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CURRENCY DEVALUATION ON THE EXPORTATION REVENUE: A STUDY OF NIGERIA, SOUTH AFRICA AND CHINA (2000-2017)

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ABSTRACT: *The study examines the impact of currency devaluation on total export revenue in Nigeria, South Africa and China. Secondary data were sourced from World Bank Data Atlas for inflation rate (INFR), exchange rate (EXR), money supply (MS) and total export revenue (TER) for the period of 2000 to 2017 and were subjected to Augmented Dickey Fuller and Philip Perron Unit Root test, Johansen Co-integration and Vector Error Correction Model. The study discovers that EXR, INFR and MS were unable to impact exportation revenue in Nigeria and South Africa while showing strong impact on exportation revenue of China. The result also shows that only China enjoys long run relationship while Nigeria and South Africa currency devaluation variables showed absence of long run relationship with exportation revenue. Thus, the study concludes that currency devaluation in China impact negatively on the export position of Nigeria and South African economies. Hence, the study recommends maintenance of China's currency devaluation position while Nigeria and South Africa should re-evaluate and re-adjust their currency devaluation procedures to improve exportation revenue.*
KEYWORD: currency depreciation, inflation rate, exchange rate, money supply, exportation performance

JEL codes: F1, F4, F14, F17, F31

INTRODUCTION

The position of currency situations in international trade play significant role in the exportation activities of any economy. A viable exchange rate or currency position promotes trade and boost economic growth. This is the exact trend in the viable currency devalued economy like China and other growing countries of Azerbaijan, Kazakhstan, Tajikistan, Uzbekistan, Kyrgyzstan, Turkmenistan, Afghanistan and Pakistan. The strategy is designed to improve local output by improving terms of trade and raising revenue to redistributing income among broad classes of the economy (Cooper, 1971). According to Jordaan and Netshitenzhe (2015), a depreciation is meant

to enhance export competitiveness, encourage export diversification, protect domestic industries from imports and improve the trade balance. The currency devaluation of developing and developed economies have prompted the demand for goods/commodities of such devalued currency in the international market. Besides, the position of such currency also attract direct bilateral currency swapping/dealing without the usage of dollar between the Chinese yuan and the currency of countries in trade with them. The continuous fall of the South African rand to the dollar have also boosted their economic situation in the international market thereby fostering increased exportation activities of the South African local commodities (Smal, 1998).

However, the Nigerian currency positioning at a continuous falling scale have been expected to throw the economy into an exporter of varying commodities. But, the Nigerian economy have proved to be ineffective as an exporter of non-oil commodities, with its major exportation revenue remaining the sales of crude oil over the past 30years since its discovery at commercial scale (Gbadebo, Ogbonna & Igwe, 2018). The devaluation of currencies which improve their domestic production and exportation pose a strong threat to the Nigerian currency economy and trade market. This has a tendency to increase importation activities for the Nigerian economic sector (Gbadebo, Ogbonna & Igwe, 2018). The currency devaluation activities of countries are initiatives supported by the International Monetary Fund (IMF) to provide means of economic growth, conditioning for financial aid and loans to member countries to develop their domestic firms, markets and enhance their competition in the international market.

Nigeria, China and South Africa have close economic relations and huge economic potentials in terms of agriculture, solid minerals and cheap labour. The position of trade of China, South Africa and Nigeria in their continuous fall in the value of their currencies to the US "Dollar" reveal diverse trend of economic performance and different economic responses and push in their international trading activities. Hence, the need to examine the effect of currency devaluation on the exportation revenue of these three economies (Nigeria, China and South Africa).

Hypothesis

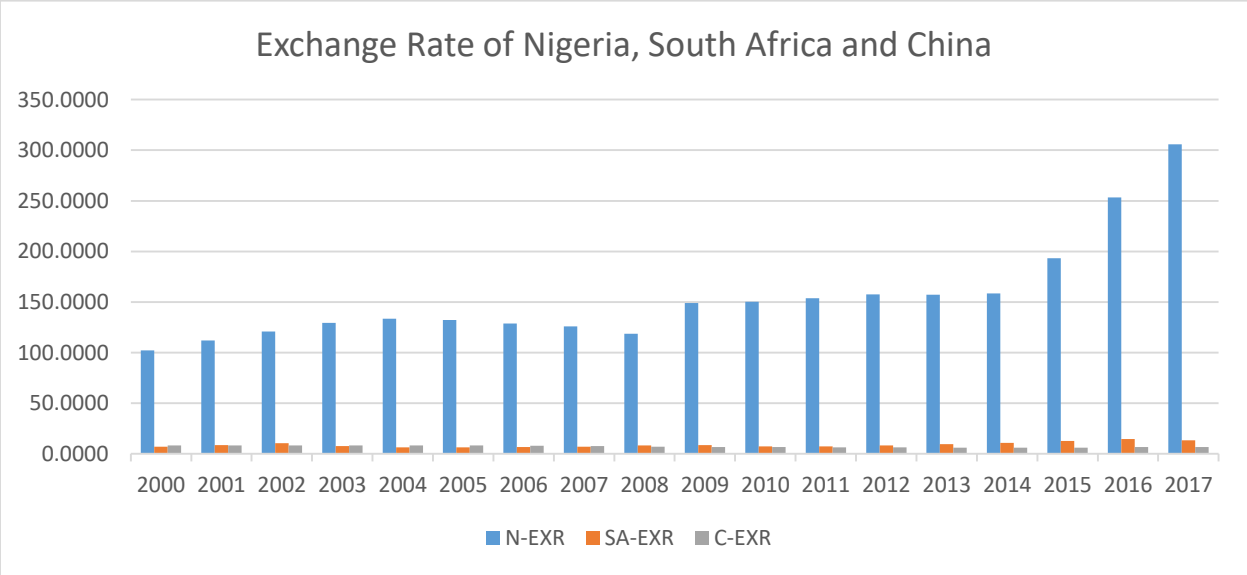
Ho_1:There is no significant relationship between currency devaluation and export revenue in Nigeria, South Africa and China.

Conceptual Framework

Aiya (2014) defined devaluation of currency as a macro-economic fiscal policy that bothers on deliberate reduction in the value of home currency with the aim of maximizing gain in trade-able items. However, Cooper (1971) purported that currency devaluation should be encouraged whenever a country's international payment position is in "fundamental disequilibrium" whether that disequilibrium is brought about by factors outside the country or by indigenous developments or elements. Currency devaluation is a decision painstaking taken as a last resort after countless partial substitutes have been adopted. Changes in the values of a currency are basically measured against the American "Dollar"; which means that a reduction/depreciation in the dollar unit of a foreign currency will play a crucial role in the exchange rate of another domestic currency in international trade with that country.

According to the monetary approach to the exchange rate, a devaluation or depreciation decreases the real supply of money, resulting in an excess demand for money. The response of theorist like Marshall-Lerner which holds that total import of demand elasticity of trading partners must exceed unity to be satisfied and thus facilitating the elasticity framework that currency devaluation improves a country's balance of trade. The absorption methodology however holds that the elasticity does not matter, and the trade balance improves only if the nation's Gross Domestic Product (GDP) increases faster than domestic spending. This is position was contradicted by Truman (2016) who asserts that devaluation is not working to improve the current account or net exports and real GDP.

