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Impact of Foreign Direct Investment on the Power Sector of Nigeria 1980 – 2014

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Abstract
The study investigated on the role of foreign direct investment on the power sector of Nigeria using time series data for 35years between 1980 and 2014. Power sector output (PSO) serve as the dependent variable while foreign direct investment (FDI), inflation rate (IFR) and trade openness of the economy (OPE) serves as the independent variables. The variables were analyzed using regression method, Augmented Dickey fuller unit root and co-integration test with the aid of a statistical software known as Eview 7. The findings revealed that only FDI and OPE are statistically significant at 5% level based on the t-statistic. The F-statistic also revealed that there is significant impact of the role of foreign direct investment on the power sector of Nigeria due to the overriding effect of trade openness of the economy within the period considered. The Augmented Dickey-Fuller unit root and co-integration test also revealed that the variable are stationary and does not have a unit root problem and that there is only one co-integrating equation of the variables. Among other recommendations, the study suggests that FDI should focus more on Nigeria's power sector because of the strategic relevance of the sector to the nation's economy.
Keywords: Foreign direct investment, Power sector Nigeria

INTRODUCTION

Background to the Study

Foreign direct investment is increasing in importance in the global economy due to the additional resources they pooled for development in the host country. They have also attracted great controversy concerning their positive or negative contributions to economic development of the host country. In recent years, foreign direct investment (FDI) has attracted renewed interest both in the underdeveloped and developed countries. Foreign direct investment (FDI) plays a major role in global business. FDI can provide a firm with new markets and marketing channels, cheaper production facilities, access to new technology, products, skills and financing. For a host country or the foreign firm which receives the investment, it can provide a source of new technologies, capital, processes, products, organizational technologies and management skills, and as such can provide a strong impetus to economic growth (Raul, 2012).

The most widely accepted definition of FDI is known as "the IMF/OECD (2011) benchmark definition" which states that foreign direct investment (FDI) is an international venture in which an investor residing in the home economy acquires a long-term "influence" in the management of an affiliate firm in the host economy. This definition is accepted because it was provided by a joint workforce of these two international organizations with the objective of providing standards to national statistical offices for compiling FDI statistics. Based on the definition, the existence of such long-term influence should be assumed when voting shares or rights controlled by the multinational firm amount to at least 10 percent of total voting shares of rights of the foreign firm. Aggregate FDI flows are the sum of equity capital, reinvested earnings, and other direct investment capital; hence, aggregate FDI flows and stocks include all financial transfers aimed at financing of new investments, plus retained earnings of affiliates, internal loans, and financing of cross-border mergers and acquisitions. FDI flows can be observed from the perspective of the host economy, which records them as inward FDI along with other liabilities in the balance of payments, or from the perspective of the home economy, which records them as outward FDI, a category of assets. FDI may take many forms, such as a direct acquisition of a foreign firm, construction of a facility, or investment in a joint venture or strategic alliance with a local firm with attendant input of technology, licensing of intellectual property.

In Nigeria and other countries in Sub-Saharan Africa, the provision of low-cost, affordable and regular electricity supply is critical to employment generation, poverty alleviation and industrial development especially in small scale industry. Though Nigeria is energy surplus in theory not in practical given the range of energy options in the country; it has been unable to translate its energy abundance into socio-economic development due largely to the policy environment and the nature of institutions put in place to drive activities in the energy sector. To this extent, socio-economic development of Nigeria through power sector is still enmeshed in the nightmare of "darkness" occasioned by epileptic electric power generation and distribution. The low performance of the electric power sector of Nigeria and other West African countries created the inevitable need for collaboration under the West African Power Pool Project (WAPPP) (Gnansonuou, 2008).

Statement of the Research Problem

Since the first production of electricity in Nigeria in 1896, the electricity sector has gone through a number of reforms but is yet to achieve effective and reliable supply of electricity. The present reform embarked on took a new dimension with the government shifting from its monopoly over the power sector in Nigeria to inviting private sector participation with the intent of eventual divestiture to the private sector either by concession, privatization or management contracts. In furtherance to this, the Bureau of Public Enterprises (BPE) with the authority to prepare public enterprises approved by the National Council on Privatization (NCP) for privatization and commercialization has commenced the privatization exercise. The Power Holding Corporation of Nigeria (PHCN) has since been unbundled to 18 successor companies and the Nigerian Electricity Regulatory Commission (NERC) has been established to ensure the orderly development of a competitive power market, safe and adequate production of electricity and to promote competitive private sector participation (Oke, 2012).

