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External Reserves: Panacea for Economic Growth in Nigeria

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Abstract
This research work focused on external reserve as a solution to economic growth and in Nigeria. Two hypotheses were tested with data spanning from 2004 to 2015 using Ordinary Least Squares (OLS) regression technique. Findings however revealed that external reserve has no positive significant impact on economic growth in Nigeria within the period under review and that external reserves have no positive significant influence on exchange rate in Nigeria. Other findings deduced from data description revealed that foreign reserve of Nigeria has been declining marginally within the period under study and that it was occasioned by the 2007-2008 global financial crisis supported by the nonchalant attitude of the government towards accumulation of international reserves. It was recommended amongst all that in accumulating excessive foreign exchanges, the country should have proper management of reserves.
Keywords: External Reserves; GDP; Exchange Rate

Introduction

External Reserves are variously called International Reserves, Foreign Reserves or Foreign Exchange Reserves (Osuji & Ebiringa, 2012). While there are several definitions of international reserves, the most widely accepted is the one proposed by (IMF, 2007) in its Balance of Payments Manual. It defined international reserves as "consisting of official public sector foreign assets that are readily available to, and controlled by the monetary authorities, for direct financing of payment imbalances, and directly regulating the magnitude of such imbalances, through intervention in the exchange markets to affect the currency exchange rate and/or for other purposes" (IMF, 2007).

Conventionally, countries hold external reserves in foreign currencies in order to maintain a desirable exchange rate policy by interfering significantly in foreign exchange markets (Osabuohien & Egwakhe, 2008). Given the global integration of markets, external reserves are needed to guard against possible financial crisis (Mendoza, 2004 as cited in Iwueze, Eleazar, & Nlebedim, 2013) especially a global one. National reserves also serve as a store of assets that Central Banks could use to influence the exchange rate of their domestic currency (Nugee, 2000; Williams, 2003; IMF, 2004). Foreign reserves overtime has helped many countries to secure an international creditworthiness recognition and it also makes obtaining external debt easier, hence the international community places confidence on any country with adequate foreign reserves. This confidence is often influenced by the soundness of a nation's economic policies and overall investment climate (UNCTAD, 2007). A country may accumulate foreign reserves for reasons of di erent natures: to constitute a bu er stock in order to smooth output and consumption in times of crisis [*See* Aizenman and Lee, 2007; Aizenman and Hutchison, 2010; Jeanne and Ranci`ere, 2011; Benigno and Fornaro, 2012; Bussi`ere, Gong, Chinn, and Noemie, 2013; Calvo, Alejandro, and Rudy, 2013], to insure market confidence and reduce sovereign borrowing costs [Alfaro and Kanczuk, 2009; Bianchi, Juan and Leonardo, 2013], to undervalue the domestic currency for the export-led growth strategy [Dooley, Folkerts-Landau and Garber., 2003; Korinek and Serven, 2010; Jeanne, 2012], or to hold foreign reserves due to domestic financial underdevelopment and fragility [*See* Caballero, Emmanuel, and Pierre-Olivier, 2008; Dominguez, 2010; Obstfeld, Jay, and Alan, 2010; Wen, 2011; Bacchetta, Kenza and Yannick, 2013]. Therefore, as a nation's economic needs varies, so the motive for the accumulation of external reserves. Hence different economies search for alternative strategies that will protect their economies against financial instability and stimulate economic growth. Turner (2007) identified accumulation of external reserves, among others, as one of the factors associated with banking and currency crises management. IMF (2003) using data from 122 emerging market economies, observed that the factors that determine reserve holdings includes: real per capita GDP, population level, ratio of imports to GDP, volatility of the exchange rate, opportunity cost and capital account vulnerability. Among these determinants, GDP per capita, population level, ratio of import to GDP and the volatility of exchange rate were shown to be statistically associated with external reserves while opportunity cost and capital account vulnerability were not.

Historically, official international reserves consisted only of gold and at times silver. But under the Bretton Woods System (set up after World War II), the US Dollar functioned as a reserves currency so that the Dollar also became part of a nation's official international reserves assets. From 1944-1968, the US Dollar was convertible into gold through the Federal Reserve System. After 1968 no central bank could convert dollars to gold from official gold reserves and after 1973 no individual or institution could convert Dollars into gold from official gold reserves.

Since 1973 no major currencies have been convertible into gold from official gold reserves. Individuals and

institutions must now buy gold in private markets, just like other commodities. Even though Us Dollar and some other currencies are no longer convertible into gold, they still functioned as official international reserves.