In Nigeria, devaluation of currency was officially introduced by the Babangida led Administration in 1986 with the institution of the Structural Adjustment Programme (SAP) policy designed to achieve a realistic exchange rate for the naira that was thought to be over-valued. Successive Nigerian government and more recently, the Buhari led administration has indicated interest to devalue the Nigerian currency so as to promote local product and export diversification. However, the policy arrangement and priority of the Nigerian government have continuously facilitated and attracted importation activities against exportation encouragement. The fall-out of this policy made life difficult for average Nigerian (Aiya, 2014). The exchange rate of the Nigerian "Naira" to the America "Dollar" has continuously increase and the increase in exchange rate of the naira to other currency are also noticed in British "Pound Sterling", Swiss "Franc" and European "Euro". However, the CFA Franc, China Yuan and Japanese Yen have maintained a stable exchange rate to the Naira which is one of the key reasons major importation activities deal directly with these countries (Gbadebo, Ogbonna & Igwe, 2018).



Graphical Illustration

For instance, China surprised international economy with markets consecutive devaluation of the Yuan from Aug, 2015 which knocked over 3% off its value. Since 2005, China's currency has

appreciated 33% against the U.S. dollar, which is a lot of appreciation and it's likely to continue in spite of capital outflows and reserve losses. Hence, to stabilize reserves the capital account of China had been tightened which was not a surprise as stability had always been paramount to the China economy in trade across international community. The appreciation of the China Yuan is due mainly to faster GDP and income growth than in the West; hence China continues to grow 3 times faster than the developed world. This devaluation process by China enhances their competitive value in the international trade market and has also made them the international trade destination for market items.

With the end of apartheid in 1994, the South African economy has been an integral part of the global economy, thereby being exposed to increased fluctuations of the exchange rate and great opportunity for trade increase (Jordaan & Netshitenzhe, 2015). The South Africa's quest to sustain economic growth, increase employment and exportation activities facilitated the policy documentation of its National Development Plan (NDP) to emphasize the need for continuous increase in its competitiveness in order to increase exports. The quest of the South African economy necessitated debates for depreciation, an appreciation or a stabilization of the exchange rate (Edwards & Garlick, 2007). The depreciation of the South African "Rand" advocated for by the Congress of South African Trade Unions who argue that a weaker rand makes South African export goods more competitive. The depreciation/fall in the South Africa's real effective exchange rate (REER) by 36 per cent from January 1990 to January 2014 stressed the role of exchange rate depreciation on its exportation revenue generation. The South African total exports in manufacturing exports, mining exports and agricultural exports is expected to increase in relation to the depreciation of REER of the rand (Jordaan & Netshitenzhe, 2015). However, it was observed that post 2001, the Rands' strength negatively affected manufacturing production and their possible exportation activities (Business Day, 2003).

In Nigeria for instance, between 2000 to 2010 and 2017, the Naira exchange rate for the dollar increased from 109.55 to 150.3 and further to 305.8 respectively (IMF, 2018). The pounds, Euro and Swiss Franc also showed similar value appreciation to the naira within the same period. However, the Chinese yuan and Japanese yen maintain a stable low exchange rate to the naira. For the Japanese yen in 2000 to 2016 showed exchange rate at 0.9546 to 2.1357 respectively (CBN, 2016).

The inflation rate in the countries also boosted their stance in the international market by maintaining stable low and single digit inflation rate in their economy thereby encouraging exportation activities of their domestic product. For instance, the inflation rate in China has been between 0.3% in 2000 to 2.0 in 2016, while the highest inflation rate was in 2008 at 5.9% (IMF data, 2018). The Japanese inflation rate also showed -0.7% in 2000 and 0.1% in 2016 with its highest inflation rate been 2.8% in 2014. In South Africa, the inflation rate was 5.3% and continuously fluctuate up and down to 6.3% in 2016 with the highest inflation rate been 11.5% in 2008. This inflationary pressure was as a result of the global economic recession of 2008 which affected the cost of living and international trade activities of South Africa economy (IMF data,

2018). However, the Nigerian inflation rate is sky rocket high at 6.9% in 2000 and 15.7% in 2016 which also doubled as the highest in the period.

The export of goods and services with primary income for both South Africa and China appreciating from $36,995,346,355 in 2000 to $103,835,466,913 in 2017growing at an average annual rate of 8.02 % with the highest exportation income at $126,865,798,283 in 2011 and from $202,589,270,000 in 2000 to $2,422,911,001,954 in 2017growing at an average annual rate of 17.70 % with the highest exportation income of $2,702,274,321,141 in 2014 for China respectively with their dominating exportation revenue factor at the international market; but the Nigerian export of goods and services with primary income standing at $20,965,436,459 in 2000 and $50,764,155,611 in 2017 with the highest exportation income in 2011 at $102,438,079,435 (IMF data, 2018). This shows that the commensurate increase experienced in the South Africa and China are totally missing in the Nigerian factor due to falling currency exchange rate to the dollar, fall in the price crude oil, increasing inflation rate and high level of importation activities within the Nigerian economy in international trade.

Nigeria as an economy is highly sensitive in trade and the continuous dependence on importation is a disaster for the economy's exportation activities. Exportation revenue generation is an important factor in a country's quest to enhance its revenue base and move the economy on the path of growth and economic progress. It also plays a vital role in the growth of any economy just as Ricardo (1817) pointed out that foreign trade is highly beneficial to a nation. This is described in economic literature as export led growth. Adenugba and Dipo (2013) and Sheridan (2014) states that export provides an impetus for growth and is a necessary catalyst for the overall development of an economy. Export expansion helps to maintain a favourable trade balance and consequently favourable balance of payment position in a developing country like Nigeria. Thus, as foreign earnings increase due to export expansion; domestic production capacity tends to expand, employment level increases, unemployment falls and aggregate demand is boosted and domestic investment expands further (Omojolaibi, Mesagan & Adeyemi, 2015).

The exportation segment of an economy is best described as those economic activities which are goods and services exported and comprises all transactions between residents of a country and the rest of the world involving a change of ownership from residents to nonresidents of general merchandise, net exports of goods under merchanting, non-monetary gold, and services. These activities include: telecommunication services, tourism service (hotels, restaurants, parks, carnivals, movies, Health services), wholesale and retail trade, financial sector (banking and insurance) services, agricultural activities (products), mineral activities (products), power (conventional and renewable), trade, manufacturing (products), environmental services (cleaning, waste collection and recycling), ICT, e.t.c. (Adulagba, 2011 & Onwualu, 2012). The need for the diversification of the Nigerian economy arises shifting the tide of economic dependence on crude oil exportation as a major source of revenue to building other non-oil sector of the economy to also attract exportation revenue from its exportation activities.

