



Empirical Analysis of Exchange Rate Fluctuations and Gross Fixed Capital Formation in Nigeria

Chris AC-Ogbonna, Ph.D

Department of Economics

Veritas University, Abuja

(The Catholic University of Nigeria)

Abstract

This study investigated the effect of exchange rate Volatility on gross fixed capital formation. Mundell-Fleming Model is used as a theoretical framework for establishing relationship between relevant variables. The erratic fluctuation in exchange rates referred to as exchange rate volatility could be described as periods of domestic currency appreciation or depreciation. Exchange rate has considerable attention in terms of its influence on gross fixed capital formation. The study covered the period between 1980-2016 and Ordinary Least Square (OLS) techniques was used in estimating the relationship between the variables included in the specified regression model. The data was collected from Central Bank of Nigeria Statistical Bulletin and the World Bank Indicators for Nigeria. The major finding of this study shows that the Exchange rates (EXCHR) has a positive and significant linear relationship with gross fixed capital formation. This implies that a unit increase in naira gain against other currencies will result to 0.961 increases in GFCF. The result equally shows that the Degree of trade openness (TOP) has negative and significant relationship with Gross fixed capital formation. This implies that a unit increase in trade openness will result to a 1.613 unit decline in GFCF. The result of Inflation rate (INFL) has negative and significant relationship with gross fixed capital formation. This implies that a unit increase in inflation will result to a 0.558 unit decline in GFCF. It implies that Stringent trade measures should be adopted to checkmate inflation mostly the imported inflation through foreign trade. The study therefore recommends that monetary authorities should adopt measures that will strengthen the naira against other currencies. Also that Stringent trade measures should be adopted to protect local industries and reduce the depletion of our foreign reserves through excessive importation. This can be achieved through high tariffs, quotas and outright ban on some certain goods and services.

Key words: Empirical Analysis, Exchange rate Volatility, Gross Fixed Capital Formation, Nigeria.

1. Introduction

Exchange rate is one of the economic indicators which directly affect investment and other macroeconomic indicators as such its role in the overall economic objectives of a country cannot be underestimated. This gives confidence to why the public sectors, foreign investor and private individual pay a lot of attention to the exchange rate variation. The exchange rate is among the most watched, analyzed and government manipulated macroeconomic indicator. Since September 1986, when the market determined exchange rate system was introduced via the second tier foreign exchange market, the naira exchange rate has exhibited the features of continuous depreciation and instability. Economic agents have not been investing due to exchange rate volatility. This instability and continued depreciation of the naira in the foreign exchange market has resulted in declines in investment, standard of living of the populace, increased cost of production which also leads to cost push inflation. It has also tended to undermine the international competitiveness of non-oil exports and make planning and projections difficult at both micro and macro levels of the economy. The exchange value of a country's currency is largely determined by economic forces (called economic fundamentals); with political factors playing only complementary roles. Thus, attempts to impart greater value to a currency by political means probing into the underlying economic forces, may lead to greater instability in the foreign

exchange market and unsustainability in the rates. For instance, an increase in the terms of trade causes output in the non-tradable sector to decline causing an excess demand in non-traded goods and shifting the internal balances locus upward. Simultaneously, the external balances (downward sloping) locus shift upwards as well, reflecting the necessity of having an appreciated exchange.

Gross fixed capital formation (GFCF) is a macroeconomic concept used in official national accounts such as the United Nations System of National Accounts (UNSNA), National Income and Product Accounts (NIPA) and the European System of Accounts (ESA). The concept dates back to the National Bureau of Economic Research (NBER) studies of Simon Kuznets of capital formation in the 1930s, and standard measures for it were adopted in the 1950s. Statistically it measures the value of acquisitions of new or existing fixed assets by the business sector, governments and "pure" households (excluding their unincorporated enterprises) *less* disposals of fixed assets. For the analysis of the development of the productive capital stock, it is important to measure the value of the acquisitions less disposals of fixed assets beyond replacement for obsolescence of existing assets due to normal wear and tear. "*Net fixed investment*" includes the depreciation of existing assets from the figures for new fixed investment, and is called *net fixed capital formation*. This is an important component of GDP because it provides an indicator of the future productive capacity of the economy. According to Bakare (2011) Capital formation refers to the proportion of present income saved and invested in order to augment future output and income. It usually results from acquisition of new factory along with machinery, equipment and all productive capital goods. Capital formation is equivalent to an increase in physical capital stock of a nation with investment in social and economic infrastructure. Continuing on the matter he noted that Gross fixed capital formation can be classified into gross private domestic investment and gross public domestic investment. The gross public investment includes investment by government and public enterprises while gross private domestic investment is investment by private enterprises. Gross domestic investment is equivalent to gross fixed capital formation plus net changes in the level of inventories.

