Impact of External Reserves on Economic Growth in Nigeria.

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ABSTRACT

The importance of external reserves holding has generated series of arguments due to unsatisfactory theoretical and empirical consensus. This paper provides an economic assessment of the impact of external reserves on economic growth in Nigeria for the period of 30 years (1988-2017). Towards this, time series and secondarily sourced of data were used and the data were gathered from Central Bank of Nigeria (CBN) statistical bulletin of 2017 and analysed through the use of Ordinary Least Square (OLS) technique. The findings revealed that only export value and exchange rate has significant impact on Nigeria's gross domestic product while other determinants are statistically insignificant at 5% critical value. The f-statistic result shows 35.13676 with p value of 0.000 which indicates that Nigeria's external reserve holding is influenced by the joint independent variables employed for the study. The paper therefore concluded that external reserves have significant impact on growth of economic growth in Nigeria for the period under review. The study recommended that government should provide an enabling environment such that the multinational corporations are protected and drastic measures should be put in place to check corruption in both public and private sectors so as to increase the level of Nigeria's external reserves.

Keywords: External reserves, Exchange rate, Inflation rate, Export value

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1. INTRODUCTION

In recent time, the issues related to external reserves holding has gained prominence and its practices have evolved rapidly. The management of external reserves is one of the major macroeconomic objectives of developing countries like Nigeria. In order to achieve this objective, Nigerian government implemented numerous policy initiatives and measures in management of its reserves. Although, little was achieved because the structure in place could not support sustainable external reserves management, hence fundamental lessons may be extracted from the country's past experience. According to World Bank (2014), mono product economies, especially those dependent on crude oil would remain vulnerable due to volatility of oil prices. Since the 1970s, Nigerian economy has persistently depended on crude oil exportation as the major source of foreign exchange earnings with the attendant cycles of economic booms and bursts. This over-dependence was attributed to the country's capital account vulnerable to the fluctuations in crude oil price. In addition, the nation's high import bill contributed to the fluctuations in the level of external reserves in the recent years and consequently, the way external reserves are being managed.

External reserves also known as foreign exchange reserve, foreign reserves, international reserves, are foreign currencies, foreign deposits and bonds held by Central Banks and monetary authorities of a nation. The term includes gold and silver, Special Drawing Rights (SDRs) and International Monetary Funds (IMF) reserves positions. Emmanuel, (2013) defines external reserves as official international reserves which are assets of central banks held in different reserves currencies such as US Dollar, British Pound Sterling, Euro currency, Japanese Yen etc. Foreign reserves also play an important role in the design and evaluation of current and future macro policies aimed at achieving trade balance (Arize, 2012). However, holding large foreign exchange reserves is generally desirable and beneficial because it gives the country more power to ensure the stability of the economy. Alasan and Shaib (2011) posit that the level of external reserves in a country is influenced by external sector developments such as foreign trade transactions, exchange rate, external debt and other external obligations. However, when foreign reserves are used for financing domestic foreign exchange needs, they could exert pressures on the internal monetary environment. Thus, if a country's trade volume increases, banks and other financial intermediaries may also exert pressure on foreign reserves. This scenario calls for a continuous effort of monetary authorities to effectively manage the country's foreign reserves so as to enjoy optimum level that would sustain numerous external commitments, (CBN, 2007).

The size of the reserves which could be stimulated during high prices of crude oil has generated disagreement among the stakeholder. The point of arguments was centered on the utilization of the reserves and two different schools of thought were emerged in the debate. The first school of thought argues that it is incomprehensible that the country while making efforts on wooing foreign investors is also stockpiling foreign exchange reserves. The school opined that the rational thing to do by the country should have been to direct the reserves towards financing of critical infrastructures. This may help to provide employment for the teeming youths who go about without jobs with its attendant consequences on social vices. They also express the view that if Nigeria does not invest within its own economy due to unfriendly environment, it will not make much economic sense asking foreign investors to lead the investment drive. The school holds the view that Nigeria should lead while foreigners should follow suit. The second school of thought holds different view about external reserves.

