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Causal Link between Trade, Political Instability, FDI and Economic Growth: Nigeria Evidence

By Luqman O. AFOLABI [a†] Nor Aznin ABU BAKAR [b]

Abstract. The current liberal policies adopted by the government in Nigeria since 1986 provided a stronger bilateral ties which continue to spring up between Nigeria and other participating trading partners, hence trade and foreign direct investment continue to increase noticeably on oil and gas sector. Nigeria continues to emerge as one of the biggest hubs for trade and investment in Africa while the free flow of FDI is expected to contribute and increase the exports rate. The last two decades witnessed numerous trade reforms, which has given more liberal export favorable surroundings. The pace of FDI is greater than the growth at international level, which would enhance grandness rational behind FDI inflow with the volume of trade and goods, as well as the possible effect of FDI inflow on the economic growth in Nigeria while not neglecting the likely effect of political instability that might pose to a major threat to foreign investors. An attempt is made to investigate the causal nexus between FDI inflow, volume of trade, political instability index, and Gross Domestic Product in Nigeria within the period of 1981 to 2012 using co-integration analysis and multivariate Granger causality. Multivariate Granger causality test is carried out using VECM approach to analyze the causal links among all the variables considered for estimation. A bi-directional causality was discovered between FDI inflow and economic growth (GDP); however there is one –way direction between political instability and FDI, between political instability and GDP. Moreover, there is also one –way relationship between FDI and volume of trade within the period of study.
Keywords. FDI, Economic growth, Multivariate Granger causality test.
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1. Introduction

The worldwide foreign direct investment flows outmatched the pre-crisis period of 2011 on average, attaining $1.5 trillion despite the global economy turmoil. Whereas 2007 remain the highest with 27 % growth rate. UNCTAD predicted a sluggish FDI growth rate in 2012, with a flow amounting to $1.6 trillion while for 2013 and 2014 FDI recorded $1.8 and $1.9 respectively, blocking off any significant macroeconomics impacts (WIR, 2013). FDI inflows grew across all major economic grouping in the world in 2011, developed economy improved by 21% that amounted to 748billion. Developing economy improved by 11% amounting to 684 billion, while the transition economies increased by 21% denoted by $92 billion (WIR, 2013).

[a†] Universiti Utara Malaysia, School of Economics , Banking and Finance, Malaysia.
. (852) 2570 7110
. rskjnr001@yahoo.com
[b] School of Economics, Finance & Banking, College of Business, Universiti Utara Malaysia, Sintok 06010 Kedah, Malaysia.
. noraznin@uum.edu.my

However, Africa and other developing countries continue to experience the third constant declining rate of FDI inflows. The continuous reduction in FDI flows was due to the low investment in the North Africa. In contrast, Sub-Sahara Africa inflow recuperated which amounted to $37billion (WIR, 2013). Jenkin & Thomas (2002) hinted that FDI is a necessity in order to reduce the possible differences between domestic saving and gross domestic investment.

Similarly, Asiedu (2002) found that FDI determinant of one region might differ from others; also, FDI of other countries within the region may differ depending on time. Asiedu (2004) also hinted that FDI attraction in Nigeria remains on a mediocre level when comparing the potential needs with the abundant resources.WIR, (2013) hinted that Nigeria FDI stood at $7.03billion., South Africa accounted for $4.572 billion, Egypt ($2.798 billion), Ghana ($3.295 billion), and Angola (-6.898 billion). Findings on economic growth and FDI remain inconclusive (Oyinlola, 1995; Odozi, 1995; Adelegan, 2000; Akinlo 2004).Hence, their results remain mixed.

Alawiye (2013) hinted that, the increase in the country's FDI notwithstanding is below the benchmark due to Nigeria's vulnerability to insecurity, commodity price movements too much dependent on gas and oil sector accordingly, Bannon & Collier, (2003) established that there is a clear connection between high dependency and conflict on primary goods, such as gold, oil, silver, timber, and diamond. Struggle on how to control this natural resources and illegal smuggling leads to conflicts, since 1998, more than 35 armed groups were in operation in more than two-thirds ECOWAS Nations (Florquin & Berman, 2005).