2 .Statement of the Problem

GFCF is a component of the expenditure on gross domestic product (GDP), and thus shows something about how much of the new value added in the economy is invested rather than consumed. GFCF is called "gross" because the measure does not make any adjustments to deduct the consumption of fixed capital (depreciation of fixed assets) from the investment figures.

According to CBN (2007) influx of foreign businesses into Nigeria was US \$2.3 billion in 2003 US \$5.3 billion in 2004 (138 per cent increase) US \$9.92 billion (87per cent increase) in 2005. Due to stable exchange rate regime, Foreign Direct Investment into Nigeria grew by 134 per cent to #1.123 trillion (US \$9.6 billion) in 2007. In total, US \$36 billion of FDI went into Africa, and Nigeria received 26.66 per cent of the influx, because of this, Nigeria was tagged "A beautiful bride for foreign Investors".

The Nigeria to pound has its parity defined in June 1962 in terms of gold at one Nigerian pound to 2.48828 grams for fine gold. From that time to August 14, 1971, the exchange rate of the Nigerian pound of the use dollar was determined by its gold parity. The Naira replaced the pound as Nigerian currency in 1973, and its par value was set at half that of the pound. Hence the exchange rate against the dollar became US \$ 1.52 to the Naira. Within a month of this the US dollar was devalued by 10 percent and Nigeria suit with a 10 percent matching devaluation, thereby maintaining the existing Naira-dollar rate. During most of 1973, the anchor currencies, the dollar and sterling weakened considerably, sustained weakness brought into sharp focus the dilemma, inherent in the method of determining the exchange rate of the Nigerian currency.

In July 2, 1987 at an exchange rate of N3.74: \$1.00. With this development, the first tier market was abolished and unified foreign exchange market (FEM) with a single rate that came into being. However, in September, 1986, the Second Tier Foreign Exchange market (SFEM) began as a dual exchange rate system which produced the official first tier rate and the SFEM or free market rate. The introduction of the autonomous market led to the existence of three exchange rates - FEM, rate autonomous and the parallel market rate which failed to show any tendency toward convergence.

In January 1999, Nigeria's dual exchange rate regime was abandoned as the official N22 to a dollar exchange rate was scrapped. Prior to then, the official rate co-existed with the rates on the Autonomous Foreign Exchange Market (AFEM) and was used for selected government transactions including external debt service. In October 1999, a daily Inter-Bank Foreign Exchange Market (IFEM) replaced the AFEM. Under the IFEM, the CBN monopoly on the supply of foreign exchange was removed as oil exploration and producing companies were allowed to sell foreign exchange directly to banks rather than through the CBN. In July, 2002, Nigeria reintroduced a bi-weekly Dutch auction system (DAS) as an operational system for its foreign exchange market to replace the inter-bank foreign exchange market. The major problem confronting the Nigeria economy therefore is what precisely is the root cause of the unstable exchange rate regimes in Nigeria? How has this fluctuations impacted on the growth of gross fixed capital formation in the Nigeria economy? Is Gross fixed capital formation advantageous to the economy, valuable or beneficial as they emerge in theory? To what limit have they stimulated the growth of the Nigeria economy? The unstable exchange rate is badly affecting the macro-economic variables and the growth of the economy in general.

