts the Johannsen vector autoregressive (VAR) model of Jahannsen and Juselius (1990, 1992) to analysis the dynamic impact of each of the random disturbance shock on the system variables. The VAR is chosen because it has the ability to simultaneously evaluate structural relationship without prior limitation on the cointegration features earlier proposed by Sim (1980). The VAR is also picked due to its ability to analysis variable channels of interaction and operation which is suitable for this study which focussed on the interdependence between trade openness, financial deepening and economic performance.

VAR Granger Causality

The paper employed the VAR granger causality test to ascertain the interdependence between trade openness, financial deepening and economic performance in Nigeria to uncover the direction of causality. The VAR granger causality equation derived from equation 4 and 5, showing separate interaction with economic performance (GDP) is presented in equation 7, 8, 9, 10, 11, 12 in model 1 and model 2 respectively. While, the VAR granger causality equation showing the interdependence between trade openness, financial deepening, and economic performance in Nigeria is represented in equation 13, 14, 15, 16 and 17 respectively in model 3.

Model 1

$$\ln GDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + u_i \dots \dots \dots (7)$$

$$FDI/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 TT/GDP_t + u_i \dots \dots \dots (8)$$

$$TT/GDP = \beta_0 + \beta_1 \ln GDP_t + \beta_2 FDI/GDP_t + u_i \dots \dots \dots (9)$$

Model 2

$$\ln GDP_t = \beta_0 + \beta_1 M2/GDP_t + \beta_2 CPS/GDP_t + u_i \dots \dots \dots (10)$$

$$M2/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 CPS/GDP_t + u_i \dots \dots \dots (11)$$

$$CPS/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 M2/GDP_t + u_i \dots \dots \dots (12)$$

Model 3

$$\ln GDP_t = \beta_0 + \beta_1 FDI/GDP_t + \beta_2 TT/GDP_t + \beta_3 M2/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (13)$$

$$FDI/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 TT/GDP_t + \beta_3 M2/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (14)$$

$$TT/GDP = \beta_0 + \beta_1 \ln GDP_t + \beta_2 FDI/GDP_t + \beta_3 M2/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (15)$$

$$M2/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 FDI/GDP_t + \beta_3 TT/GDP_t + \beta_4 CPS/GDP_t + u_i \dots \dots \dots (16)$$

$$CPS/GDP_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 FDI/GDP_t + \beta_3 TT/GDP_t + \beta_4 M2/GDP_t + u_i \dots \dots \dots (17)$$

Results and Discussion FindingsResults

Table 1 Normality and collinearity Test

Panel A: Descriptive Summary					
	LnGDP	FDI/GDP	TT/GDP	M2/GDP	CPS/GDP
Mean	8.534	-0.302	3.490	2.618	2.302
Median	8.708	-0.534	3.586	2.541	2.105

Skewness	-0.188	-0.682	-0.441	0.386	0.714
Kurtosis	1.600	4.375	2.249	1.751	1.820
Jarque-Bera	3.326	5.937	2.124	3.416	5.429
Probability	0.190	0.051	0.346	0.181	0.066
LnGDP	1				
FDI/GDP	-0.336	1			
TT/GDP	0.458	0.095	1		
M2/GDP	0.806	-0.395	0.074	1	
CPS/GDP	0.805	-0.417	0.017	0.948	1

Source: Author Computation, 2024

Table 2: Unit Root Test

Variables	Augmented Dickey Fuller (ADF)				Phillips-Perron (PP)				Order of Integration
	Level		First Difference		Level		First Difference		
	Intercept		Intercept		Intercept		Intercept		
	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob	F-Stats	Prob	
LnGDP	1.155	0.683	3.180	0.030*	0.721	0.829	3.097	0.036*	1(1)
LnFDI	2.730	0.079	8.410	0.000*	2.594	0.103	9.435	0.000*	1(1)
LnTO	1.672	0.437	7.455	0.000*	1.594	0.476	7.484	0.000*	1(1)
LnGFCF	1.838	0.357	4.774	0.001*	1.851	0.351	5.411	0.000*	1(1)
LnM2/GDP	1.252	0.641	5.883	0.000*	1.299	0.620	6.213	0.000*	1(1)
LnCPS/GDP	1.042	0.728	4.981	0.000*	0.976	0.752	5.940	0.000*	1(1)

Note: * signified 5% significance level

Table 3: Lag Selection

Model1			Model 2			Model 3		
LnGDP, FDI/GDP, TT/GDP			LnGDP, M2/GDP, CPS/GDP			LnGDP, FDI, TT/GDP, M2/GDP, CPS/GDP		
Criterion	Stats	Lag	Criterion	Stats	Lag	Criterion	Stats	Lag
LR	262.164*	1	LR	18.621*	2	LR	301.8165	1
FPE	0.001*	1	FPE	1.22 ⁻⁶ *	2	FPE	7.59 ⁻⁸ *	1
AIC	1.210*	1	AIC	-5.121*	2	AIC	-2.22.281*	1
SC	1.738*	1	SC	-4.451*	1	SC	-0.901*	1
HQ	1.394*	1	HQ	-4.799*	2	HQ	-1.760*	1

Note: * indicates suggested lag order by each criterion.