Finally, many studies on FDI and growth in Nigeria continue to constituent in their conclusions. A critical review of previous research on Nigeria reveals that most researchers neglect the effect of financial liberalization and structural shift that soaked up Nigeria economy. Thus, there is inevitable need to investigate the issue of political instability ranging from military rule to a democratic system of government including the current state of arms struggling whether on political or religion crises from east to the northern part of the country. To determine the level of threat instability poses to economic growth. According to political terror scale, (2013), provided by amnesty international and United State security department for the period of 1976-2012, on average Nigeria was ranked three to four on a scale of five which signifies that:

''Political and civil rights violations have amplified to the population at large, Disappearances, torture and murder are coarse part of life. On this rating, terror affects majorly the political class or ideas or other interest groups ''

The purpose of this study is to analyze the relationship between trade, political instability, FDI and economic growth in Nigeria using VECM method. Findings of this study will give a richer depiction as to whether there exist long run relationships between variables involved. Outline of this paper is as follows. Section 2 literature review. Section 3 empirical data used and methodology, followed by empirical results in section 4. Section 5 concludes.

2. Literature Review

Host countries with the following components such as an increase in the technological product, high rate of savings and trade liberalization will tend to help through an increase in FDI to their economies. Michaely (1977) detected a substantial correlation among global trade and economic growth, which is on a definite trend. Balassa (1978) employed a simple regression on ten countries and detected that volume of trade export are positively associated with economic growth. Numerous researchers such as Feder (1983), Ram (1985), Salvatore (1991)

and Hatcher (1991) discover that exports is likely to facilitate foreign exchange restraint and thereby enhance importation of more beneficial technologies with production methods. Grossman & Helpman (1999) discovered that the open regime tends to work with beneficial investment climate, learning effect and technology externalities result to the development of the economy of the country.

According to Balasubramanayam et al (1996), developing countries using outward –oriented trade approach, FDI flows tends to grow faster than developing countries using inward trade policies approach. In addition, Ahmad & Harnhirun (1996) analyzed economic growth and export using five countries of ASEAN. Dutt & Ghosh (1996) studied a large sample of countries on causality among economic growth and exports using error correction model and detected that cointegration exist. In a similar manner, Goldberg & Klein (1998) discover that foreign direct investment tends to spur export promotion, increase in intermediate inputs and import substitution between associate producer and parent using vector autoregressive and granger causality approach.

UNCTAD (2002), indicated in their report that the share of foreign direct investment growth of Africa increased from 1% to 2% for the period of 2000 and 2001. Kandiero & Chitiga, (2003) indicated that Nigeria, Egypt, Algeria, Angola and South Africa experiences greater share of FDI due to abundant resources endowed with. Ekpo (1995) reported that per capita income, the inflation rate, political regime, world interest rate and debt service remain a major key factor to give a detailed explanation of variation of FDI in Nigeria context.

Frenkel, Funke & Stadtmann (2004) carried a research using FDI outflows and inflows for both developing and developed countries between the periods of 1990 - 2002. The study discovers that developing countries GDP increases with FDI inflows.

The interconnected relationship existed between FDI inflow and trade volume; thus, the gain of these activities in achieving economic growth has been significant area of concern for discussion, since the inception of liberalization policies down to economic growth and openness. However, empirical researches on the relationship remain limited while most studies acknowledge the problem of political instability without empirical proof. In addition, many studies failed to use the four variables together. Hence existing literature remain scarce and with mixed findings

3. Data and Methodology

Annual data of all variables were extracted from 1981 to 2012, which consist of 33observations.Annual data of Gross Domestic Product at market price, FDI inflow and portfolio investment, political instability index, export and import of services and goods (trade volume) are extracted from World Bank development indicator and Amnesty political terror scale statistical bulletin.

This study adopts granger causality test approach under multivariate vector autoregressive framework to analyze the casual links between FDI inflows, political instability and the volume of trade over the period of 1981 to 2012. The focus is on to support liberalization era that has undergone a series of transformation and reforms in Nigeria in order to integrate and compete globally. Vector autoregressive modeling was introduced by sins (1980), to carry out research on dynamics effect of random disturbances on system variables. VAR method used to treat all variables as endogenous in order to shun spurious regression result. For the purpose of this research stationary and co-integration test will be conducted on the considered variables while to use VECM or VAR will be based on unit root result, in order to achieve a robust result.