Empirical Review

Depreciation is a vital segment of exchange rate position that serve a frontier of improved exportation and increased revenue generation. Varying theories/approaches have been discussed to stress the importance of depreciation on exportation performance, e.g. elasticities approach holds that the extent to which export volumes respond/increase as a result of currency depreciations depends on the elasticity of foreign demand for the country's exports and the elasticity of domestic supply of export goods. The elasticity of demand is defined as the quantity responsiveness of demanded goods or service to changes in price. If export goods are price elastic, then the quantity demanded will rise more than the decrease in relative prices, resulting in a rise in total export revenues (Alemu & Jin-sang, 2014 and Jordaan & Netshitenzhe, 2015). Thus, the effect of a depreciation of a currency depends on how the economic system behaves (Alexander, 1952). This theory is however viewed to be narrowed in its perception to only export supply function on the nominal prices rather than relative prices (Ogundipe, Ojeaga & Ogundipe, 2013). Addressing this narrowness of the theory facilitated the absorption approach which states that a devaluation of an exchange rate can affect exports in two ways. Firstly, there is a cash balance effect, where a currency depreciation reduces domestic purchases of goods and services (decreased absorption). This results not only in an increase in exportable goods and services, but also a transfer of resources to the production of exports. This effect is realizable on the ground that money supply is purely inflexible and that money-holders want to maintain real cash holdings as prices rise and absence of capital mobility. The second effect is the idle resources effect. In this case, a currency depreciation can only increase exports of the devaluing country if the increased output of tradable goods and services do not result in an extensive rise in the price of these goods. For the purpose of this study, our focus will be on Standard Trade Theory which states that a depreciation of the exchange rate of a country facilitate beneficial export performance of that country. This is as a result of the fact that depreciation makes home exports relatively cheaper to foreign buyers, resulting in them switching expenditure from their own goods and services to the cheaper imports (Appleyard, Field & Cobb, 2010).

In the study of Navaretti, Tybout and De-Melo (1997) on the examination of the impact of currency devaluation on Cameroun economy discover that devaluation had major consequences on firms already involved in trade. Such firms increased their exports; while importing firms experienced increases in their cost of production. Sibanda, Ncwadi and Mlambo (2013) examined the impact of real exchange rates on economic growth in South Africa from 1994 to 2010. Their study employs Johansen cointegration and vector error correction model to analyze real exchange rates, real interest rates, money supply, gross fixed capital formation and trade openness as they impact gross domestic product. the results of the study show that interest rates also have a significant impact on growth and since interest rates have a bearing on the exchange rate.

In Africa, Attah-Obeng, Enu, Osei-Gyimah and Opoku (2013) investigated the impact of exchange rate on economic growth of Ghana economy for the period of 1980 – 2012. Using descriptive analysis and ordinary least square (OLS) regression technique, the finding from the study revealed an existence of correlation between exchange rate and GDP which is in line with the postulation that devaluation stimulates economic growth in the short run. In the study of Ismaila (2016) who examined exchange rate depreciation and Nigerian economic growth during the SAP and Post SAP

period covering 1986-2012 and using Johansson Cointegration test and ECM techniques of analysis showed significant impact of broad money supply, Net export and total government expenditure on economic growth on one hand, while on the other hand, exchange rate possesses a direct and insignificant impact on economic growth Nigeria. This implies that exchange rate depreciation during SAP period has no robust effect in Nigeria economic performance. A multivariate study approach on Nigeria was carried out by Momodu and Akani (2016) when they look at the impact of currency devaluation on economic growth of Nigeria and the result from a multivariate cointegration test prove that there is at least one cointegrating vector in the relationship between economic growth and the independent variables. Thus, a long run relationship exists among these variables. The error correction mechanism result indicates that short term changes in economic growth are sufficiently explained by currency devaluation and other factors selected in the model. Thus, significant short-term relationships exist between economic growth and currency devaluation. The study shows that in the short run currency devaluation leads to increase in output and improves the balance of payments but in the long run the monetary consequence of the devaluation ensures that the increase in output and improvement in the balance of payment is neutralized by the rise in prices.

Reserve Bank of Zimbabwe (2015) assesses the impact of the real effective exchange rate on competitiveness in Zimbabwe from 2000 to 2015 with a view to determine the level of adjustment required to attain both internal and external balance and discovered that the real effective exchange rate would need to depreciate by about 45 percent to eliminate the disparity between the current account norm and the medium-term current account forecast. Thus, given the lack of policy autonomy on the exchange rate front to undertake external devaluation, the disparity can only be removed through a fiscal or an internal devaluation process.

Looking basically at the non-oil sector study, Imoughele and Ismaila (2015) study the impact of exchange rate on non-oil export looking at the period of 27 years that is 1986 to 2013. Using Augmented Dickey-Fuller (ADF), Johansen's co-integration test and Ordinary Least Square statistical technique discovered that effective exchange rate, money supply, credit to the private sector and economic performance have a significant impact on the growth of non-oil export in the Nigerian economy and appreciation of exchange rate has negative effect on non-oil export which is consistent with the economic theory.

Okoroafor and Adeniji (2017) examine currency devaluation and macroeconomic variables in Nigeria using vector error correction model from 1986 to 2016. The result revealed that, exchange rate devaluation has a positive and significant impact on macroeconomic variables tested, including economic growth in Nigeria. While the impulse response result showed that, real gross domestic product (RGDP), one period lag of exchange rate devaluation, money supply, external reserve, interest rate, balance of payment all responded positively to shocks generated by exchange rate devaluation in the economy; while inflation, trade openness and non-oil export responded negatively. In the same vein, while exchange rate devaluation revealed progressive and noteworthy impact on balance of payment, its impact on non-oil export were found to be negative which is in tandem with the findings from previous studies.

Akpan and Atan (2012) investigates the effect of exchange rate movements on real output growth in Nigeria from 1986 to 2010. A Generalised Method of Moments (GMM) technique was explored and the estimation results suggest that there is no evidence of a strong direct relationship between changes in exchange rate and output growth. Rather, Nigeria's economic growth has been directly affected by monetary variables.

Akindiyo and Olawole (2015) looking at the devaluation of the Nigerian naira relied on secondary source of data in a quantitative way and revealed that devaluation does more harm than good as far as Nigeria is concerned. Loto (2011) looking further into devaluation in Nigeria asked does devaluation improve the trade balance of Nigeria under a Marshall-Lerner condition between the period of 1986 to 2008 and using OLS regression analysis revealed that devaluation/depreciation does not improve the trade balance; since the sum of demand elasticities for imports and exports is less than unity, the Marshall-Lerner condition do not hold.

Fu (2017) examines how the exchange rate affects Chinese economic growth. The study analyzes the transmission mechanism of RMB real effective exchange rate on the impact of Chinese import, export and foreign direct investment using quarterly data from 1994 to 2016 and the method of cointegration test, Granger Causality test. From the test we found that the appreciation of RMB has a negative effect on Chinese economic growth.
Genye (2011) analyze the effects of devaluation on GDP per capita growth in Ethiopia using time series data from 1980 to 2010. The study using variables such as education, private investment, openness to determine Ethiopian GDP per capita growth. The study showed that devaluation has a negative effect on GDP per capita the same year whereas the coefficient for the one year lagged exchange-rate was significantly positive thus devaluation has a time varying effect.

Acharya (2010) examine the potential impacts of the devaluation of Nepalese currency. The study provided evidence that devaluation will increase the price of import leading to high production export products by the agricultural and industrial sector. Hence, the study discovered that overall GDP will grow due to the increase in the production of the industrial sector as well as the consistent increase in the export of agricultural products.