3. Objectives of the Study

The main objective of the study is to investigate the relationship between exchange rate fluctuation and the gross fixed capital formation in Nigeria from 1980-2016

4. Literature Review and theoretical Framework

Uremadu (2011) analyzed the impact of foreign private investment on private capital formation in Nigeria. The paper obtained time series estimate using the Ordinary Least Square (OLS) methodology and discovered that foreign exchange rates leads private capital formation in Nigeria, followed by index of energy consumption and then debt service ratio. Imobighe and Dania (2006), developing a time series simultaneous model and using the Indirect Least Square (ILS) method, undertook an empirical analysis and the impact of some macroeconomic aggregates on private capital formation in Nigeria from 1975 to 2002. It was observed that the most important variable that determines private capital formation is Gross Domestic Product. Their findings also revealed that domestic credit to the economy was significantly related to gross private capital formation having negative impact on capital formation. Akpokoje (2000), using time series data set from 1985- 2000 and adopting the OLS methodology, explored the association between export earnings and private capital formation in Nigeria. The work discovered that export earnings fluctuations adversely impinges on investment (i.e., the change in capital stock) in the short-run. Adetiloye (2012) estimated the relationship between domestic investment, capital formation and population growth. Adopting the curve estimation regression models, that study discovered that the state of investment in the Nigerian economy has been worrisome for some time now, given its poor performance and insignificant correlation with capital formation.

Suleiman (2012) carried out a research on foreign private investment capital formation and poverty reduction in Nigeria. Using data set spanning from 1990-2008 and adopting the Ordinary Least Square methodology, discovered that foreign private investments has a positive relationship with capital formation and contributed immensely to poverty reduction in Nigeria within the period. Bakare (2011) carried out an empirical analysis of the consequences of the foreign exchange rate reforms on the performances of private domestic investment in Nigeria adopting the ordinary least square multiple regression analytical method. The multiple regression results showed a significant but negative relationship between floating foreign exchange rate and private domestic investment in Nigeria. The findings and conclusion of the study support the need for the government to dump the floating exchange regime and adopt purchasing power parity which has been considered by researchers to be more appropriate in determining realistic exchange rate for naira and contribute positively to macroeconomic performances in Nigeria.

Jimoh (2006) examines the Nigerian data from 1960 to 2000 to see what support it provides for traditional theory of real exchange rate. He used the well-known Johanson's (1992) methods for estimating models whose variables are non-stationary but co integrated, the study found that the decisive trade liberalization programme of 1986 led to about 13 per cent depreciation in the Nigerian real exchange rate and made the real rate more responsive to changes in its terms of trade. He also found out that less decisive changes in trade regime produced no significant changes in the real exchange rate. Shehu and Aliyu (2006) estimate the long run behavioral equilibrium exchange rate in Nigeria. They used quarterly data from 1984Q1 to 2004Q4 and derive a Behavioral Equilibrium Exchange Rate (BEER) and a

Permanent Equilibrium Exchange Rate (PEER). Regression results show that most of the long-run behavior of the real exchange rate could be explained by real net foreign assets, terms of trade, index of crude oil volatility, index of monetary policy performance and government fiscal stance. On the basis of these fundamentals, four episodes each of overvaluation and undervaluation were identified and the antecedents characterizing the episodes were equally traced to the archive of exchange rate management in the country within the review period. Among others for instance, large inflow of oil revenues into the country and stable macroeconomic were discovered to account for undervaluation of the real exchange rate between 2001Q1 and 2004Q4 in Nigeria. The results further suggest that deviations from the equilibrium path are eliminated within one to two years.

Agnès and Coeuré (2001), in their paper “The Survival of Intermediate Exchange Rate Regimes show how the traditional tradeoff between stabilization and disinflation can produce soft pegs as optimal exchange rate regimes even when financial fragility and the cost of regime switches in terms of credibility are taken into account. The optimal degree of exchange rate flexibility depends on the structural characteristics of the country and on the preferences of monetary authorities. The finding is confirmed by cross-section logic estimation for 92 countries before and after the 1997-1998 emerging markets crises, relating exchange rate regime choice with the countries structural patterns. The model correctly predicts up to 86% of observed regimes and some of the recent moves towards hard pegs.