Nigerian's success in attracting FDI into the power sector will have importance beyond reducing shortages and enhancing productivity in the country. Nigeria is one of the world's leading sources of generating electricity and its power sector is responsible for distribution of electricity in the country (Battle, 2009). Hence, to the extent that FDI can enhance the energy efficiency of Nigeria plants.

There is consensus among governments of industrialized and non industrialized countries like Nigeria that foreign direct investment may be desirable for economic growth and poverty reduction. Many questions remain about how foreign investment can enhance the economics of the recipient or the host country. Kiely (2007) summarizes some of the arguments for and against Transnational Corporations and the capital investment they bring. Critics of foreign investment have suggested that it led to dependent, or restricted, development. To them, FDI may lower domestic savings and investments rates by stiffing competition through exclusive production agreements with host Governments and failing to reinvest most of the profits. Supporters have suggested that foreign investment can bring capital and technology, develop skills and linkages and increased employment and incomes. Focusing on the positive side of the argument, government of Nigeria in an attempt to achieve the efficient, stability and growth process of the power sector has issued some incentives to attract foreign capital in her economy. The issue of Foreign Direct Investment (FDI) as it affects power sector is one of the most disputed areas in international economies. This is an account of the need for a steady growth in power sector across international economies. The growth of literature on the subject also has significant bearing on the underlying problems of capital inflow, openness to trade, policy framework, balance of payment deficit and inflation (Odozi, 1995; Oyinlola, 1995; Adelegan, 2000; Akinlo, 2004).

Research Questions

The following research questions will be formulated to guide the study at 5% significance level:

i. Is there any relationship between foreign direct investment and power sector of Nigeria?
ii. Do macroeconomic variables affect the power sector output of Nigeria?

Objectives of the Study

The main objective of the study is to investigate on the role of foreign direct investment on the power sector of Nigeria. However, the specific objectives of the study are as follows:

i. To determine the role of foreign direct investment on the power sector of Nigeria; and
ii. To ascertain the effect of macroeconomic variables on power sector of Nigeria.

Hypothesis of the Study

The following Null ($\mathbf{H_0}$) hypothesis will be used to guide the research study:

$\mathbf{H_0}$: There is no significant impact of foreign direct investment on the power sector of Nigeria.

Empirical Review

There has not been extensive theoretical and empirical research examining the impact of foreign direct investment on power sector performance in both developed and underdeveloped countries. Thus far, the academic literature describing FDI in Nigerian's power sector has been thin or none. The literature that does exist does not include detailed information on foreign investors' perceptions of the investment climate, on the volume and characteristics of FDI, or on the energy efficiency of FDI plants. This paper attempts to fill this gap by using data from a variety of sources. Mojekwu and Samson (2012) used co-integration and error correction model to examine the relationship between foreign direct investment and the challenges of sustainable development in Nigeria. The study revealed that there exist a long-run relationship between the dependent variable and explanatory variables and that gross capital formation has a positive and significant relationship with the economic growth in Nigeria. Based, on the findings, they therefore, recommended that capital formation encourages economic growth via savings accumulation visa vise, increase in the gross domestic investment. Also, there is need for constructive attention to be given to provision of needed infrastructure, especially power generation and distribution, to enhance economic

growth and development.

Opaluwa, Ameh, Alabi and Abdul (2012) conducted research on the effect of foreign direct investment on the Nigerian manufacturing sector using Vector Auto Regression (VAR), co-integration and error correction techniques to establish the relationship between FDI and the growth of manufacturing sector. The findings from the study show that FDI has a negative effect on the manufacturing productivity and is statistically significant. Arising from the findings, they recommended that government should create an enabling environment for foreign investment and the monitoring of FDI benefits, with particular focus of NEPAD and NEEDS through the instrumentality of the MDGs; thereby mustering the capacity for sustainable growth in the manufacturing sector. Ogbanje, Okwu and Saror (2010) in a study of an analysing the impact of foreign direct investment on Nigeria's agricultural sector using Duncan Multiple Range Test and Ordinary least square; their result shows that the relationship between foreign direct investment (FDI) to agricultural sector and agricultural gross domestic product (GDP) was significant at 0.01 level of probability. They conclude that net flow of FDI to Nigeria discriminates against the agricultural sector.

