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DIVERSIFICATION OF THE NIGERIAN ECONOMY: AGRICULTURE AND SOLID MINERALS AS PANACEA*



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1.0 INTRODUCTION

Nigeria is a very large country, spanning an area of 910.8 thousand square kilometres out of which 77.7 per cent is cultivable (World Bank, 2016). It has the largest population in Sub-Saharan Africa estimated at 180.7 million in 2014 (Central Bank of Nigeria (CBN), 2014), and it is one of the ten most populated country in the world. The country is bordered by the Atlantic Ocean/Gulf of Guinea to the South, Republic of Benin to the West, Republic of Cameroon to the East and it is bordered in the North by Niger and Chad. Its topography ranges from mangrove swampland along the coast to tropical rain forest and savannah to the north. This topography can support various crops and livestock possibilities and the earth's crust is rich in so many minerals. Yet Nigeria remains a poor country, with a per capita Gross Domestic Product (GDP) of less than 3,000 United States of America Dollars (US\$) and a poverty rate of 72 per cent (CBN, 2014).

That Nigeria has remained a poor country after 56 years of independence is partly due to the fact that a substantial proportion of the wide expanse of agricultural lands are yet to be cultivated while most of the minerals are yet to be exploited. Most importantly, the discovery of substantial quantities of

ABSTRACT

Diversification of the Nigerian economy with specific emphasis on agricultural and solid mineral sectors is feasible in view of Nigeria's resource endowment. Nigeria has a large expanse of agricultural land. This constitutes 77.7 per cent of Nigeria's total land area which is 910.8 thousand square kilometres. Of this total, 37.3 per cent is arable land, 7.4 per cent is under permanent crop and 9.0 percent is under forest. Therefore, substantial land is still available for agricultural activities. Most importantly, Nigeria's agriculture is diverse, which include four sub-sectors, namely; crop, livestock, fisheries and forestry which are yet to be fully exploited. In the same vein, Nigeria is blessed with a wide variety of solid minerals which are widely distributed in almost all the states of the Federation. So far, about 33 solid mineral commodities are occurring in about 450 locations nationwide have been identified. They include coal, cassiterite (tin ore), columbite, marble, tantalite, wolframite, lead, zinc, limestone, kaolin, clay, shales, and radioactive minerals such as monazite, zircon, molybdenite and barytes. Others are glass sand, bituminous sand, uranium, serpentine, phosphate, cuprite, granite, talc ore, gypsum, feldspar, bentonite, soda ash, iron ore, dolomite, etc. Thus, Nigeria is blessed with most of the mineral raw materials needed as inputs for industrial production. An effective partnership between government and the private sector in exploiting these abundant agricultural and solid mineral resources which are well distributed all over the country, will certainly put Nigeria on a path of sustainable growth and development.

KEYWORDS: Diversification, Economic Development, Agriculture, Solid Minerals.

JEL CLASSIFICATION CODES: L7, L72, O1, O13, Q1, Q17.

petroleum in the country shortly after independence in the late 1960s and the attractive world crude oil prices shifted emphasis away from agriculture and other sectors of the economy. Available statistics indicated that crude oil exports fetched Nigeria only N8.8 million at independence in 1960 and this constituted just 2.7 per cent of total export earnings, while non-oil exports amounted to N321.2 million, constituting 97.3 per cent of total exports in the same period. But by 1976, the table turned and the value of oil exports increased astronomically to N6,321.6 million, constituting 93.6 per cent of total exports, while the proportion of non-oil exports in Nigeria's foreign earnings had declined substantially to 6.4 per cent at N429.5 million (Evbuomwan, 1996), and this trend has remained over the years (Tables 1a and 1b).

Despite the fact that oil exports constitute a substantial proportion of

Nigeria's export earnings, its importance in the GDP is lower than that of the non-oil sector (Table 2) and particularly worrisome is the fact that its fortunes have been on a downward trend in recent years with dire consequences for the Nigerian economy. For instance, the contribution of crude petroleum and natural gas to the national GDP declined from 14.95 per cent in 2008 to 9.61 per cent in 2015, whereas the agricultural sector contributed 23.1 and 23.11 per cent to the national GDP in these respective periods. In addition, oil refining has been contributing less than 0.5 per cent to the nation's GDP as Nigeria mostly exports crude oil, whose price is determined exogenously (Table 2). Unfortunately, crude oil prices have been on the decline in the last few years. From an average of US\$100 in 2012, a barrel of crude oil now sells for less than US\$50.00 (CBN, 2014; 2016). It is also pertinent to note that the bulk of the Nigerian population

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earn their living from the non-oil sector with the agricultural sector alone providing employment for over 70.0 per cent of the populace, while agricultural produce and semi-processed agricultural commodities have constituted the bulk of non-oil export earnings (Table 3).

It is against this backdrop that there has been call from every quarter for diversification of the Nigerian economy from oil to other sectors. In view of the abundant agricultural and mineral resources available in the country, it is obvious that these two sectors would deliver the quick wins in the quest to diversify the Nigerian economy, and this is the subject of this paper. In the rest of this paper, attempt will be made to properly situate the agricultural and solid minerals sectors of the Nigerian economy, and highlight the problems that have been militating against their effective performance so that adequate steps can be taken to eradicate them in order to make these two very important sectors more viable and thus, enable Nigeria to stop being a mono-economy solely dependent on crude oil export.

2. THE NIGERIAN AGRICULTURAL ECONOMY

As alluded to earlier, the agricultural sector remains the mainstay of the Nigerian economy in spite of the dominant role of the petroleum sector as the major foreign exchange earner for the country. The Nigerian agricultural sector has been contributing the largest share of the nation's GDP; it is the largest non-oil export earner. Between 1985 and 1994, Agricultural produce and manufactured and semi-manufactured agricultural commodities were reported to have constituted 86.6 per cent of total non-oil export earnings (Ebuomwan, 1996). As recent as 2014, the agricultural sector still contributed over 70 per cent to non-oil export earnings (Table 3). It is the largest employer of labour and a key contributor to wealth creation and poverty alleviation, as a large percentage of the population derive their income from agriculture and related activities.

However, over the years, the rate of development of the agricultural sector has failed to keep pace with

the needs of a rapidly growing population, resulting in a progressive rise in import bills for food and industrial raw materials. For instance, import of food and live animals grew from N1.8 billion constituting 14.1 per cent of total imports in 1981, to N2,885.4 in 2011, and it's proportion of total imports also increased to 20.2 per cent (Table 4a). Similarly, import of animal and vegetable oil and fat, a major raw material in the food industry, grew from N0.1 billion in 1981 to N144.7 billion in 2015, constituting 0.8 and 1.3 per cent of total imports in the respective periods (Tables 4b). The potentials of the agri-business sector as a major employer of the growing labour force and earner of foreign exchange have also been undermined. As a result, a large majority of the population, many of whom live in the rural areas remain poor; while Nigeria is far from being food secure. In order to diversify the economy through the agricultural sector, it is pertinent to first examine the constraint militating against the effective performance of the sector so as to avoid the old pitfalls.

2.1 Major Constraints Militating Against the Effectiveness of the Nigerian Agricultural Sector

Constraints facing the Nigerian agricultural sector like most other countries in Sub-Saharan Africa can be divided into domestic (endogenous) and external (exogenous) constraints. The domestic constraints include a low resource base and little use of modern farm inputs, poor infrastructure, environmental problems, unfavourable climate, civil strife/terrorist attack and poor management of the economy (governance). The major external constraints on the other hand, include adverse movement in the terms of trade and declines in foreign trade and foreign investment (Ojo and Ebuomwan, 1997).

2.1.1 Domestic Constraints

(i) Resource Constraints and Low Rate of Technological Adoption

Nigerian agriculture is mainly rain fed and has continued to be dominated by small holders with limited resources, using traditional rotational fallow farming methods, low level of use of suitable inputs and little new technology adoption. It is characterized by low use of

modern/improved farm inputs (seeds, fertilizer, pesticides, etc.). Consequently, yields are still very low. To buttress this point is the fact that cereal yield in Nigeria is still as low as 1,537 kilograms per hectare compared with 7,340kg/ha in the USA; 5,058kg/ha in Indonesia and 3,725kg/ha in South Africa. This is not unconnected with the fact that fertilizer consumption in Nigeria is only 4.8 kg/ha compared with 131.1kg/ha in the USA, 194.8kg/ha in Indonesia and 62.0kg/ha in South Africa (World Bank, 2015).

In the same vein, agricultural machinery such as tractors, harvesters, planters and harrows are limited to the very few large scale farms which contribute just about 5 per cent of total agricultural production in Nigeria, hence the sector is plagued with drudgery and low productivity as the small holders who own over 80 per cent of farms still apply traditional technologies of hoe and cutlass on their small fragmented holdings of less than 6 ha all put together. According to some estimates, there are only about 40,000 tractors in Nigeria, out of which half are operational. Irrigated agriculture which would help increase agricultural output in many folds is also not a common feature in Nigeria. Furthermore, inadequate extension services has not helped matters.

Like crops production, livestock production in Nigeria is based on traditional methods including pastoralism. Overgrazing of pastoral lands is increasingly a problem and the pastoral system does not lend itself to improved grazing methods nor the introduction of new grass species or other fodder crops. In addition, the hot and humid climate, and resource constraints for veterinary services has encouraged a number of livestock diseases, such as foot and mouth disease of cattle, peste des petits ruminants and infectious bursal disease.