Akujuobi (2007) examined foreign direct investment and private capital formation in Nigeria for the period 1983-2003 using the recursive modeling technique. The work found that foreign direct investment is a significant positive contributor to the overall capital formation effort.

The output effect of exchange rate changes has long been recognized in the literature but there is however, no consensus as to the direction of the effects while the traditionalists argued that exchange rate depreciation would promote trade balance, alleviate balance of payments difficulties and accordingly expand output and employment provided the Marshall-Lerner conditions are met (Marshall-Lerner condition states that depreciation would lead to expansion in output if the sum of price elasticity of demand for export and the price elasticity of demand for imports is greater than unity). The mechanism behind these positive effects, according to Taye (1999) is that devaluation switches demand from imports to domestically produced goods by increasing the relative prices of imports and making export industries more competitive in international markets thus stimulating domestic production of tradable goods and inducing domestic industries to use more domestic inputs.

This convergence which Ojamenaye (1991) has described was achieved on July 2, 1987 at an exchange rate of N3.74: \$1.00. With this development, the first tier market was abolished and unified foreign exchange market (FEM) with a single rate that came into being. The FEM also embraced the autonomous market, which was allowed to develop. The autonomous segment of the FEM was expected to be competitive with the parallel foreign exchange market and thus be attractive to exporters to repatriate their proceeds.

The introduction of the autonomous market led to the existence of three exchange rates - FEM, rate autonomous and the parallel market rate which failed to show any tendency toward convergence. And as Akinmoladun (1990) has argued the merger of the first tier rate and the SFEM rate was more technical than real as shortly after the gap between the auction rate and those of the autonomous market rates began to grow at one point, there was more than 50 percent differential between the two rates and this became a source of concern for the monetary authorities. The price differential had the effect of making the auction funds sort of subsidized.

The operations of the autonomous market later became destabilizing arising from the tendency towards high arbitrage premium and accusations of authorized dealers of diverting official funds making substantial gains effortlessly (Ojo, 1991). Other malpractices also developed as the market officials or authorized dealers were accused of corruption and allocation of foreign exchange to favored customers. In the light of these, the autonomous market was merged with the official segment in January 1989 and the Inter-Bank Foreign Exchange Market (IFEM) was introduced. Growth models like the ones developed by Romer (1986) and Lucas (1988) predict that increased capital accumulation can result in a permanent increase in growth rates. The relationship between capital formation of the nation and economic growth has been documented in a number of empirical investigations. The result which has been found in several analyses is that causality exists between capital accumulation and economic growth.

From the studies reviewed in the literature, none of the studies covered the period from 1980-2016 and the dearth of the studies claimed the attention of this study. The study is anchored on the theory of Mundell-Fleming model which was developed by extending the IS-LM model to the case of an open economy, and thus provides understanding of how the exchange rate is determined. The IS-LM model considers three markets: goods, money and assets, and is mainly used to analyze the impacts of monetary policy and fiscal policy. When the goods market is not in full employment equilibrium level, it shows how to use fiscal policy and monetary policy to adjust an economy to new full employment equilibrium. Since only two of the three markets are independent, the IS-LM model only establishes a linkage between the money market and goods market in the mundell-Fleming model, the balance of international payments is considered another equilibrium condition in addition to the money market and goods market. Specifically, it argues that a country cannot sustain monetary independence in a fixed exchange rate regime with perfect capital mobility. The model also forecasts that the exchange rate level is perfectly correlated with the level of monetary supply in the long run, and thus that monetary policy may only play a trivial role. Another important implication is that devaluation may lead to further devaluation if fiscal discipline, inflation and balance of payments are not well managed or if the assets market produces a self-fulfilling bubble. It also serves as a medium of exchange, measure of value, and means of storage. As a modern invention, paper money or currency plays an important role in reducing transaction costs.

