

FOREIGN DIRECT INVESTMENT, STANDARD OF LIVING AND ECONOMIC GROWTH OF AN EMERGING ECONOMY

¹Ogujiofor Magnus Nkemjika (PhD), ²Chidinma Nwamaka Ozuomba (PhD), ³Okonye Onyemazuwa and ⁴Uzordinma Ezenwa Emmanuel (PhD)

^{1,3}Department of Accounting, Novena University Ogume, Delta State, Nigeria.

²Department of Accounting, University of Agriculture and Environmental Sciences Umuagwo, Imo State, Nigeria.

⁴Department of Psychology, University of Agriculture and Environmental Sciences, Umuagwo, Imo State, Nigeria.

Email: henrynkem1@yahoo.com/ chidinma.ozuomba@uaes.edu.ng/ okonyeonyemas@gmail.com/
embrain4child@yahoo.com

DOI: <https://doi.org/10.5281/zenodo.14945407>

Abstract: In recent times, the conventional roles of governments have been to ensure that citizens abide with rule and regulations and to provide social welfare. Government has to embark on investment to enable it sustain this role. Government directly or indirectly advances the output of the private sector by resourceful distribution of limited resources. In acknowledgement of these roles, lots of governments the world over today ascribes prodigious significance to the classical performance of their economy by embarking on monetary strategies that will attract foreign investors. To this end, this research seeks to ascertain the causation among standard of living, economic growth and foreign direct investment of selected an emerging country. This study used the Nigerian data- which is a typical representative of an emerging economy. The study employed pairwise granger, VECM to the Long run association amidst the variables. It also adopted the Error adjustment model to exam for the speed of adjustment of the GDP function and finally stability and diagnostic tests were performed. The results show that there is a unidirectional causality between foreign direct investments while it showed bidirectional causation exists between FDI and standard of living in the long-run. The critical analyses of the causality among aforementioned variables under military rule and under democratic rule constitute the major contribution of this study to existing. This study recommended first, that policy makers should concentration effort on long run policies that will stimulate economic growth. The financial institutions should be strengthened. Healthier and more robust friendly foreign investment policies should be created and maintained. Second, since recurrent expenditure FDI has effect on standard of living. This study recommends that government should partners with foreign investors to enhance good standard of living of populace.

Keywords: Foreign Direct Investment, Economic growth, Standard of living

1.0 INTRODUCTION

Economic growth is a multifaceted singularity that is affected by fiscal, ethnic and institutional features. Tokunbo and Lloyd (2010) argue that the causality between growth and numerous macroeconomic variables often display bi-directional disposition. Prior researches pointed out that numerous factors influence economic growth world over. The African continent in the last two decade suffered major declination in her economy due to political instability and mismanagement by the military junta. The over three decades of incessant military rule scared foreign investors from most Sub-Sahara African countries. Some researchers opine that the return to civil rule by most Saharan Africa countries has relatively given a boost to the economies of countries within this sub-region (OECD, 2002). Some other researchers linked this economic leap to the interface of the region with international financiers as a result of the attractive policies and the relatively joint tax system obtainable in this region. On the contrary some other researchers argue that total earnings from investment can be outrageous in Africa but the effect is swallowed up by arbitrarily high taxation and momentous hazard of capital drain in some terrains within the region.

Akanegbu and Chizea (2017) document that causation glitches excruciated most prior works the effort made to empirically investigate the factors or group of factors that affect economic growth. The factors responsible for the abysmal Foreign Direct Investment within this sub-region are probable to be elements that have led to an overall low ratio of non-governmental investment to gross governmental earnings throughout the region. Olokoyo, (2012) reports that little proportion of entire countries of the entire countries in Saharan African have been able to pull foreign investors into their jurisdictions for business, ostensibly as a result of the extraordinary quality of their national business macroclimates. OECD (2010) reports that emerging economies like Mozambique, Namibia, Senegal and Mali in the last decade were seen to be safe haven for investors within the Saharan region. This development appears to have emanated principally from government friendly trade policies such as liberalization, privatization, and modernization of investment codes and adaptation of international FDI agreements (Tokunbo & Lloyd 2010).

There are different explanations to the relationship between these variables and each explanation depends on the stand point of the different schools of thought. The neoclassical theorists' argument that FDI impacts national earnings expansion by escalating the volume per capita. They also argue that per capita income does not stimulate economic growth in long-run due to diminishing returns on capital (Romer, 1986; 1990; Lucas, 1988. Mwilima .2003) (Aremu, 2013; Oyeranti, 2013).

Economic theorists on the other hand argue that relatively good economy attracts more external investors. This school of thought further argue that fast growth has the propensity of causing a rise in foreign investors in the recipient country. The neoclassical theorists argued that FDI is associated with high incidence of crises, manifesting in the form of increased poverty, isolation and neglect of local capabilities (Tokunbo & Lloyd 2010). The causation between FDI and economic growth is actually uncertain. We cannot clearly say if FDI influences economic growth or if economic growth influences FDI. This study inserts standard of living into already existing model. In other words, the study looked at the combined effect of economic growth and economic development on FDI. The insertion of standard living makes this study to be novel among prior studies. The critical analysis of causality among the aforementioned variables under military rule and under democratic rule constitute the major contribution of this study to existing. The incessant military coup in the Saharan African that resulted to political instability and their perceived effect on FDI is motivation for the study.

2.0. LITERATURE REVIEW

Concept of Foreign Direct Investment (FDI)

The *BPM5* defines FDI as a category of international investment that reflects the objective of a resident in one economy (the direct investor) obtaining a lasting interest in an enterprise resident in another economy (the direct investment enterprise). The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise, and a significant degree of influence by the investor on the management of the enterprise (Neil, Marie, Motala & Cardillo, 2004)

A direct investment relationship is established when the direct investor has acquired 10 percent or more of the ordinary shares or voting power of an enterprise abroad. Direct investment comprises not only the initial transaction establishing the FDI relationship between the direct investor and the direct investment enterprise but all subsequent capital transactions between them and among affiliated enterprises resident in different economies (Neil, Marie, Motala & Cardillo, 2004).

Kumar (2007), described Direct Foreign Investment (DFI) in several ways. First and most likely it may involve parent enterprise injecting equity capital by purchasing shares in foreign affiliates. Second, it may take the form of reinvesting the affiliate's earning. Third, it may entail short-or foreign investment as a share of Gross Domestic Product has grown rapidly, becoming the largest source of capital moving from developed nations to developing nations

Cuadros, Orts and Alguacil (2001) carried out a study to ascertain the causality among productivity level, investor fund from overseas and trade in North American. Their result reveals that investors fund from overseas has a bidirectional causation with economic advancement and trade in the selected economies used for the study.

Ayashagba and Abachi (2002) examine the link foreign direct investment to advancement of the Nigerian economy. Their result reveal that investor fund from overseas positively influences advancement of the Nigerian economy.

Campos and Kinoshita (2002) executed a research work to examine the connection FDI to economic growth in selected countries within the defunct Soviet Union. FDI in these economies was wholly transfer of technology. Their result shows that FDI positively influences economic advancement of the nations used for sample.

Ayanwale and Bamire (2004) did a research work to establish the link of FDI to advancement of the Nigerian economy. Their result reveals that FDI positively influences Gross Domestic Product in Nigeria.

Chowdhury and Mavrotas (2006) examine the causation FDI with advancement in Malaysian, Chilean and Thai time-series data. The study employed the Toda and Yamamoto causation test methodology. The outcome of the research work advancement in economy has a one-direction causation exist in Chilean in FDI. The results further reveal that a one-directional causation amid two variables in Malaysia and Thailand

Adofu (2010) carries out study to employing OLS regression method to determine the influence of investor fund from overseas on advancement in Nigerian economy. His finding reveals that FDI positively influences Economic advancement in Nigeria.