They believed that mounting external reserves is a way of protecting the country's foreign exchange market volatility, boost credit worthiness, provide for raining day, accumulate wealth, act as insurance against fiscal shock and sudden stop in external capital flows, etc. They also opine that the absorptive capacity to accommodate huge injection of fund is low suggesting that huge injection into economy could stimulate macroeconomic instability and impair investment which it intends to grow. The school further argues that a stable foreign exchange rate is imperative for successful investment policy given that significant input into domestic production is imported. Obaseki, (2007) also agreed that the uses of external reserves cannot be over-emphasized. Essentially, external obligations have to be settled in foreign exchange. Thus, 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 a bid to affect the level and direction of Nigeria's foreign reserve, Sanusi (2013) advocated for the immediate implementation of the Treasury Single Account (TSA); the return of government accounts to the Central Bank to reduce the huge cost of government debt due to poor cash flow management; retention of the monetary policy rate (MPR) at 12 per cent, plus or minus 2 per cent; Private Sector Cash Reserve Ratio at 12 per cent; Public Sector Cash Reserve Ratio at 50 per cent; and liquidity ratio at 30 per cent. The Central Bank of Nigeria has narrowly focused on reserve's defence–mechanism without a proportionate evaluation of financial fraud, corruption, power outage, political instability, poverty, and low human capital development.

Also, the country's past experience shows that inability of the monetary authorities to proffer well-structured strategies in managing external reserves poses a lot of imbalances on the macro-economic variables and economic instabilities in the country. Examples of such instabilities include expensive and unstable exchange rates, high rate of inflation, inadequate foreign direct investment, low growth rate in gross domestic products, low productivity, high rate of unemployment etc. Furthermore, the country has been experiencing fluctuation in external reserves in the recent times and this was attributed to a slowdown in foreign portfolio and direct investment, inadequacy of foreign exchange receipts, drop in government revenue occasioned by crude oil theft and pipeline vandalism. Other factors include, increased government spending from the Excess Crude Account, increase in the amount spent on defending the naira by the Central Bank of Nigeria (CBN), with huge fiscal spending and the consequent pressure on the country's payments obligations. It must be mentioned that Nigeria is a mono-cultural economy with heavy reliance on crude oil whose price is exogenously determined. Hence, the reserves position of the country at any given time is usually a reflection of the circumstances prevailing in the international oil market which invariably will affect the home currencies and economic stability in the country.

In light of the above, the broad objective of this study is to evaluate the impact of external reserves on economic growth in Nigeria. In order to achieve the stated objective, the following questions were raised: How does external reserves affect economic growth in Nigeria? What are the impacts of exchange rate on economic growth in Nigerian? Is there any relationship between foreign direct investment and economic growth in Nigeria? In what way does inflation influence economic growth in Nigeria?

2. REVIEW OF RELATED LITERATURE

Bada, (2014) explains external reserves as foreign currency deposits and bonds including gold reserves, Special Drawing Rights (SDRs) and International Monetary Fund (IMF) reserved positions. External reserves are variously called International Reserves, Foreign Reserve or Foreign Exchange Reserves. While there are several definitions of external reserves, the most widely accepted is the one proposed by the IMF in its Balance of Payments Manual, 5th edition where it defined external or 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 (CBN 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. The main reasons for a country holding external reserves include foreign exchange market stability, exchange rate stability, exchange rate targeting, creditworthiness, transactions buffer, and emergency such as natural disasters (Archer and Halliday, 1998). The external reserve holding has generated serious global interest, as 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) also suggested the factors that determine reserve holdings which include: 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.

2.1 External Reserves and Gross Domestic Product (GDP) in Nigeria

Polterich and Popov (2002) reported that the accumulation of foreign exchange reserves contributes to economic growth and foreign direct investment/GDP ratio as well as the share of exports in GDP. According to them foreign exchange accumulation influences economic growth through two mechanisms. First when the manufacturing sector and industrialization is established, external reserves accumulation causes real exchange rate to attain undervaluation. This then allows the economy to take full advantages of export externality and trigger export-led growth. Secondly foreign exchange reserves accumulation attracts foreign direct investment because it increases the credibility of the recipient country and increases productivity. Bastomrre, Carrera and Ibarlucia (2004), in their own study said that export-led-growth policies are necessary for developing countries to achieve increase real exchange rate. They opine that to achieve improved real exchange rate is not possible with accumulation of external reserves. Thus developing countries must accumulate reserves to attain substantial export-led-growth. Rodrik (2006) studied the opportunity cost of the excessive reserves accumulation. The point is that reserves accumulated are held idle and could have contributed to the economic growth of the accumulating country. The accumulation for developing countries is often reached up to 6–8% of GDP. Such cannot be said to be assisting GDP to grow.

