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Boosting the Financing of Agriculture in Nigeria: The Capital Market Option

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Abstract

The recent global and economic crisis has led to a renewed interest and developmental focus on agriculture. In the Nigerian context, this economic upheaval have lead to a decline in crude oil earnings and has once again brought to the front burner the urgent need to diversify the economy and the revenue base of the country. Diversification has long been identified as a sine qua non for accelerated development of the economy with agriculture playing a competitive role. However, a major challenge facing many developing countries, especially in Africa, is devising appropriate development strategies that will capture the financial services requirements of farmers who constitute about 70 percent of the population. In fairness, the Federal Government of Nigeria has instituted various policies to achieve this aim, including a commercial bill financing scheme; regional commodity boards (later called national commodity boards); an export financing and rediscount facility (1987); the Nigerian Agricultural Cooperative and Rural Development Bank Ltd; Community Banks, People's Bank; the Agricultural Credit Guarantee Scheme Fund (ACGSF); and the Small and Medium Enterprises Equity Investment Scheme among others. In retrospect, these policies have impacted minimally in improving agricultural production in Nigeria. This paper therefore takes a cursory look at agricultural financing in Nigeria, presenting the capital market source of funding as a viable option for financing agriculture by all tiers of government in Nigeria. The capital market option if pursued will provide the much needed long term financing for accelerated agricultural development.

Keywords: Agriculture Financing, Capital Market, Economic Development

1. Introduction

There is no gainsaying the fact that agriculture has been the mainstay of the Nigerian economy despite its decline especially since the oil boom of the 1970s that heralded the petro-dollar era. Till date, a greater proportion of the population – about two thirds of the total labour force of the nation, depends on the sector for their livelihood and the rural economy in particular is propelled by agriculture. It is the main source of food for most of the population and also the dominant economic activity in terms of employment and linkages with other sectors of the economy, serving as a major source of raw materials for the agro-allied industries and a potent source of foreign exchange. The sector has been the highest contributor to the nation's GDP over the years – accounting for 42.07 percent in 2008, 35.8 percent in 2009 and 2.2 percentage points to the growth in real GDP in first quarter of 2010 (Enebeli-Uzor, 2011).

It must be remarked that in the era preceding the discovery of crude oil in commercial quantity, agriculture was the major source of foreign exchange for the economy. For instance, the groundnut pyramids of the Northern region, cocoa farms of the Western region and palm plantations of Eastern Nigeria were the major sources of foreign exchange that sustained the respective regions. The level of decay and neglect of agriculture in Nigeria is often highlighted by the pathetic story of Malaysian farmers learning the rudiments of palm cultivation in Nigeria but now exporting palm products to Nigeria. Oil palm is currently Malaysia's leading agricultural export and the country is the world's largest producer of the commodity. The success story of the sector in the pre-oil boom era has been relegated to the footnote of history following the emergence of crude oil as the prime mover of the nation's economy. This, in turn, created a false sense of affluence which impacted negatively on agriculture culminating in low productivity and relegation of the once thriving sector. The decline in the share of agriculture in foreign exchange earnings is an apt illustration of negative correlations with oil revenue earnings (Enebeli-Uzor, 2011).

According to Sanni (2010), Nigeria has become a net importer of food, including staples such as rice where local production accounts for just 500,000 tonnes, whereas annual consumption stands at over 2.3million tonnes, leaving a huge deficit of about 2 million tonnes which has to be met with imports. It is estimated that the country spends over US$300 million annually on rice imports alone. In the heat of the food crisis in 2008, it was reported that the federal government spent N80 billion in one instance for the importation of rice and also slashed duties on rice imports from 100 to 2.7 percent to cushion the effects of food shortage on the citizenry. The large volume of rice import has over the years sustained rice farmers in business in other countries while domestic opportunities abound and largely untapped. According to Enebeli-Uzor (2011), current forecast is that sub-Saharan Africa, including Nigeria, will need to double grain imports to 60 million tonnes by 2013 in a fiercely competitive world market. The massive importation of agriculture produce is dangerous in that it does not only drain the nation's scarce reserves, it also exposes the economy to external shocks and vagaries especially inflation.

It is worth re-stating the fact that Nigeria's golden years in agriculture was before the discovery of oil in commercial quantity and consequent consignment of agriculture to the backyard. The golden years of agriculture was also when the regions were fully involved in agriculture; each of the regions specializing on products where it has natural comparative advantage. The export earnings from these produce made the regions financially and fiscally independent from the centre. All these were to change with the discovery of oil and accretion of oil revenues to the federation account for distribution to the various tiers of government (El-Rufai, 2011).

The decline in crude oil earnings and the resultant drop in revenue accruing to states from the federation account have once again brought the reality of looking beyond the federation account to bear on many states and local governments in Nigeria. There appears to be a sudden re-awakening and even panic, thus economic diversification has now become the buzzword in the economic development vocabulary of many states in the federation. Consequently, a lot of state governments have showed renewed commitment in agriculture as an alternative source of revenue. For instance, in Yobe State, the government is embarking on large scale production of castor oil seeds. This initiative is expected to engage about 100,000 farmers and more than 10,000 hectares of land will be cultivated. Castor oil has a plethora of uses in the aviation and pharmaceutical industries. The Yobe State Castor oil project has attracted over N2billion carbon credit from the World Bank as part of global warming initiative because of the environmental friendliness of the crop (Enebeli-Uzor, 2011).