Omankhanlen, (2011) examines the connection of investor fund from overseas with advancement in Nigerian economy. Their result revealed that investor fund form overseas is positively connected to advancement in the economy.

Awolusi (2012) performs work to using a multivariate co-integration and Granger causation method to scrutinize the elongated associations among the intercontinental elements and economic growth as well as the short-term effect of FDI, trade and domestic investment on economic advancement in Nigeria. The outcome of the work

revealed that there is an elongated association among the variables while the trend of causation is either one-directional or multi-directional.

Olatunji and Shahid (2014) perform a work to investigate the elongated connection of FDI to advancement in Nigerian economy between 1970 and 2010. Co-integration method was employed. Their result divulges that FDI is positively connected to advancement in the Nigerian in long run.

Saibu and Keke (2014) perform a work to determine the connection of Foreign Non-governmental Investment with economic development employing yearly time sequence Nigerian data. The work used Co-integration and Error Correction Mechanism (ECM) methods to experientially evaluate the connection of foreign non-governmental investment with economic growth in to induce strategy extrapolations on the pragmatic association. The result reveals that a considerable ratio of capital influx was not efficiently invested however the comparatively little quantity of net capital influxes invested, form contributed ominously to advancement of the Nigerian economy.

Akomolafe, Danladi and Adebimpe (2015) carried out a work to determine the connection of FDI with economic growth employing co-integration and vector error correction model to estimate the influence of FDI influxes on economic advancement in Nigeria between 1980 and 2012. Their results divulge FDI inflow positively influence growth in the long run.

Nguyen (2022) carried out a study to ascertain the effect of FDI in six Association of Southeast Asian Nations (ASEAN-6). The study covers a period of eight years, 2002-2019. The study employed GMM to analyze data collected from the field. Additionally, the research revealed that foreign direct investment has a positive on economic growth in the regions prior and subsequently to these threshold values. In precise, the affirmative influence of foreign direct investment on economic advance is sturdier when financial advancement is greater than the defined threshold value.

Keita and Baorong (2022) carried research to ascertain the impact of FDI on economic growth in Guinea for a period of twenty-eight, 1990-2017. The study employed VECM to analyze data gathered from the field. The outcome of study revealed that FDI has a positive impact on economic growth in Guinea.

Wehnck et al (2022) carried out a study to ascertain the impact of FDI on economic growth of 20 selected African countries for a period of nineteen years, 2000-2018 employing Autoregressive econometric technique. The findings of study revealed that FDI has positive on economic growth in the long-run in the selected African countries.

Olasehinde and Ajayi (2022) carried out a study to ascertain the association of FDI with economic growth in Nigeria for forty years. 1981-2020 employing Autoregressive Distributed Lag Bound econometric. The findings of the revealed that FDI has positive impact on economic growth in Nigeria.

Dankyi et al (2022) carried out a study to ascertain the relationship between human capital, FDI and economic growth in ECOWAS in presence of carbon emission, urbanization and renewable energy. The study used panel data of eighteen years, 1990-2017. The research result revealed FDI has positive impact on human capital.

Sachintha (2022) carried out research to ascertain the causality between economic and FDI for eleven years, 2010-2020 for 117 countries employing Granger approach. The outcome of the study of revealed FDI and economic have bidirectional relationship economic growth Asian region. On contrast in results showed that FDI have unidirectional relationship with economic growth America region.

3.0 METHODOLOGY

Research design is likened to a road map that show that shows the researcher the step-by-step procedure that should be taken in scrutinizing and analyzing data gather from field. This work employed ex-post facto research design. This kind of research design is employed when a researcher wants to investigate a cause-and-effect association amongst the correlated elements using archival data. Data used are macroeconomic data ancillary sources. The macroeconomic information used for analysis was mined from yearly World Bank data bank. The study covers a period of thirty-five, this is 1988-2022. This research work used the Nigerian data on premised that Nigeria is largest country in this region hence it is a good representative of this sub-region.

Model Specification

The archetypal below was employed for evaluating the influence of FDI on the economic growth and standard of living

$$GDP=f(FDI, SL) \dots\dots\dots (1)$$

$$\Delta GDP_{it} = \sum_{k=i}^m \theta_{1.1,j,k} \Delta GDP_{it} + \sum_{k=i}^m \theta_{1.2,j,k} \Delta FDI_{t-K} + \sum_{k=i}^m \theta_{1.3,j,k} \Delta SL_{t-K} + U_{it} \dots\dots\dots (2)$$

$$\Delta FDI_{it} = \sum_{k=i}^m \theta_{2.1,j,k} \Delta GDP_{it} + \sum_{k=i}^m \theta_{2.2,j,k} \Delta FDI_{t-K} + \sum_{k=i}^m \theta_{2.3,j,k} \Delta SL_{t-K} + U_{it} \dots\dots\dots (3)$$

$$\Delta SL_{it} = \sum_{k=i}^m \theta_{3.1,j,k} \Delta GDP_{it} + \sum_{k=i}^m \theta_{3.2,j,k} \Delta FDI_{t-K} + \sum_{k=i}^m \theta_{3.3,j,k} \Delta SL_{t-K} + U_{it} \dots\dots\dots (4)$$

Estimation Techniques

This work used the ADF and Philips-Perron (PP) unit root test, panel Johansen cointegration test, VAR model, dynamic ordinary least square regression, complete adjusted ordinary least regression and pairwise granger.

Unit Root Test

As long as time series data were used to analyze the data gathered from the field, it is essential to exam the stationary of discrete data sequence to establish if they are stationary and are in order of integration. An analytic test done prior to the model estimation in order to scrutinize the time sequence qualities of the sequence, two standard techniques for component root examination was applied. These are the Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests. The purpose for this is to outwit or eschew the problem of inaccurate results that are common with non-stationary time sequences models.

The ADF test is grounded on approximating the inquiry

$$y_t = \beta' D_t + \phi y_{t-1} + \phi y_{t-1} + \sum_{j=1}^p \phi_j \Delta y_{t-j} + \varepsilon_t \dots\dots\dots (4)$$

Given that D_t is a route of influential word (continuous, inclination etc.). The p insulated differentiate terms, Δy_{t-j} are employed to guesstimate the ARMA configuration of the errors, and the value of p is fixed so that the inaccuracy ε_t is consecutively not interconnected. The inexactitude term is also presumed to be homoscedastic. The description of the deterministic value can be contingent on the presumed conduct of y_t within the alternative hypothesis of trend stationary as explained in the preceding section. In the null hypothesis, y_t is $I(1)$ which infers that $\phi = 1$.

Another formula of the ADF test regression is

$$\Delta y_t = \beta' D_t + \pi y_{t-1} + \sum_{j=1}^p \psi_j \Delta y_{t-1} + \varepsilon_t \dots\dots\dots (5)$$

Given that $\pi = \phi - 1$. Underneath the H_0 , Δy_t is $I(0)$ this indicates that $\pi = 0$. The ADF t-statistic is then the normal t-statistic for evaluating $\pi = 0$ and the ADF standardized preference statistic is $T \hat{\pi} / (1 - \hat{\psi}_1 - \dots - \hat{\psi}_p)$. ADF t-statistic is the standard t-statistic informed for evaluating the importance of the coefficient y_{t-1} .

The hypothesis $\theta(1) = 0$ counter to corresponds

$H_0: \pi = 0$ against $H_A: \pi < 0$.

To resolve on the value of lags, k, we can employ the standard techniques. General-to-specific testing: Begin with kmax and expunge inconsequential lags. Estimate probable models and use information benchmarks ensure there is no autocorrelation. Intermittently it is appropriate to have stationarity as the Ho.

$$Y_t = \xi_t + \epsilon_t \dots \dots \dots (6)$$

where ϵ_t is stationary and ξ_t is a random walk, .

$$\xi_t = \xi_{t-1} + v_t, v_t \sim \text{IID}(0, \sigma_v^2)$$

If the variance is zero, σ_v^2

= 0, then $\xi_t = \xi_0$ for all t and Y_t is stationary.