(ii) Problems Associated with marketing of Agricultural Produce

Agricultural produce marketing is not well coordinated yet, particularly for food crops. There are no grades and standards, so quality is compromised. Inadequate transportation, processing and storage facilities further compound

marketing problems and this has been resulting in huge post-harvest losses. Development of silos and warehouses by government has been seriously stalled by inadequate revenue allocation to the sector. Agricultural processing industries have had to contend with rising cost of operations in respect of utilities like energy, and water as well as machines and tools. Unfortunately, high cost of credit and stringent requirements has limited farming enterprises access to funds from the banks which would have helped them address some of their marketing problems and boost agricultural productivity.

(iii) Problems of Environmental Hazards

The twin problem of draught/desertification as well as flooding and soil erosion have remained very serious for Nigerian agriculture. These are usually manifested sometimes in sharp declines in rainfall, loss of vegetation, soil degradation, and deforestation. At other times too much rainfall has caused flooding and washing away of farmlands and drowning of animals and man. Though some of these problems are caused by natural forces, they are also sometimes caused by direct result of human activities such as over-grazing, over cultivation, bush burning and deforestation and poor conservation practices.

Although agricultural output has been increasing over the years, eliminating the challenges facing the sector will help boost agricultural output and enable the sector play a leading role in Nigeria's quest for economic development. The small size of farms, the low levels of mechanization and input use, poor infrastructure and high level of post-harvest losses due to pests, animals, and poor transport and storage conditions must be addressed.

2.1.2 External Constraints

The major external factors include adverse movement in the terms of trade and declines in foreign trade, and investments.

(i) Trade

One of the most serious of these external factors is Nigeria's worsening *terms of trade, like most other African countries, with declining traditional export both in price and quantities, and increasing inputs, also in both*

price and volume. For instance, the indices of average world price of Nigeria's traditional exports like cocoa and palm oil has been on the decline (Evbuumwan, 1996 (2)). Even most recently, with 2010 as the base year, index of cocoa price in US dollars declined to 76.3 in 2012, while that of palm oil declined to 88.9 in 2013 (CBN, 2014). In addition, Nigeria's world market share of these commodities have been falling with expansion in output of these commodities by Asians (Indonesia, Malaysia and China) at lower cost.

On the other hand, the import policies of Western industrialized countries have also played a major and negative role in Nigeria's export performance. Protectionism and restrictive agricultural practices, especially in the European Community and the USA, have resulted in an over-supply of some agricultural commodities, and thus dampened worldwide demand and weakened world price. Support for agriculture as per cent of GDP in 2013 was 0.5 per cent for the USA, 0.8 per cent for the European Union, 0.9 per cent for Switzerland, 1.3 per cent for Japan and 2.1 per cent for Korea. Similarly, tariff on agricultural products in 2012 were as high as 37.7 per cent in Korea, 31.3 per cent in Norway, 12.0 per cent in Switzerland, 9.9 per cent in Japan and 9.1 per cent in the European Union (World Bank, 2014).

Unfortunately, intra-regional trade in Africa is low, as most African countries produce similar products for export, generally primary agricultural products, while most of the value added is carried out in Western industrialized countries. In addition, their transport infrastructure is geared for export to Western Europe, Japan, etc., rather than to nearby countries. There is therefore, the need to explore more markets for Nigeria's agricultural commodities. In addition, more value addition has to be focused on so as to increase Nigeria's market share of manufactures and semi-manufactures. The agricultural value chain must be strengthened.

(ii) Foreign Investment

The level of foreign investment has *been decreasing over the years and this has been exacerbated by political instability, the uncertainty of obtaining the enforcement of*

contract and high cost of doing business. Concerted efforts by the government to remove these constraints will help grow the agricultural sector.

3. THE SOLID MINERALS SECTOR

Nigeria is blessed with a wide variety of solid minerals which are widely distributed in almost all the states of the Federation. So far, about 33 solid mineral commodities occurring about 450 locations nationwide have been identified (Okueke, 2003). These include coal, cassiterite (tin ore), columbite, marbles, tantalite, wolfram, gold, lead, zinc, limestone, kaolin, clay, shales, and radioactive minerals such as monazite, zircon, molybdenite and barytes. Others are glass sand, bitumen sand, uranium, serpentine, phosphate, cuprite, granite, talc, gypsum, feldspar, bentonite, soda ash, iron ore, dolomite, etc. (Chalton, 2001). Some of these minerals are currently mined while some others have the potential of being exploited on a commercial scale (Onah, 2001).

Prior to the emergence of petroleum as a major foreign exchange earner in Nigeria, the solid minerals sector ranked second only to the agricultural sector as a source of export earnings for the country. The solid minerals sector also contributed substantially to the GDP then, about 10 per cent of GDP in 1970 (Onah, 2001). The sector provided employment for a lot of Nigerians, employing on average, about 49,000 workers per annum between 1958 and 1970 (Onah, 2001).

However, in the wake of the Indigenization Decree in 1970, foreign multinational mining companies and their expatriate professionals exited the country and the performance of the solid minerals sector started declining. Unfortunately, the vacuum created by their exit was left yawning as the government was more focused on the oil sector then. Consequently, the production of coal for instance dropped from 341,217 tonnes in 1970 to 53,576 tonnes in 1983 (i.e. a decline of 84.3 per cent within a decade). Similarly, columbite which recorded an output of 1,616 tonnes in 1970 was only 79 tonnes in 1980 while the production of marbles declined from 8,726 tonnes in 1978 to 640 tonnes in 1980 (CBN/NEXIM, 1999). Thus, solid minerals

contribution to GDP has declined drastically to an average of 0.15 per cent between 1981 and 2015 (Table 2). The contribution of minerals to non-oil exports has also been on the decline averaging 3.4 per cent between 2004 and 2014 (Table 3). Similarly, import of mineral products averaged 3.8 per cent of total value of exports between 2009 and 2015, while import of base metals and alloys of base metals was as high as 11.8 per cent of total imports in this time period (Table 4b).

Therefore, just like the agricultural sector, a number of problems have been militating against the effective performance of the solid minerals sector. It is pertinent to point them out so that they can be well addressed in a quest to diversify the economy.

3.1 Constraints Militating Against the Effective Performance of the Solid Minerals Sector

(i) Lack of Information

There is the chronic unavailability of relevant geological data and information required by investors desiring to enter the solid minerals industry. Government has the responsibility for providing these information which will eventually attract both domestic and foreign private investors to invest in the exploitation and processing of these minerals for industrial uses. In view of the fact that it is capital intensive, government would have to complement public sector funds with capital from foreign sources such as grants/aids from development partners.

(ii) Lack of Adequate Capacity in Mining and Processing

Mineral resources development like oil and gas require high technological inputs which Nigeria is lacking. There is therefore the need to attract foreign participation through attractive fiscal incentives.

(iii) Poor Infrastructure

Infrastructures such as transportation, power, communication, water, etc., are needed for effective exploitation of solid minerals. The poor state of infrastructure increases the cost of mining business which is a great incentive to the private sector.

More investment is needed in this area to boost output.

(iv) In-conducive Policy Environment

Investors look for stable policies, transparency and accountability in government before committing their resources in the long term which is what is required in the solid minerals sector. The policy environment has not been conducive nor consistent in Nigeria over the years. It is high time our policies are well focused.

(v) Legal and Regulatory Framework

The problem of enforcement of contract and ownership laws regarding resource control is another critical factor militating against the development of the solid minerals sector in Nigeria. It is imperative that the legal and regulatory framework is such that promotes private sector participation in this very crucial sector of the Nigerian economy. In addition, the share in the ownership and control by state governments of mineral resources located in their lands will help the sector grow faster.

4. PROSPECTS

Despite the suboptimal performance of the agricultural and solid minerals sectors in Nigeria due to their neglect since the discovery of oil in the 1970s, these sectors still possess the capacity to put the country on a sustainable path of growth and development in view of the abundance of enormous resources yet to be tapped. Nigeria has a large expanse of agricultural land. This constitutes 77.7 per cent of Nigeria's total land area which is 910.8 thousand square kilometres. Of this total, 37.3 per cent is arable land, 7.4 per cent is under permanent crop and 9.0 percent is under forest (World Bank, 2016). Therefore, substantial land is still available for agricultural activities. A critical examination of available statistics reveal that in recent years agricultural sector contribution to GDP has improved (from 15.5 per cent of total GDP in 1981 to 23.1 per cent in 2015) (Table 2b), while more agricultural commodities have entered the non-oil export list. Non-traditional agricultural export commodities such as cashew nuts, fish & crustaceans, ginger, gum Arabic and sesame seeds are contributing significantly to

non-oil export value now. For instance, sesame seeds alone contributed an average of 9.3 per cent to total value of non-oil exports between 2010 and 2014. Meanwhile substantial land is still available in Nigeria for agricultural production and the manpower is also available.

Agriculture remains a critical sector that can be targeted to create jobs for our teeming youths. The National Bureau of Statistics 2012 baseline survey revealed that currently, 37.0 percent of youths are engaged in agriculture, spread through the various sub-sectors, crops, livestock, fishing and forestry. Distribution of youth's annual turnover from agricultural business by type of activity revealed that; crop farming activity contributed the sum of four trillion Naira, livestock contributed two trillion Naira, poultry contributed twenty billion Naira, fishing also contributed twenty billion Naira, while forestry contributed one billion Naira. From the foregoing, it is clear that if adequate strategies are put in place, more youths can earn their living from the agricultural sector and contribute to the growth in Nigeria's gross domestic product, and assure food security in the country.

Similarly, most of about 33 solid mineral commodities occurring in about 450 locations nationwide are yet to be exploited. And it is gratifying to note that the industrial uses of processed forms of some of the minerals found in Nigeria are enormous, thus, as the pace of industrialization increases, the demand for these mineral products will certainly grow (Chart 2).