Nzotta (2004) explains that foreign reserves come about when foreign exchange disbursements are lower than foreign exchange receipts. The surplus gives rise to foreign reserves. According to him "foreign reserves represent balance of foreign exchange surpluses of a country that accumulated over time. In case of Low Income Countries (LICs) and Less Developed Countries (LDCs) most reserves come from donations and aids.

On a general level countries hold external reserves for different reasons peculiar to their economy. The Central Bank of Nigeria (CBN) holds reserves for various reason of which some are mentioned below:

i. External reserves serve as a form of support or backing as some Economist will call it. For example, the local currency, Naira, can be backed by External Reserves accumulation.
ii. International trade settlements can be financed by reserves especially when there is deficit between exports proceeds and imports. These are cases of disequilibrium in the Balance of Trade and Balance of payments.
iii. External Reserves may also be used as a form of means of holding Sovereign Wealth Fund (SWF). Many oil-producing developing countries are setting aside some oil proceeds as a savings in view of the fact that oil is a wasting/non-replenishable asset. Nigeria has started to create its own SWF with $1billion but its operation is hampered by a serious disagreement between the federal and state governors.
iv. The Central Bank of Nigeria (CBN) as a monetary authority uses reserves to deal with exchange rates volatility. It holds fortnightly auction sales of foreign exchange through Dutch Auction Sales (DAS).
v. External reserves Accumulation has to shore up the country's credit ratings and credit worthiness as Credit Agencies consider the holding of reserves in their rating of a country.
vi. Holding of Reserves serves as a form of shock absorber in times of shocks experienced in the oil market.
vii. External Reserves are accumulated for other emergencies and natural disasters.

The Nigerian external reserves accumulation has showed an exceptional growth with the arrival of Soludo as governor of Central Bank of Nigeria (CBN) in 2004. From the late 1990s to the present, accumulation of foreign reserve by Nigerian government has shown some profound features, with reference to size, pace, and ownership categorizations. The figure for 1996 was $3.40billion, but has risen sharply to $28.28 billion and about $47.00 billion in 2005 and 2007 respectively as evident from CBN (2005).

External reserve holding is an economic insurance against financial crisis. Economies of the world adopt different alternative strategies that will protect their economies against financial instability in order to ensure macroeconomic stability. External reserves amongst many alternative strategies to insuring the economy of a country, happens to be the top on choice-list of countries.

The conventional perspective sees national reserves as a store of assets that central banks could use to influence the exchange rate of their domestic currency (Nugee, 2000; Williams, 2003; IMF, 2004). From this understanding, the Nigerian economy recently moved from fixed exchange regime to partially floating exchange rate which needed the external reserves as a cushion strategy, hence the importance of reserve holding.

Holding of external reserves is one of the ways to protect an economy from the effect of external shocks vis-à-vis maintaining macro-economic stability.

There couldn't be a better time to emphasize beyond limit the effect of external reserve holding on macroeconomic stability, especially in such a time as today where the drop in global price of oil has caused a sharp dwindling in most economies with Nigeria not left behind, being a monocultural

Statement of Problem

From 1999, world oil prices began to rise resulting in another but better managed boom and unprecedented accumulation in the level of reserves from USD4.98 billion in May 1999, to USD59.37 billion as at March 28, 2007 (CBN, 2008).

The current level of foreign reserves, which is derived mainly from the proceeds of crude oil earnings, fell by 13.4 per cent or $4.628 billion (as at March, 2015), compared with the $34.493 billion it stood at the beginning of the 2015 (see ThisDay, 2015). This has been attributed to the significant reduction in forex inflow into the country occasioned by the sustained low crude oil prices. This fall has ignited a chain reaction which threatens Nigeria's macro-economic stability. Oil revenues and foreign exchange receipts are on the decline while external reserves have dwindled. These events have forced monetary and fiscal adjustments (ThisDay, 2015). This study therefore intends providing suggestive solutions to the above problems by bringing to limelight, the effect of external debt on economic growth of Nigeria.

Research Objectives

1. To find out if there is a decline in international reserve of Nigeria within the period under study.
2. To ascertain the reason behind the decline in international reserves of Nigeria.
3. To establish if external reserves has positive significant impact on economic growth in Nigeria

4. To examine the extent to which external reserves of Nigeria has positively influenced Exchange Rate

Research Questions

1. To what extent has foreign reserve of Nigeria been declining within the period under study?
2. What brought about the decline in international reserves of Nigeria?
3. To what magnitude have external reserves of Nigeria influenced economic growth.
4. To what extent have external reserves influenced exchange rate in Nigeria?

Statement of Hypotheses

1. H_0: External reserves of Nigeria have no positive and significant influence on economic growth.
2. H_0: External reserves have no positive significant influence on exchange rate in Nigeria.