Co-integration Estimation

In an effort to decide the value of co integrating trajectories, the Johansson's approach is adopted employing dualistic discrete test statistics. These are the smidgeon examination statistics and the extreme Eigen – value test statistics. The trace statistics is employed to test for the null hypothesis so that the amount of contradictory co integrating association is equivalent to or smaller than “r” in contradiction of the alternative hypothesis of greater than “r” co integrating association.

Johansen's methodology takes its starting point given by

$$y_t = \mu + A_1 y_{t-1} + \dots + A_p y_{t-p} + \epsilon_t \quad (7)$$

given that $t y$ is an $n \times 1$ trajectory of variables that are combination of order one – generally represented as $I(1)$ and $t \epsilon$ is an $n \times 1$ vector of modification.

Equation (1) can be modified as

$$\Delta y = \mu + \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i y_t - 1 + \epsilon_t \quad (8)$$

Johansen proposes that dualistic probability quotient tests is significant to the establishment of these associations. Compact rank of the Π matrix: the trace test and maximum eigen value test.

$$J_{\text{trace}} = T \sum_{i=r+1}^n \ln(1 - \lambda_i) \quad (9)$$

$$J_{\text{max}} = -T \ln(1 - \lambda_{r+1}) \quad (10)$$

Here T is the magnitude of the sample and λ_i is the i :th foremost recognized relationship. The smidgen tests, test the null hypothesis of r co-integrating vectors alongside with the alternative hypothesis of n co-integrating Trajectories. This is defined as; the maximum probability quotient or the maximum Eigen-value statistic, for ascertaining the null hypothesis of at most ‘r’ co-integrating vectors in contradiction yt the alternative hypothesis of ‘r+1 ‘co-integrating trajectories is specified: where is the Eigen values, T is aggregate number of annotations. According to Johansen, with regard to null hypothesis both trace and statistics have atypical dispersals and gives estimated critical values for the figures as engendered by Monte Carlo techniques. In circumstances where Trace and Maximum Eigen-value statistics produce dissimilar results, the outcomes of trace test should be chosen.

Error Vector Correction Model (VECM)

Subsequent to the outcome of the co integration test, this research work used VECM model to estimate the short run and long run qualities of the model indicated. This method becomes suitable when the outcome of the co-integration tests the absence of co integration among the variables of the study. The sub sequential equivalences are used in unification with Pair Granger causality testing:

Definition of Data

Foreign Direct Investment (FDI): This is a business venture made to obtain a long-lasting management interest (usually 10% of voting stock) in a firm or an enterprise located in a country other than that of the investor.

Growth and Development: Growth is the rise in the total output of Gross Domestic Product (GDP) of a country. It occurs when there is a rise in a country's production. Development on the other hand is typically detected by a rise in the quality of life of citizens.

Standard of living: This refers to the degree of prosperity, comfort, material goods and basic necessities made available to a specific geographical territory

4.0 PRESENTATION RESULTS

4.2 Panel unit root test results

Unit root test null hypothesis assumption is on the premise that is all sequence are not static, while the alternative hypothesis presumes that some of the sequences are static.

Table 1. The unit root test for the variables at 5% sig level with no trend.

Variable	ADF value (I)PP value (I)	ADF value (0) PP value (0)
GDP	-4.59 4 (2.925)*-4.612 (-2.926)*	-0.854 (-2.925) -0.540(2.925)
FDI	- 5.261 (2.947)*-17.78(-2.925)*	-10.439(-2.941)* -5.953 (2.925)*
SL	- 4.341 (2.925)* -21.11(-2.925)*	-7.102 (2.928)*-4.385 (-2.925)*
The F unit root test for the variables at 5% sig level at intercept.		

Source: Researcher's computation

Significance * @5%

From Table 4.1, time series of GDP, FDI and SL are static at first variance as portrayed by the absolute values of ADF and PP larger than critical values the 5% ADF critical values signifying that the variables are joined of order one. In additional, to affirm the stationary status of the variables ADF and PP test were performed with trend. The results for ADF and PP confirmed that GDP, FDI and SL remained static at first difference since the real values of ADF and PP exceed the correspondence critical values. The Unit test reveals that there is a combination of I(I) and I(0) of the supplementary regressors, therefore the Auto Regressive Distributive Lag (ARDL) testing could be continued.

Bounds Test for Co-Integration

The succeeding procedure once definition the direction of incorporation of the variable was to employ a bound F-test so as to create an elongated association amongst the variables. The outcome of the bounds test for co-integration together with critical values are displayed in Table 4.3 below. The Calculated F-Statistic from bound test is 11.34420. This figure exceeds the lower and upper bounds critical value of 2.22 and 3.39 at the 5% emblematic level respectively. This infers that the affirmative postulation of the presence of an exceptional co-integration (long run) association amongst advancement in the Economic, FDI and standard of living.

Table 3: ARDL Bound Test for Co-integration Analysis

Test statistic	Computed F-statistic	Lag	Significance level	Bound Critical values	
F-statistic	11.34420	2		Lower Bounds I(0)	Upper Bounds I(1)
			10%	1.95	3.06
			5%	2.22	3.39
			2.5%	2.48	3.7
			1%	2.79	4.1

Source: Author Regression Output.

4.4 Co-integration

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When evaluating variable for co-integration, the VAR model with dual lags, as recommended by AIC and HQIC is considered. The work employed a Panatela principle in order to fix the suitable limitations in the model. The study starts by approximating dualistic models. For these models we go from the utmost limiting factor, which includes delimiting constant to the minimum limiting factor which comprises a delimiting trend in the model. Trace statistics and critical value are placed side by side until null hypothesis is not retained. The outcomes of the estimating model are displayed in Table 4.4.

Table 4 Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Trace stat	0.05 Critical value	Max Stat	0.05 Critical value
0	104.3773	47.85613	50.60329	27.58434
1	53.77404	29.79707	29.50927	21.13162
2	24.26477	15.49471	22.89862	14.26460
3	1.366150*	3.841466	1.366150	3.841466

Source: Author's computation

The null hypothesis for this test is that “there is no co-integration among variables”. If the critical value is more than the trace statistic, we do not retain the null hypothesis, meaning that “there is co-integration among variables”. Comparing the corresponding values for trace statistic and critical value for rank 0 for model 1 (104.37 and 47.85), we will not retain the null hypothesis. But for rank 3, we do not retain the null hypothesis which suggests that our chosen variables are co-integrated and have elongated relationship. For rank 3 the trace statistic (1.36) is less than the critical value (3.84) which means that three co-integrating equations exist. Furthermore, comparing the critical value at rank 0 for trace value and critical for model 2 (55.39 and 47.85), show that we cannot accept the null hypothesis. But for rank 1 and 2, we will retain the null hypothesis which means that our chosen variables are co-integrated and have long-run association. For rank 1 the trace statistic (27.66) is not up to figure that represents the critical region (29.79) while for rank 2 the trace value f (11.41) is less than the critical value (15.49) which means that at least two co-integrating equations exist

Table 5 Auto regression Estimate for Selected of VAR Model

Variable	GDP	FDI	SL
C	-0.610356 (0.14033) [-4.34931]	0.011286 (0.00502) [2.25014]	-5.719354 (1.10991) [-5.15298]
GDP(1)	-	-0.008556 (0.00885) [-3.96721]	1.278972 (1.95750) [0.65337]
FDI(1)	-15.73074 (6.31555) [-2.49079]	-	-105.0818 (49.9501) [-2.10373]
SL(1)	-0.096304 (0.03622) [-2.65849]	0.002915 (0.00129) [2.25134]	-

Source: Researcher's computation []=t value, ()= coefficient value

Grounded on the error correction terms (that displays speed of modification towards stability) this study can draw infer whether there is elongated causation among the variables. Two out of all the targeted variables have negative error correction term that are statistically significant (prob.<0.05) which confirms the presence of elongated

causation. For the equation where economic growth is the target value, the error correction [-3.961] and probability (0.000) confirms the existence of elongated causation moving from economic growth, standard of living to FDI. The irrelevance of other coefficients reveals they can separately elucidate the target variable and depicts the presence of short-run causation. The equation reveals that economic growth and FDI exhibit causation in the short-run with the probability of 0.0012.