3.1. Stationarity Test

In Econometrics techniques, the first stage is to check for stationary sequence of all the variables in the model using Phillips, Kwiatkowski, Schmidt & Shin (KPSS), Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF).

All the test stated above are used to test the stationarity series of all the variables in the model. According to Engle & Granger (1987) position on unit root, they said that a series is non-stationary if the integrated level order of ''d''i.e. X~I (d).

Augmented Dickey-Fuller (ADF) using a time series Y_t is:

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \alpha_1 \sum_{i=1}^{m} \Delta Y_{t-i} + \epsilon_1 \quad (1)$$

Where Y_t denotes the particular variable in the modelΔ stand for differencing operator, t is the specified period for the research, m symbolize the lag length while ϵ_1 stand for error term or white noise. Mackinnon (1998), state that null hypothesis should be rejected when t-test is less than the critical value under ADF.

According to Phillips-Perron (1989), stationarity test is conducted on a variable in order to check for unit root. Null hypothesis state that a variable contain a unit root, while the alternative hypothesis state that the stationary process generated the variable. Using the test is based on Ordinary Least Square estimate ά of α:

$$y_t = \mu + \alpha y_{t-1} + \epsilon_1 \quad (2)$$

Kwiatkowski, Phillips, Schmidt & Shin (1992), is another type of unit root for stationarity series. In this case, the null hypothesis is different from others. Null hypothesis state that the stationarity series is I(1). The central assumption under this type of unit root test is that, if y_t can re-written as, u_t denote zero–average stationary procedure, y_t's allow for a consistent estimator of μ,

3.2. Cointegration Test

Thomas (1993) said that cointegration assessment is steered to decide whether long run association existed among the variables selected for investigation. For the purpose of this study, error –correction and co-integration analysis are employed referable to Johansen (1988) and Juselius (1990) are used to distinguish the level of co-integration among variables. Johansen & Juselius's (1990) method is executed only if co-integrating vectors of a variable number is obtained i.e. 2 variables are I(1).Maximum likelihood of cointegration test grounded by Johansen-Juselius approach is formulated based on VAR method developed by Johansen (1988). P-dimensional of VAR models involves K-lags, which can be represented mathematically below:

$$Z_t = \alpha + \pi_i Z_{t-1} + \pi_i Z_{t-2} + \cdots \ldots \ldots \pi_i Z_{t-k} + \varepsilon_t \quad (3)$$

Where Z_t denote (px1) vector of p potential variables which is endogenous, while each of the π_i

is a component of (pxp) matrix which represent the parameters and ε_t represent the white noise term. Error Correction Model (ECM) equation can be written as:

$$\Delta Z_t = \alpha + \pi_k Z_{t-k} + \sum_{i=1}^{k-1} \theta_i \Delta Z_{t-i} + \varepsilon_t \quad (4)$$

Where by Δ represent the first difference operator, π & θ are by p matrices parameters which is unknown, while k represent the order of VAR which is translated to lag k-1 in the ECM model.ε_t is the white noise term .

3.3. Granger Causality Test Using VECM

Granger –Causality can be best described as a test to analyze the causal association between the variables. To capture the impact of each variable under consideration. In order to examine the past, while using it to explain the future, the optimal lag length denoted by p (Table 3) is used for selection purpose in Table 1.The primary measures for selecting optimal VAR model is the lag length using the following: Schwarz information criteria of Hannan-Quinn, Akaike Information Criteria or Final Prediction Error. The above mentioned criteria can guarantee and take care of errors that are serially correlated if the lag selected is too short, also can guide against choosing many lags that causes specification biasness for holding ineffective parameters (Hendry & Mizon,1993).

However, causality can subsist in at least in one direction if the variables under consideration comprises of the cointegrating vector. Engle & Granger, (1987) said that, if two variables Y and X are integrated in order of one and cointegrated then there is a possibility of the causal relationship presence in at least in one direction. The direction of the causal association can also be detected using VECM approach.