As regards export potentials, in the solid minerals sector as well, semi-manufactures like aluminium, copper, lead, steel/iron, tin and zinc have also been featuring in the non-oil export list since 2010, averaging 6.7 per cent of total non-oil export value between 2010 and 2014 (Table 3).

The foregoing are all evidences that diversification into agriculture and solid minerals by Nigeria will strengthen the economy if the constraints militating against these two sectors are adequately

Chart 1: Geographical Distribution of Solid Mineral Resources in Nigeria

Mineral	Location
Iron Ore	Itakkpe, Chakochocho, Ajabonoko, Obajana, Ebija, and Okudu in Kogi State; Muro in Plateau State; Bingi and Maraba in Maru District of Niger State; Ajase in Osun State; Birni Kebbi and Gusaka in Sokoto State.
Ironstone	Dakingari in Sokoto State; Tajimi in Kaduna State; Rishi in Bauchi State; Karfa in Borno State; Ejieja in Benue State; Nsude in Enugu State; Lokoja and Akpanya in Kogi State; Batati and Sakpe in Niger State.
Cassiterite	Jos in Plateau State as well as in Bauchi State
Columbite	Plateau, Kaduna, Kano, Bauchi, Ondo and Kwara States and Abuja(FCT)
Tantalite	Plateau, Bauchi, Kaduna and Ondo
Manganese	Mallam Ayuba in Kaduna State, and Zaria.
Vanadium	Abuja
Nickel	Ife and Ilesha in Osun State
Chromite	Sokoto and Katsina States
Molybdenum	Plateau State
Wolfram	Bauchi, Kano and Kaduna States
Ilmenite	Plateau, Kaduna, Niger, Osun and Kwara States
Tourmaline	Plateau, Kaduna and Kwara States
Zircon	Kaduna
Limestone	Nkalagu in Enugu State; Odumoke in Ebonyi State; Mfamoshi and Odukpau in Cross River State; Ewekoro in Ogun State; Igumale, Ogbolokuta and Yandev in Benue State; Ashaka, Bauchi, Kanawa, Kambiena in Sokoto State; Umu-Obom and Ohafia in Abia State.
Marble	Jakura, Ubo, and Ajaokuta in Kogi State; Ukpilla in Edo State; Itobe in Benue State and Kankara in Katsina State.
Dolomite	Osara and Elebu in Kogi State; Burum and Taka Lafia in the Federal Capital Territory (FCT); and Igbetti in Oyo State.
Clay	Ozubulu, Ihiala and Nnewi in Anambra State; Enugu, Kankara in Katsina State; Maraba-Rido in Kaduna State, Onibode, Lisabi and Miroko in Ogun State, Jos and Ropp in Plateau State; Biu and Maiduguri in Borno State; Ukwunzu in Delta State; Bende and Ohaozara in Abia State; Nsu in Imo State; Umuahia in Abia State; Garkidda and Taraba/Adamawa; Dawakin, Minjibar and Tsanyawa in Kano State, Illo and Kaoje in Sokoto State; Ifon and Igbotako in Ondo State.
Emerald	Keffi in Plateau State
Aquamarine	Keffi in Plateau and Jamaa in Kaduna State
Ruby	Kaduna
Sapphire	Kaduna
Amethyst	Zaria Dala Panama Ilemga Hill in Kaduna State and Tafawa Balewa in Bauchi State
Rock Crystal	Jos Plateau
Garnet	Various locations
Topaz	Jos Plateau
Fluorspar	Jos Plateau
Coal	Enugu, Benue, Kogi, Obi-Lafia in Nassarawa State
Lignite	Enugu and Anambra States

Source: Adapted from Onah, 2001.

Chart 2: Principal Uses of Some of Nigeria's Processed Minerals

Minerals	Principal Uses
Kaolin	Paper, rubber, pottery, ceramics, and pharmaceuticals
Talc	Ceramics, paint and cosmetics
Phosphate	Fertilizers
Limestone	Fertilizers
Lime	Water treatment and steel making
Gypsum	Cement
Feldspar	Glass, pottery and ceramics
Barytes	Oil well drilling and white paint pigment
Bentonite	Water and oil well drilling
Soda Ash	Detergent and glass

Source: Adapted from Onah, 2001.

REFERENCES

- Adenwumi Adesina (2012): Investing in Nigeria's Agricultural Value Chains. Paper presented at the Bank of Industry's Nigerian Investment Forum, London, July, 2012.
- Central Bank of Nigeria (2014): Annual Report and Statement of Accounts for 2014, Abuja
- Central Bank of Nigeria (2013): Statistical Bulletin, December, 2013, Abuja
- Central Bank of Nigeria (2015): Statistical Bulletin, December, 2015, Abuja
- CBN/NEXIM (1999): A Diagnostic Study of Nigeria's Non-oil Exports Sector (FINDINGS AND RECOMMENDATIONS). Central Bank of Nigeria and Nigeria Export-Import Bank, 1999.
- Evbuomwan, G. O. (1996): Strategies for Revitalizing the Export Crop Sub-sector of the Nigerian Agricultural Economy. Selected Papers of the 1996 Annual Conference. The Nigerian Economic Society, Ibadan.
- Evbuomwan, G. O. (1996) (2): An Empirical Analysis of the Prices of Nigeria's Agricultural Export Commodities. Central Bank of Nigeria Economic and Financial Review, Vol. 34, No. 1, March 1996, pp. 501-521.
- Ezekiel Oseni (2013): Agricultural Development: Optimising the Value Chain. Bank of Industry, Lagos, Nigeria.
- National Bureau of Statistics (2016): Nigeria's Gross Domestic Product, First Quarter, 2016, May, 2016. Abuja.
- National Planning Commission (2004): Nigeria: National Economic Empowerment and Development Strategy (NEEDS). Federal Secretariat, Abuja.
- Ojo, M. O. and Evbuomwan, G. O. (1997): Management of the Agricultural Economy in Sub-Saharan Africa after the Structural Adjustment Programme. Proceedings of the 11th International Farm Management Congress. July 14-19, 1997, Calgary, Alberta, Canada. Volume 1, pp. 151-179.
- Ouedo, O. E. (2003): Foreign Private Investment in Nigeria's Solid Mineral Sector. Proceedings of the Twelfth Annual Conference of the Regional Research Units. Research Department, Central Bank of Nigeria, Abuja, 1st to 5th September, 2003, Kaduna, Kaduna State, Nigeria.
- Onah, F. E. (2001): Promotion of Economic Activities through Development of Solid Minerals Potentials in the States. Proceedings of the Tenth Annual Conference of the Zonal Research Units, Research Department, Central Bank of Nigeria, Abuja, June, 4th to 8th 2001, Owerri, Imo State, Nigeria.

Table 1a: NIGERIA'S EXPORTS 1960-1980 (N' Million)

YEAR	Total Exports	Oil Export	Oil as % of Total	Non-Oil Exports	Non-oil as % of Total
1960	330	8.8	2.7	321.2	97.3
1961	346.9	23.1	6.7	323.8	93.3
1962	334.2	33.5	10.0	300.7	90.0
1963	371.5	40.4	10.9	331.1	89.1
1964	429.2	64.1	14.9	365.1	85.1
1965	536.8	136.2	25.4	400.6	74.6
1966	568.2	183.9	32.4	384.3	67.6
1967	483.6	144.8	29.9	338.8	70.1
1968	422.2	74	17.5	348.2	82.5
1969	636.3	261.9	41.2	374.4	58.8
1970	885.4	510	57.6	375.4	42.4
1971	1290.3	950	73.6	340.3	26.4
1972	1435.2	1176.2	82.0	258	18.0
1973	2277.4	1893.5	83.1	383.9	16.9
1974	5794.8	5365.7	92.6	429.1	7.4
1975	4925.5	4563.1	92.6	362.4	7.4
1976	6751.1	6321.6	93.6	429.5	6.4
1977	7976.6	7453.6	93.4	523	6.6
1978	6064.4	5401.6	89.1	662.8	10.9
1979	10836.8	10166.8	93.8	670	6.2
1980	14077.6	13523	96.1	554.6	3.9
Averages	3179.714	2775.99	54.2	403.6762	45.8

Source: Adapted from Evbuomwan, 1996

Table 1b: NIGERIA'S EXPORTS 1981-2015 (N' Billion)

YEAR	Total Exports	Oil Export	Oil as % of Total	Non-Oil Exports	Non-oil as % of Total
1981	11	10.7	97.3	0.3	2.7
1982	8.2	8	97.6	0.2	2.4
1983	7.5	7.2	96.0	0.3	4.0
1984	9.1	8.8	96.7	0.2	2.2
1985	11.7	11.2	95.7	0.5	4.3
1986	8.9	8.4	94.4	0.6	6.7
1987	30.4	28.2	92.8	2.2	7.2
1988	31.2	28.4	91.0	2.8	9.0
1989	58	55	94.8	3	5.2
1990	109.9	106.6	97.0	3.3	3.0
1991	121.5	116.9	96.2	4.7	3.9
1992	205.6	201.4	98.0	4.2	2.0
1993	218.8	213.8	97.7	5	2.3
1994	206.1	200.7	97.4	5.3	2.6
1995	950.7	927.6	97.6	23.1	2.4
1996	1309.5	1286.2	98.2	23.3	1.8
1997	1241.7	1212.5	97.6	29.2	2.4
1998	751.9	717.8	95.5	34.1	4.5
1999	1189	1169.5	98.4	19.5	1.6
2000	1945.7	1920.9	98.7	24.8	1.3
2001	1868	1839.9	98.5	28	1.5
2002	1744.2	1649.4	94.6	94.7	5.4
2003	3087.9	2993.1	96.9	94.8	3.1
2004	4602.8	4489.5	97.5	113.3	2.5
2005	7246.5	7140.6	98.5	106	1.5
2006	7324.7	7191.1	98.2	133.6	1.8
2007	8309.8	8110.5	97.6	199.3	2.4
2008	10387.7	9861.8	94.9	525.9	5.1
2009	8606.3	8105.5	94.2	500.9	5.8
2010	12011.5	11300.5	94.1	711	5.9
2011	15236.7	14323.2	94.0	913.5	6.0
2012	15139.3	14260	94.2	879.3	5.8
2013	15262	14131.8	92.6	1130.2	7.4
2014	12960.5	12007	92.6	953.5	7.4
2015	8845.2	8184.5	92.5	660.7	7.5
Averages	4030.3	3823.7	96.0	206.6	4.0