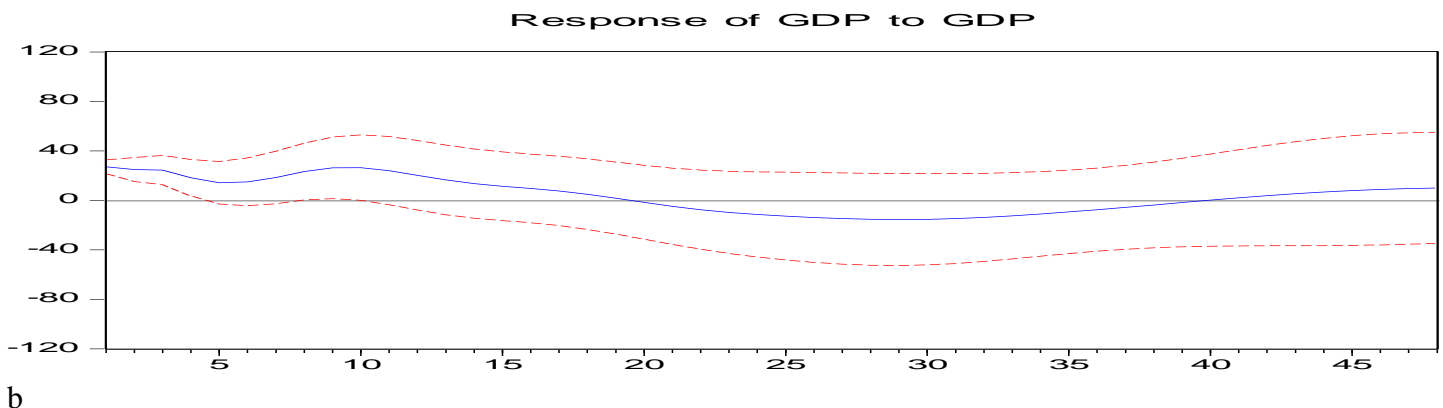
The constant of the inaccuracy correction term which measures the speed of modification of GDP towards elongated equipose is well-behaved as it is negatively signed and significant at 5% level. Specifically, the coefficient of the ECM revealed that the speed with which GDP adjusts the regressors is about 50% in the short run.

4.6 Impulse Response Function

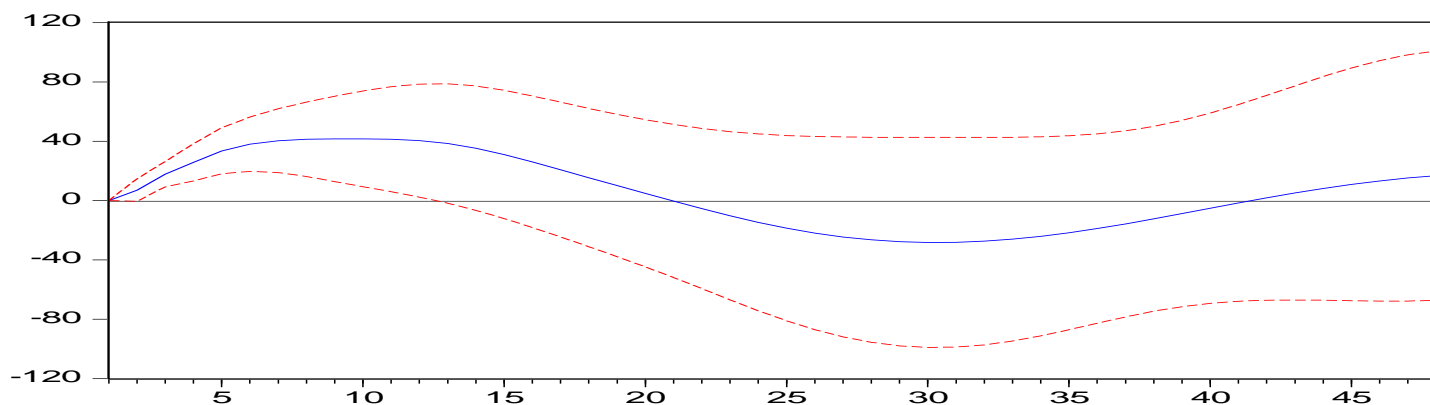
In general, IRF enquiry in time series analysis is significant in defining the influence of exogenous shocks on the variables of the system. All in all, IRFs reveals the extent to which an unforeseen alteration in one variable at the starting influences another variable via time. Impulse response functions (IRFs) have appreciable information on two vital features. Firstly, graphs permit us to understand how the shock in one of the variables stimulate the present and impending values of another variable and secondly it can be seen that the persistency of a shock, can offer us with some valuable foresights about the connection of variables to one another in the immediate term.

The first two graphs in Figure 4.1 b and 4.1c display the response of economic growth shock to FDI and standard of living. Even though there is some interruption, all in all, shock to GDP has a huge positive influence on FDI. The outcome reveals that unit increase in GDP engenders 40 units increase FDI in twenty years. The shock to GDP has an elongated negative influence on standard of living implying. This implies a unit decrease in GDP stimulates 25 unit decrease in standard of living twenty years.

Figure 4.1f and 4.1d symbolizes the response of FDI and SL to the shocks in economic growth. The shock to FDI appears to process a comparatively elongated positive influence on economic growth, inferring that FDI drives GDP. While the shock to SL has a negative influence on GDP, after 25 years and advances into positive influence in long run. Finally, Fig 3e suggest that the standard of living responds to the shocks FDI. It appears that shock of FDI has a negative influence on standard of living in first twenty years and positively influences standard of living in the long run. The 20-45 period indicate post military era. VRF revealed FDI drastically declined in post military era. Political instability and insecurity is suggested to be responsible for this this down turn inflow of FDI.