Ahmed, Wu, Rehman and Ahmed (2015) investigate the impact of exchange rate depreciation on economic and business growth in Pakistan and Using time series data from 1976 to 2010 and employing cointegration followed by the Error Correction Model; the study find that exchange rate depreciation has adversely affected growth in the business sector, notably Investment and FDI, while net export has a positive association with the exchange rate. All these findings reveal that depreciation is not a good practice because it has negative impact for growth in the business sector.
Khan, Ali and Ali (2016) investigate the impact of devaluation on balance of trade and on the External Debt, in case of Pakistan, over the period of 1980 to 2014.The study contributes in the existing literature by using uses advance econometric technique such as ARDL (Autoregressive distributed lag model). The study basically verified the long run relationship between balance of trade and currency devaluation, external debt. The negative coefficient of real effective exchange rate indicates the absence of J-curve in case of Pakistan. The results clearly indicate that devaluation will disfavor trade balance in case of Pakistan.

METHODOLOGY

The study follows the cointegration and Granger causality method of analysis of Johansen (1991, 1995). The study also applied maximum likelihood estimation to a vector error correction (VEC) model to simultaneously determine the long run and short run relationship of the model. Firstly, data has to be integrated of the same order (Brooks, 2008). To achieve this, unit root tests to examine stationarity of data sets are carried out. In testing for the unit root properties of the time series data, the variables were subjected to the Augmented Dickey-Fuller (ADF) and Philips-Peron unit root test. The study made use of diagnostic tests such as the residual normality test, heteroscedacity, autocorrelation tests and Ramsey test in order to validate the parameter estimation outcomes achieved by the estimated model. This study uses annual data covering the period 2000-2017. The data were *ex post* from the World Data Atlas for Nigeria, South Africa and China.
The study model and modify previous study of Gbadebo, Ogbonna and Igwe (2018) which looked at currency devaluation and non-oil export in Nigeria.

Their model revealed thus:
NOE = f (EXCR, MS, INF)
NOE = log(EXCR), log(MS), log(INF) …… (1)
Hence, our study is model thus;
TER = log(EXCR, INF, MS) …… (2)
The variables acronyms are defined thus: TER – Total Exportation Revenue, EXCR – Exchange Rate, INF- Inflation Rate, MS– Money Supply and Log – Logging of variable.
The model can be restated as:
$TER = a_0 + b_1\log(EXCR) + b_2\log(INF) + b_3\log(MS) + \mu$ …… (3)

Parameters for Estimation

The following linear equation is obtained from the specified model
$TER = a_0 + b_1\log(EXCR) + b_2\log(INF) + b_3\log(MS) + \mu$ …… (4)
b_0, b_1, b_2 and b_3 are parameters to be estimated while U_1 is the error term. It was expected that increased/higher EXCR, INF result in currency depreciation and affect exportation positively thereby improving exportation activities cum revenue while increase MS have positive relationship with exportation.

PRESENTATION AND ANALYSIS OF RESULTS

Testing for Stationarity

The Augmented Dickey-Fuller and the Phillips-Peron test results are shown in Tables 1 and 2.

Table 1. Stationarity results of the Augmented Dickey-Fuller test

		Nigeria			**South Africa**			**China**		
Variable		Stat	Crit. @5%	P-value	Stat	Crit. @5%	P-value	Stat	Crit. @5%	P-value
TER	Level- Intercept Trend & Intercept None	-1.590214 -0.978104 -0.270246	-3.052169 -3.710482 -1.962813	0.4657 0.9204 0.5736	-1.501739 -1.135851 0.762436	-3.052169 -3.710482 -1.962813	0.5085 0.8913 0.8691	-0.762501 -1.685495 2.000358	-3.052169 -3.710482 -1.962813	0.8041 0.7128 0.9848
	1st Difference-Intercept Trend & Intercept None	-3.459275 -3.827781 -3.538592	-3.065585 -3.733200 -1.964418	0.0241** 0.0426** 0.0016***	-3.451227 -3.722935 -3.191275	-3.065585 -3.733200 -1.964418	0.0245** 0.0509** 0.0034***	-3.524273 -3.526533 -2.366606	-3.065585 -3.733200 -1.964418	0.0213** 0.0705* 0.0216**
	2nd Difference-Intercept Trend & Intercept None							-3.917329 -3.987529 -4.052186	-3.081002 -3.759743 -1.966270	0.0108*** 0.0344** 0.0005***
EXCR	Level- Intercept Trend& Intercept None	3.342710 1.757878 3.320401	-3.052169 -3.710482 -1.962813	1.0000 1.0000 0.9991	-0.579179 -1.342618 0.923218	-3.052169 -3.710482 -1.962813	0.8511 0.8401 0.8969	-1.087935 -0.131543 -1.640365	-3.052169 -3.710482 -1.962813	0.6951 0.9889 0.0938*
	1st Difference-Intercept Trend & Intercept None	-1.058588 -1.808436 -0.610233	-3.065585 -3.733200 -1.964418	0.7047 0.6527 0.4371	-2.978237 -3.150662 -3.057617	-3.065585 -3.733200 -1.964418	0.0585* 0.1287 0.0047***	-1.812168 -2.005728 -1.785264	-3.065585 -3.733200 -1.964418	0.3616 0.5548 0.0412**
	2nd Difference-Intercept Trend & Intercept None	-4.282599 -4.677019 -4.282053	-3.081002 -3.759743 -1.966270	0.0055*** 0.0109*** 0.0003***						

MS	Level- Intercept Trend & Intercept None	-1.450391 -0.387438 0.517226	-3.065585 -3.710482 -1.962813	0.5317 0.9787 0.8170	-1.629144 -0.865414 0.504036	-3.052169 -3.710482 -1.964418	0.4470 0.9369 0.8131	3.015355 -2.463995 7.132274	-3.052169 -3.710482 -1.962813	1.0000 0.3386 1.0000
	1st Difference- Intercept Trend & Intercept None	-2.349470 -2.510481 -2.264871	-3.065585 -3.733200 -1.964418	0.1699 0.3192 0.0268**	-2.612626 -2.969057 -2.323148	-3.065585 -3.733200 -1.964418	0.1109 0.1695 0.0237**	-1.479443 -0.881220 -0.212926	-3.065585 -3.733200 -1.964418	0.5177 0.9330 0.5938
	2ndDifference- Intercept Trend & Intercept None							-4.101557 -4.633212 -4.147067	-3.081002 -3.759743 -1.966270	0.0077*** 0.0117*** 0.0004***
INFR	Level- Intercept Trend& Intercept None	-3.488966 -3.592799 -0.374180	-3.052169 -3.710482 -1.962813	0.0218** 0.0612* 0.5343	-2.811615 -2.716754 -0.851498	-3.052169 -3.710482 -1.962813	0.0775* 0.2425 0.3323	-3.516327 -3.402208 -1.806771	-3.052169 -3.710482 -1.962813	0.0207** 0.0843* 0.0682*
	1stDifference- Intercept Trend & Intercept None	-6.037543 -6.082108 -6.290655	-3.065585 -3.733200 -1.964418	0.0002*** 0.0009*** 0.0000***	-3.764479 -3.630207 -3.898659	-3.065585 -3.733200 -1.964418	0.0135*** 0.0594* 0.0007**	-5.139747 -5.035883 -5.316086	-3.065585 -3.733200 -1.964418	0.0010*** 0.0053*** 0.0000***

Source: Author's E-view 10.0 Computation, **NB:** Values marked with a *** represent stationary variables at 1% significance level, and ** represent stationary at 5% and * represent stationary variables at 10%.