2.2 Theoretical Framework

Demand for International Reserves Theory postulates that Central Banks as custodian of foreign currencies accumulate reserves to fulfill three motives which include transactions, precautionary and/or mercantilist, (Abiola and Adebayo, 2013). This theory corroborates with the view of keyne's theory of holding money. That is, holding certain amount of money is determined by interest rate and the level of national income. Several scholars such as Frenkel and Jovanovic, 1981, Aizenman and Marion, 2004, Aizeman and Lee, 2007 etc have examined this theory based on these motives. Aizenman and Marion (2004) employed theory of precautionary savings and suggested that apart from any motive to holding reserves (money) for the management of exchange rate, countries experiencing difficulty in accessing global capital markets and costly tax collection tends to hold precautionary reserves to smooth consumption and distortions intertemporally. This theory was used to explain the reserves holding in Asian shortly after of financial crises in the Asians countries. They also postulated that corruption or political instability may result to one of the reasons why countries aimed to reduce the demand for precautionary reserves. Aizenman and Lee (2007) also agreed with the view of Aizenman and Marion (2004) that precautionary motives may influences the countries to manage external reserves so as to mitigate the possible transmission of banking crisis to currency crisis. However, under uncovered interest parity, the interest rat8es differential may equal the forward discount and the expected rate of future change in the exchange rate. Caballero and Krishnamurthy (2003) also added that underdeveloping local securities markets need higher levels of reserves in line with the assumption of conditional access to world capital markets as argued by Aizenman and Marion's (2004).

Galor (2005) in its Unified Economic Growth Theory provide a general theory of the evaluation of economic over the entire course of human history. The theory examines the interaction of economic and human history. Unlike the Marxist who, based the analysis of economic growth on materialistic interpretation of history (the Marxist believe that all historical events are the result of continuous class struggle between different group in the society) and argued that all economy passes through five stages which they framed as the communist manifesto on the one hand and Rostow non communist manifesto on the other hand (see theory of historical materialism). Galor (2005) distinguish between three growth. Galor distinguishes three stages of economic growth which he called economic growth regimes viz: Malthusian regime; Post Malthusian regime; and Modern growth regime

The Malthusian Regime: This regime captures the early stages of economic development that lasted until the middle of the eighteenth century for the modern developed economics and until the beginning of the twentieth century for today developing countries. During this regime, technological progress takes place but very slowly and the growth of total output resulting from technological progress is matched by population growth so that per capita income fluctuates around a low stable level with no significant progress in average living standard over a long period of time (population is believed to have effect on development).

Post Malthusian Regime takes off from the Malthusian regime. It's an era when technological progress leading to mass production, employment, change in mode of production and consequently the beginning of economic growth in per capita income even though population growth is positively linked to rising income.

Modern growth regime is triggered by a rise in the demand for human capital and demographic transition. This era is characterized by the simultaneous increase in technology, sustained economic growth and per capita incomes unlike the previous two regimes where population growth counter balance the growth in per capita income. As technological growth accelerates, population rise has lesser effect on economic growth.

2.3. Empirical Review

Akinwunmi and Adekoya (2016) investigated the effect of foreign reserve management on Nigerian economic growth for the period 1985-2013. Time series data were used and sourced from Central Bank of Nigeria (CBN) statistical bulletin, Nigeria Bureau of Statistics (NBS) etc. the Augmented Dicky Fuller (ADF) and Johansen Co-integration test was employed to test long run relationship between dependent variable and explanatory variables. The result revealed that Gross Domestic Product (GDP), monetary policy rate and foreign direct investment are statistical significant while inflation rate and exchange rate are insignificant. The paper concluded that good performance of the economy contributes positively to foreign reserve position of the economy. Augustine, Antony and Thankgod (2015) assessed the determinants of external reserve in Nigeria for the period 1997-2013. The study employed the variables like foreign reserve, Gross Domestic Product (GDP), oil export, exchange rate, foreign direct investment, non-oil export, lending rate and inflation rate. The Johansen Co-integration test was used to establish long-run relationship between the variables. It was discovered that gross domestic product, foreign direct investment and oil export are positive and statistical significant determinants of foreign reserve. Exchange rate is significant but statistical negative determinant of external reserve. Lending rate was discovered to be negative and insignificant determinant of foreign reserve. Also, non-oil export was found to be positive but insignificant determinant of external reserve. The paper therefore recommended that government should encourage non-oil export so as to influence foreign reserve positively.