Source: Central Bank of Nigeria Statistical Bulletin, December 2015

**Table 2a: NIGERIA'S GROSS DOMESTIC PRODUCT (GDP) AT 1990
CONSTANT BASIC PRICES (N' Billion)**

YEAR	Total GDP	Agic. GDP (1)	1 as % of Total	Crude Pet & Ngas (2)	2 as % of Total	Solid Minerals GDP (3)	3 as % of Total	Oil Refining GDP (4)	4 as % of Total
1981	251.1	84.4	33.6	73	29.1	2.3	0.9	0.2	0.08
1982	246.7	86.5	35.1	65.3	26.5	2.4	1.0	0.2	0.08
1983	230.4	85.3	37.0	59.5	25.8	1.8	0.8	0.1	0.04
1984	227.3	81	35.6	66.9	29.4	1.6	0.7	0.1	0.04
1985	253	96.8	38.3	72.2	28.5	1	0.4	0.2	0.08
1986	257.8	106.7	41.4	70.8	27.5	0.5	0.2	0.1	0.04
1987	256	102.8	40.2	69	27.0	0.6	0.2	0.1	0.04
1988	275.4	113.5	41.2	70.8	25.7	0.6	0.2	0.1	0.04
1989	295.1	119.5	40.5	72.3	24.5	0.7	0.2	0.2	0.07
1990	328.6	122.2	37.2	83.9	25.5	0.9	0.3	0.2	0.06
1991	328.6	129.6	39.4	91.3	27.8	0.7	0.2	0.2	0.06
1992	337.3	132.7	39.3	93.6	27.7	0.8	0.2	0.2	0.06
1993	342.5	135.2	39.5	93.8	27.4	0.8	0.2	0.2	0.06
1994	345.2	138.8	40.2	91.4	26.5	0.8	0.2	0.2	0.06
1995	352.6	143.7	40.8	93.5	26.5	0.8	0.2	0.2	0.06
1996	367.2	149.5	40.7	100.2	27.3	0.8	0.2	0.2	0.05
1997	377.8	155.9	41.3	101.7	26.9	0.9	0.2	0.2	0.05
1998	388.5	162.2	41.8	103.9	26.7	1	0.3	0.2	0.05
1999	393.1	170.8	43.4	96.1	24.4	1	0.3	0.2	0.05
2000	412.3	175.9	42.7	106.8	25.9	1	0.2	0.2	0.05
2001	421.8	182.7	43.3	112.4	26.6	1.1	0.3	0.6	0.14
2002	451.8	190.4	42.1	106	23.5	1.2	0.3	0.5	0.11
2003	495	203	41.0	131.3	26.5	1.3	0.3	0.6	0.12
2004	527.6	216.2	41.0	135.7	25.7	1.4	0.3	0.6	0.11
2005	561.9	231.5	41.2	136.3	24.3	1.5	0.3	0.7	0.12
2006	595.8	248.6	41.7	130.2	21.9	1.7	0.3	0.8	0.13
2007	634.3	266.5	42.0	124.3	19.6	1.9	0.3	0.8	0.13
2008	672.2	283.2	42.1	116.6	17.3	2.1	0.3	0.9	0.13
2009	719	299.8	41.7	117.1	16.3	2.4	0.3	1	0.14
2010	776.3	317.3	40.9	123.3	15.9	2.7	0.3	1	0.13
2011	834	335.2	40.2	123.4	14.8	3	0.4	1.1	0.13
2012	888.9	348.5	39.2	122.3	13.8	3.4	0.4	1.2	0.13
2013	950.1	365.3	38.4	121.8	12.8	3.8	0.4	1.3	0.14
Averages	448.3	181.2	40.1	99.3	24.1	1.5	0.3	0.4	0.08

Source: Central Bank of Nigeria Statistical Bulletin, Vol. 24, December 2013.

**Table 2b: NIGERIA'S GROSS DOMESTIC PRODUCT (GDP) AT 2010
CONSTANT BASIC PRICES (N'Billion)**

YEAR	Total GDP	Agic.	1 as % of	Crude Pet	2 as % of	Solid	3 as % of	Oil	4 as % of
		GDP (1)	Total	&Ngas (2)	Total	Minerals	Total	Refining	Total
					GDP (3)		GDP (4)		
1981	15,258	2364.37	15.5	4977.42	32.6	67.14	0.44	36.58	0.24
1982	14985.08	2425.96	16.2	4453.09	29.7	54.84	0.37	38.49	0.26
1983	13849.73	2409.08	17.4	4052.98	29.3	44.01	0.32	27.86	0.20
1984	13779.26	2303.51	16.7	4559.2	33.1	43.08	0.31	27.43	0.20
1985	14953.91	2731.06	18.3	4918.27	32.9	44.54	0.30	39.08	0.26
1986	15237.99	2986.84	19.6	4825.5	31.7	35.25	0.23	19.66	0.13
1987	15263.93	2891.67	18.9	4704.42	30.8	32.81	0.21	28.92	0.19
1988	16215.37	3174.57	19.6	4828.68	29.8	28.05	0.17	33.06	0.20
1989	17294.68	3325.95	19.2	5407.01	31.3	28.66	0.17	43.03	0.25
1990	19305.63	3464.72	17.9	6831.77	35.4	29.09	0.15	42.52	0.22
1991	19199.06	3590.84	18.7	6224.45	32.4	40.84	0.21	45.33	0.24
1992	19620.19	3674.79	18.7	6381.26	32.5	30.6	0.16	44.43	0.23
1993	19927.99	3743.67	18.8	6394.6	32.1	20.78	0.10	44	0.22
1994	19979.12	3839.68	19.2	6229.46	31.2	17.21	0.09	43.34	0.22
1995	20353.2	3977.38	19.5	6375.97	31.3	17.08	0.08	46.07	0.23
1996	21177.92	4133.55	19.5	6832.84	32.3	17.54	0.08	51.35	0.24
1997	21789.1	4305.68	19.8	6933.58	31.8	18.5	0.08	50.53	0.23
1998	22332.87	4475.24	20.0	7083.99	31.7	19.4	0.09	45.35	0.20
1999	22449.41	4703.64	21.0	6552.69	29.2	20.21	0.09	47.44	0.21
2000	23688.28	4840.97	20.4	7281.94	30.7	21.04	0.09	46.98	0.20
2001	25267.54	5024.54	19.9	7662.98	30.3	22.39	0.09	136.78	0.54
2002	28957.71	7817.08	27.0	7225.68	25.0	22.18	0.08	126	0.44
2003	31709.45	8364.83	26.4	8952.62	28.2	23.2	0.07	137.96	0.44
2004	35020.55	8888.57	25.4	9248.05	26.4	27.09	0.08	151.76	0.43
2005	37474.95	9516.99	25.4	9294.05	24.8	29.7	0.08	166.93	0.45
2006	39995.5	10222.47	25.6	8874.7	22.2	32.77	0.08	183.66	0.46
2007	42922.41	10958.47	25.5	8471.95	19.7	36.87	0.09	202.17	0.47
2008	46012.52	11645.37	25.3	7947.72	17.3	41.47	0.09	222.39	0.48
2009	49856.1	12330.33	24.7	7983.63	16.0	46.38	0.09	237.85	0.48
2010	54612.26	13048.89	23.9	8402.68	15.4	51.88	0.09	255.16	0.47
2011	57511.04	13429.38	23.4	8598.64	15.0	59.42	0.10	271	0.47
2012	59929.89	14329.71	23.9	8173.26	13.6	71.13	0.12	223.52	0.37
2013	63218.72	14750.52	23.3	7105.28	11.2	82.87	0.13	344.71	0.55
2014	67152.79	15380.39	22.9	7011.8	10.4	95.2	0.14	311.4	0.46
2015	69023.93	15952.22	23.1	6629.96	9.6	102.54	0.15	200.88	0.29
Averages	30,724	6886.37	21.2	6783.78	26.2	39.31	0.15	113.53	0.32

Source: Central Bank of Nigeria Statistical Bulletin, December, 2015

Table: 4a VALUE OF MAJOR IMPORTS GROUPS BY S. I. T. C. SECTIONS (N' Billion)