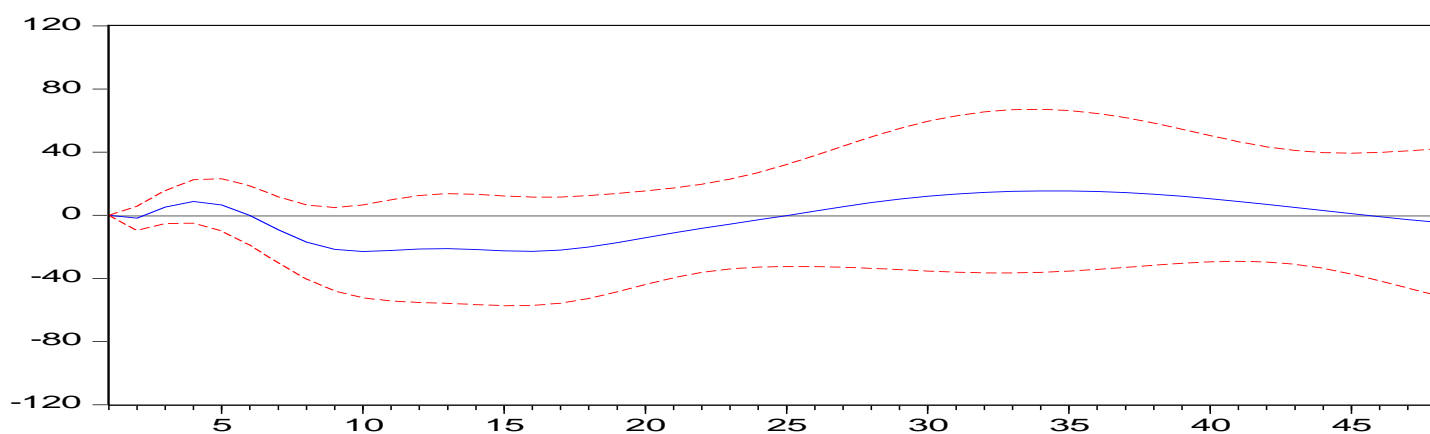


Response of GDP to FDI



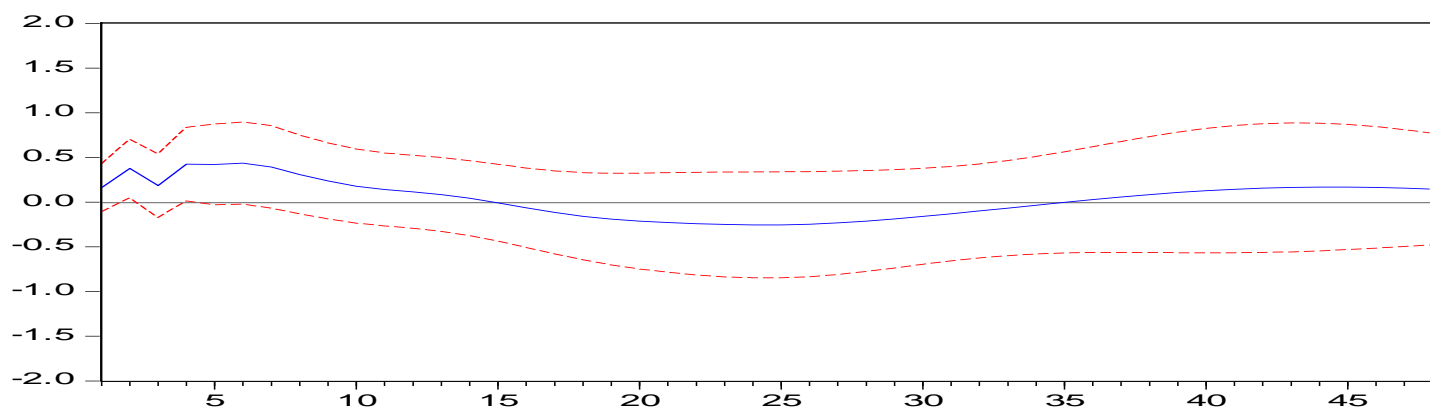
c

Response of GDP to SL

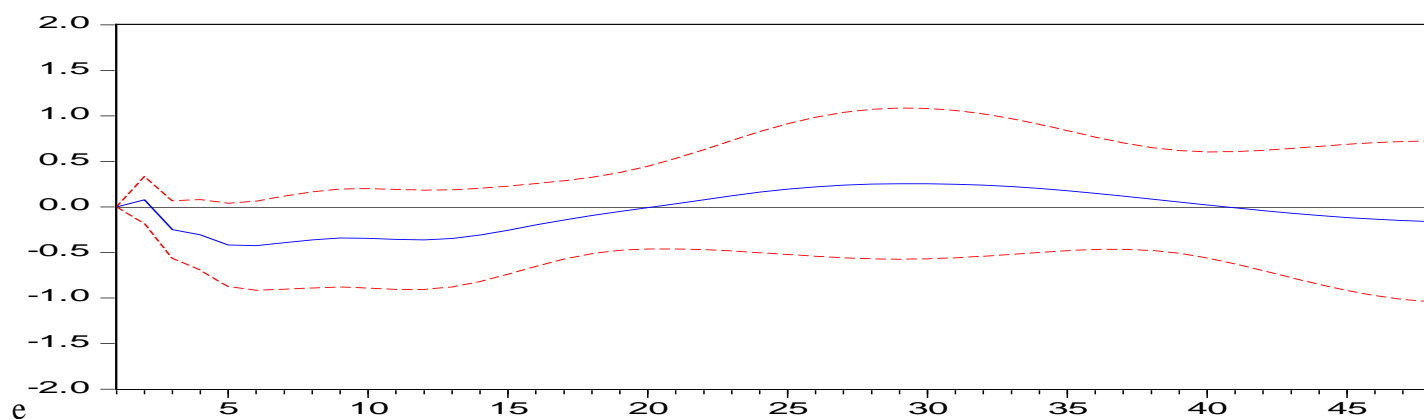


d

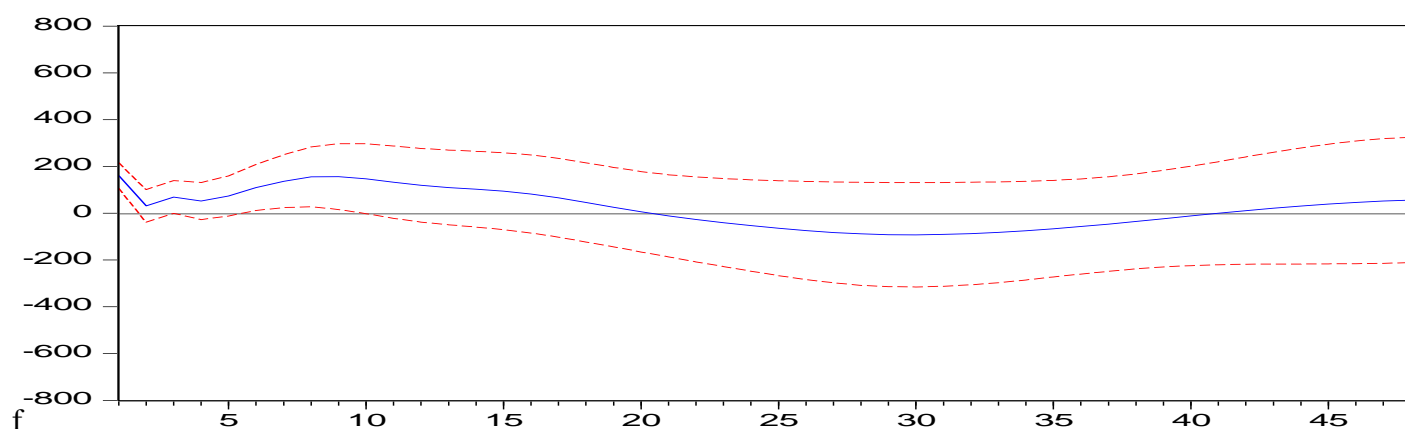
Response of FDI to GDP



Response of FDI to SL

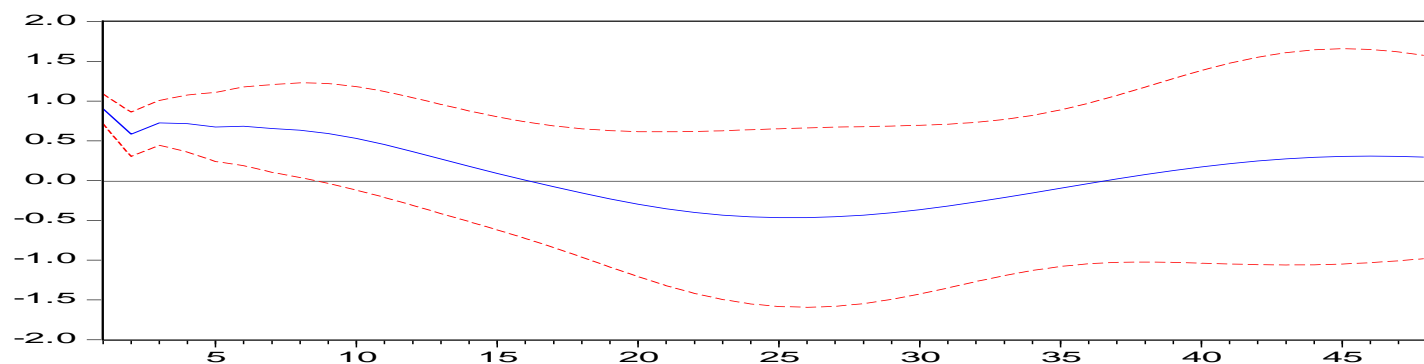


Response of SL to GDP



g

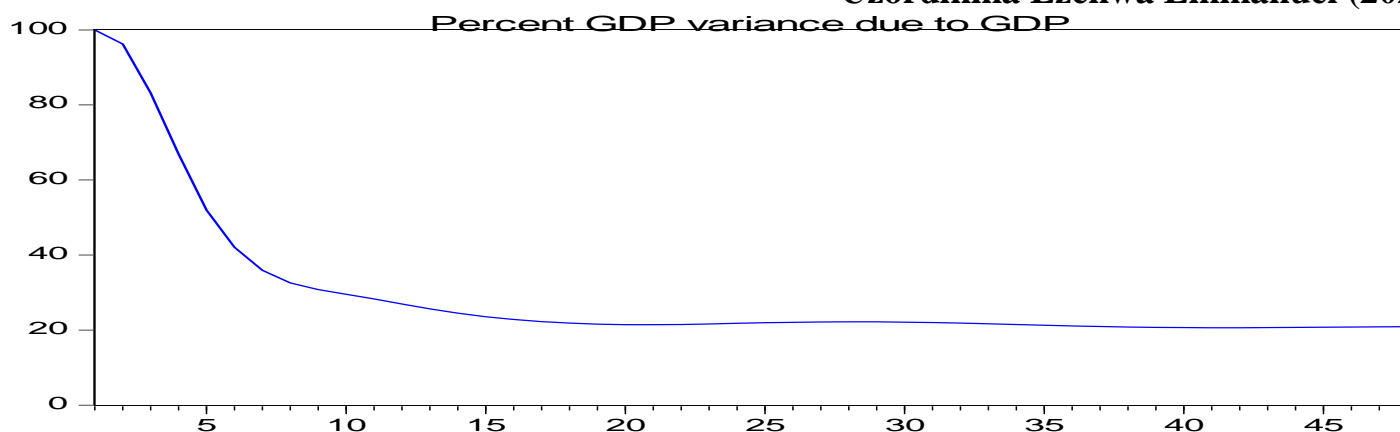
Response of FDI to FDI



4.7 Error variance decomposition function

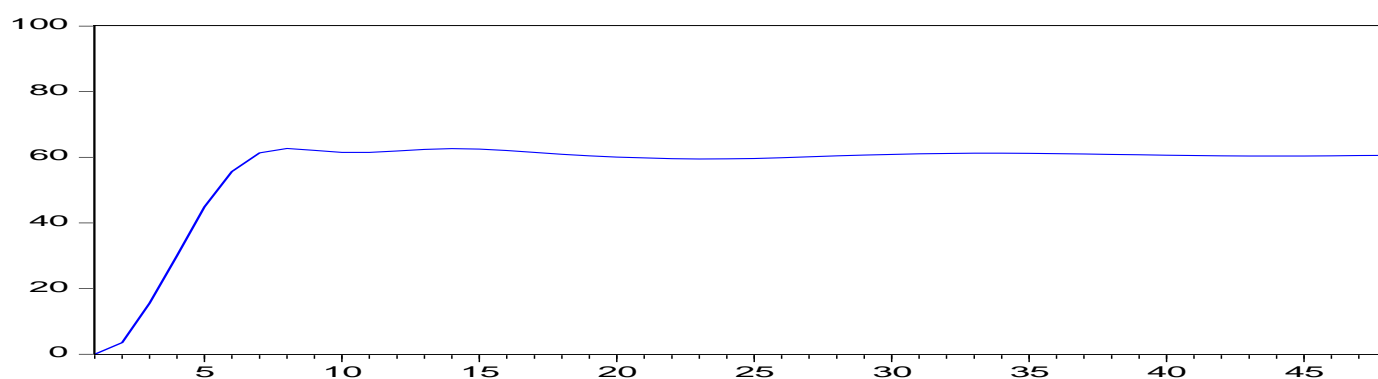
Figure 4.2

a



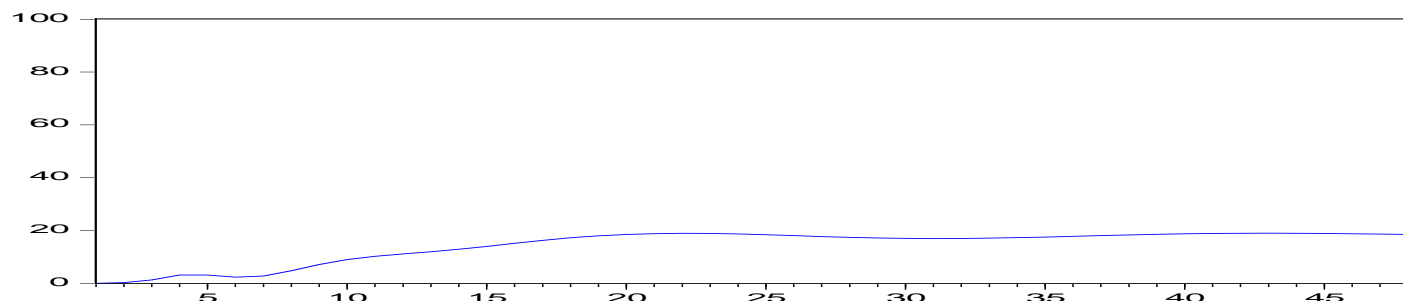
b

Percent GDP variance due to FDI



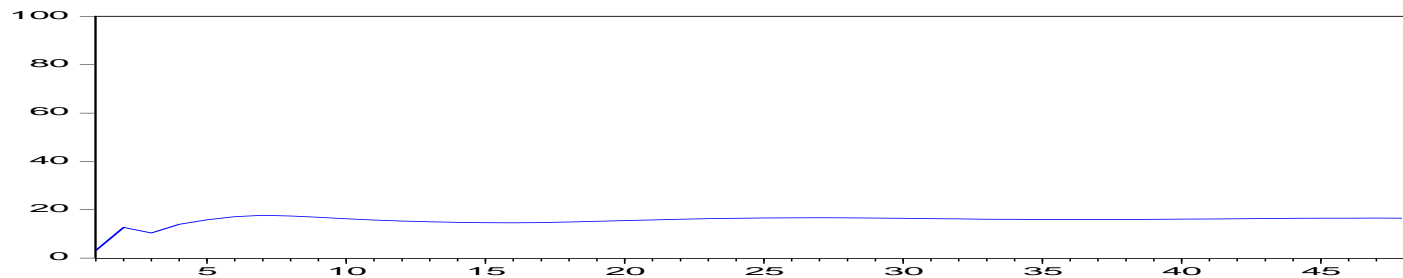
c

Percent GDP variance due to SL

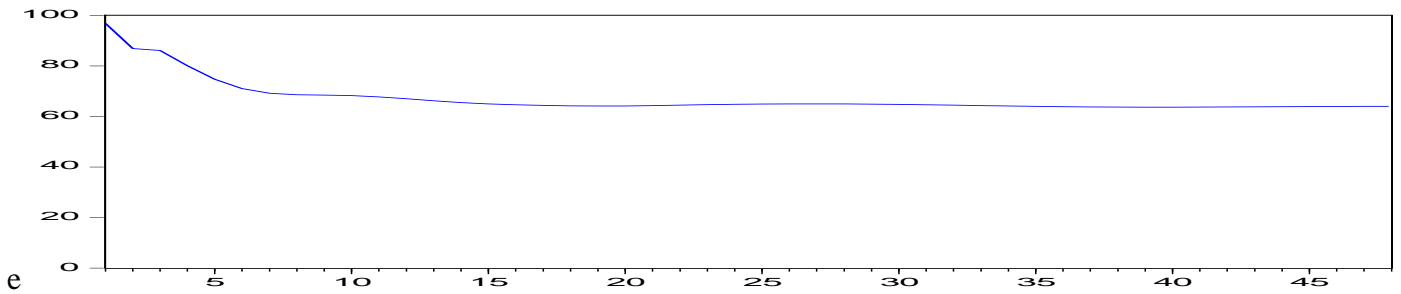


d

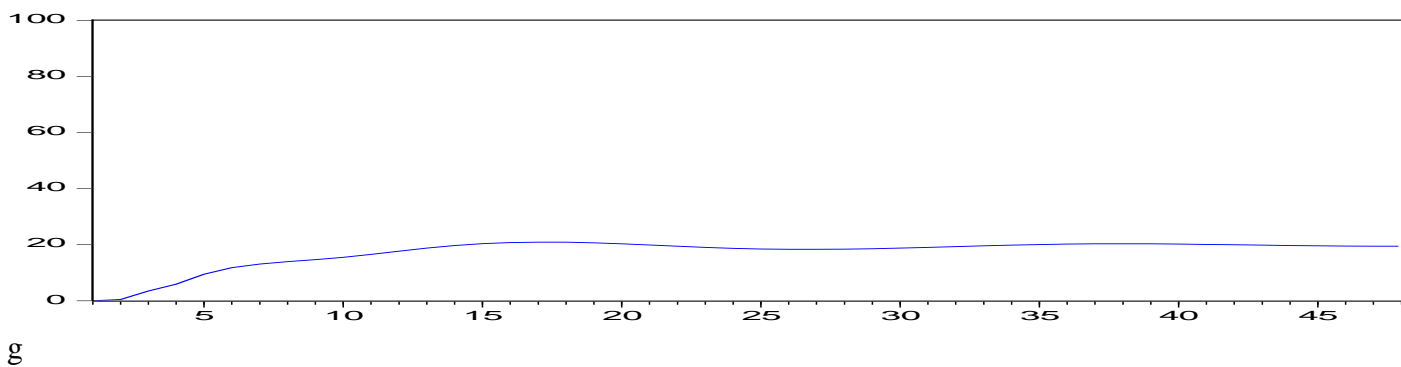
Percent FDI variance due to GDP



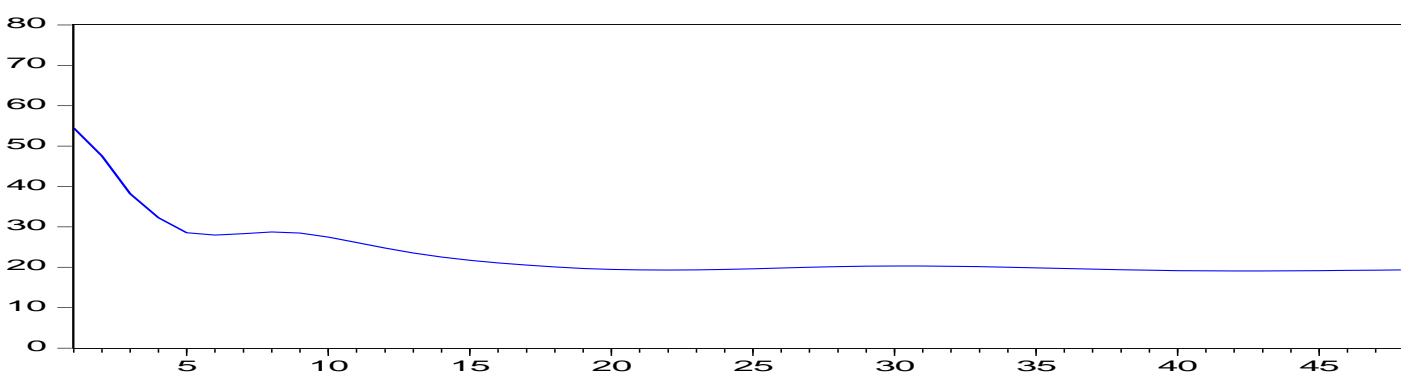
Percent FDI variance due to FDI



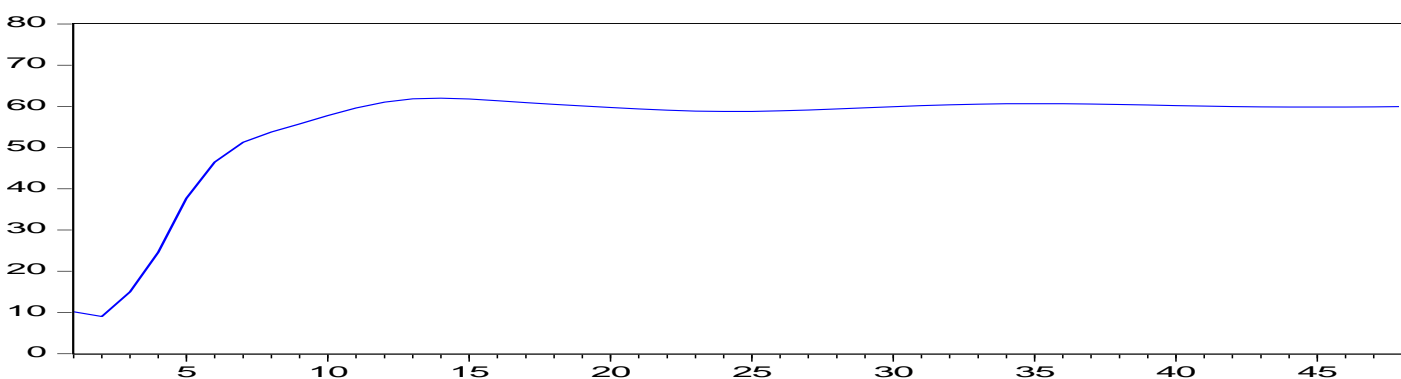
Percent FDI variance due to SL



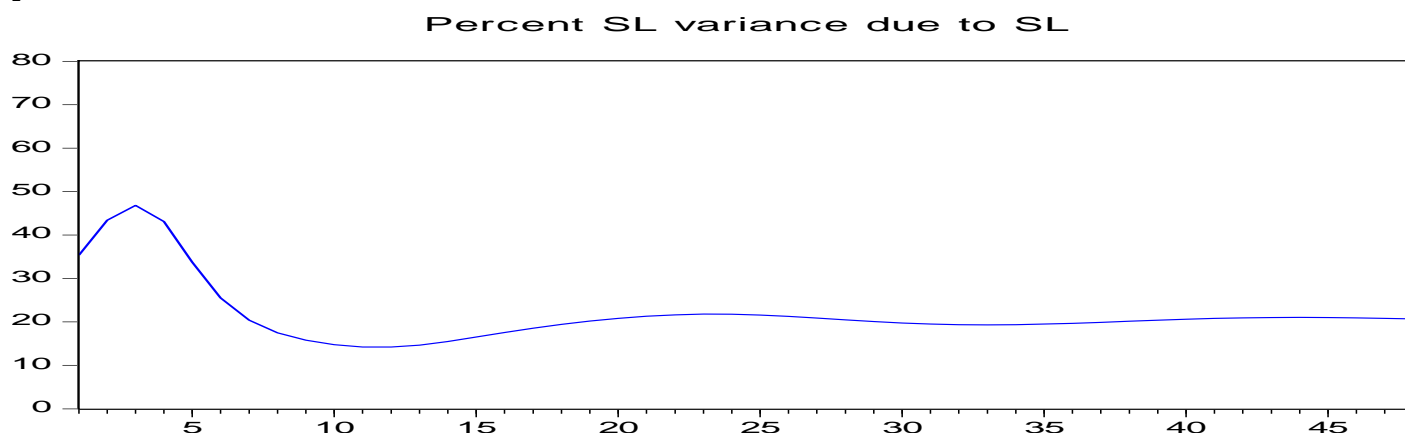
Percent SL variance due to GDP



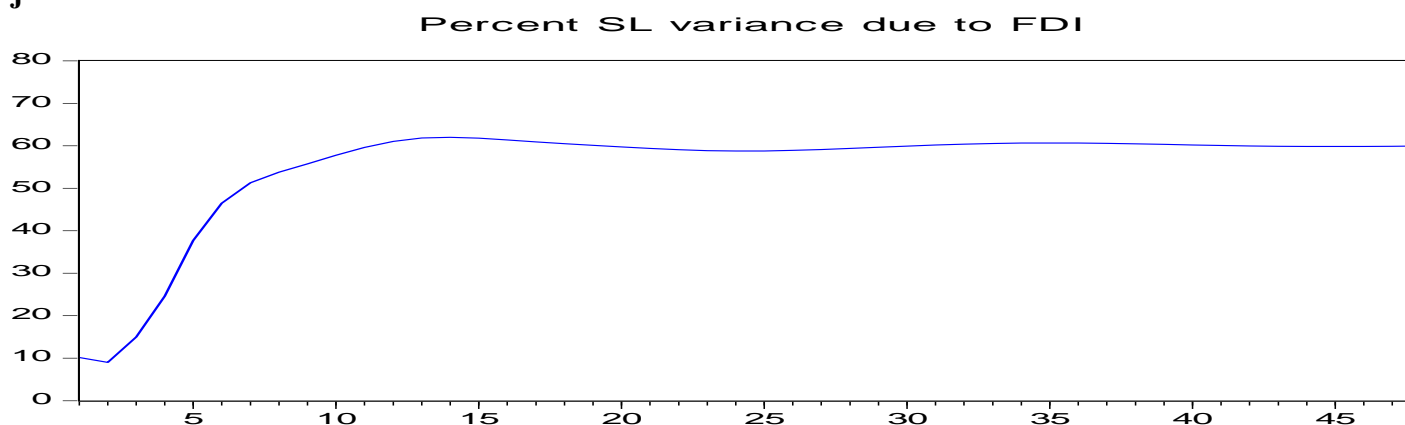
Percent SL variance due to FDI



i



j



The second graph in Figure 4.2b shows the FDI has weak exogenous impact on GDP in the first 5 years. The endogenous impact becomes strong from 7 year to 45 years. This implies that FDI has strong forecasting power for predicting advancement in the economy in futuristic term. Figure 4.2c reveals that standard of living has weak exogenous impact advancement in the economy in elongated and immediate term. Only about 15% of economic is explained by standard living hence cannot be used to forecast economic growth in the long run. Figure 4.2d reveals that GDP has weak exogenous impact on FDI. This infers that GDP has low forecasting power to predict FDI in the future because only 16% of FDI can be explained by GDP.

Furthermore, Figure 4.2f shows that standard of living has weak exogenous effect on FDI in futuristic and immediate term. Only about 25% of FDI is accounted for by standard of living. This implies that standard of living has low predicting power for forecasting FDI in the future. Figure 4.2g reveals GDP has strong endogenous impact on SL in first quarter but the impact dwindles in elongated term. This implies that standard of living cannot be used for forecasting economic growth in the long run. Finally, Figure 4.2h reveals FDI has weak exogenous relationship with SL in the short but has a strong forecasting for predicting standard of living in the long run.