The essential requirement for causation testing is to check for cointegrating attribute of the variables involved before proceeding to observe the connecting linkages. VECM estimation can be indicated as follows:

$$\Delta LnFDI_i = \sum_{j=i}^{n-1} \beta_{11\,j}\, \Delta LnFDI_{i-j} + \sum_{j=i}^{n-1} \beta_{12\,j} \Delta LnGDP_{i-j} + \sum_{j=i}^{n-1} \beta_{13\,j}\, \Delta LnTrade_{i-j} + \sum_{j=i}^{n-1} \beta_{14\,j}\, \Delta LnPins_{i-j} + \alpha_i ECT_{t-1}\, o + \varepsilon_{it} \quad (5)$$

$$\Delta LnGDP_i = \sum_{j=i}^{n-1} \beta_{21\,j}\, \Delta LnGDP_{i-j} + \sum_{j=i}^{n-1} \beta_{22\,j} \Delta LnFDI_{i-j} + \sum_{j=i}^{n-1} \beta_{23\,j}\, \Delta LnTrade_{i-j} + \sum_{j=i}^{n-1} \beta_{24\,j}\, \Delta LnPins_{i-j} + \alpha_i ECT_{t-1} + \varepsilon_{2t} \quad (6)$$

$$\Delta LnPins_i = \sum_{j=i}^{n-1} \beta_{31\,j}\, \Delta LnPins_{i-j} + \sum_{j=i}^{n-1} \beta_{32\,j} \Delta LnFDI_{i-j} + \sum_{j=i}^{n-1} \beta_{33\,j}\, \Delta LnTrade_{i-j} + \sum_{j=i}^{n-1} \beta_{34\,j}\, \Delta LnGDP_{i-j} + \alpha_i ECT_{t-1} + \varepsilon_{3t} \quad (7)$$

$$\Delta LnTrade_i = \sum_{j=i}^{n-1} \beta_{41\,j}\, \Delta LnTrade_{i-j} \sum_{j=i}^{n-1} \beta_{42\,j} \Delta LnFDI_{i-j} + \sum_{j=i}^{n-1} \beta_{43\,j}\, \Delta LnGDP_{i-j} + \sum_{j=i}^{n-1} \beta_{44\,j}\, \Delta LnPins_{i-j} + \alpha_i ECT_{t-1} + \varepsilon_{4t} \quad (8)$$

ΔRepresent operator at first difference, ε_{it} , ε_{2t} , ε_{3t} and ε_{4t} symbolizes white noise .ECT is error correction term; p is the direction of the VAR which can also be transformed to lag of p-1 under ECM.

$\alpha_1, \alpha_2, \alpha_3$ *and* α_4 Stand for adjustment speed after FDI inflow, volume of trade, Political instability and GDP deviate from the long run equilibrium in a period t-1.Coefficient of the lagged value, $\beta_{12\,j}$ j=1…….. P-1 signify short run effects of GDP on FDI inflow and, coefficient of lagged $\beta_{22\,j}$ for j=1,……p-1 represent short run effect of volume of trade on GDP. The coefficient of lagged value, $\beta_{33\,j}$ for j=1,….. P-1 re-present short run effects of political instability on GDP and the coefficient of lagged $\beta_{34\,j}$ for j=1,……. P-1 represents short run effects of FDI inflow on volume of trade.

The coefficient of lagged value, $\beta_{41\,j}$ for j=1,….. P-1 represent short run effects of GDP on volume of trade and the coefficient of lagged $\beta_{42\,j}$ for j=1,……. P-1 represents short run effects of FDI inflow on volume of trade.

Table 1. *VAR Lag Order Selection Criteria (FDI_INFLOW GDP P_INS T_BALANCE)*

Lag	LL	LR	FPE	AIC	SC	HQ
0	-2158.397	NA	4.76e+57	144.1598	144.3466	144.2196
1	-2092.067	110.5513	1.68e+56	140.8044	141.7386	141.1033
2	-2010.024	48.94754*	7.56e+54*	137.4683*	139.8970*	138.2452*
3	-2053.213	54.39515	3.91e+55	139.2809	140.9623	139.8188

4. Emprical results

According to Table 2, the result of unit root test using Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) including lag length selected by Schwarz criterion (SC).Both at level and first differences of all the variables. Foreign direct inflow (LnFDI) remain stationary at first difference according to ADF test, which means that the null hypothesis can be precluded at 1% significance level, while the null hypothesis for Phillips-Perron unit root test can also be rejected at 1% significance level; hence, the variable is a stationarity series at first difference. KPSS unit root test for the variable is stationary at level.