YEAR	Food & Live Animal	Beverages & Tobacco	Crude Materials Inedible	Mineral Fuels	Animal & Vegetable Oils & Fats	Chemicals	Manu- factured Goods	Machinery & Transport Equipment	Miscellaneous Manufactured Goods	Miscellaneous Transactions	Total
1981	1.8	0	0.2	0.2	0.1	1.3	2.6	5.7	0.9	0	12.8
1982	1.6	0	0.2	0.1	0.2	1	2.3	4.6	0.7	0.1	10.8
1983	1.8	0	0.3	0.1	0.1	1	2	3.2	0.4	0	8.9
1984	1.3	0	0.3	0.1	0.2	1.1	1.4	2.6	0.3	0	7.2
1985	1.2	0	0.4	0.1	0.1	1.1	1.6	2.4	0.2	0	7.1
1986	0.8	0	0.2	0	0.1	1	1.2	2.3	0.3	0	6
1987	1.9	0	0.8	0.1	0.1	3	4.5	6.8	0.7	0	17.9
1988	1.9	0.1	0.6	0.2	0.1	4.1	4.5	8.9	1	0	21.4
1989	2.1	0.1	1.1	0.3	0.1	7	6.5	12.4	1.3	0	30.9
1990	3.5	0.2	1.4	0.3	0.2	9	10.2	18.5	2.2	0.1	45.7
1991	3	0.3	1.6	0.3	0.3	11.8	52	17.9	2.3	0.2	89.9
1992	12.8	0.7	3.9	0.9	1.5	20.4	35.3	62.2	5	0.4	143.2
1993	14	0.5	1.3	0.8	1.3	24.3	42	74.6	6.6	0.2	165.6
1994	13.8	0.5	5	1.1	1.3	46.4	40	46.2	6.3	2	162.8
1995	88.3	3	31.7	9.1	8.3	199.4	175.9	206.9	31	1.5	755.1
1996	75.4	2.3	26.4	8.4	7.3	132.8	156.4	129.4	21.4	2.8	562.6
1997	100.7	5	38.1	10.9	11.8	192.2	247	203	35.1	1.9	845.7
1998	102.2	3.3	37.7	11.7	10.9	192.6	248.7	196	32.7	1.7	837.4
1999	103.5	4.3	38.8	12.1	12.1	196.6	253.6	204.4	35.4	1.8	862.5
2000	113.6	6.7	44.3	12.5	14.4	228.6	289.3	234.1	38.5	2.9	985
2001	160.2	9.5	62.5	17.7	20.4	295	406.7	327.2	54.3	4.8	1358.2
2002	144.3	13.7	75.8	21.1	21.3	298.3	473.5	378.8	82.2	3.7	1512.7
2003	201.6	18.8	105.2	28.9	34.2	422.2	650.4	498.8	115.5	4.6	2080.2
2004	178.7	21.8	102	26.7	39.3	451.6	584.6	458.9	117.2	6.1	1987
2005	193.3	28	165.3	56	70	677.8	899.1	613.4	84	14	2900.9
2006	214.5	31.1	183.4	59.1	77.7	749.2	1004.1	680.8	93.3	15.5	3108.9
2007	269.9	39.1	230.8	74.3	97.8	942.8	1263.6	856.7	117.4	19.6	3912
2008	311.4	51.9	285.4	77.8	129.7	1297.5	1712.6	1141.8	155.7	25.9	5189.8
2009	446.9	28.9	77.2	81	22.6	620	1224.1	2359.3	242.2	0.3	5102.5
2010	693.3	38.2	104.3	99.9	27.7	811.8	1616.8	3762.6	455.6	4.5	7614.7
2011	2885.4	51.2	582.8	1011.7	61.4	797.8	1223.6	3219.3	393.1	3.3	10229.4
2012	1294	132.4	103.4	82.8	18.3	928.3	1172.9	2217.2	273.6	3203.3	9426.1
Averages	238.7	15.4	72.3	53	21.6	299.0	431.5	561.2	75.2	103.8	1871.9
% of											
Total	12.8	0.8	3.9	2.9	1.2	16.0	23.1	30.0	4.0	5.6	

Source: Central Bank of Nigeria Statistical Bulletin, December, 2013

Table 4b: IMPORTS BY H. S. SECTION (N' Billion)

Section	2009	2010	2011	2012	2013	2014	2015	Averages	% of Total
01. Live animals; animal products	276.9	446.6	615.8	471	533.9	2	649.4	427.9	4.7
02. Vegetable products	415.5	616.6	885.3	973.8	658.2	749.7	794.3	727.6	8.1
03. Animal or vegetable fats and oils and their cleavage products; prepared edible	26.8	57.8	73.8	55.7	97.6	141.7	144.7	85.4	0.9
04. Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured	265.6	413.5	582.8	487.6	591.8	638.4	630.3	515.7	5.7
05. Mineral products	249.2	396.2	500.3	288.2	398.4	330.2	271.8	347.8	3.8
06. Products of the chemical or allied	447.8	705.1	822.6	706.3	933.2	972.7	1119.4	815.3	9
07. Plastics and articles thereof; rubber and articles thereof	325.3	479.1	691.1	486.8	653.6	746.9	742.9	589.4	6.5
08. Raw hides and skins, leather, furskins and articles thereof; saddlery and	4.7	7.2	8.8	6.1	6.4	10	15.4	8.4	0.1
09. Wood and articles of wood; wood charcoal; cork and articles of cork;	10.7	59.1	23.3	21	22.1	24.5	30.4	27.3	0.3
10. Pulp of wood or of other fibrous cellulosic materials; waste and scrap of paper or	142.9	237.7	290.5	206.5	234.5	273.2	300.1	240.8	2.7
11. Textiles and textiles articles	54.9	68.9	108.4	107.7	133.3	182.8	187.5	120.5	1.3
12. Footwear, headgear, umbrellas, sunumbrellas, walking sticks, seat sticks, whips	9.3	24.1	30.8	19.5	28.1	44.8	68.4	32.1	0.4
13. Articles of stone, plaster, cement, asbestos, mica, or similar materials; ceramic	54.1	93.3	120.4	133.5	171.1	191.8	193	136.7	1.5
14. Natural or cultural pearls, precious or semi-precious stones, precious metals	0.4	0.8	1.3	0.9	1.6	1.7	1.7	1.2	0.01
15. Base metals and articles of base metal	610	886.5	958	1746.2	975.3	1133.4	1149.8	1065.6	11.8
16. Machinery and mechanical appliances; electrical equipment; parts thereof; sound	1556.5	2196.4	2778.5	2857.3	2386.2	2854.2	3289.3	2559.8	28.3
17. Vehicles, aircraft, vessels and associated transport equipment	576.3	800	1587	1058.2	1410.4	1482.4	1193.6	1158.3	12.8
18. Optical, photographic, cinematographic, measuring, checking, precision, medical	50.4	87.7	96.9	85.9	109.2	116.5	191.2	105.4	1.2
19. Arms and ammunition; parts and accessories thereof	0	0.1	0.1	0	0.3	0.1	1.5	0.3	0
20. Miscellaneous manufactured articles	39.3	38.2	59.7	54.5	94.2	93.1	100.9	68.6	0.8
21. Works of art, collectors pieces and antiques	0	0	0.1	0	0.1	0.1	0.2	0.1	0
Total	5116.5	7614.7	10235.2	9766.6	9439.4	9990	11076.1	9034.1	

Source: Central Bank of Nigeria Statistical Bulletin, December, 2015.

Table 3: NON-OIL EXPORTS BY PRODUCT (Million Naira)

PRODUCT	2004	% of Total	2005	% of Total	2006	% of Total	2007	% of Total	2008	% of Total	2009	% of Total	2010	% of Total	2011	% of Total	2012	% of Total	2013	% of Total	2014/1	% of Total
AGRICULTURAL PRODUCE	37,532.59	33	44183.58	41.7	50498.9	37.8	85680.9	39.7	107214.1	43.3	135612.6	46.9	392586.4	55.4	485748.5	53.2	406997.4	46.3	448725.2	39.7	369534.99	38.7
MINERALS	2219.4	1.9	4238.23	4	11355.6	8.5	14944.3	6.3	18700.1	7.5	19373.2	6.7	1203.39	0.2	5128.33	0.6	5126.04	0.6	3533.31	0.3	4840	0.5
SEMI-MANUFACTURED	55,609.43	48.89	43018.06	40.6	50632.5	37.9	67947	39.4	85023.2	34.3	84432.6	29.2	203122.5	28.7	276183.3	30.2	287328.2	32.7	327233	29	298863.78	31.3
Aluminium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14534.81	2.1	24780.44	2.7	27398.86	3.1	33018.97	2.9	26047.89	2.7
Cocoa Products	6,952.01	6.11	5297.79	5	6546.2	4.9	7173.3	3.6	8976.1	3.6	n.a.	n.a.	2780.14	3.9	38752.72	4.2	28356.28	3.2	40066.01	3.5	41979	4.4
Copper	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4295.3	0.6	10135.93	1.1	6966.67	0.8	23583.38	2.1	18852.6	2
Cotton Products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1577.46	0.2	1304.14	0.1	2132.98	0.2	2038.68	0.2	1730.3	0.2
Furniture/Processed Wood	2291.93	2.02	2225.07	2.1	1870.3	1.4	5579.2	2.8	6981.4	2.8	3759	1.3	6152.99	0.9	1532.73	0.2	1123.87	0.1	925.79	0.1	1203.4	0.1
Lead	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1473.56	0.2	5146.9	0.6	13584.52	1.5	13292.21	1.2	14386.68	1.5
Leather & Processed Skins	41902.71	36.84	21720.94	20.5	35536.3	26.6	49017.5	24.6	61336.4	24.7	68818.3	23.8	117132	16.5	169777.9	17.6	174478.6	19.8	176233.2	15.6	150319.13	15.7
Palm Produce	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	594.12	0.1	817.61	0.1	1428.87	0.2	1982.85	0.2	702.78	0.1
Poly Products	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17385.98	2.5	13027.91	1.4	3576.78	0.4	5190.82	0.5	2985.86	0.3
Steel/Iron	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	300.84	0	2090.18	0.2	1268.26	0.1	5174.57	0.5	1118.05	0.1
Textured Yarn/Polyester	3409.72	3	7734.77	7.3	1068.8	0.8	1992.6	1	2493.4	1	4048.1	1.4	2568.99	0.4	3362.15	0.4	2629.53	0.3	2514.17	0.2	1306006	0.1
Tin	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2617.79	0.4	4181.08	0.5	10935.61	1.2	15421.4	1.4	32375.68	3.4
Wheat Bran Pellets	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4494.06	0.6	3636.24	0.4	1404.68	0.2	704.13	0.1	683.42	0.1
Zinc	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	633.95	0.1	559.92	0.1	817.85	0.1	362.55	0	448.36	0
Other Semi-Manufactures	1053.05	0.93	6039.48	5.7	5611	4.2	4184.4	2.1	5236	2.1	7807.1	2.7	1580.51	0.2	6077.45	0.7	11224.83	1.3	6724.2	0.6	4724.55	0.5
MANUFACTURED	5633.3	4.95	10383.67	9.8	14829	11.1	23313.2	10.3	27676.2	11.2	26312.9	9.1	82275.17	11.6	99965.83	10.9	128317.7	14.6	144803.2	12.8	145741.78	15.3
OTHER EXPORTS	12740.57	11.2	4132.28	3.9	6279	4.7	7372.5	3.7	9225.4	3.7	23421.4	8.1	29675.45	4.2	46682.55	5.1	51895.21	5.9	205931.7	18.2	135772.51	14.2
TOTAL	113,735.33	100	105955.8	100	133595	100	199257.9	100	247839	100	289152.6	100	708862.9	100	913708.4	100	879664.5	100	1130226	100	954753.05	100