Industrialization Theory on FDI and Spill-over Effects

Hymer's (1976) pioneering study on multinational companies (MNCs) drew attention to neglected aspects of MNCs' role as global industrial organizations. Hymer's view was a major departure from the orthodox theoretical economic literature. The standard neoclassical trade theory of Heckscher and Ohlin, for example, carried restrictive assumptions about the immobility of factors of production and identical production functions across national boundaries. It postulated that no international difference existed at the scientific and technological levels, not to mention technology transfer and spillovers. In the neoclassical financial theory of portfolio flows, multinational enterprises had been viewed as simply an arbitrageur of capital in response to changes in interest rate differentials. Capital is seen to flow from countries where returns are low to those where it is higher to earn arbitrage rents. This theory did not distinguish between the roles played in a country's development by portfolio and FDI capital inflows. Hymer's major contribution was to shift attention away from neoclassical financial theory. In his view, FDI is more than a process by which assets are exchanged internationally. It also involves international production. By putting forward the idea that FDI represents not simply a transfer of capital, but the transfer of a "package" in which capital, management, and new technology are all combined, Hymer characterized FDI as an international extension of industrial organization theory.

Concept of Foreign Direct Investment

Foreign direct investment (FDI) is a measure of foreign ownership of productive assets, such as factories, mines and land. Increasing foreign investment can be used as one measure of growing economic globalization (Haman, 2008).

In the past ten years, the classic definition of FDI as noted above has changed considerably. This notion of a change in the classic definition, however, must be kept in the proper context. Very clearly, over two third of direct foreign investment is still made in the form of fixtures, machinery, equipment and buildings. Moreover, larger multinational corporations and conglomerates still make the overwhelming percentage of FDI. But, with the advent of the Internet, the increasing role of technology, loosening of direct investment restrictions in many markets and decreasing communication costs means that newer, non-traditional forms of investment will play an important role in the future. Many governments, especially in industrialized and developing nations such as Cameroon, pay very close attention to foreign direct investment because they believe that investment flows into (Inward FDI)and out(Outward FDI) of their economies may have a significant impact (Aseidu, 2009).

Within the past ten years, however, there has been a dramatic increase in the number of technology start-ups and this**,** together with the rise in prominence of Internet usage, has fostered increasing changes in foreign investment patterns. Many of these high tech start-ups are very small companies that have grown out of research and development projects often affiliated with major universities and with some government sponsorship. Unlike traditional manufacturers, many of these companies do not require huge manufacturing plants and immense warehouses to store inventory (Aseidu, 2004).

Another factor to consider is the number of companies whose primary product is an intellectual property right such as a software program or a software-based technology or process. Companies such as these can be housed almost anywhere and therefore making a capital investment in them does not require huge outlays for fixtures, machinery and plants. In many cases, large companies still play a dominant role in investment activities in small, high tech oriented companies (Andreas, 2007). However, unlike in the past, these larger companies are not necessarily acquiring smaller companies outright. There are several reasons for this, but the most important one is most likely the risk associated with such high tech ventures. In the case of mature industries, the products are well defined. The manufacturer usually wants to get closer to its foreign market or wants to circumvent some trade barriers by making a direct foreign investment. The major risk here is that we do not sell enough of the product that we manufactured. However, we have added additional capacity and in the case of multinational

corporations this capacity can be used in a variety of ways. High tech ventures tend to have longer incubation periods. That is, the product tends to require significant development time. In the case of software and other intellectual property type products, the product is constantly changing even before it hits the marketplace. This makes the investment decision more complicated. When we invest in fixtures and machinery, we know what the real and book value of our investment will be. When we invest in a high tech venture, there is always an element of uncertainty (Bengos and Sanchez-Robles, 2008).

The Power Sector Reforms in Nigeria

The Nigerian state is characterized by a confluence of factors. On the one hand economic interests, political forces, capitalists' entities and other bureaucratic institutions determine the political, economic, social and other laws or policies suitable or adoptable for the Nigerian state per time. The same situation manifests vividly in the electricity sector of Nigeria, which led to the current reform in the sector. The nature of the electricity industry has led to the wave of new regulatory regimes across the globe. A good number of developed countries have unbundled their electricity industries by separating generation from transmission. The private sector now dominates generation as in the case of England and Wales. These models have also been implemented in a number of countries across the globe like Chile, Argentina, Bolivia, Ecuador, Thailand, China and lately Senegal, Uganda and Nigeria.