Gross domestic product variable is stationary at first difference under Phillips-Perron and ADF unit root Test, under both tests the null hypothesis can be rejected at 1 and 5% significance level while KPSS null hypothesis cannot be rejected at 1% significance level.

Volume of trade is a stationarity series at first difference level both on ADF and on PPtests, which indicate that the null hypothesis can be excluded at 1% level of significance, while KPSS test is stationary at 10% level.

Political instability index variable is stationary at 1% significant level both on ADF and PP test, which implies that, the null hypothesis of unit root test can be rejected at 1% significance level. In summary, according to the three methods of unit root tests, we can conclude using ADF and PP FDI,P_INS,GDP and trade balances are stationarity series at 1(I),while KPSS unit root test indicated that all the variables are stationary at I(0).

Table 2. *Test of Unit Root Hypothesis*

		ADF Statistics	PPTest	KPSS
Series		Test Statistics	Test Statistics	Test Statistic
LnFDI	level	0.302989	0.101588	0.819490***
	First Difference	4.952245***	4.952245***	0.219184
LnGDP	level	2.512696	2.512696	1.772568***
	First Difference	2.788919**	5.412819***	0.512336
LnTrade	level	0.302086	0.193972	0.401495*
	First Difference	4.967380***	5.075040***	0.294885
LnP_INS	level	1.899141	0.866141	0.970389***
	First Difference	4.346206***	10.39209***	0.049194

***, ** &* symbolizes the rejection of null hypothesis at 1%, 5% and 10% level of significance.

4.1. Johansen and Juselius Cointegration Test

Table 3, represents the cointegration rank r test result, which is in line with ADF and PP unit root test of stationarity levels, according to the result it is clearly shown that all the variables are integrated at first difference or1(I). Cointegration test was used to detect the cointegrating rank including the number of cointegrating vectors. Based on the result, the null hypothesis of cointegrating test was rejected due to the fact of the presence of at least three cointegrating vector under each sample. This denotes that, there is existence of long run relationship among the variables. The null hypothesis which state that r=0 is precluded at 5% significance

level by both Max-Eigen and trace statistics. The results in table 3 indicate that there is long run relationship between the variables used in this study.

Table 3. ***Co-integrating Test Results***

H_0	H_1	Λ_{trace}	CV_{rrace} %
r=0	r≥1	137.2946*	47.85613
r≤1	r≥2	65.64116*	29.79707
r≤2	r≥3	24.02529*	15.49471
H_0	H_1	Λ_{trace}	CV_{trace}%
r=0	r=1	71.65345*	27.58434
r≤1	r=2	41.61588*	21.13162
r≤2	r=3	23.75011*	14.26460

Notes: (a) r represents the numeral of cointegrating vectors at level of 5%; (b) Trace test symbolizes the inclusion of 1cointegrating equation at the level of 5%; (c) Max-Eigen value shows that 1 cointegrating equation at 5% significance level; (d) * refer to the rejection of the null hypothesis at level of 5%; (e) Critical value are derived from Mackinnon-Haug -Michelis (1999)

4.2. VECM Analysis

Table 4, presents the result of VECM cointegrating equations are shown along with the equation that is subject to changes in FDI (first column), changes in GDP (second column), changes in political instability (third column) and changes in trade (fourth column). The coefficients of Error Correction Term comprises of information as to whether past values affect the present values of variables under study. Any significant coefficient connotes that past equilibrium error influences the outcome of the present. Any information received is in relation to the speed of adjustment of the system toward the equilibrium at the long run. Short run changes can be appropriated through individual coefficient terms. Coefficient of ECT_{t-1} for the first equation is negative and significant at 1%, which shows that when deviating from long run term equilibrium. Error correction term has opposite adjustment effect, and the amount of deviation comes down.