5. Research Methodology and Model Specification

A research design encompasses the methodology and procedure employed to conduct scientific research. The research is designed to be totally an ex-post factor research and econometric technique of investigation on exchange fluctuation and its impact on the Gross Fixed Capital formation. The research adopted the Ordinary least square regression (OLS) analysis method of estimation technique. The research is designed to be totally an ex-post factor research and econometric technique of investigation on foreign debt burden and economic growth in Nigeria. This is because it considers quantitative data for analysis. The research will adopt the multiple regression analysis method of estimation technique. Nigeria's high debt burden has grave consequences for the economy and the welfare of the people. The servicing of the external debt has severely encroached on resources available for socio-economic development and poverty alleviation. Although since 1986 during the structural adjustment programme, Nigeria had taken a decision to limit debt service to no more than 30 percent of oil receipts; this has not brought much relief. The external debt is typically owed to foreign creditors such as multilateral agencies like the Africa Development Bank, World Bank, the Islamic Development Bank, Paris club, as well as other bilateral source including the China Exim Bank, the French Development Bank or the Japanese Aid Agency, or to private creditors such as investors in our Eurobonds

To achieve this, we shall employed the multi-regression analysis with special consideration of the neo-classical regression method. Multiple regression analysis is a powerful technique in data analysis used for predicting unknown value of a variable from the known value of two or more variables - also known as predictors. It is an advanced statistical tool and extremely powerful when one is trying to develop a "model" for predicting a wide variety of outcomes.

6. Model Specification

Following the study carried out by Akpokoje (2000), using time series data set from 1985- 2000 and adopting the OLS methodology, explored the association between export earnings and private capital formation in Nigeria. The Mundell-Fleming model which was developed by extending the IS-LM model to the case of an open economy, and thus provides understanding of how the exchange rate is determined. The study shall adopted the same model and ordinary least square estimation technique to specify the model. It is justified on the ground that the growth model permits the inclusion of more variables in the study especially to the case of an open economy.

The model in its structural form is stated as follows:

$$GFCF = f(\text{EXCH}, \text{INFL}, \text{TOP}) \dots\dots\dots 1$$

This could be stated in econometric form, as

$$GFCF = \beta_0 + \beta_1 EXCHR + \beta_2 INFL + \beta_3 TOP + U_t \dots \dots \dots 2$$

Where:

GFCF=Gross Fixed Capital Formation

EXCHR = Exchange Rate

INFL= Inflation

TOP = Trade Openness

β_0 is a constant

β_1, β_2 and β_3 are parameters to be estimated

μ = Error term

From the model, the Gross Fixed Capital Formation (GFCF) is the dependent variable. The independent variables in the model are Exchange Rate (EXCH), Inflation (INF) and Trade Openness (TOP). These are expected to affect the rate of growth of Gross Fixed Capital Formation of the Nigerian economy negatively or positively.

3.6 Apriori Expectation

$$\beta_1 > 0, \beta_2 < 0, \beta_3 > 0$$

Economic theory explains the nature of the variables on use and their relationship with one another especially the explained variable and the explanatory variables. The evaluation therefore is based on whether the coefficient conforms to the economic postulations. The expected relationship is that GFCF should have a significant effect on the economic growth of Nigeria

7. Method of data collection and sources of data

The data for this research was entirely from secondary sourced materials from the Central Bank of Nigeria and National Bureau of Statistics and the variables sourced are Gross Fixed Capital Formation (GFCF), Exchange Rate (EXCH), Inflation (INF) and Trade Openness (TOP).

8. Estimation Techniques

The multiple regression method and descriptive analysis was employed to establish the relationship between the variables of the study. The Coefficient of Determination (R^2) was also used to determine the total variation of the dependent variables as a measure of goodness fit.

9. Data Presentation and Analysis of Regression Results

The result presented below is a product of the estimation of the model specified in our research methodology. The estimation procedure employed in this study is the multi regression method of OLS estimation technique as earlier specified.