Literature Review

Foreign reserves management is the technique of optimizing a nation's external resources to meet its economic needs. In Nigeria, the Central Bank has the sole responsibility of management of foreign reserves. The components of foreign reserves include monetary gold, reserve position at the International Monetary Fund (IMF), holding of special drawing right (SDRs) and foreign exchange which are convertible currencies of other countries (CBN, 1997).

Aluko (2007) observed that external reserves have, in recent times, played significant role in the Nigeria economy. It has increased the level of money supply and therefore impacted positively on the level of economic activities as more funds became available for investment in productive activities. Employment was in turn generated, output increased and consumption boosted. With their multiplier effects on the economy coupled with the efficient management of the financial resources, standard of living of the people improved considerably. Also, the contribution of the manufacturing sector to Gross Domestic Product (GDP), which has continued to dip, witnessed a boost.

In a related study, Obaseki (2007), noted that the uses of external reserves cannot be over emphasized. Essentially, external obligations have to be settled in foreign exchange. Therefore, the stocks of reserves become important as a source of financing external imbalances. Other uses to which external reserves can be put are to intervene in the foreign exchange market, guide against unforeseen volatility and maintain natural wealth for future generations.

In fact, as a few recent empirical papers and policy reports underline, foreign reserve accumulation is a multi-faceted phenomenon; the underlying motives can be time-varying and specific to a country or a country group.

Typically, the purpose of holding reserves is to allow the central bank an additional means to stabilize the issued currencies from shocks. In addition to meeting the transaction needs of countries, reserves are used as a precautionary purpose to provide a cushion to absorb unexpected shocks or a sharp deterioration in their terms of trade or to meet unexpected capital outflows, like the negotiated exit payment of the Paris Club Debt by Nigeria.

Reserves are also used to manage the exchange rate through intervention in the foreign exchange market. Thus, the motives for holding adequate level of external reserves can therefore be summarized as the reasons why individuals hold money (CBN, 2007).

Sound foreign reserves management practices are important because they can increase a country's overall resilience to shocks as the central bank will have the ability to respond effectively to financial crisis. Sound foreign reserves management can equally support but not substitute for sound macroeconomic management. Similarly, inappropriate economic policies can pose serious risks to the ability to manage foreign reserves. However, the process of foreign reserves management has spanned over the areas of risk management, securitization and the use of derivatives (Anifowose, 1997).

Theoretical Review

Various authorities have advanced some theories on the accumulation of foreign exchange reserves. This study will only address a few of them. There is the *international financial integration theory* which advocates that international integration should cause capital to flow from high income countries characterized by high capital labour ratios to low-income countries with lower capital-labour ratios (Prasad and Rajan, 2008). According to this approach, the process would improve the levels of investment through the access to foreign capital. It would also boost growth in poor countries and support higher returns to foreign investors who will be induced to make capital flows abroad. The process of capital flows will be facilitated foreign exchange liberalization.

There is the *Micro/Macro Theories* based on the controversies of monetarists and fiscalists (Keynesians). The monetarists say that accumulation of reserves is as a result of the excess demand for the domestic currency and the growth of world trade. For the Keynesians, accumulation of foreign reserves is to improve the current account and thereby positively impact on the aggregate input. This impact is in the short run and will affect nominal exchange rates. According to Fukuda and Kon (2008) in the long run, real exchange rates are used to adjust the equilibrium

balance of payment. There is the self-insurance theory which explains the holding of buffer stock of reserves to deal with the unforeseen shocks in the international financial system (Elhiraika, 2007; Fukuda and Kon, 2008). There is the mercantilist theory which is related to the expansion of trade and other international transactions that have necessitate the increase in accumulation of reserves. (Gupta and Agarwal, 2004 and Aizenman and Lee 2005). Another theory is the *elasticity approach* which examines the effect of an appreciation or depreciation of the exchange rate on resource flows of a country (Nzotta, 2004). The approach states that if there is downward adjustment of exchange rates, a nation experiencing and balance of payment disequilibrium has to raise exports and reduce imports and thus accumulate more external reserves.

Amongst aforementioned theories, *'international financial integration theory'* which advocates that international integration should cause capital to flow from high income countries characterized by high capital labour ratios to low-income countries with lower capital-labour ratios to the judgment of the researcher seems to be the best - reason being that this approach through the process of foreign exchange liberalization will improve the levels of investment through the access to foreign capital. It would also boost growth in poor countries and support higher returns to foreign investors who will be induced to make capital flows abroad. While other theories addresses balances in international trade, this (*international financial integration theory)* addresses the availability of capital which undoubtedly will leave lasting impact on low-income countries.