Chowdhury, Uddin and Islam (2014) recently undertook an econometric analysis of the determinants of foreign exchange reserves in Bangladesh, using the Augmented Dicky Fuller (ADF) unit root test to examine stationarity, Engle Granger residual based co-integration approach to show the co-integrating relationship among the variables, and some diagnostic tests for better modeling. The empirical results of their study confirmed the existence of strong relationship among foreign exchange reserves, exchange rate, remittance, home interest rate, broad money, UPI of export and import, and per capita GDP. The study suggested that exchange rate, strong remittance related policies, quality items of exports and sustainable GDP can keep a substantial and feasible role to make up a healthy amount of foreign exchange reserves for the host country like Bangladesh. Audu and Okumoko, (2013) also examine the implications and determinants of external reserves in Nigeria for the period of 43 years (i.e 1970-2012). Annual time series data were used and the data were analyzed by Augmented Dicky Fuller (ADF) and Phillips Peron statistical tools.

The variables considered are Nigeria's foreign reserve, exchange rate, trade openness, crude oil price, credit to private sector, capital account, current account, foreign direct investment as well as opportunity cost of holding reserves. The findings revealed that all explanatory variables had significant impact on foreign reserve in the long run except crude oil and credit to private sector. The paper concluded that improving current and capital account as well as other explanatory variables would help to increase foreign reserve in Nigeria. It was therefore recommended that government should formulate policies that will create conducive environment for businesses and tackle the problem of oil bunkers in Niger Delta.

Irefin and Yaaba (2012) employed an Autoregressive Distributed Lag (ARDL) approach to run a slightly modified econometrics 'Buffer Stock Model' of Frenkel and Jovanovic (1981) to estimate the determinants of foreign reserves in Nigeria over the period of 1999 to 2011, with focus on income, monetary policy rate, imports and exchange rate. The results debunked the existence of buffer stock model for reserves accumulation and provided strong evidence in support of income as the major determinant of reserves holdings in Nigeria. Abdullateef and Waheed (2010) investigated the determinant of foreign reserves by investigating the impact of change in external reserve positions of Nigeria on domestic investment, inflation rate, and exchange rate from 1986 to 2006. Using the Ordinary Least Square (OLS) and vector error correction (VEC) estimation methods, they found that change in external reserves in the country only influences foreign direct investment (FDI) and exchange rates, and no influence was found on domestic investment and inflation rates. The results further suggested that there is the need for broader reserve management strategies that will aim at maximizing the gains from oil export revenue by utilizing more of these resources to boost domestic investment.

3. METHODOLOGY AND MODEL SPECIFICATION.

This paper employed secondary source and time series data for the period of 30 years (i.e. from 1988 to 2017) , gathered from Central Bank of Nigeria (CBN) statistical bulletin of 2017. The variables considered are Nigeria's gross domestic product as dependent variable, external reserves, exchange rate, foreign direct investment, export value and inflation rate as the independent or explanatory variables. The study also employed Ordinary Least Square (OLS) estimation technique .

Model Specification

Akinwunmi et.al model was adopted in this work for some similarities as follows:

GDP = f (EXR, EXC, FDI, EXP, INF)

In econometric term

$GDP = \beta_0 + \beta_1 EXR_1 + \beta_2 EXC_2 + \beta_3 FDI_3 + \beta_4 EXP_4 + \beta_5 INF_5 + \mu$

Where,

GDP = Gross Domestic Product
EXR = External Reserves
EXC = Exchange Rate
FDI = Foreign Direct Investment
EXP = Export Value
INF = Inflation Rate
β_0 = Constant term
$\beta_1 - \beta_4$ = coefficient of explanatory variables
μ = Error term