1/Provisional

Source: Central Bank of Nigeria Annual Report and Statement of Accounts (various years)

EVOLUTION OF CURRENCY MANAGEMENT: NEW DEVELOPMENTS, CHALLENGES AND PROSPECTS

HISTORICAL BACKGROUND

Prior to the introduction of money, the medium of exchange was by barter. The use of different objects as medium of exchange differed from one country to another. The instruments of the barter system included cowries, manilas, grains, farm implements and brass, among others. A major drawback of this system was that it was cumbersome and time consuming as it required double coincidence of wants before exchange could take place. Consequently, the system did not support specialization, rather discouraged measure of value, store of value, economies of scales and other associated benefits. The introduction of money overcame the challenges faced under the barter system. For money to serve as a medium of exchange, it must be generally acceptable, portable, durable, divisible into small units, etc.

Originally, money was on precious metals: However the first development of banknote was traceable to the Tang Dynasty in China during the 7th century when they were used as flying currency. Subsequently, the first successful modern banknote was issued by the Bank of England which was established in 1694. The commercial banks at that time issued their own banknotes until the mid-19th century when the Bank Charter Act of 1844 restricted them and vested the responsibility of issuing banknotes in the Bank of England. Thus, the Bank of England pioneered the development of modern banknotes globally.

1.1 EVOLUTION OF CURRENCY MANAGEMENT IN NIGERIA

The evolution of currency management in Nigeria has traversed various cultures over the years. Nigeria has used various forms of currency from pre-independence to date. Prior to 1880, Nigeria had used various objects as the medium of exchange including cowries, manillas, beads and bottles. The first major currency issue in Nigeria was undertaken following the Colonial Ordinance of 1880, which introduced the shilling and pence as the sole legal tender currency in British West

Africa (Oshilim 2000).

The units of coins which were issued and managed by Bank of England were one shilling which was the highest, 1/10 penny, ½ penny and 1 penny. Until 1912, the coins were distributed by a Private Bank, the Bank for British West Africa (BBWA), which was the forerunner of the present First Bank of Nigeria Plc. From 1912 to 1959, the West African Currency Board (WACB) took over the responsibility of issuing banknotes and coins in Nigeria, Ghana, Sierra Leone and the Gambia. The one shilling was the highest coin while the one pound was the highest banknote denomination.

The Central Bank of Nigeria (CBN) commenced full operations on July 1st, 1959, and since then has remained the sole issuer of the legal tender currency in Nigeria. Following the Bank's assumption of sole issuer of legal tender currency, all the banknotes and coins issued by the WACB were replaced with Nigerian Pound in July 1959. Consequently, the CBN issued Nigerian notes in the denominations of 5 Shillings, 10 Shillings and 1 pound in 1959. The issuance of legal tender currency is the one of the core mandates of the Bank as enunciated in section 2 (b), CBN Act 2007. This mandate vests the responsibility of managing the quantity, quality, denominational mix of the currency in circulation.

Over the years, the Nigerian currency has evolved with the introduction of Nigerian pounds, shillings and pence since 1959. However, in 1973, Nigeria decimalized its currency and replaced the pounds, shillings and pence with Naira and Kobo. The four-denomination banknotes issued were 50k, ₦1, ₦5 and ₦10, while the coins series were 25k, 10k, 5k, 1k, and 1/2kobo. Over the years, the Naira notes have undergone several redesigns aimed at enhancing currency management, reducing the cost of currency printing and fostering improvements in the payment system. It is pertinent to point out that over the years; some of the denominations have been demonetized and withdrawn from circulation.

Thus, the ₦20 note was issued in 1977, the ₦50 note in 1991, the ₦100 in December 1999, ₦200 in November 2000, ₦500 in April 2001, while the ₦1000 was in October 2005. On February 28th 2007, the ₦50, ₦20, ₦10 and ₦5 as well as ₦1 and 50k coins were redesigned and issued into circulation while ₦2 coin was introduced. The ₦20 was however printed on polymer for the first time and launched into circulation as a pilot project; the essence was to elicit its merits and demerits, and confirm public acceptance of polymer relative to paper substrate. Other objectives included reduction in the cost of currency production, making the notes more secured to deter counterfeiters and enhanced durability to sustain the clean note policy of the Bank.

On 30th September, 2009, the redesigned ₦50, ₦10 and ₦5 were converted into polymer substrate following the successful performance of the ₦20 denomination. Thus, all lower denomination banknotes were printed on polymer substrates. Furthermore, the Central Bank of Nigeria, as part of its contribution to mark Nigeria's 50th Independence and 100 years of existence as a nation, issued the ₦50 commemorative polymer on 29th September, 2010 and ₦100 commemorative notes on 19th December, 2014.

The activity of the Currency Operations Department of CBN which is charged with the responsibility of currency management includes policy and operational issues; research/design of new notes; procurement; distribution; processing and disposal of banknotes. Other activities include determining the currency needs of the economy, estimation of currency in circulation and annual currency indent, among others. It is germane to mention that, although CBN is statutorily responsible for the printing of currency, it executes this role through Nigerian Security Printing and Minting (NSPMPIC).

2.0 ELEMENTS OF CURRENCY MANAGEMENT

Essentially, currency management

refers to all activities and processes involved in the life cycle of currency such as research/development, design, production, storage/stocking, distribution, processing and disposal. It relates to the issuance of notes and coins and removal of unfit notes from circulation. The major aim of currency management in any economy is to build and preserve public trust and confidence in the domestic currency. The broad objectives include:

- i) Ensure availability and adequate supply of clean banknotes to the economy;
- ii) To maintain a balanced currency structure that is appropriate, efficient and cost effective;
- iii) To develop appropriate framework for maintaining, supervising and regulating currency management functions;
- iv) To enhance efficiency and reduce the cost of currency management and
- v) To maintain public confidence in the currency by ensuring the integrity of banknotes in circulation.

Currency management also promotes the development of an efficient payments system that meets the users' needs, operates with minimum risk and at a reasonable cost. Currency management is a critical and visible aspect of Central Banks' functions. The integrity of the currency and efficient supply of banknotes are indicators of a functional central bank, especially in predominantly cash-based economies like Nigeria. It entails the CBN being proactive and responsive to the changing needs of the economy, and keeping pace with evolving trends in contemporary currency technology-world. The CBN is responsible for the entire life-cycle of the currency which includes the following:

2.1 Research, Design & Forecasting

In currency management, banknotes designs present a series of interlocking challenges. Therefore, new designs must win public acceptance, incorporate requisite security features to deter counterfeiters and meet durability and machine-readable standards. The stages involve and include:

Currency Design: Currency begins with the design process,

covering technical and aesthetics aspects, including choice of the substrate, size, colour, theme etc. The design is usually undertaken as a collaborative effort between the CBN, Nigerian Security and Minting Plc (NSPM Plc), and the overseas suppliers, where applicable. The, CBN, however, obtains the final approval from the President and Commander-In- Chief of the Federal Republic of Nigeria.

2.2 Production & Procurement

The production order is based on the currency needs of the economy in the coming year, the estimated volume of unfit currency to be disposed by the Central Bank of Nigeria and other factors, such as inventory management or the issuance of a new design as well as the annual indent.

Procurement is carried out through the NSPM Plc which has the primary responsibility for printing banknotes in Nigeria. However, the Bank occasionally orders banknotes from foreign printers (through a competitive tendering system).

2.3 Issuance & Distribution.

Currency notes are issued by the Currency Operations Department of the Central Bank of Nigeria. The Department manages currency related issues and sustains the initiative of the Central Bank of Nigeria to ensure regular supply of clean banknotes, speedy disposal of unfit banknotes and mechanization of cash processing activities. These involve the following activities:

- As the issuing authority, CBN injects into the economy the printed banknotes produced at the NSPM Plc as legal tender. The CBN Branches issues the banknotes to the public through the deposit money banks (DMBs).
- CBN maintains vaults in the Branches and moves currency by air and road. Oracle Vault Management System (VMS) is deployed for managing all items in the vaults.