Composition of Foreign Reserves

The currency diversification of external reserves involves the shift on the part of Central Banks from holding their external reserves in the traditional gold reserve assets to a basket of foreign currencies and securities. In considering the basket of foreign currencies to hold, the monetary authorities of most countries are influenced by historical, economic and political fundamentals. Although a general economic objective of currency composition of reserves is investment in foreign currencies and securities by central banks to maximize returns on financial resources, the monetary authorities, more often than not, play down on the profitability aspects and concentrate on their liquidity needs especially if they are experiencing balance of payments disequilibrium.

Legislation at the inception of the Central Bank of Nigeria (CBN) made it relatively impossible to diversify the reserve assets away from gold (10%) and the pounds sterling (90%).The dollar assets did not even qualify as part of the official reserve holdings till the amendment of the CBN Act in 1962. Consequently, in the 1960's the external reserves of the country were held predominantly in pound sterling assets thereby conforming with the arrangement of the Sterling Exchange System.

The pound sterling accounted on the average for 78.4% of the external reserves from 1959 through 1970 while the US dollar assets accounted for 12.5% in the period. The composition of external reserves in Nigeria as indicated under the Banks and Other Financial Institutions Act (BOFIA) 1999 and the CBN Act 2007 (section 24) include:

a. Gold coin or bullion.
b. Balance at any bank outside Nigeria where the currency is freely convertible, currency and in such currency, notes, money at call and any bill of exchange bearing at least two valid and authorized signatures and having a maturity not exceeding ninety days exclusive of the days of grace.
c. Treasury bills having maturity not exceeding one year issued by the government of any country outside Nigeria whose currency is freely convertible.
d. Securities of, or guarantees by, a government of any country outside Nigeria, whose currency is freely convertible, provided such securities shall mature in a period not exceeding 10 years from the date of acquisition and are of such investment grade as may be determined by the Board of Directors of the bank from time to time.
e. Securities of, or guarantees by, international financial institutions if such securities are expressed in freely convertible currencies, in the form of investment grade assets as may be determined by Bank's Board and maturity of the securities shall not exceed five years.
f. Nigeria's gold tranche at the International Monetary Fund.
g. Allocation of the Special Drawing Right (SDR) made to Nigeria by the International Monetary Fund.
h. Investments by way of loans or debenture in an investment bank or development financial institution within or outside Nigeria for a maximum period of 5 years in as far as:
    i. The amount is not more than 5 per cent of the total foreign reserves;
    ii. The reserve level at the time of investment is more than such amount as will sustain 24 months of imports;
    iii. The loan or debenture is denominated in foreign currency provided the investment bank or development financial institution referred to in (h) above, carries such a rating by rating agencies as may be prescribed from time to time by the Bank; and
    iv. Such other securities and investments as may be approved from time to time by the Board, provided they are liquid foreign currency assets that are of investment grade and in the form of

freely convertible currencies (CBN Briefs, 2009).

The central bank presently holds the country's foreign reserves in major currencies such as: the U.S dollar, the euro, the Japanese yen, the British pound, the Swiss franc and those of other trading partners. However, over 90% of Nigeria's foreign reserves is denominated in the U.S dollar, mainly due to the fact that its crude oil exports are invoiced in the U.S dollar while most of its obligations such as external debt service, foreign exchange intervention, as well as other service obligations are also denominated in the U.S dollar (Nda, 2006).

Empirical Review

Shin-Inchi and Kon (2010) in their study of the impact of foreign reserve accumulation using a simple open economy where increased external reserves reduces liquidity risk cost discovered that increase in external reserve lead to rise in both liquid and total debt while shortening debt maturity to the extent that interest rates of external reserves though are low an increase in external reserves will lead to a permanent decline in consumption and increase in investment and economic growth.

Gong (2012), examines a growth perspective of foreign reserve accumulation and finds that foreign reserves accumulation is a consequence of a growth strategy induced by strong capital investment in a financially constrained economy. Gong argued that the speed of foreign reserve accumulation will slow down with the domestic financial deepening and the development of the domestic financial market, Gong believe that the positive relationship between real economic growth rate and demand for foreign reserves is the reason holding reserves is a catch-up strategies and a second best where the domestic financial market is under developed; the under development of the domestic financial market been the major motivation for foreign reserves accumulation. On the relationship between foreign reserves and economic growth, Gong using the Granger causality test the relationship of foreign reserve and gross fixe capital formation finds that the growth of foreign reserves causes a growth of gross fixed capital formation.

Fukuda and Kon (2010) posit that increase in foreign exchange reserve raises external debt outstanding and shortens debt maturity. They argued that the increase lead to decline in consumption but enhance investment and economic growth.