Pairwise Granger

Table 7 Pairwise Granger

Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	46	10.0495	0.0003

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GDP does not Granger Cause FDI		1.30492	0.2822
SL does not Granger Cause GDP	46	0.02273	0.9775
GDP does not Granger Cause SL		1.42146	0.2530
SL does not Granger Cause FDI	46	3.36492	0.0443
FDI does not Granger Cause SL		14.3723	2.E-05

Source: Author's computation

The outcome of the study reveals that at 5% most of the variables are Granger-causal for GDP. The result shows FDI and economic growth has bidirectional causation as depicted by $p=0.003$. This infers that rise in FDI engenders increase in economic growth while increase in GDP does not necessarily lead to increase in Feign Direct Investment. The result also shows GDP has no emblematic causation with standard of living and standard living does have emblematic causation with GDP. This study suggest that population is a key moderating variable that determines the relationship between Standard of living and economic growth.

Finally, the result shows standard of living on the other hand exhibits a bidirectional causation with foreign direct investment expenditure (FDI) as depicted by $p= 0.004$ and $p=2.E-05$. This finding implies that rise fund from international engenders better standard of living of citizenry (SL) and better standard of living will lead to increase in FDI.

5.0 Conclusion and Recommendations

This study is aimed ascertain the causality among the standard living, FDI and economic growth in Nigeria. The study covered 45 years, which covers both military and post- military eras. This study used both VECM and Granger to analyzed data collected form field. VECM was used to ascertain both long and short run relationship. Impulse Response Factor was used to ascertain the shock.