Table 1 shows the Augmented Dickey-Fuller results. The test has a null hypothesis of unit root. The calculated value of ADF was compared with the critical value. If the calculated value is greater than the critical, we then reject the null hypothesis that the series have unit root, thus confirming that the series are stationary. The ADF tests variables in (a) intercepts, (b) trends and intercepts and (c) no trend and no intercept. For variables in levels, the test in intercepts revealed that all variables were not stationary except for INFR for both Nigeria and China. For the trend and intercept; and None, all the data in levels was not stationary as reflected by the non-rejection of the null hypothesis at 5 % (**) significance levels. At first difference, all the differenced variables were stationary at 5% (**) significant level; hence the null hypothesis of unit root is rejected for TER, EXR (Except Nigeria) at None, MS (Except China) at None and INFR (only South Africa)

for the three countries. At second difference, the differenced variables were stationary at 5% (**) significant level; hence the null hypothesis of unit root is rejected for EXCR in Nigeria and MS in China both at Intercept.

Table 2. Stationarity results of the Phillips-Perron test

		Nigeria			**South Africa**			**China**		
Variable		Stat	Crit. @5%	P-value	Stat	Crit. @5%	P-value	Stat	Crit. @5%	P-value
TER	Level- Intercept Trend & Intercept None	-1.590214 -1.028249 -0.270246	-3.052169 -3.710482 -1.962813	0.4657 0.9120 0.5736	-1.554023 -1.099584 0.752957	-3.052169 -3.710482 -1.962813	0.4831 0.8987 0.8673	-0.758213 -1.685495 1.745523	-3.052169 -3.710482 -1.962813	0.8053 0.7128 0.9751
	1st Difference- Intercept Trend & Intercept None	-3.459963 -4.273366 -3.539606	-3.065585 -3.733200 -1.964418	0.0241** 0.0198** 0.0015**	-3.423930 -5.675853 -3.189033	-3.065585 -3.733200 -1.964418	0.0258** 0.0018*** 0.0035***	-3.560239 -3.757906 -2.347942	-3.065585 -3.733200 -1.964418	0.0199** 0.0480** 0.0225**
EXCR	Level- Intercept Trend & Intercept None	3.342710 1.757878 2.372578	-3.052169 -3.710482 -1.962813	1.0000 1.0000 0.9929	-0.579179 -1.431401 0.899866	-3.052169 -3.710482 -1.962813	0.8511 0.8124 0.8931	-1.123390 -0.929207 -1.283397	-3.052169 -3.710482 -1.962813	0.6809 0.9279 0.1759
	1st Difference- Intercept Trend & Intercep None	-1.058588 -1.785817 -0.610233	-3.065585 -3.733200 -1.964418	0.7047 0.6635 0.4371	-2.972897 -3.448912 -3.051459	-3.065585 -3.733200 -1.964418	0.0591* 0.0801* 0.0047***	-1.809882 -1.715998 -1.775490	-3.065585 -3.733200 -1.964418	0.3626 0.6961 0.0725*
	2nd Difference- Intercept Trend & Intercept None	-4.286677 -6.630676 -4.283611	-3.081002 -3.759743 -1.966270	0.0055*** 0.0005*** 0.0003***				-4.618127 -7.005745 -4.685744	-3.081002 -3.759743 -1.966270	0.0030*** 0.0003*** 0.0001***
MS	Level- Intercept Trend & Intercept None	-1.210577 -0.865032 0.207762	-3.052169 -3.710482 -1.962813	0.6443 0.9369 0.7342	-1.615412 -0.928242 0.707464	-3.052169 -3.710482 -1.962813	0.4536 0.9281 0.8584	1.921292 -2.110191 4.609034	-3.052169 3.710482 -1.962813	0.9995 0.5044 0.9999

	1st Difference- Intercept Trend & Intercept None	-2.349470 -2.524151 -2.264871	-3.065585 -3.733200 -1.964418	0.1699 0.3137 0.0268**	-2.566107 -3.357902 -2.293849	-3.065585 -3.733200 -1.964418	0.1199 0.0928* 0.0252**	-1.458444 -0.777068 -0.164169	-3.065585 -3.733200 -1.964418	0.5279 0.9462 0.6113
	2nd Difference- Intercept Trend & Intercept None							-4.099406 -4.629957 -4.142503	-3.081002 -3.759743 -1.966270	0.0077*** 0.0118*** 0.0004***
INFR	Level- Intercept Trend & Intercept None	-3.488966 -3.645285 0.085616	-3.052169 -3.710482 -1.962813	0.0218** 0.0560* 0.6966	-2.579962 -2.438864 -0.598767	-3.052169 -3.710482 -1.962813	0.1160 0.3494 0.4430	-3.896422 -3.410056 -2.234081	-3.052169 -3.710482 -1.962813	0.0098*** 0.0832* 0.0284**
	1st Difference- Intercept Trend & Intercept None	-7.467943 -10.53533 -7.814090	-3.065585 -3.733200 -1.964418	0.0000*** 0.0000*** 0.0000***	-6.111774 -5.436343 -6.501908	-3.065585 -3.733200 -1.964418	0.0002*** 0.0027*** 0.0000***	-7.459858 -10.14360 -7.721396	-3.065585 -3.733200 -1.964418	0.0000*** 0.0000*** 0.0000***

Source: Author's E-view 10.0 Computation, **NB:** Values marked with a *** represent stationary variables at 1% significance level, and ** represent stationary at 5% and * represent stationary variables at 10%.

Table 2 shows the Phillips-Peron results. According to Brooks (2008) the tests are similar to ADF tests, but they incorporate an automatic correction to the DF procedure to allow for auto correlated residuals. For variables in levels, the test in intercepts revealed that none of the variables were stationary except INFR for both Nigeria and China. At first difference, all differenced variables on intercept were stationary at 5% significance level in TER (all), EXCR at None (except in Nigeria and China), MS at None for Nigeria and South Africa except China, INFR for South Africa. At second difference, all differenced variables on intercept were stationary at 5% significance level in EXCR for Nigeria and China, and MS in China. Thus, all the variables are stationary either at level, first difference or second difference for both ADF and PP Stationarity test.

Tests for cointegration

Since all the variables are integrated of the same order, it is very important to determine whether there exists a long-run equilibrium relationship amongst them. For the purposes of this study cointegration examines the long run relationship between the gross domestic product and its

determinants. Since all variables are non-stationary in level, the next procedure is to test for the existence of long run relationships among the variables in the model.