Rodrik (2006)'s study reveals that reasonable spread between the yield on reserve assets and the cost of foreign borrowing lead to an income loss of nearly 1% of GDP in developing countries that have rapidly increased foreign reserve. The opportunity cost of stock piling external reserve in order to cushion financial crisis vulnerability appears as a risk aversion strategy as it undermine the marginal benefit while the optimal reserve accumulation concept suggest that nation should hold reserve large enough to support three months import exchange requirement and argued that reserve only become excess when the cost of hoarding it is higher than the benefit.

Mei-Yin lin (2011) believe that large size of foreign reserve provides a form of self-insurance against the risk of rapid withdrawal of cross border investment which may lead to a deep recession. Foreign reserve is a tool for maintaining undervalued exchange rate and stimulate export competiveness and cushion financial crisis vulnerability (Dooley, Folkerts-Landau and Garber, 2004; Evans and Equiakhe, 2008). The strategy of using external reserve as s defensive mechanism undermine the marginal benefit if the reserve is propped into investment to stimulate economic productivity i.e. the opportunity cost of stock-piling foreign reserve as to cushion financial crisis vulnerability is the capital investment viz employment creation, production, efficiency enhancement, technological development – low per capita income. The mercantilist approach to foreign reserve argued that foreign reserve is a preventive measure or mitigation tool used against currency appreciation with the aim of increasing export growth (Aizenman & Marion 2003, Edison 2003, Aizenman and Rhee, 2004). They viewed the motive of holding foreign from an export perspective.

On the other hand, foreign reserve is needed to stabilize fiscal expenditure in countries with limited taxing capacity and sovereign risk (Precautionary Approach – Lee, 2005, Aizenman & Mario 2004).

Ifurueze (2014) examined the relationship between external reserve and economic growth in developing country with particular focus on Nigeria. Time series data between 1970 to 2009 was collected from CBN statistical bulletin 2012 edition. The data was decomposed and regression analysis was applied to determine the impact external reserve accumulation has on Nigeria economy. Hypothesis was postulated and tested, the result showed that there is a significant relationship between level of economic growth and external reserve accumulation.

Umeora (2013) investigated the relationship between Foreign Exchange Reserves (FER) Accumulation, Exchange Rate, Inflation and Gross Domestic Product (GDP) in Nigeria. The results of the tests showed that Exchange Rate and GDP have positive and significant relationship with FER accumulation while inflation has negative and insignificant relationship with FER. The studied stated that Nigeria is accumulating FER because of her over dependent on imports but should be aware of the social costs implication.

Research Methodology

According to Onwumere (2009), research design is a kind of blueprint that guides the researcher in his

investigation and analysis. The researcher will be employing descriptive research design in the analysis of the data. Data for this study is secondary data. Onwumere (2009) posited that secondary data are those data already collected and collated and often exist in a published form. Theoretical and empirical data for this study was gotten from past related studies on the subject matter under study while statistical data for this study is gotten from CBN Statistical Bulletin, 2013.

Model Specification

A regression model has been employed, the essence of regression is to use a mathematical equation to express the nature of the relationship existing between variables and ultimately to use this equation to predict the value of one variable given a specific value of the other variable (Ugbam, 2001). This research work uses regression model to capture the interaction between the dependent variable and explanatory variable. The basic aim of the regression model in this study is to investigate empirically the extent to which the predictor variable explains the variation in dependent variable. The model will be estimated using the coefficients of the independent variable and its level of significance. This test provides an empirical platform in drawing generalization for this study. The variable to be predicted is called the dependent variable while the variable whose value will be used in the prediction is called the independent variable (Ugbam, 2001).

In analyzing data, the simple regression model will be employed which is:

$Y = b_0 + b_1X_1 + \mu$.

Where:

Y = the variable we are trying to predict

b_0 = the intercept

b_1 = the slope

X = the variable we are using to predict Y

μ = the error term

The intercept (b_0) is the value of the dependent variable when the independent variable is equal to zero while the slope of the regression line (b_1) represents the rate of change in Y as X changes. Because Y is dependent on X, the slope describes the predicted values of Y given X.

The above model can thus be applied in this study as:

$GDP = b_0 + b_1ExtR + \mu$……Eqn. (I)

Where

GDP – Gross Domestic Product (proxy for Economic growth) {Dependent Variable}

ExtR – External Reserve (Independent Variable)

$ExchR = b_0 + b_1ExtR + \mu$.....Eqn. (II)

Where

ExchR – Real Effective Exchange Rate (proxy for Exchange Rate) {Dependent Variable}

ExtR – External Reserve (Independent Variable)

Technique of Data Analysis

The researcher will be making use of descriptive analysis. Charts, table, and percentages will be used to describe our data. Descriptive research aims mainly at collecting information that reveal the characteristics and features of an existing phenomenon (Onwumere, 2009)**.**

We will also be employing Ordinary Least Squares (OLS) regression technique, using the simple regression models stated earlier to enable us test our hypotheses.