Table 4: Johannsen Co-integration Test

Null Hypotheses		Model 1		Model 2		Model 3	
		LnGDP, FDI/GDP, TT/GDP		LnGDP, M2/GDP, CPS/GDP		LnGDP, FDI/GDP, TT/GDP, M2/GDP, CPS/GDP	
		Max-Eigen Prob	Trace Prob	Max-Eigen Prob	Trace Prob	Max-Eigen Prob	Trace Prob
r = 0	r ≥ 1	0.579	0.347	0.308	0.253	0.713	0.217
r ≤ 1	r ≥ 2	0.478	0.322	0.650	0.451	0.449	0.223
r ≤ 2	r ≥ 3	0.122	0.122	0.120	0.120	0.719	0.332
r ≤ 3	r ≥ 4					0.324	0.202
r ≤ 4	r ≥ 5					0.108	0.108

Table 5 VAR Estimate

Model 1					
	LnGDP	FDI/GDP	TT/GDP		
LnGDP(-1)	0.990*	-0.145*	0.021*		
FDI/GDP(-1)	0.027*	0.563	0.065*		
TT/GDP(-1)	0.081*	0.203	0.788		
R2	0.998	0.463	0.754		
Adj.R2	0.998	0.414	0.731		
Model 2					
	LnGDP	M2/GDP	CPS/GDP		
LnGDP(-1)	1.684	-0.220	-0.268		
LnGDP(-2)	-0.698	0.254	0.310		
M2/GDP(-1)	0.550	0.513	0.110		
M2/GDP(-2)	-0.123	0.223	0.750		
CPS/GDP(-1)	-0.698	0.254	0.310		
CPS/GDP(-2)	0.052	-0.205	-0.278		
C	-0.153	0.770	-0.238		
R2	0.999	0.856	0.892		
Adj.R2	0.999	0.826	0.869		
Model 3					
	LnGDP	FDI/GDP	TT/GDP	M2/GDP	CPS/GDP
LnGDP(-1)	0.976*	-0.165	0.113*	0.026*	0.976*
FDI/GDP(-1)	0.028*	0.564	0.058*	-0.037*	0.028*
TT/GDP(-1)	0.094*	0.217	0.573	0.023	0.094
M2/GDP(-1)	0.489	0.882	0.619	0.203	0.490
CPS/GDP(-1)	-0.214	-0.407	-0.846	0.662	-0.214
C	-0.719	-0.855	0.880	0.672	-0.037
R2	0.999	0.466	0.808	0.895	0.999
Adj.R2	0.999	0.380	0.777	0.878	0.999

Note: * Signified 5% significance level

Table 6: Model Stability Test

	Model 1	Model 2	Model 3
	Prob	Prob	Prob
Serial Correlation LM Tests	0.308	0.4067	0.1021
Normality Tests (Jarque-Bera)	0.000	0.5860	0.0000
Heteroskedasticity Tests	0.013	0.1597	0.0150

Table 7: VAR Granger Causality Result for Model 1 and 2

Model 1: Trade Openness and GDP			
Panel A: $\text{LnGDP} = f(\text{FDI/GDP}, \text{TT/GDP})$			
Variables	FDI/GDP	TT/GDP	Direction of Causality
LnGDP	0.033*	0.036*	Unidirectional
Panel B: $\text{FDI/GDP} = f(\text{LnGDP}, \text{TT/GDP})$			
Variables	LnGDP	TT/GDP	No Causality
FDI/GDP	0.1278	0.634	
Panel C: $\text{TT/GDP} = f(\text{LnGDP}, \text{FDI/GDP})$			
Variables	LnGDP	FDI/GDP	

TT/GDP	0.370	0.059	No Causality
Model 2: Financial Deepening and GDP			
Panel A: $LnGDP = f(M2/GDP, CPS/GDP)$			
Variables	M2/GDP	CPS/GDP	
LnGDP	0.007*	0.663	Unidirectional
Panel B: $M2/GDP = f(LnGDP, CPS/GDP)$			
Variables:	LnGDP	CPS/GDP	No Causality
M2/GDP	0.064	0.363	
Panel C: $CPS/GDP = f(LnGDP, LnM2/GDP)$			
Variables	LnGDP	M2/GDP	
CPS/GDP	0.123	0.547	No Causality

Table 8: VAR Granger Causality Result for Model 3**Model 3: Trade Openness and Financial Deepening against GDP**