Table 3: Johansen Long run Position (Nigeria)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**	Decision
None	0.821594	50.91691	47.85613	0.0251	27.57907	27.58434	0.0501	Presence
At most 1	0.613544	23.33784	29.79707	0.2298	15.21181	21.13162	0.2743	Absence
At most 2	0.310155	8.126032	15.49471	0.4520	5.940609	14.26460	0.6208	Absence
At most 3	0.127671	2.185422	3.841466	0.1393	2.185422	3.841466	0.1393	Absence

Source: Author's E-view 10.0 Computation

The result of multivariate cointegration test based on Johansen and Juselius cointegration technique which revealed that there exist only one cointegrating equation at 5% level of significant as indicated by trace statistic and Max-Eigen statistic results. This simply showed that, there is absence of long run relationship among the variables for Nigeria (Table 4).

Table 4: Johansen Long run Position (China)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**	Decision
None	0.952843	113.9421	47.85613	0.0000	48.86851	27.58434	0.0000	Presence
At most 1	0.917734	65.07360	29.79707	0.0000	39.96473	21.13162	0.0000	Presence
At most 2	0.630556	25.10887	15.49471	0.0013	15.93210	14.26460	0.0270	Presence
At most 3	0.436478	9.176771	3.841466	0.0025	9.176771	3.841466	0.0025	Presence

Source: Author's E-view 10.0 Computation

Table 4 shows the results of the Trace and Max-Eigen test which reflect that all the variables shows co-integrating equation exists at 5% significance level. The null hypothesis of no cointegration vectors is rejected since the trace (test) statistic of 113.9421, 65.07360, 25.10887 and 9.176771 are greater than the 5% critical values of approximately 47.85613, 29.79707, 15.49471 and 3.841466 respectively. The Maximum Eigen value test put forward that all the variables have

cointegrating relationship with Max-Eigen statistics of 48.86851, 39.96473, 15.93210 and 9.176771 are greater than the 5% critical values of 27.58434, 21.13162, 14.26460 and 3.841466 respectively. The maximum Eigen value test also rejected the null hypothesis of no cointegration. Therefore, it can be concluded that there is significant long run relationship between the given variables (using both the Trace test and Max-Eigen test) for China.

Table 5: Johansen Long run Position (South Africa)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**	Decision
None	0.813010	46.12269	47.85613	0.0721	26.82724	27.58434	0.0623	Absence
At most 1	0.558057	19.29545	29.79707	0.4718	13.06520	21.13162	0.4462	Absence
At most 2	0.295271	6.230252	15.49471	0.6683	5.599073	14.26460	0.6650	Absence
At most 3	0.038681	0.631179	3.841466	0.4269	0.631179	3.841466	0.4269	Absence

Source: Author's E-view 10.0 Computation

Based on the result of table 5, the multivariate cointegration test based on Johansen and Juselius cointegration technique which revealed that there is cointegrating equation at 5% level of significant as indicated by trace statistic and Max-Eigen statistic results. This simply showed that, there is absence of long run relationship among the variables for South Africa.

Vector Error Correction Model (VECM)

The detection of a cointegration equation in the previous section facilitated the need for VECM. This has led to a distinction between the long and short run impacts of variables so as to establish the extent of influence that currency devaluation has on total exportation revenue. Using the results from the cointegration test the VECM was specified. The VECM results are presented in tables 6 and 7.

Table 6: Vector Error Correction Model results for Nigeria, China and South Africa

Variable	t-Statistic (Nig)	Prob.	t-Statistic (China)	Prob.	t-Statistic (South Africa)	Prob.
C	1.472985	0.1665	5.269336	0.0002	-2.015280	0.0668
EXR	-1.176168	0.2623	-4.873672	0.0004	1.248206	0.2358
MS	5.036417	0.0003	7.511764	0.0000	20.49354	0.0000
INF	1.192677	0.2560	2.623206	0.0223	1.994998	0.0693
ECM1(-1)	3.712501	0.0030	2.028714	0.0653	1.176135	0.2623
Durbin Watson Stat.	1.917765		1.377880		2.098028	

Source: Author's E-view 10.0 Computation

The VECM result presented in table 6 shows that all the explanatory variables' relationship except EXR rate for both Nigeria and South Africa; and MS for the three countries are in line with the aprior expectation on expected relationship.

In Nigeria, the result revealed that, only money supply had significant relationship with exportation revenue with P-value of 0.0003 which is less than the 5% significance level while the variables in EXR and INFR had negative and positive insignificant relationship with exportation revenue within the period under review. Thus, currency devaluation in the Nigerian economic arrangement has an insignificant impact on total exportation revenue. The DW stat. revealed that there is no presence of auto-correlation and the result is reliable to enforce decision on porous currency devaluation relationship on the Nigerian economy. The result is supported by gross non-existence of long-run co-integration in the Nigerian economic situation of currency devaluation.

In South Africa, the VECM result showed that only money supply has a significant relationship with total exportation revenue of South Africa within the period under consideration. The other devaluation variables in EXR and INFR were insignificant with P-values of 0.2358 and 0.0693 respectively which are greater than the 5%significance level. Thus, currency devaluation or variation in South Africa has a poor directional relationship with exportation revenue within the period under review. This is also supported by the lack of long-run relationship exhibited by the Johansen co-integration output in table 5. The DW stat. also confirm the reliability of the result and confirms it for policy implementation for the economy.

However, the China currency devaluation within the same period under review showed that all the variables in EXR, MS and INFR with output of 0.0004, 0.0000 and 0.0223 respectively are significant at 5% significance level and that currency devaluation strongly relate to exportation revenue. The result is supported by the long-run relationship as indicated by the Johansen co-integration output of significant long-run relationship. Currency devaluation shows positive and significant impact on exportation revenue for the period of study in China. But the DW stat. showed porousness and thus require onward diagnostic test to affirm the output of the stud for decision making.

Table 7: Diagnostic Test for China

Test	Null Hypothesis	t-Statistic/f-Statistic	Probability
Breusch-Godfrey	No Serial Correlation	1.922226	0.1966
White (CH-sq)	No conditional heteroscedasticity	0.339345	0.9145
Jarque-Bera (JB)	There is a normal distribution	0.779908	0.677088

Source: Author's E-view 10.0 Computation

Results from Table 7 show that the test for serial correlation produced an BG statistic of 1.922226 with a probability of 0.1966. For the Histogram and Normality Test, Jarque-Bera is 0.779908 and the probability is 0.677088. Thus, the Jarque-Bera statistic is insignificant as it is above the 5

percent significance level. More so, the histogram is bell-shaped, thus, the residuals are normally distributed. Therefore, the null hypothesis of a normal distribution was not rejected. Heteroscedasticity tests showed the F-statistic of 0.339345 and the probability of 0.9145 which means that the null hypothesis of no heteroscedasticity was accepted. The alternative hypothesis was that there is heteroscedasticity. This means that the residuals are homoscedastic. The results for the diagnostic checks for serial correlation and heteroscedasticity show that the data is fairly well behaved. Results indicate the presence of non-normal residuals. Thus, reliable for decision making in China.

CONCLUSIONS AND POLICY RECOMMENDATIONS

The findings from the study showed that currency devaluation of other countries affects exportation activities of another country. For instance, currency devaluation of China grossly affected the exportation revenue of Nigeria and South Africa negatively as the Nigerian and the South African economies imported more of the Chines product compared to exportation of its product to boosted exportation revenue within the country. Hence, the study therefore concludes that other countries currency devaluation impact Nigerian exportation activities negatively.
The policy recommendation is discussed in two major sections namely exchange rate policy and; monetary and inflationary policy.