Data Presentation and Analysis

Data Presentation

Table 1 External Reserves of Nigeria from 2004 to 2013

Year	ExtR	GDP	ExchR	ExtR%
2004	12062.75	17,321.30	126.6871	0
2005	24320.78	22,269.98	143.7826	101.6188
2006	37456.09	28,662.47	148.3301	54.00861
2007	45394.31	32,995.38	155.7536	21.1934
2008	58472.88	39,157.88	93.63937	28.81105
2009	44702.35	44,285.56	99.09098	-23.5503
2010	37355.7	54,612.26	92.09998	-16.4346
2011	32580.28	62,980.40	89.14083	-12.7837
2012	38092.16	71,713.94	79.80517	16.91785
2013	45612.95	80,092.56	74.46355	19.74367
2014	37220.33	89,043.62	69.94124	-18.3996
2015	29805.48	94,144.96	73.29647	-19.9215

Source: *CBN Statistical Bulletin, 2015*

Table 1 above shows that in 2004, external reserves of Nigeria grew from 12,062.8 billion to 24,320.8 billion Naira in 2005 by 101.62%. In 2006 the international reserves of Nigeria increased marginally by 54.01% from 24,320.8 billion Naira in 2005 to 37,456.1 billion Naira. 2007 and 2008 also witnessed a marginal increase in international reserves from its previous years by 21.19% and 28.81% respectively. In 2009, 2010, and 2011, there was a 23. 55%, 16.43%, and 12.78% decline in Nigeria's external reserve respectively. 2012 and 2013 sequentially followed a marginal increase by 16.92% and 19.74% respectively. Nigeria's external reserve seemed to be improving until 2014 where it dropped sharply by 18.40% and in 2015, there was a further decline by 19.92 which should be shrinking effect of the global drop in oil price.