The significant error term supports the existence of the long-term relationship between FDI and other variables. As for the second equation ECT_{t-2} remain negative and significant at 1% level. Error term also supports the existence of long run relationship between GDP and other independent variables due to the level of significance.

The lagged coefficient of .ΔGDP_{t-1} and ΔGDP_{t-2} are both negative and statistically significant at 1% that means that the past trend of the GDP influences the current situation. $\Delta PINS_{t-1}$ is negative and statistically significant at 5% that shows that political instability affect economic growth because instability leads to economic disruption, and $\Delta TRADE_{t-2}$ is positive and statistically significant at 5% which means that unidirectional causality is successively from Trade to GDP

The lagged coefficient of ΔFDI_{t-2}, is negative and significant at 5% which signifies that higher foreign direct investment has a negative impact on GDP at the short run. ΔGDP_{t-1} and ΔGDP_{t-2} are both negative and statistically significant at 1%, which means that past trend of the GDP influences the current situation. $\Delta PINS_{t-1}$ is negative and statistically significantat 5%which shows that political instability affect economic growth because instability leads to economic disruption, and $\Delta TRADE_{t-2}$ is positive besides is statistically significant at 5% that means that the unidirectional causality is running from Trade to GDP. However, equivalence ECT_{t-3} and ECT_{t-4} are not significant suggesting that there is no long run relationship between the dependent and independent variables i.e. for the two equations.

Table 4. *VECM Results*

Vector Error Correction Estimates				
Included observations: 30 after adjustments				
Standard errors in ( ) & t-statistics in [ ]				
Cointegrating Eq:	CointEq1			
FDI_INFLOW(-1)	1.000000			
GDP(-1)	-0.378267			
	(0.01689)			
	[-22.3960]			
LP_INS(-1)	-2.58E+10			
	(5.1E+09)			
	[-5.06442]			
LT_BALANCE(-1)	-5.59E+09			
	(2.0E+09)			
	[-2.74845]			
C	8.27E+10			
Error Correction:	D(FDI_INFLOW)	D(GDP)	D(LP_INS)	D(LT_BALANCE)
CointEq1	-1.096010	-6.272684	2.85E-12	-4.73E-12
	(0.18513)	(1.09419)	(4.7E-12)	(7.2E-12)
	[-5.92017]**	[-5.73274]**	[0.60884]	[-0.65975]
D(FDI_INFLOW(-1))	0.239163	2.350386	-1.83E-13	-4.23E-12
	(0.27570)	(1.62949)	(7.0E-12)	(1.1E-11)
	[0.86747]	[1.44241]	[-0.02622]	[-0.39616]
D(FDI_INFLOW(-2))	-0.482113	-3.931530	-2.02E-12	-5.30E-12
	(0.25673)	(1.51736)	(6.5E-12)	(9.9E-12)
	[-1.87790]	[-2.59104]*	[-0.31086]	[-0.53242]
D(GDP(-1))	-0.420043	-2.816991	1.24E-12	-1.20E-12
	(0.08861)	(0.52370)	(2.2E-12)	(3.4E-12)
	[-4.74045]***	[-5.37898]**	[0.55163]	[-0.34904]
D(GDP(-2))	-0.463916	-1.539221	8.52E-13	-1.63E-12
	(0.06758)	(0.39944)	(1.7E-12)	(2.6E-12)
	[-6.86442]***	[-3.85350]*	[0.49839]	[-0.62072]
D(LP_INS(-1))	-2.57E+10	-1.19E+11	-0.699988	-0.521085
	(9.1E+09)	(5.4E+10)	(0.23129)	(0.35437)
	[-2.81192]*	[-2.20562]*	[-3.02644]*	[-1.47046]
D(LP_INS(-2))	-8.04E+09	-3.92E+10	-0.344592	-0.019708
	(9.3E+09)	(5.5E+10)	(0.23446)	(0.35923)
	[-0.86725]	[-0.71521]	[-1.46971]	[-0.05486]
D(LT_BALANCE(-1))	1.85E+10	6.61E+10	-0.211398	0.366805
	(8.3E+09)	(4.9E+10)	(0.21016)	(0.32200)
	[2.21994]*	[1.34628]	[-1.00588]	[1.13915]
D(LT_BALANCE(-2))	2.15E+10	1.14E+11	0.148902	0.066577
	(7.9E+09)	(4.7E+10)	(0.19907)	(0.30501)
	[2.72478]*	[2.45781]*	[0.74798]	[0.21828]
C	1.09E+10	6.07E+10	0.003073	0.070379
	(1.7E+09)	(1.0E+10)	(0.04354)	(0.06670)
	[6.33397]	[5.96830]	[0.07057]	[1.05509]