In Nigeria, electricity supply relies significantly on hydropower. This is also the case in Ghana, Benin, Togo, Guinea and Mali. Electricity supplies have been less than satisfactory in these countries due to frequent outages. The situation is same in Senegal where electricity generation is mainly based on oil, as the country have experienced frequent power plant outages due to low reliability and difficulty of fuel procurement. One would expect that Nigeria, being a major oil producer and exporter coupled with its gas potentials, would enjoy relatively stable electricity generation and distribution for its huge population and sizable industry compared to other West African countries highlighted above. As a matter of fact, the story in Nigeria is gloomier than the other countries mentioned leading to the reforms embarked upon by the Nigerian government in the electricity sector.

Energy as a prerequisite for economic growth and development is widely acknowledged by energy experts and scholars. In terms of theory, energy has been shown to be equally as important as other factors of production such as land, labour and capital because of its significance to economic growth. The availability of viable energy options like low-cost electricity, renewable and alternative energies and others are indispensable to socio-economic development in Nigeria. The demand for better electricity and its centrality to national growth and economic development created the ineluctable need for the reforms in Nigeria's electricity sector. However, the rate of growth and development of the sector have been less than impressive despite these reforms. This underscores the need for rethinking the current law and policy frameworks in the Nigerian electricity sector with a view to determining the reason for the seemingly intractable nature of the problems of the electricity sector.

Theoretical Framework

The model for this research study assumes an underlying relationship between some macroeconomic variables that can influence the role of foreign direct investment on the power sector of Nigeria. Based on the theoretical foundation on power sector output, the nature of foreign direct investment, other macroeconomic variables can be brought in. To examine this, the research study employs diagnostic and unit root test using Augmented Dickey Fuller to investigate time series data and to test the stationarity of the time series variables. Johansen co-integration is employed to test for relationship.

Model Specification

The model used to explain the role of foreign direct investment on the power sector of Nigeria is presented below:

$$PSO = f(FDI, IFR, OPE) \quad 1$$

The functional form of the model could be presented explicitly as:

$$PSO = \beta_0 + \beta_1 FDI + \beta_2 IFR + \beta_3 OPE + \mu_0 \quad 2$$

Where:
PSO = Power Sector Output;
FDI = Foreign Direct Investment;
IFR = Inflation Rate; and
OPE = Openness of the Economy.

β_0 is the intercept of the regression line, β_1,β_2 & β_3 are the slope of the regression line or behaviour parameters, each representing the unit change in the dependent variable due to a unit change in each regressor. μ_0 is the stochastic random error term that represents other independent variables that affect the model but were not captured in the model.

Methodology

The variables which comprises of power sector output as the dependent variable and, foreign direct investment,

inflation rate and openness of the economy as the independent variables will be analyzed statistically using regression method, Augmented-Dickey Fuller unit root test and Co-integration test with the aid of a statistical software known as Eview 7.

Sources of Data

The data used in this research study is a secondary source of data from statistical bulletin of Central Bank of Nigeria.

ANALYSIS OF RESULTS

Presentation of Regression Results

The regression result on the role of foreign direct investment on the power sector of Nigeria is presented below:

Regression Analysis
Dependent Variable: PSO
Method: Least Squares
Date: 08/05/16 Time: 15:33
Sample: 1980 2014
Included observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	-3.02E-06	7.35E-07	-4.111713	0.0003
IFR	0.002820	0.016337	0.172589	0.8641
OPE	0.001084	0.000105	10.30271	0.0000
C	9.601057	0.488430	19.65697	0.0000

R-squared	0.930826	Mean dependent var	13.92941
Adjusted R-squared	0.923909	S.D. dependent var	5.834304
S.E. of regression	1.609375	Akaike info criterion	3.899699
Sum squared resid	77.70260	Schwarz criterion	4.079271
Log likelihood	-62.29489	Hannan-Quinn criter.	3.960938
F-statistic	134.5628	Durbin-Watson stat	1.285517
Prob(F-statistic)	0.000000		

Source: Eview Result output

Table 4.1 shows the regression result of the research study. The findings revealed that the result is not spurious due to a high value of Durbin-Watson statistic when compared to the coefficient of determination (R^2) that is having a significant higher value as well. However, the significant high value of R^2 which is approximately 93.08% explains the true behaviour of the independent variables (FDI, IFR & OPE) while 6.92% explains the disturbance error term in the model. The adjusted R^2 of approximately 92.40% explains the true behaviour of the R^2. Hence, the model shows a good fit.