9.1 Descriptive Statistics

9.1 Descriptive Statistics

Table 9.1: Descriptive Statistics

Statistics	GFCF	EXCHR	INFL	TOP
Mean	1063547	78.88135	19.34351	.5060849
Standard Deviation	1839767	81.84393	17.51506	.1627983
Maximum	6001892	324	72.84	.81813
Minimum	9149.76	0.55	5.38	.23609

Source: *Researcher's Computation using Stata 13, 2020*

Table 4.1 above shows that the mean of Gross fixed capital formation, Exchange rate, inflation and Degree of trade openness were 1063547, 78.88, 19.34, and 0.50 respectively. Given this we can conclude that the average Gross fixed capital formation, Exchange rate, inflation and Degree of trade openness were high between 1980 and 2016. The minimum, maximum and standard deviation values of the variables are shown in the table.

4.2 Pairwise Correlation Matrix of GFCF, EXCHR, INFL and TOP

	GFCF	EXCHR	INFL	TOP
GFCF	1.0000	0.8338	-0.2749	-0.3439
EXCHR	0.8338	1.0000	-0.3439	-0.0618
INFL	-0.2749	-0.3439	1.0000	0.0569
TOP	-0.3825	-0.0618	0.0569	1.0000

9.2 Unit Root Test for Stationarity

9.2.1. Presentation of Unit Root Results

The Augmented Dickey Fuller (ADF) unit root test was employed to test for unit root for all the macroeconomic variables employed for the study. The results are presented on the table below:

Table 4.2: Unit Root Test Result using Augmented Dickey Fuller (ADF)

Variable	P-value@ level	Remark	t-statistic @first difference(5%)	P-value	Critical value(5%)	Order of Integration
LGFCF	0.1347	I(?)	-10.792	0.0000	-3.682	I(1)
LEXCHR	0.8277	I(?)	-5.136	0.0000	-3.682	I(1)
LINFL	0.0614	I(?)	-6.030	0.0000	-3.682	I(1)

TOP	0.9543	1(?)	-7.678	0.0000	-3.682	1(1)
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Source: Extract from computer on regression of data using Stata version 13, 2020

The decision rule here is that when the t-statistics is greater than the critical value at 5% significance level and the probability value (P-Value) is less than 0.05, it shows that the variable is stationary at level otherwise the difference is taken until it becomes stationary.

The results show that all the variables tested were not stationary at level and were stationary only at first difference. The t-statistic values of all the variables are all less than the critical values at the standard 5% significant level and their probability values are greater than 0,05. The fact that the variables were not all stationary at level however connotes the existence of unit root and indication for co-integration. Therefore in order to avoid the misinterpretation bias that comes with analyzing co-integrated variables using the Ordinary least square estimation technique, the study tested for cointegration.

4.4 Cointegration Tests

The result of the cointegration tests for the model is extracted into tables 4.5 as shown

Below;

Table 4.6: Cointegration Result for Gross fixed Capital Formation (GFCF) Model

Trace Test k=2				Maximum Eigenvalue Test k=2			
H ₀	H _A	(λ trace)	Critical Values (5 %)	H ₀	H _A	(λ Max)	Critical Values (5%)
r ≤ 0	r > 0	43.26*	47.21	r ≤ 0	r > 0	21.70	27.07
r ≤ 1	r > 1	21.55	29.68	r ≤ 1	r > 1	17.42	20.97
r ≤ 2	r > 2	4.13	15.41	r ≤ 2	r > 2	4.13	14.07
r ≤ 3	r > 3	0.00	3.76	r ≤ 3	r > 3	00.00	3.76

* denotes rejection of the null hypothesis at the 5% level.

Source: Computation by Researcher Using Stata 13,2020

The test statistics indicate that the hypothesis of no cointegration, H₀, among the variables can be upheld. The results reveal the existence of no cointegrating vector among the variables of interest in the GFCF model. The existence of a cointegration equation justifies the estimation of an error correction model.