*** and * represent 1% and 5% significance level

4.3. VECM Test using Causality Methodology

Table 5 showcased the causation test analysis by using VECM and detected that there is existence of long run relationship between FDI inflow and economic growth (GDP) i.e. bi-directional causality. Also, there is presence of one –way causality between political instability index (p_ins), trade balance (T_balance) on FDI inflow and GDP.

Table 5. *VEC Granger Causality/Block Exogeneity Wald Tests Dependent variable: D(FDI_INFLOW)*

Excluded	Chi-sq	df	Prob.
D(GDP)	56.35567	2	0.0000
D(LP_INS)	9.053487	2	0.0108
D(LT_BALANCE)	13.90216	2	0.0010
All	76.20586	6	0.0000

D(GDP) D(FDI_INFLOW)
D(LP_INS) D(FDI_INFLOW)
D(LT_BALANCE) D(FDI_INFLOW)

DV: D(GDP)

Excluded	Chi-sq	df	Prob.
D(FDI_INFLOW)	8.976657	2	0.0112
D(LP_INS)	5.498015	2	0.0640
D(LT_BALANCE)	8.715233	2	0.0128
All	21.99625	6	0.0012

D(FDI_INFLOW) D(GDP)
D(LP_INS) D(GDP)
D(LT_BALANCE) D(GDP)

DV: D(LP_INS)

Excluded	Chi-sq	df	Prob.
D(FDI_INFLOW)	0.096989	2	0.9527
D(GDP)	0.304514	2	0.8588
D(LT_BALANCE)	1.418952	2	0.4919
All	2.290775	6	0.8911

DV: D(LT_BALANCE)

Excluded	Chi-sq	df	Prob.
D(FDI_INFLOW)	0.430635	2	0.8063
D(GDP)	0.588150	2	0.7452
D(LP_INS)	3.292457	2	0.1928
All	5.222083	6	0.5157

5. Conclusions

There is long run relationship between FDI inflow and economic growth (bi-directional causality). There is also one-way relationship between political instabilities, trade balance, FDI and economic growth.

The level of instability is related with investment risk and much more vital determining factor of foreign direct investment. Thus, this result is in line with (Chan & Gemayel 2004; Lucas, 1990). Degree of political instability or threat affects foreign direct investment inflow because of the threat and unstable condition of the environment that is very common in Middle East and East Africa as shown in the few related existing literatures.

Another critical area that needs much attention is the insecurity issue that is presently affecting some part of the nation-state; thus, government needs to review and implement an active, vibrant policy on how to ensure maximum security and peace in the country in order to attract more foreign investors. Numerous policies have been implemented for the vision to open up the economy which includes structural adjustment program (SAP) of 1986 till date of which it has not yielded the desired result. Increase in the inflow of FDI over the years has contributed to the economic growth of the country.

Volume of trade and GDP are cointegrated which shows that there is long run association between them. This finding is in track with Grossman & Helpman (1991) and Romer (1990).They discovered that almost all countries that engage in international trade improved significantly.

However, there is no direct link between FDI and trade. This may be due to the fact that most-foreign direct investment inflowsare concentrated on oil and gas sector in Nigeria.

FDI inflow tends to increase export but since the data used for this study are aggregated, therefore, it might be difficult to see the effect. FDI inflow concentrated in the sector (oil and gas) might be detrimental because few or little inflow of foreign direct investment goes to other sector such as manufacturing, agriculture, etc. which might not enhance economic growth along with employment creation that is at alarming proportion in Nigeria.

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