The result revealed shows the FDI positively influence economic advancement in the immediate years which was synonymous to the military regime. This result implies that FDI has strong forecasting power for predicting advancement in the economy in futuristic term. The result reveals that economy growth decline from the 25th period which implies when military handed over to civil rule since 1998 the Nigerian economy has witness traumatic declination. This shows the period when civilian took over power from the military the Nigerian has not experience not remarkable economy growth. The result also revealed FDI declined in an alarming manner from the 2000 when Nigeria returns to democratic rule. It is suggested that the civil unrest and political unrest in the Nigerian since 2000 has scared foreign investment from investing in Nigeria. Furthermore, the result revealed that standard of the Nigerian staring declining from early “90s”

when synonymous with seriously political struggle for return civil.

The result revealed that FDI has negative effect with standard of living in the long run. This suggest that the political and insecurity in this region is responsible for the negative relationship. The result also revealed that FDI has negative on economic growth in elongated term. Gross mismanagement of public by political elite is suggested to responsible for the negative relationship. The result revealed that economic growth has negative relationship with standard of living in long run. The result reveals that economic growth has positive relationship with FDI in the short-run. This result suggests that the FDI was properly utilized during military eras. The region was quite conducive duration the military which attracted higher in inflow of FDI.

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This research work examines the causation of foreign direct investment, standard of living and growth in the Nigerian economy. Foreign direct investment and economic growth have become an issue of concern for all governments world over. The findings reveal that there is a unidirectional causality between foreign direct investments and economic in the long-run this result corroborates bidirectional long run causality gotten by Bodan (1992) and also