4.5 Error Correction Model

4.5.1 Engle-Granger 1st –Step Regression

Table 4.3: Engle-Granger 1st –Step Regression Result for Gross Fixed Capital Formation Model

Variables	Coefficients	T-statistics	Probability
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C	9.262	11.48	0.000
LEXCHR	0.961	12.60	0.011
LINFL	-0.558	-2.70	0.001
LTOP	-1.613	-3.72	0.000
$R^2 = 0.84$ Adjusted $R^2 = 0.863$ F-Statistic = 41.89 Dw = 1.90			

Source: Computation by Researcher Using Stata 13,2020

9.3 Presentation of Regression Results

9.3.1.Evaluation of Regression Results

The regression result above is evaluated under this sub-section to know whether the signs of the variables adopted in the model conform to what the economic theory postulates. The constant which is the intercept is 9.262. This shows that if all explanatory variables were held constant, GDP rate will increase by 9.262

The result of the regression is: $\text{LogGFCF} = 9.262 + 0.961\text{LogEXCHR} - 0.558\text{LogINFL} - 1.613\text{LogTOP}$

From the model estimated, the result shows a positive relationship existing between EXCHR and GFCF. This means that a unit change in EXCHR will cause an increase in GFCF of 0.961. This conforms to the a priori expectation. The sign of the estimated coefficient of INFL is -0.558. This confirms that, inflation rate of the economy is negatively related to GFCF (a unit change in INFL will reduce GFCF by 0.558 and also for TOP). The Probability value of 0.011 for EXCHR in the regression result which is less than 0.05 at 5% significance level indicated that exchange rate fluctuation is a significant determinant of GFCF. We therefore reject the null hypothesis and uphold that exchange rate is a significant determinant of GFCF. The Probability value of 0.001 for INFL in the regression result which is less than 0.05 at 5% significance level indicated that Inflation is a significant determinant of GFCF. We therefore reject the null hypothesis and uphold that inflation is a significant determinant of GFCF. The Probability value of 0.000 for TOP in the regression result which is less than 0.05 at 5% significance level indicated that Trade openness is a significant determinant of GFCF. We therefore reject the null hypothesis and uphold that TOP is a significant determinant of GFCF.

10. Summary of Major Findings

This study was carried out to determine the relationship between Exchange Rate fluctuations and Gross Fixed Capital Formation in Nigeria between 1980 and 2016.

1.The result shows that the Exchange rate (EXCHR) have positive and significant linear relationship with gross fixed capital formation. This implies that a unit increase in naira gain against other currencies will result to 0.961 increase in GFCF. The implication of this is that monetary authorities should adopt measures that will strengthen the naira against other currencies.

2. The result equally shows that the Degree of trade openness (DOP) have negative and significant relationship with . This implies that a unit increase in trade openness will result to a 1.613 unit decline in GFCF. Stringent trade measures should be adopted to protect local industries and reduce the depletion of our foreign reserves through excessive importation. This can be achieved through high tariffs, quotas and outright ban on some certain goods and services.

3. The result equally shows that the Inflation rate (INFL) have negative and significant relationship with gross fixed capital formation. This implies that a unit increase in inflation will result to a 0.558 unit decline in GFCF. Stringent trade measures should be adopted to checkmate inflation mostly the imported inflation through foreign trade.

11. Conclusion

Our choice of subject in this thesis is hinged on the premise that gross fixed capital formation can continue to increase when the exchange rate of a country's currency with the dollar is economically favourable. As such our study has made some findings on which conclusions will be arrived at. The rate at which the naira exchanges for the dollar over the years has not impacted negatively on gross fixed capital formation growth rate. Though the trend of exchange rate and gross fixed capital formation are not appealing, however, the study still found that exchange rate has proven to influence gross fixed capital formation positively in Nigeria between the study periods. Therefore, it is necessary to pay more attention to the importance, exchange rate play in the Nigerian economy.

12. Policy Recommendations

The policy implications from the findings can be summarized as follows:

1. Monetary authorities should adopt measures that will strengthen the naira against other currencies.
2. Stringent trade measures should be adopted to protect local industries and reduce the depletion of our foreign reserves through excessive importation. This can be achieved through high tariffs, quotas and outright ban on some certain goods and services.
3. Regulated trade measures should be adopted to checkmate inflation mostly the imported inflation through foreign trade.

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