Figure 1.1 External Reserve of Nigeria from 2004 to 2013

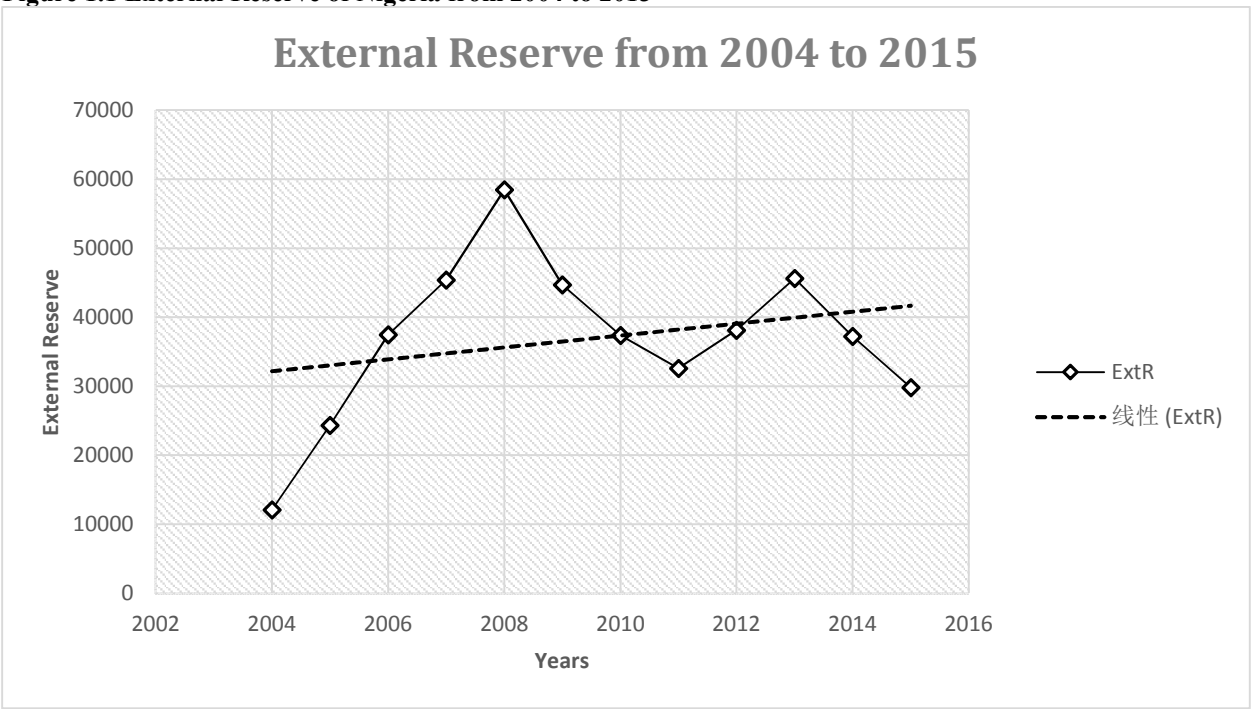
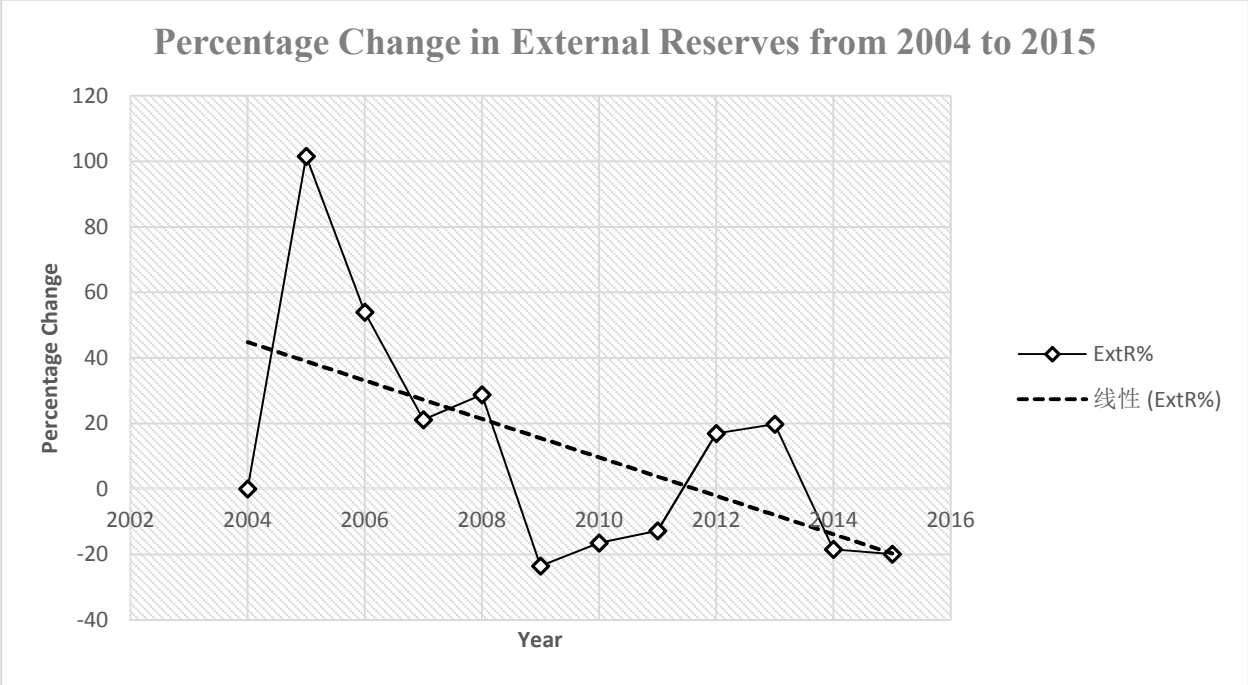


Figure 1.2 Percentage Growth of the Foreign Reserve of Nigeria within the period under study



The downward movement of the trend line in figure 4.1.1 above shows that the international reserves of Nigeria has been increasing crawlingly, the year with the highest external reserves accumulation happens to be 2008, this can be traced to the President Obasanjo's regime which was able to enforce fiscal rectitude (excess crude savings) in spite of constitutional limitations; a competent economic team carried out sensible reforms including an oil price benchmark and budgetary reforms such that at the advent of the global financial crisis and great recession of 2008-2009, Nigeria had built over $60 billion in reserves and earned a debt write-off from the Paris Club.

Given the luxury of reserve savings, the next government continued to spend and soon $60 billion became $30 billion of reserves in less than two years of the Yar'Adua regime which explains the sharp drop in 2009 (See Figure 1.1).

Fortunately, this oil shock was short-lived and with global recovery, oil prices recovered in 2010 and again crossed the $100 threshold in Q1 2011 but there was no much regards to Nigeria's foreign reserve forgetting it saved the head of Nigeria in 2007-2008 global financial crisis.

Research Question 1

To what extent has foreign reserve of Nigeria been declining within the period under study?

The trend line in figure 1.2 shows that the Nigerian foreign reserve has been declining in an unevenly marginal way, therefore we conclude that foreign reserve of Nigeria has been declining marginally.

Research Question 2

What brought about the decline in international reserves of Nigeria?

From the interpretation of the graph, it is deduced that the major cause of the decline in international reserves of Nigeria is the 2007-2008 global financial crisis supported by the nonchalant attitude of the government towards accumulation of international reserves.