in line with run long causality between FDI and economic gotten by Campos and Kinoshite (2002). The implication of result is that more the foreign investors in Nigeria the faster the economy will grow. Foreign direct investment increases cash inflow in circulation and also enhances free flow of money and thereafter engender economic growth.

The result also reveals that standard of living does not Granger economic growth in the long-run and economic growth also does not Grange standard of living in the long run. This result aligns with bidirectional causation between economic growth and private gotten by Alyunsury and Babalola (2013) and Aliero et al (2013). This means that there are other moderating factors that impact relationship between standard of living and economic growth.

Finally, the Granger causality test results, shows that in there is a bidirectional causation between FDI and standard of living in the long-run. Variables' trends show that in the period under study, FDI and standard of living moved in the same direction in the long run, meaning that higher FDI in absolute term translate to better standard of living. This result is in line with Ogiogo (1995) which reveal a long-term causality between FDI and standard of living.

Based on the result the study recommends first, that policy makers should concentrate effort on long run policies that will stimulate economic growth. The financial institutions should be strengthened. Healthier and more robust friendly foreign investment policies should be created and maintained. Second, the study recommends that government should partners with foreign investors to enhance good standard of living of populace.

This study also recommends that researchers who want to veer into this area of study should look at FDI and economic development: the moderating of population.

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Okey O. Ovat (Ph.D.), Amba, Esu-Amba Antakikam () Foreign Direct Investment and Economic Growth In Developing Countries: How Has Nigeria Fared? *IOSR Journal of Economics and Finance (IOSR-JEF IOSR Journal of Economics and Finance (IOSR-JEF*

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