2.4 Currency Processing

Cash processing operations in Nigeria is one of the important functions of the Central Bank of Nigeria. The global trend in technological change and efficiency in currency management has compelled many central banks to respond to this growing trend by

outsourcing currency processing/sorting. Cash processing in Nigeria encompasses the following activities:

- Central Bank of Nigeria assumes primary responsibility for the processing of banknotes to ensure that they are genuine and fit for recirculation. Deposits by banks of unprocessed banknotes are charged per fees of N12, 000 per box. The deposits are examined by authenticating and sorting them on high-speed banknote systems into fit and unfit categories. The fit notes are put back into circulation, while the unfit ones are destroyed. This process helps to ensure that fit notes are in circulation.
- Partial outsourcing of cash processing to the private sector. The CBN granted approval to Bankers Warehouse Plc (BWP) which complements the efforts of the Bank while approval in principle was granted to Integrated Cash Management Services Ltd (ICMS) to process banknotes. CBN sets banknote fitness standards and provides oversight, supervisory and regulatory framework for the outsourced service provider.
- Replacement of Mutilated Currency Notes: Mutilated notes are regularly withdrawn from circulation and replaced with new ones. This is to ensure the fitness of currency in circulation as well as deter counterfeiting. Deposit money banks are expected to complement CBN's effort by providing windows for the exchange of mutilated notes.
- Currency Adjudication: The NSPM Plc undertakes currency adjudication on behalf of the Bank by providing facilities for the authentication of suspected forged notes and those that have been mutilated or destroyed beyond recognition.

2.5 Currency Disposal

To ensure that fit notes are in circulation, unfit ones are consistently withdrawn and destroyed. The CBN maintains a stock of Banknote Disintegrating Systems in various locations bankwide for the disposal

of unfit banknotes. The Bank is also exploring the possibility of destroying unfit currency notes online using the processing systems.

The CBN is solely responsible for the withdrawal and disposal of unfit banknotes. Briquetted banknotes are disposed through open air burning and the Bank is intensifying efforts to adopt the recycling of banknote wastes which is an environmentally friendly way for currency disposal that is in tandem with international best practice.

Thus, Currency management is a collaborative endeavor between the CBN, currency suppliers, deposit money banks, manufacturers of currency processing and disposal systems, security agents, private sector, and indeed, the general public.

3.0 CHALLENGES OF CURRENCY MANAGEMENT

The problems of currency management in Nigeria are varied. Teriba (1998) and Soludo (2005), identified the high cost of currency management as one of the major challenges.

Despite the improvement in the payments system, the volume of currency in circulation and the cost of currency management have been rising steadily over the years. The direct cost of currency management to the financial system was estimated at N296 billion as at end of 2015. The factors in part, were attributed to the multiplicity in ownership of currency processing and distribution equipment across the country; the duplication of infrastructure across the banking industry based on varying operational models and the heavy involvement of the Central Bank of Nigeria (CBN) in the retail cash management value chain.

Other drawbacks identified were widespread aversion to the use of coins due to their low values and absence of coin infrastructure, inadequate private sector participation in currency value chain, low level of issuable notes, dearth of lower denominations banknotes in circulation, illegal sale of mint notes, rising incidences of counterfeiting, among others.

4.0 NEW DEVELOPMENTS IN CURRENCY MANAGEMENT

4.1 Outsourcing

In recent time, operations in currency management have delineated traditional roles from contemporary functions. As a strategy to reduce the increasing cost of currency management, Central banks have categorized their functions into core & non-core. Many have averred that central banks should only exercise overall responsibility for the integrity, security and availability of cash, destruction of unfit notes and reduction of societal cost of cash management as the core functions. Conversely, the non-core functions consist of fitness sorting, CIT activities and custody of surplus cash balances for the commercial banks.

In addition, studies on best practice in currency management had identified operational efficiency or process improvements as strategic to cost reduction.

Consequently, the paradigm shift in the role of central banks has evolved through a redefinition of the involvement and participation of central banks, and other players in the value chain. This entails central banks outsourcing the retail end to third party service providers, and concentrating on the wholesale functions of issuance of new notes and disposal of unfit notes. Cash processing and distribution will, however, become the core activities for CITs/ cash service companies.

There are varied models for and they differ significantly from one jurisdiction to another depending on the currency services offered by the central bank and the level of technological development of the country and development of the payment system. In more advanced jurisdictions, the currency management models reflected their peculiarities, the level of development of the payments system and the volume of currency in circulation. However, the central banks set fitness standards, monitor and regulate the activities of service providers through guidelines, incentives/sanction schemes, regulatory and supervisory framework and service level agreements.

Classical examples of currency

management models include:

4.1.1 Completely outsourced models

This is an outsourcing model where the central bank has completely outsourced its retail functions to a service provider and focuses only on its core functions. Countries that have completely outsourced the retail end include Norway, Australia and United Kingdom etc.

4.1.2 Joint venture models

In this model, the central bank is partially involved in the retail functions along with the service providers. Examples of countries practicing this model include Belgium, Spain etc.

4.1.3 Partially outsourced models

This model involves the outsourcing of the distribution of cash to CIT companies, while the central banks retain regulatory oversight functions. Typical countries using this model include South Africa, Brazil.

In Nigeria, the CBN has embarked on a number of outsourcing initiatives. They include:

- Outsourcing of processing and distribution services by the registration of five cash-in-transit (CIT) companies and two sorting companies (approval in principle for one sorting company)
- Outsourcing of cash processing and disposal equipment maintenance to equipment manufacturers.
- Nigerian Cash Management Scheme (NCMS): The objective of the Scheme is basically to modernize cash holding in Nigeria and pave a way for CBN gradual exit from the retail to wholesale end of the cash management value chain. Thus, the approval adopted the re-ordering of the value chain with clear separation of wholesale cash services (CBN) and retail cash services (banking industry) supported by a single shared platform.

4.2 Demand forecasting for banknotes

The central bank's liquidity forecast is essential in ensuring that it supplies the economy's cash need. Currency in circulation is the largest, and for some central banks, the most variable component of the liquidity forecast. Hence, an accurate

banknotes demand forecast is essential in ensuring an accurate liquidity forecast, and by implication, effective monetary policy implementation.

In the past, central banks made use of trusted "rules of thumb" to forecast the currency demand of the economy. These included: the time-series models, exponential smoothing and behavioural approaches. However, recent developments in effective forecasting of demand for banknotes involve the combination of sophisticated models like the Auto Regressive Empirical Forecasting model which is used by the Central Bank of Nigeria.

Determining the demand for currency is not a straight forward science because various variables need to be taken into cognizance. They include the level of development/structure of the economy; political events, religious festivities, lifespan of currency notes, currency processing capacity, availability of alternative payment instruments, presence of a large informal sector; buffer stock adequacy etc.

Thus, the formula for banknote replacement can be aggregated as follows: $R = \Delta EA + RB + BS$
 Increase in demand due to change in economic activity + Replacement banknotes + Buffer stock.

*RB = Replacement banknotes denotes the stock of banknotes destroyed in the preceding period that need to be replenished

*BS = Buffer stock is a cautionary element to ensure that shocks from any emergent situations are cushioned.

* ΔEA = Change in economic activity refers to the factors responsible for change in currency in circulation.

4.3 Currency Redesign / Choice of Substrate

Central Banks world over redesign their currencies after 5-8 years in line with international best practice, and introduce new technologically advanced security features to protect the banknotes from counterfeiters. The choice for the ideal substrate is therefore imperative given that the longer the lifespan of a banknote, the more value a central bank will derive from it. As such, the need to adequately

consider the substrate, security features, acceptability, economic situation and longevity when designing the currency cannot be over emphasized. Other factors to be considered in order to extend the lifespan of banknotes include the mechanical properties of varnishing and printing techniques.

4.4. Contemporary Currency Management Initiatives

The Bank has introduced various initiatives in recent years as measures of improving the currency management. They include:

- Stakeholders' collaboration in the development and implementation of the Nigerian Cash Management Scheme (NCMS).
- Introduction of Accelerated Currency Processing to decongest the vaults and clear the backlog of long-dated bank deposits.
- Abolition of the time-expired policy
- Introduction of six months timeline for processing of DMBs cash deposits with the plan to gradually improve to same week processing.
- Constitution of a Currency Redesign Committee to review and redesign the banknotes series (Project CURE).
- Installation of Optical Banknote Inspection System (OBIS), BPS 2000 in the Nigerian Security Printing and Minting (NSPM) Plc. (Abuja and Lagos factories) for quality assurance and control. Noticeable improvements in the quality of banknotes in circulation following this development.
- Public sensitization on clean notes policy, the dangers of illegal sale of new notes and poor handling habits.
- Pilot introduction of environmentally sustainable banknote waste disposal, especially recycling to other useful products.
- Modernization and automation of cash management in CBN Branches on pilot basis through the installation of conveyor belt system, electronic scanning, barcoding of currency boxes etc.
- Development of Banknotes Fitness Guidelines to guide DMBs, sorting companies and

the general public on the acceptable criteria to determine the quality of banknotes in circulation.

- Introduction of the cash-less policy to enhance the use of alternative channels and reduce the demand for cash.

5.0 ISSUES AND CHALLENGES

The volume of currency in circulation (CIC) in Nigeria is relatively high compared to other jurisdictions as the economy is predominantly cash based. The currency in circulation has been on a steady increase since 2011 (See Table 1 & Fig 1) despite the introduction of the cash-less policy in 2012 and the existence of various platforms for electronic payments.