Exchange Rate Policy

The long run results as presented in table 3 to 5 suggested that real exchange rates and inflation rate have a negative impact on exportation revenue of Nigeria and South Africa while having positive and significant impact on China's exportation revenue. The t-statistics of EXR from the long run equation and short run equations suggested by VECM results implies that Nigeria and South Africa's real exchange rates has an insignificant impact on exportation revenue in the two country. In this regard, for Nigeria and South Africa to increase exportation revenue, the policy of devaluating the currency can only work in the short run if the forces of demand and supply dictate exchange rate position in these countries. Deliberate falls in the value of exchange rate without a considerate exportation activity will further cripple the economy. Thus, exchange rate devaluation must drive exportation otherwise it should be ignored. Based on these finding the policy of depreciation (devaluation) to increase exportation revenue in the economy might not be the best policy for Nigeria and South Africa but remains the best policy for China's continuous dominance and exportation revenue upward surge in the international community.

Monetary and Inflationary Policy

The results in this study revealed that money supply has a positive impact on exportation revenue in Nigeria, South Africa and China in the short run. In the short run, increase in money supply prove to facilitate improve exportation revenue as it regenerates economic activity to improve exportation activity. However, the inflationary pressure doesn't necessarily imply improve exportation activities and onward revenue generation. Thus, the inflationary pressure for the two countries in Nigeria and South Africa constitute increased negative pressure for exportation activities and revenue as more currency tends to pursue fewer goods both domestically produced items and imported items (like machinery/equipment for local productions). The policy

implication is that in the short run an expansionary monetary policy is not efficient. However, the monetary policy impact can be experienced only in the long run in China while that of Nigeria and South Africa proves absence of long run impact of monetary impact on exportation revenue. The policy framework currently being used by the central bank for inflation targeting is relevant and effective in the Chinese economy for exportation activity motivation but currently in Nigeria and South African economic climate has proved otherwise to motivate exportation revenues. Thus, given the long run relationship in China without a corresponding relationship for Nigeria and South Africa, the monetary and inflationary policy should be maintained in China while it should be re-evaluated and adjusted in Nigeria and South Africa to facilitate a new economic direction and exportation potential improvement for the economies.

References

Acar, M. (2000). Devaluations in Developing Countries: Expansionary or Contractionary. *Journal of Economic and Social Research*, 2(1), 59-83.

Acharya, S. (2010). Potential impacts of the devaluation of Nepalese currency: A general equilibrium approach. *Economic Systems*, 34(4), 413-436.

Adedipe, B. (2004). The impact of oil on Nigeria's economic policy formulation. A paper presented at the conference on Nigeria: Maximizing pro-poor Growth: Regenerating the Socio-economic Data Base, organized by Overseas Development Institute in collaboration with Nigerian Economic Summit Group, 16/17, June.

Adeloye, L. (2012). Non-oil exports: role of incentives and challenges. Punch 24 February, 2012.

Adenugba, A. A. & Dipo, S. O. (2013). Non-Oil Exports in the Economic Growth of Nigeria: A Study of Agricultural and Mineral Resources. Journal of Educational and Social Research, 3(2), 403-418.

Adulagba, D. (2011). Executive Director/CEO, NEPC in Onuba, I., (2012). Non-oil Export Trade, Punch, 4(16).

Ahmed, B., Wu, X., Rehman, Z. U. & Ahmed, I. (2015). The Impact of Exchange Rate Depreciation on Economic and Business Growth in Pakistan. *European Journal of Business and Management, 7*(32), 135-142.

Aiya, F. (2014). People's Perception of the Impact of Currency Devaluation on the Performance of Poverty Alleviation Programmes in Nigeria, Developing Country Studies, 4(10), 7-16

Akindiyo, O. & Olawole, A. (2015). Devaluation of Nigerian naira: Bane or Panacea? Review of Public Administration and Management, 4(8), 25-31. Retrieved from https://www.arabianjbmr.com/pdfs/RPAM_VOL_4_8/3.pdf

Akinlo, A. E. & Adejumo, V. A. (2014). Exchange Rate Volatility and Non-oil Exports in Nigeria: 1986-2008. *International Business and Management*, 9 (2), 70-79.

Akpan, E. O. & Atan, J. A. (2012). Effects of exchange rate movements on economic growth in Nigeria. CBN Journal of Applied Statistics, 2(2), 1-14.

Al-Abdelrazag, B. (1997). Does Devaluation Improve Jordan's Trade Balance (1969-94). *Abath Al-varmouk*, 3(1), 65-72.

Alemu& Jin-sang (2014) Jordaan, A. C. & Netshitenzhe, N. (2015). South Africa's exchange rate and sectoral export performance. *Department of Economics in the University of Pretoria.*

Aliyu, S. R. U. (2011). Impact of Oil Price Shock and Exchange Rate Volatility on Economic Growth in Nigeria: An Empirical Investigation, *Research Journal of International Studies*, 11(3), 103 –120.

Ameh, E. (2009). Oil price slump and imperative of diversifying the economy. Business Day Online 12 January 2009.Available from http://www.businessonline.com accessed on 16/12/201

Appleyard, Field & Cobb (2010) in Jordaan, A. C. & Netshitenzhe, N. (2015). South Africa's exchange rate and sectoral export performance. *Department of Economics in the University of Pretoria.*

Attah-Obeng, P., Enu P., Osei-Gyimah, T. & Opoku, C. D. (2013). An Econometrics Analysis of the Relationship between GDP Growth Rate and exchange Rate in Ghana. *Journal of economics and Sustainable Development*, 4(9), 1-8.

Brooks, C. (2008). Introductory Econometrics for Finance. Cambridge: Cambridge University Press.

Business Day, (2003). Rand Rally Pushes Manufacturing Deeper into Recession Raising Fears of Big Job Cuts. 9 October 2003.

Campbell, R. H. (2004). Currency Devaluation. Retrieved from retrieved from www.cathedhttp//www.financial_dictionary.

CBN (2016). Central Bank of Nigeria-Foreign exchange rate. Education in economic series, No 4.

Central Bank of Nigeria (2013). Statistical Bulletin, Golden Jubilee Edition, December, 2013.

Cooper, R. N. (1977). *Currency devaluation in developing countries*: Essays in International Finance. New Jersey: Princeton University Press.

Currency Devaluation and its Effects, retrieved from (www.ukessays.com/essay)

DBS Group (2017). China: the rise and rise (and rise) of the RMB. Economics. Retrieved from https://www.dbs.com/aics/pdfController.page?pdfpath=/content/article/pdf/...pdf

Devaluation-Tax Free Gold, retrieved from (www.taxfreegpld.co.uk/devaluation.html)

Edward, S. (1986). Are Devaluations contradictory? Review of Economics and Statistics, 501-508.

Edwards, L., & Garlick, R. (2007). Trade Flows and the Exchange Rate in South Africa. Trade and Policy Strategies. Working Paper.