Data Analysis

MODEL 1: $GDP = b_0 + b_1ExtR + \mu$

Model Summary

Equation 1	Multiple R	.193
	R Square	.037
	Adjusted R Square	-.059
	Std. Error of the Estimate	27149.061

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	284974238.397	1	284974238.397	.387	.548
	Residual	7370715263.723	10	737071526.372		
	Total	7655689502.120	11			

Coefficients

		Unstandardized Coefficients		Beta	T	Sig.
		B	Std. Error			
Equation 1	(Constant)	37121.845	26875.644		1.381	.197
	ExtR	.433	.696	.193	.622	.548

The R of .193 above shows that there is a weak positive relationship between the explanatory variable (External reserve) and the dependent variable (GDP) as the R is very far from 1. The R^2 of .037 shows that 3.7% of the variation in GDP can be explained by External Rserve. The Anova table shows that the model fit is very non-significant (p-value>.05). The intercept of 37121.845 shows the value of GDP when ExtR is constant. The slope of .433 shows that at every percentage increase in ExtR, GDP will increase by 43.3 percent (at a statistical non-significance). The independent variable (ExtR) is statistically non-significant (p-value>.05) in explaining the variation in GDP. After replacing the intercept, the slope and the standard error from the above regression output, we will have GDP = 37121.845 + .433ExtR + 27149.061

Hypothesis Testing:

H_0: External Reserve have no positive significant impact on economic growth in Nigeria within the period under review

Decision

The P-value and slope on which basis we can reject the null hypothesis that External Reserve have no positive significant impact on economic growth in Nigeria within the period under review is .548 and .433 respectively. Since the P-value < .05 and the slope > 0, we cannot reject the null hypothesis and conclude that external reserve have no positive significant impact on economic growth in Nigeria within the period under review.

MODEL 1: $ExchR = b_0 + b_1ExtR + \mu$

Model Summary

Equation 1	Multiple R	.218
	R Square	.047
	Adjusted R Square	-.048
	Std. Error of the Estimate	32.068

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	511.551	1	511.551	.497	.497
	Residual	10283.414	10	1028.341		
	Total	10794.965	11			

Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	125.252	31.745		3.946	.003
	ExtR	-.001	.001	-.218	-.705	.497

The R of .218 above shows that there is a weak positive relationship between the explanatory variable (External reserve) and the dependent variable (Exchange Rate) as the R is very far from 1. The R^2 of .047 shows that 4.7% of the variation in Exchange Rate can be explained by External Reserve. The Anova table shows that

the model fit is very non-significant (p-value>.05). The intercept of 125.252 shows the value of ExchR when ExtR is constant. The slope of -001 shows that at every percentage increase in ExtR, ExchR will decrease by 0.1 percent (at a statistical non-significance). The independent variable (ExtR) is statistically non-significant (p-value>.05) in explaining the variation in GDP. After replacing the intercept, the slope and the standard error from the above regression output, we will have ExchR = 125.252 – .001ExtR + 32.068

Hypothesis Testing:
H_0: External reserves have no positive significant influence on exchange rate in Nigeria

Decision
The P-value and slope on which basis we can reject the null hypothesis that External Reserve have no positive significant impact on economic growth in Nigeria within the period under review is .497 and -0.001 respectively. Since the P-value < .05 and the slope > 0, we cannot reject the null hypothesis and affirm that external reserves have no positive significant influence on exchange rate in Nigeria.

Summary of Findings
After critical descriptive analysis, it was gathered that:

- ✓ Foreign reserve of Nigeria has been declining marginally within the period under study;
- ✓ The major cause of the decline in international reserves of Nigeria is the 2007-2008 global financial crisis supported by the nonchalant attitude of the government towards accumulation of international reserves;
- ✓ External reserve has no positive significant impact on economic growth in Nigeria within the period under review;
- ✓ External reserves have no positive significant influence on exchange rate in Nigeria

Conclusion
It is imperative to say that the negligence of the government towards accumulation of international reserves is abnormal. Should another global financial crisis occur, Nigerian economy will dwindle beyond its state, hence the necessity of accumulating this reserve in order to stand financial shocks from the international economy. Though some scholars think it is better to hold minute foreign reserve not considering what would have happened if Nigeria had not enough holdings to sustain it during the global financial crisis of 2007.

Recommendation
In view of the findings, the following is recommended:

- ✓ In accumulating excessive foreign exchanges, the country should have proper management of reserves.
- ✓ There is need for more studies to examine social and other opportunity costs of accumulation of foreign exchange reserves.
- ✓ The Government should take the value of international reserves seriously as that at the long run will determine the extent to which we can absorb global financial shocks and in the short run will improve the value of Nigerian currency.

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