Based on the t-statistic test, it is revealed that only the calculated value of FDI and OPE as variable against it p-value is lesser than the test of significance at 5%. This revealed the significant effect of foreign direct investment and trade openness of the economy within the period considered.

The overall test of statistic, the F-statistic, revealed that the p-value of the calculated F-statistic is lesser than the test of significance at 5%; we therefore reject the null hypothesis and conclude that there is significant impact of foreign direct investment on the power sector of Nigeria within the period considered.

Unit Root Tests Result: The Analysis

Augmented Dickey-Fuller unit root test for the variables

Variables	**ADF**	**5%**	**Differencing**	**LAGS**
PSO	5.1492	0.0002	1st	1
FDI	7.6414	0.0000	1st	1
IFR	5.1339	0.0002	1st	1
OPE	5.0221	0.0003	1st	1

Source: Author computation from Eviews 7

Table 2 shows the Augmented Dickey-Fuller unit root test for the variables so as to verify if the variables are stationary are not. The findings of the results revealed that PSO, FDI, IFR and OPE are stationary and does not have a unit root problem at 5%, first differencing and at lag 1 within the period considered.

Analysis of Co-integration Test Results

Johansen's Multivariate Co-integration test

Hypothesized No. of CE(s)	Eigen-value	Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.7209	67.1931	47.8561	0.0003	40.8467	27.5843	0.0006
At Most 1	0.4285	26.3464	29.7970	0.1187	17.9030	21.1316	0.1335
At Most 2	0.2296	8.4434	15.4947	0.4193	8.3466	14.2646	0.3446
At Most 3	0.0030	0.0968	3.8414	0.7557	0.0968	3.8414	0.7557

Source: Author computation from Eviews 7

The Table 4.3 shows the Johansen's Multivariate Co-integration test of the variables used in this research study. Details of the result are shown in the appendices section. Based on the hypothesized number of co-integrated equation(s), it is revealed that both the Trace and Max-Eigen statistic test has one co-integrating equation because their p-value is lesser than the test of significance at 5%; we therefore reject the null hypothesis and conclude that there is one co-integrating equation between the variables.

The Dynamic Analysis of Result

The findings revealed that the variables used in the research study are not spurious. The Augmented Dickey-Fuller unit root test was employed to correct the degree of spuriousity of the variables. At first and second differences and lag 1, it is revealed that the variables are stationary and does not have a unit root problem. The co-integration test revealed one co-integrating equations among the variables. The dynamic effect of this is that the variables have a long run relationship.

Policy Implication of Results

The coefficient of the variables, which is, inflation rate and trade openness of the economy, is positively signed except for foreign direct investment that is negatively signed. Only foreign direct investment and trade openness of the economy has a significant effect to the research study in a positive direction. This revealed that there is significant impact of foreign direct investment on the power sector of Nigeria due to the overriding effect of openness of the economy. This implies that as foreign direct investment and trade openness of the economy increases, it in turns has a significant effect on the power sector of the economy within the period considered.

SUMMARY, RECOMMENDATION AND CONCLUSION

Summary of Findings

The study which investigates on the role of foreign direct investment on the power sector of Nigeria for a time series period of 34years is summarized as follows:

i. The coefficient of determination (R^2) is significantly high. Hence, the model shows a good fit;
ii. Only the t-statistic of foreign direct investment and trade openness of the economy contributes significantly to the research study;
iii. The overall test of statistic, the F-statistic revealed that there is significant impact of foreign direct investment on the power sector of Nigeria due to the overriding effect of trade openness of the economy within the period considered;
iv. The Augmented Dickey-Fuller unit root test revealed that the variables are stationary and does not have a unit root problem; and
v. The co-integration test revealed that there is only one co-integrating equation of the variables.