4. RESULTS AND INTERPRETATIONS

Table I: Unit Root Test

Group unit root test: Summary
Series: GDP, EXR, EXC, FDI, EXP01, INF
Date: 02/24/19 Time: 13:57
Sample: 1988 2017
Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0 to 4
Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-2.53785	0.0056	6	161
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-6.94142	0.0000	6	161
ADF - Fisher Chi-square	73.7193	0.0000	6	161
PP - Fisher Chi-square	56.1607	0.0000	6	168

Source: E view 9

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

The table 1 shows the result of unit root test. The ADF revealed that all the variables in the model were stationary at 5 percent as indicated by their critical values. This implies that their values were less than absolute value of 5 percent significance level. Thus, the variables; gross domestic product, external reserve, exchange rate, foreign direct investment, export value and inflation rate were stationary at first difference I(1) since their ADF and PP statistics indicate 0.0000 and 0.0000 respectively which is lower compared to the 5% critical value.

Table II: Model Results

Statistics	Coefficient	Standard Error
β_0	-13825.54	7536.451
β_1	-0.020643	0.020864
β_2	227.2374	60.57011
β_3	0.304408	0.464944
β_4	4.112905	1.106095
β_5	124.0901	168.9808

Source: Authors compilation derived from E view 9

The model for this study can be recalled and re-written as follows:
$GDP = \beta_0 + \beta_1 EXR_1 + \beta_2 EXC_2 + \beta_3 FDI_3 + \beta_4 EXP_4 + \beta_5 INF_5 + \mu$
GDP = -13825.54 –0.020643 EXR +227.2374 EXC +0.304408 FDI +4.112905 EXP +124.0901 INFR

The implication of the model is that holding all the predictors constant, the Nigeria's gross domestic product will stand at -13825.54. The coefficient values of exchange rate, foreign direct investment, export value and inflation rate shows positive units of 227.2374, 0.304408, 4.112905, and 124.0901 respectively. This simply means that, a unit increase in each of the variables will result to a simultaneous increase in Nigeria's gross domestic product. Only external reserves had a negative value of -0.020643. This explains that a unit increase in external reserves will lead to a proportional decrease in Nigeria's gross domestic product.

Table III: T-Statistic Results

Variable	T- value	Probability value
EXR	-0.989415	0.3323
EXC	3.751642	0.0010
FDI	0.654719	0.5189
EXP	3.718402	0.0011
INF	0.734345	0.4699

Source: Authors compilation derived from E view 9

The t-statistic results (probability level) of EXR, EXC, FDI, EXP and INF signify 0.3323, 0.0010, 0.5189, 0.0011 and 0.4699 respectively. This indicates that external reserves, foreign direct investment and inflation rate all have insignificant impact on Nigeria's gross domestic product because their probability values were greater than 0.05 level of significance. Only exchange rate and export value with p values of 0.0010 and 0.0011 were statistically significant because their p values are lesser than at 5 percent level of significance for the period under review.

Table IV: Model Validity and Anova Results

Statistic	Results
R Square	.879
Coefficient of Determination (Adjusted R^2)	.855
Anova (F)	35.13676
Probability value	0.00000
Durbin Watson (DW)	.5289

Source: Authors compilation derived from E view 9

The coefficient of determinant R^2 is 0.879 which states that 87.9% of the variation in Nigeria's gross domestic product is explained by the predictors (EXR, EXC, FDI, EXP and INF) while the remaining 12.1 per cent unexplained variation is being influenced by other variables outside the model but captured by the error term. While the adjusted R^2 indicates 0.855 which shows that 85.5 per cent of the variation explained the fitness and generality of the model. The value is expected to be the same or very close to R^2. The Durbin Watson statistics in the model is 0.528. This falls within the range 0 and 2. A value ranges from zero to two indicates a strong positive correlation while a value from two to four imply a strong negative correlation. The F statistics in the regression line shows 35.13676 with p value of 0.0000. Therefore, the p value is less than 5% level of significance (0.0000<0.05). This can be easily inferred that external reserves have significant impact on growth of economic growth Nigeria for the period under review.