Panel A: $LnGDP = f(FDI/GDP, TT/GDP, M2/GDP, CPS/GDP)$					Direction of Causality
Variable	FDI/GDP	TT/GDP	M2/GDP	CPS/GDP	
LnGDP	0.017*	0.041*	0.004*	0.064	FDI/GDP, TT/GDP and M2/GDP to LnGDP
Panel B: $FDI/GDP = f(LnGDP, TT/GDP, M2/GDP, CPS/GDP)$					
Variable	LnGDP	TT/GDP	M2/GDP	CPS/GDP	
FDI/GDP	0.410	0.704	0.678	0.778	No Causality
Panel C: $TT/GDP = f(LnGDP, FDI/GDP, M2/GDP, CPS/GDP)$					
Variables	LnGDP	FDI/GDP	M2/GDP	CPS/GDP	
TT/GDP	0.010*	0.065	0.179	0.007*	CPS/GDP to TT/GDP
Panel D: $M2/GDP = f(LnGDP, FDI/GDP, TT/GDP, CPS/GDP)$					
Variables	LnGDP	FDI/GDP	TT/GDP	CPS/GDP	
M2/GDP	0.523	0.032*	0.435	0.278	FDI/GDP to M2/GDP
Panel E: $LnTO = f(LnGDP, FDI/GDP, TT/GDP, CPS/GDP)$					
Variables	LnGDP	FDI/GDP	TT/GDP	M2/GDP	
CPS/GDP	0.365	0.075	0.779	0.504	No Causality

Note: Model 3 Panel A and Panel C. Bidirectional Causality between TT/GDP and LnGDP

Discussion of Results

Table 4.1 shows that all the variables are normally distributed. While the collinearity results shows that FDI/GDP and LnGDP are weakly and negatively correlated. While, M2/GDP and FDI/GDP are also weakly and negatively correlated. In the same vein, CPS/GDP and FDI/GDP are also correlated. Depicting the relationship between the development of financial sector and the level of trade openness in terms of foreign direct investment. Furthermore, TT/GDP and LnGDP are weakly correlated. While, M2/GDP and CPS/GDP are weakly related with TT/GDP. Demonstrating that financial deepening does not relate with trade openness.

Focusing on the stationarity characteristics of the parameters. Table 2 revealed that all the variables are integrated at first difference. i.e. I(1). Supporting the adoption of the Johannsen cointegration test to identify whether exists long-run relationship or not on Table 3 (Johannsen Cointegration test) based on max-eigenvalue and trace test. Both test suggests the acceptance of the null hypothesis of no long-run relationship in all the model respectively. Therefore, the study documents that there is no long-run relationship between trade openness and economic performance, and between financial deepening and economic performance. And generally, there is no long-run relationship between trade openness, financial deepening and economic performance in Nigeria under the period of investigation. These findings support the following empirical literatures (Abinabo

& Abubakar, 2023; Andabai & Ogiriki, 2018; and Ogbebor and Okungbowa, 2021). While, contradicting the findings of Samuel-Hope et al, (2020).

Following the Johanssen cointegration results. The study proceeds with the VAR test to check for their interdependence. The paper uncovers that trade openness (net inflow % of GDP and total trade as % of GDP) significantly impact economic performance (GDP) as shown in Table 5 in both model 1 and 3 respectively. While financial deepening (as CPS/GDP and M2/GDP) exerts no significant impact on economic performance (GDP) in Nigeria as shown in model 2. However, there is evidence of autocorrelation in economic performance (GDP), and the lagged of LnGDP significantly impacting the net inflow % of GDP and total trade as % of GDP. signifying the role of economic growth in promoting international trade and foreign investment.

The VAR granger causality result in Table 7 and 8 respectively further shown that there is unidirectional causality from net inflow % of GDP and total trade as % of GDP to gross domestic product in the trade openness model. And also, unidirectional causality from money supply as % of GDP to LnGDP in the financial deepening model. While, the interdependence modelling reveals a unidirectional causality running from net inflow % of GDP and M2/GDP to LnGDP. And from CPS/GDP to total trade as % of GDP and net inflow % of GDP to M2/GDP. And finally bidirectional causality between to total trade as % of GDP and LnGDP in Nigeria under the period of investigation. The residual results shows that model 2 meets the statistical assumptions and expectation of no serial correlation, normality and constant variance of the error term, demonstrating the model stability and generalization. However, model 1 and 3 fails on the normality and constant variance.

CONCLUSION AND POLICY RECOMMENDATIONS

The study focussed on the interdependence between trade openness, financial deepening and economic performance in Nigeria within the period of 1981 and 2018 using annual data sourced from the World Bank Report. Economic performance is proxied by GDP. While trade openness by net inflow % of GDP and total trade as % of GDP, whereas; financial deepening as CPS/GDP and M2/GDP all representing independent variables. The paper employed VAR and granger causality test to check for their interdependence and direction of causality. The paper finds that trade openness (net inflow % of GDP and total trade as % of GDP) significantly impacts GDP, and there is bidirectional causality between to total trade as % of GDP and LnGDP in Nigeria under the period of investigation. The paper therefore, recommends recommend that more attention should be placed on trade openness due to the growing importance of international trade rising from the interconnection of markets.

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