Policy Recommendations

From the analysis so far and the benefit of power sector, it can be argued that the policy issues drawn from this study may be large. In order to reap the benefit of this study, the researcher is of the view that the following recommendations be put forward:

i. FDI in Nigeria induces the nation's power sector growth. Although the overall effect of FDI on the whole economy may not be significant, the components of FDI positively affect power sector and therefore FDI needs to be encouraged.
ii. Since FDI has the highest potential for contributing growth, it needs to be properly channelled and integrated into the mainstream of the nation's power sector.
iii. The negative contribution of the manufacturing sector is a reflection of Nigerian's power sector poor output. There is need to consciously improve the level of electricity power supply to enable manufacturing sector to contribute positively to growth of Nigerian economy.
iv. FDI should focus more on Nigeria's power sector because of the strategic relevance of the sector to the nation's economy. This will mitigate capital (fund) constraints faced by the key actors in the

power sector of Nigeria's economy.

v. Concerted effort should be made by the government, stakeholders and NGOs to enhance the growth rate of Nigerian power sector. This will make the power sector more attractive to foreign investors, encourage production and generate employment especially for the rural populace.

Conclusion

Attraction of FDI is particularly an important policy issue for Nigeria government. In the context of their efforts to increase electricity power generation in the country, the country open bid for privatization of power sector and lay greater emphasis on attracting FDI by improving the overall enabling power sector and by putting in place specific incentives for such investment.

However, the need to enhance the current trend of FDI inflows to Nigerian economy becomes necessary. Thus, while the need for FDI is sharp, it does not justify using any incentive instrument particularly that which might fragment the tax system and undermine the macroeconomic policy stance. In fact, there is a wide range of positive incentives and policies available for Nigeria government to enhance inflow of FDI, the effectiveness of which would be facilitated by improving the enabling investment environment through sound macroeconomic policies, strengthened institutions intensification of structural reforms, rapid liberalization and regulation of markets, and privatization of economic activities. As progress is made on these issues, there will be less need for Nigeria government to resort to negative incentives and policies for attracting FDI, which not only undermine fiscal, but also tend to attract the less productive type of FDI. More importantly, greater cooperation and harmonization in less developed countries such as Nigeria would assist in this regard by creating an attractive overall environment for longer term developmental FDI, which can contribute significantly to attaining the growth and development of the Nigerian economy. Power sector is very important to the health and well-being of Nigerians. There are several reasons for this. Electricity power supply brings about a higher standard of living: the quality of life based on the possession of necessities and luxuries which make life easier.

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APPENDICES

Year	Power Sector Output (PSO)	Foreign Direct Investment (FDI)	Inflation Rate (IFR)	Openness of the Economy (OPE)
1980	8.9	235.4	4.3	21.7
1981	9.0	315.7	4.1	23.9
1982	9.9	211.4	5.1	19.0
1983	9.6	203.8	5.1	16.4
1984	10.1	314.2	4.8	16.3
1985	11.4	434.1	5.5	18.8
1986	7.5	735.8	5.4	14.9
1987	7.8	2452.8	10.2	48.2
1988	7.9	1718.2	38.3	52.6
1989	8.8	13877.4	40.9	88.8
1990	8.9	4686	7.5	155.6
1991	9.3	6916.1	13.0	211.0
1992	10.3	14463.1	44.5	348.8
1993	10.5	29660.3	57.2	384.4
1994	11.3	22229.2	57.0	368.8
1995	11.1	75940.6	72.8	1,705.8
1996	11.3	111290.9	29.3	1,872.2
1997	11.3	110452.7	8.5	2,087.4
1998	10.5	80749	10.0	1,589.3
1999	10.7	92972.5	6.6	2,051.5
2000	10.9	115952.2	6.9	2,930.7
2001	12.4	132433.7	18.9	3,226.1
2002	15.9	225224.8	12.9	3,256.9
2003	16.5	258388.6	14.0	5,168.1
2004	18.3	248224.6	10.1	6,589.8
2005	19.4	341717.25	11.5	10,047.4
2006	20.3	740208.19	8.6	10,433.2
2007	21.3	1640136.13	6.6	12,221.7
2008	22	2006498.17	15.1	15,980.9
2009	22.7	224046.56	12.1	14,087.0
2010	23.4	2978258.3	11.8	20,175.5
2011	24	3506908.71	10.3	26,232.5
2012	24.8	3466351.1	12.0	24,905.9
2013	25.6	3924100	8.0	24,701.4
2014	30.2	3862014.5	8.0	24,342.1

Source: Statistical bulletin of Central Bank of Nigeria (CBN, 2013)