4. FINDINGS AND CONCLUSION

The results revealed that external reserves, foreign direct investment and inflation rate all have insignificant impact on Nigeria's gross domestic product while exchange rate and export value with p values of 0.0010 and 0.0011 were statistically significant at 5 percent level of significance for the period under review. The f-statistic result also show that Nigeria's gross domestic product is influenced by the joint variables of external reserve, exchange rate, foreign direct investment, export value and inflation rate. Therefore, the paper concluded that external reserves has a significant impact on economic growth in Nigeria. This is because external reserves adequacy is a key component of a good macroeconomic management and a reasonable amount of foreign reserves must be kept at all times to assist in developing the economy. Also, the more (less) people demand for money in the economy, the level of money supplied and the more (less) foreign reserves is depleted hence, leading to a reduction (or an increase) in reserves.

5. RECOMMENDATIONS

Based on the findings, the study therefore provided the following suggestions:

i. Government should provide an enabling environment such that the multinational corporations are protected and youth restiveness in the Niger Delta nipped in the bud permanently.
ii. Government should make policies that would make create conducive environment for businesses in order to attract more investments which in turn leads to growth in external reserves
iii. Drastic measures should be put in place to check corruption in both public and private sectors so as to increase the level of Nigeria's reserves. The government should not just adopt a one-sided means of curbing this menace that have eating deep into the country's economy causing huge loses and damages to the foreign reserves
iv. Exchange rate should be kept low and stable so as to avoid too much of volatility and this could be achieved if accurate monetary policies are put in place such as allowing market sforces to determine the exchange rate in the long run and fixed exchange rate in the short run to allow for adjustments.
v. Government should formulate and implement policies that will focus on the enhancement of the productive base of the economy so as to complement the oil export that would call for better position of foreign reserves accumulation.
vi. Efforts should be made to maintain single digit inflation to avoid erosion of money that meant for investments which will further boost external reserve

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Appendix I

Data on Nigerian Gross Domestic Product, External Reserves, Exchange rate, Foreign Direct Investment, Export Value and Inflation Rate (1988-2017)

YEAR	GDP	EXR	EXC	FDI	EXP	INF
1988	320.33	23740.1	4.54	1718.2	31.2	61.22
1989	419.2	22552.2	7.4	13877.4	58.0	44.7
1990	499.68	36512.9	8.04	4688	109.9	3.6
1991	596.04	48620	9.91	6916.1	121.5	13
1992	909.8	33391.9	17.3	14463.1	205.6	44.6
1993	1,259.07	58824.2	22.05	29660.3	218.8	57.2
1994	1,762.81	95329	21.89	22.2	206.1	57
1995	2,895.20	32345	21.89	75.9	950.7	72.8
1996	3,779.13	25895.6	21.89	111.3	1309.5	29.3
1997	4,111.64	73492.1	21.89	110.5	1241.7	8.5
1998	4,588.99	93776.7	21.89	80.7	751.9	10
1999	5,307.36	63709.2	92.69	92.8	1189	6.6
2000	6,897.48	91089.2	102.11	116	1945.7	6.9
2001	8,134.14	123329.8	111.94	132.4	1868	18.9
2002	11,332.25	103104.1	120.97	225.2	1744.2	12.9
2003	13,301.56	91701.7	129.36	258.4	3087.9	14
2004	17,321.30	144753.1	133.5	248.2	4602.8	15
2005	22,269.98	291849.3	132.15	654.2	7246.5	17.9
2006	28,662.47	449473.1	128.65	624.5	7324.7	8.2
2007	32,995.38	544731.7	125.83	759.4	8309.8	5.4
2008	39,157.88	701674.6	118.57	971.5	10387.7	11.6
2009	44,285.56	536428.2	148.88	1273.8	8606.3	11.5
2010	54,612.26	448268.5	150.3	905.7	12011.5	13.7
2011	62,980.40	390963.4	153.86	1360.3	15236.7	10.8
2012	71,713.94	457105.9	157.5	1113.5	15139.3	12.2
2013	80,092.56	547355.4	157.31	875.1	15262	8.5
2014	89,043.62	446644	158.55	738.2	12960.5	8.1
2015	94,144.96	357665.8	193.28	602.1	8845.2	9.01
2016	101,489.49	312409	253.49	1124.1	8835.6	15.7
2017	113,711.63	12033.9	305.79	1069.4	13,988.1	15.37

Source: Central Bank of Nigeria statistical bulletin of 2017