The predominance of cash usage necessitated the Bank to employ modern approaches in currency management. Despite the new developments, the following issues and challenges were encountered over the years;

- i. Illegal sale of new Naira notes
- ii. CBN continued participation in retail cash processing and distribution activities
- iii. Low level of issuable notes
- iv. Poor public handling of the banknotes
- v. Disposal of banknotes in an environmentally unsustainable manner
- vi. Inability of NSPM Plc to meet Currency Indent
- vii. Apathy towards usage of cash
- viii. Predominance of cash-based transactions

5.1 Illegal sale of new Naira notes

The illegal sale of new Naira notes entails the hawking, selling or trading of the Naira notes/coins issued by the Central Bank of Nigeria. It is a criminal act punishable under the law. According to section 21, sub-section 4 of the CBN Act 2007, "it shall be an offence punishable under Section 1 of this section for any person to hawk, sell or otherwise trade in the Naira notes, coins or other notes issued by the Bank". The Act further provides that "Any person found guilty of the offence shall be liable to imprisonment for a term not less than six months or a fine not less than N50, 000.00 or both such fine and imprisonment".

5.2 CBN continued participation in retail cash processing and distribution activities

The Nigerian Cash Management Scheme (NCMS) was approved on 13th March, 2013. The cash service utility model was aimed at modernizing cash management in Nigeria to pave way for CBN's gradual exit from the retail to wholesale end of the cash management value chain. The Nigerian Inter Bank Settlement System (NIBSS) was appointed as an Industry Coordinator on 15th May, 2014, to deploy and manage the integrated cash management platform for the industry. In spite of all these, the CBN has not fully sourced its retail cash processing activities. The implementation phase has commenced and three work streams namely - clean note campaign & cash management model; cash processing & shared infrastructure; and centralized cash coordination are currently engaged on the project.

5.3 Low level of issuable notes

There has been a growing concern over the observed low level or inadequate issuable banknotes in the Bank's vault nationwide. This has been attributed mainly to supply deficit from NSPM Plc. The occurrence of low level of issuable notes if unchecked could impede the ability of the Bank to meet the cash needs of the economy with the attendant reputational risk.

5.4 Poor public handling of the banknotes

The Naira, as the legal tender currency symbolizes Nigeria, its heritage, people, and culture. Poor public handling habits results in high rate of replacement which in turn leads to high cost of currency management and also increases the volume of unfit banknotes.

5.5 Disposal of banknotes in an environmentally friendly manner

The implication of not disposing banknotes in an environmentally friendly manner causes environmental degradation/pollution, health challenges and possible legal implication for the Bank. Although the Bank had reviewed several proposals from recycling companies, the Bank is yet to efficiently collaborate with paper & polymer recycling companies to recycle

banknote wastes instead of burning them.

5.6 Inability of NSPM Plc to meet Currency Indent

The Bank orders its indent from NSPM Plc. For over ten consecutive years, the currency indent has never been fully met despite the commissioning of a new production line at the Abuja factory in 2015, and the early communication of the indent. Over the years, the Bank had been compelled to import banknotes from foreign suppliers to augment their shortfall which increases the cost of currency management. This delivery shortfall is also a catalyst for the prevalence of low level of issuable notes.

5.7 Apathy towards usage of coins

The very limited use of coins is a major dimension to the problem of currency management. The average lifespan of coins in circulation is about 25 years which means coining of lower denomination will increase their lifespan, and reduce the cost of currency management. The apathy towards coins could be attributable partly to inflation which had reduced

the purchasing power of available coins and resulted in rounding-up of prices to the nearest banknote value as well as its size, weight, and the absence of the necessary infrastructure to encourage the use of coins.

5.8 Slow Adoption of Alternative Payment Channels

Cash has remained the most prevalent and widely acceptable means of payment and settlement of financial transactions in Nigeria. Despite improvements in the payments system, the number of banknotes in circulation continues to increase yearly and this increase leads to a rise in the cost of currency management.

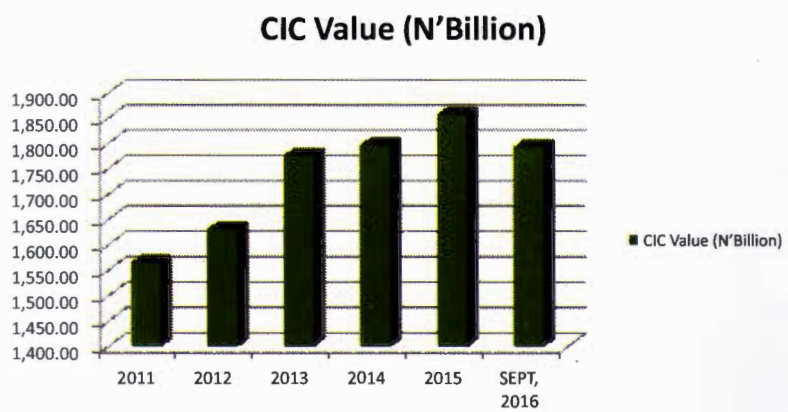
6.0 FUTURE PROSPECTS

The high cost of cash management, environmental concerns, technological advancement in the entire currency management value chain and the need of central banks to refocus their efforts in wholesale cash management activities and devolve the retail activities on the private sector have necessitated the emergent new approaches to reduce the cost, while maintaining a high level of efficiency.

TABLE 1

Year	CIC Value (N' Billion)	Percentage Change
2011	1,565.68	-
2012	1,631.72	4.22
2013	1,776.81	8.89
2014	1,797.97	1.19
2015	1,857.94	3.34
SEPT, 2016	1,794.29	-3.43

FIGURE 1



The following new approaches will define the future prospects in currency management.

6.1 Outsourcing

To ensure that adequate attention is paid to monetary policy formulation and financial system stability issues in a turbulent and highly volatile global economic environment, central banks have re-defined their roles to focus on wholesale cash management activities. These include the production and issuance of the legal tender, withdrawal and disposal of unfit banknotes, as well as monitoring, and enforcement of industry standard, while devolving retail cash processing and distribution to the private sector. Operational models vary from complete outsourcing to partial outsourcing and joint ventures with the original cash processing equipment manufacturers, deposit money banks (DMBs), sorting companies, CITs and other critical stakeholders. The regulatory and supervisory powers in the value chain are however still retained by the central banks through fitness standards and Clean Note Policy Guidelines.

6.2 Integrated Cash Management Platform

Under the Nigerian Cash Management Scheme (NCMS) currently under implementation, the retail cash management space will be coordinated by the Nigerian Inter-bank Settlement Scheme (NIBSS) through an integrated cash management platform that will enhance efficiency, engender visibility and foster cohesion and inter-operability in the cash management value chain coupled with the introduction of bank-neutral cash hubs.

6.3 Modernization and Automation of Cash Handling in the Branches

Technological advancements in the cash management value chain offer a tremendous opportunity for the modernization and automation of cash handling to derive greater efficiency, and minimize direct human contact/intervention. Available technology include modern stacking options; use of water-proof; trauma-proof; fire-proof; transparent and barcoded cash boxes; installation of conveyor belt equipped with electronic scanners; barcode readers; weight-detection devices and the adoption

of motorized carriage and fork-lift among others. These technological devices have been introduced in CBN vaults with installed conveyor belt system on a pilot basis in three branches prior to bankwide rollout.

6.4 Recycling of Banknote waste

Concerns about environmental sustainability factors and the need for central banks to lead the way in reducing their carbon foot-prints on the environment, the recycling of banknote wastes into useful new products to enhance corporate social responsibility is the preferred option to the current open air burning of banknotes wastes fraught with environmental pollution consequences. This is now being vigorously pursued.

6.5 Full Implementation of the Cashless Policy

Full implementation of the Cashless Policy across the entire country and the re-introduction of penalties for large cash deposits will encourage phenomenal adoption and use of POS terminals, and ultimately moderate the demand for cash payments as well as significant reduction in the cost of cash management across the value chain.

REFERENCES

- A.O. Kuseedun, (2011) Deputy Director, Currency Operations Department, Outsourcing of Currency Processing and Distribution: Prospects and Challenges Workshop on Managing Operational Risks in Central Banking
- A.O. Kuseedun, (2010) Cash Handling, Security And Management By Deputy Director Currency Operations Department At The Workshop On Security Management In A Banking Environment
- Antti Heinonen, (2015), New developments in Banknote and Currency Management By Chairman Of Banknote Ethics Initiative And Former Director, Banknotes, European Central Bank
- Charles Nwodo Jnr (2007), Presentation on Best Practices In Outsourcing of Currency Processing & Distribution by MD/CEO, XL Cash Management Services Limited Presented At CBN Branch Controllers Conference, Katsina
- David Orsel, Ranan Chlupat (1980), Evolution of money
- E. C Obaigbona, presentation on migration to electronic payments in Nigeria by Chairman, community of practice on payments system
- Ekpo Eyo (1979), Nigeria & the Evolution of Money
- Muhammad Nda (2011), Currency Management in Nigeria By Director Currency Operations Department, Central Bank Of Nigeria At The Regional Workshop On Banknote And Currency Management And Forecasting In Central Banks, Banjul, Gambia.
- O. M. Fakiyesi (2011): Forecasting the Demand for Banknotes: Currency Operations Department, Central Bank of Nigeria at the regional workshop on banknote and currency management and forecasting in central banks, Banjul, Gambia.
- Okefie Uzoaga W. (1981), Money & Banking in Nigeria
- Presentation (2013) on identification of the best substrate for the Nigerian lower banknote denominations by Policy & Development office of Planning & Development Division, CBN
- Shahzakar karimzadi (2015), Money and its origin