Erb, R. D. (2016). The International Economy.http://www.international-economy.com/TIE_W16_CurrencyDevalSymp.pdf

Evans, G. R. (2014). Exchange Rates. Retrieved from http://pages.hmc.edu/evans/ExchangeRates.pdf

Fu, Q. (2017). How the Changes in Exchange Rate Affect the Chinese Economic Growth? School of economics and Management, Lund University.

Gagnon, E. J. (2016). The International Economy. Presentations of Peterson Institute for International Economics on IMF International economy.http://www.international-economy.com/TIE_W16_CurrencyDevalSymp.pdf

Genye, T. (2011). Currency Devaluation and Economic Growth: The case of Ethiopia. A master thesis submitted to the department of economics, Stockholm University.

Global International trade (2018). Devaluation of currency. https://www.globalnegotiator.com/international-trade/dictionary/devaluation/

Gujarati, D. N. & Porter, C. D. (2010). *Essentials of Econometrics*. 4th Ed. New York: McGraw-Hill International Edition.

Ifeacho, C., Omoniyi, B. O. & Olufunke B. O. (2014). Effects of Non-Oil Export on the Economic Development of Nigeria. International Journal of Business and Management Invention, 3(3), 27-32

IMF data (2018). World Bank Data Atlas. www.https://knoema.com/atlas

Imoughele, L. E. &Ismaila, M. (2015). The Impact of Exchange Rate on Nigeria Non-Oil Exports. International Journal of Academic Research in Accounting, Finance and Management Sciences, 5(1), 190–198

Investopedia (2018). 3 Reasons Why Countries Devalue Their Currency . Investopediahttps://www.investopedia.com/articles/investing/090215/3-reasons-why-countries-devalue-their-currency.asp#ixzz5CxXG9ohK

Ismaila A. M. (2016). Exchange Rate Depreciation and Nigerian Economic Performance after the Structural Adjustment Programme (SAP). *Nigerian Journal of Social Development*, 5(2)

Ismaila, A. M. (2016). Exchange Rate Depreciation and Nigerian Economic Performance after the Structural Adjustment Programme (SAP). *Nigerian Journal of Social Development*, 5(2).

Jordaan, A. C. & Netshitenzhe, N. (2015). South Africa's exchange rate and sectoral export performance. *Department of Economics in the University of Pretoria.*

Kawai, V. (2017). An Analysis of the Impact of Non-Oil Exports and Economic Growth in Nigeria from 1980 – 2016. *International Journal of Innovative Research in Social Sciences & Strategic Management Techniques*, 4(2), 83-94.

Khan, Z., Ali, A., & Ali, S. (2016). Impact of devaluation on balance of trade: a case study of Pakistan economy. *Asian Journal of Economic Modelling, 4*(2), 90-94.

Loto, M. A. (2011). Does devaluation improve the trade balance of Nigeria? A test of the Marshall-Lerner condition. *Journal of Economics and International Finance, 3*(11), 624-633

Meltzer, A. H. (2016). The International Economy.http://www.international-economy.com/TIE_W16_CurrencyDevalSymp.pdf

Mitchell, D. & Pentecost, N. (2001). The Effect of Exchange Rate on Economic Growth in Malaysia: Empirical Testing on Nominal versus Real. *IUP Journal of Financial Economics*, 10(1), 7-17.

Momodu, A. A. & Akani, F. N. (2016). Impact of Currency Devaluation on Economic Growth of Nigeria. *Indexed African Journals Online (AJOL),* 5(1), 16, 151-163.

Navaretti, K., Tybout, J. R. & De-Melo, L. R. (1997). Firm-Level Response to CFA Devaluation in Cameroun. *Journal of African Economics*, 6(1).

Ogundipe, Ojeaga&Ogundipe (2013) in Jordaan, A. C. & Netshitenzhe, N. (2015). South Africa's exchange rate and sectoral export performance. *Department of Economics in the University of Pretoria.*

Okoroafor O. K. D. &Adeniji S. O. (2017). Currency Devaluation and Macroeconomic Variables Responses in Nigeria: A Vector Error Correction Model Approach: 1986-2016. *Journal of Finance and Economics*, 5(6), 281-289.

Olorunfemi, F. & Raheem, U.A. (2008). Sustainable tourism development in Africa: the imperative for tourist/host communities' security sustainable development in Africa, 10: 201-220.

Omojolaibi, J. A., Mesagan, E. P. & Adeyemi, O. S. (2015). The impact of non-oil exports on domestic investment in Nigeria. MPRA Paper No. 70201.

Oner, C. (2010). Back to Basics-What is Inflation? https://www.imf.org/external/pubs/ft/fandd/2010/03/pdf/basics.pdf

Onwualu, A.P. (2012). Growth and development of the Nigerian non-oil sector: key to successful economic diversification. Presentation at the 51 AGM/CONFERENCE OF NACCIMA, Sagamu, Remu, Ogun State

Oriavwote, V. E. & Eshenake, S. J. (2015). Real Effective Exchange Rate and Non-Oil Exports Performance in Nigeria: An Empirical Reflection. International Journal of Business, Humanities and Technology, 5(6), 55.62.

Osvaldo, S. (1969). National Development Policy and External Dependence in Latin America. *The Journal of Development Studies*, 1(1), October, 23.

Ratha, J. (2010). Contractionary Devaluation in Developing Countries: An Analytical Overview. IMF Staff Papers, 36(1), 182-227.

Reserve Bank of Zimbabwe (2015). Assessing the impact of the real effective exchange rate on competitiveness in Zimbabwe. *RBZ Working Paper Series No 1*.

Riti, J. S., Gubak, H. D. & Madina, D. A. (2016). Growth of Non-Oil Sectors: A Key to Diversification and Economic Performance in Nigeria. Public Policy and Administration Research, 6(3).

Sheridan (2014) in Riti, J. S., Gubak, H. D. & Madina, D. A. (2016). Growth of Non-Oil Sectors: A Key to Diversification and Economic Performance in Nigeria. Public Policy and Administration Research, 6(3).

Sibanda, K., Ncwadi, R. & Mlambo, C. (2013). Investigating the Impacts of Real Exchange Rates on Economic Growth: A Case study of South Africa. *Mediterranean Journal of Social Sciences, 4*(13), 261-274.

Singh, T. (2010). Does international trade cause economic growth? A survey. The World Economy, 1554. doi:10.1111/j.1467-9701.2010.01243.x

Smal, M. M. (1998). Exchange rate adjustments as an element of a development strategy for South Africa. https://www.resbank.co.za/Lists/News-and-Publications/Attachments/4759/05Exchange-rate-adjustments-as-an-element-of-adevelopment-strategy-for-South-Africa.pdf

Syed, Z. A. (1991). Currency devaluations and implications of the correspondence principle. A Thesis Submitted to the School of Graduate Studies in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy. McMAster University. https://macsphere.mcmaster.ca/bitstream/11375/13700/1/fulltext.pdf

Todaro, M. P. (1982). Economics for a Developing World: (2nd Edition), Longman Group Limited, Essex, UK.

Truman, E. M. (2016). The International Economy. Peterson Institute for International Economics. http://www.international-economy.com/TIE_W16_CurrencyDevalSymp.pdf

Yioyio, C. G. (2015). What caused the Asian currency and financial crisis? Part I: A macroeconomic overview. *NBER Working Paper* 6833.