Also in Katsina State, the government has stepped up the cultivation of Neem tree (locally known as dogonyaro) to serve the dual purpose of combating diversification and earning foreign exchange. The plant is a useful source of raw materials in the production of fertilizer, soap, waxes, cosmetics, pharmaceuticals, insecticides and lubricants. India is believed to earn over US$2 billion annually from Neem export. Kano State too, a predominantly agrarian state has also renewed its commitment to agriculture by offering farmers subsidy to enable them acquire farm machinery and seedlings. The Kwara State government has embraced commercial farming and this has contributed to earning the state a National Long-term rating of AA-(minus) and Long term foreign and local currency ratings of B+ from Fitch Rating Agency. Even states in the oil rich Niger Delta region appear not to be regaling in oil wealth anymore. For instance, in Delta State, the government has been encouraging farmers through its micro-credit financing scheme to revamp agriculture in the state (Enebeli-Uzor, 2011). This initiative recently earned the state government accolades from the Central Bank of Nigeria. These are steps in the right direction but a lot still need to be done to boost agriculture production in Nigeria. One area of urgent need is financing. Modern agriculture is a capital intensive industry and the gestation period between capital commitment and reward is long term in most cases and therefore, require long time financing. This is where the capital market option comes in. The aim of this paper is to propose capital market option for financing of agriculture in Nigeria especially by States and Local Governments. To this end, the rest of the paper is divided into five sections. Following this introduction, section 2 provides an overview of agriculture in Nigeria and factors that has contributed to the decline in agricultural production in Nigeria. Section 3 reviews the current financing efforts of government towards revamping agriculture while Section 4 introduces the capital market option. Section 5 summarizes and concludes the paper.

2. Overview of Agriculture in Nigeria

Agriculture has been the main stay of the Nigerian economy long before the discovery of oil in commercial quantity in Oloibiri (in present Bayelsa State) in 1954 (Glick, 2009). To emphasize Nigeria's agricultural potential will amount to restating the obvious. Nigeria as a country spans an area of about 924,000 square kilometers with topography ranging from the Sahel, Sudan and Guinea Savannah of the North to the Southern rain forests – thus making it possible to produce many varieties of crops and livestock. The country has a higher diversified agro-ecological condition with a total agricultural land of 79 million hectares, surface water of 267 billion cubic metres, and a potential irrigable area of 3.14 million hectares. About 75 percent of Nigeria's land is arable, of which over 50 percent is not cultivated yet. Some 10 percent of the total land is covered with forest, including large strands of tropical tress including mahogany, walnut, and obeche – veritable sources of timber. Bountiful flora and fauna, constituting rich source of biodiversity that could serve as a reservoir for genetic materials that can improve the nation's food production potential towards self sufficiency. The country is also endowed with rich fishery resources and potentials for large scale fish farming (Jude, 2009).

According to Olagunju (2009) the diverse climatic conditions allow for the production of a variety of food and cash crops, yet agriculture is still largely subsistence, characterized by smallholdings, traditional and inefficient method of cultivation, storage and processing. Moreover, agriculture in Nigeria is still largely rain-fed despite the preponderance of irrigation farming in most parts of the world. Despite its decline, it is still the single largest contributor to the well being of majority of the population, sustaining over 86 percent of rural households. Agriculture has the potential to be the industrial and economic springboard for the nation's quest for accelerated growth and development. The sector is strategically positioned to have a high multiplier effect on the economy because of its linkages to the other real sectors of the economy. Economic development literature is replete with evidences of the potency of agriculture as a driver of sustained economic growth and development. The experiences of Brazil, Malaysia and Indonesia – countries with development characteristics similar to Nigeria, are instructive. These countries have been able to transform their agricultural prowess to facilitate the process of industrialization from predominantly agrarian economies (Enebeli-Uzor, 2011).

As earlier stated, Nigeria is endowed with rich soils and favourable climatic conditions that allows for the cultivation of a wide variety of food crops, including cassava (of which Nigeria is the world largest producer), millet, sorghum, maize, yams, plantains, banana, rice and so on. The principal export crops for Nigeria are cocoa, cotton, groundnuts, (peanuts), palm oil and rubber, which together account for nearly 60 percent of non-oil merchandise exports. Livestock also thrive in the country. These include cows, donkeys, ducks, geese, goats, chicken, guinea fowls, pigeons, pigs, sheep and turkey. The main export destinations for Nigeria's agricultural produce are the European Union, the United States and Canada. Nigeria is reputed to be the world's fourth largest producer of cocoa, and the crop is the country's second largest foreign exchange earner after crude oil. Cassava is unarguably the most cultivated commodity in Nigeria – accommodating over 40 million farmers who are able to produce (inspite of all odds) 49 million tonnes annually. The country has enormous comparative advantage in cassava production which if well harnessed could enable its cultivation to be a strong driver of growth (Shinka, 2009).

The nation is also one of the top producers of palm oil in Central and West Africa region although productivity has greatly dwindled in recent times. Rubber is another major source of export earnings, although its production has also fallen significantly over the past two decades. Citrus fruits are also cultivated and exported although its share of the market is still very negligible. Cotton which is predominantly produced in the north has suffered decline despite being a major cash crop, due to farmers' preference for sorghum and corn. Although rice production has expanded by about 50 percent year-on-year between 2000 and 2009, domestic demand still far outstrip production by well over 2 million tonnes (Enebeli-Uzor, 2011).

Rice imports represent well over 25 percent of agricultural imports in Nigeria. The commodity is an important staple food in the diet of a greater proportion of the population. The United States Department of Agriculture (USDA) quoting from Jude (2009) observed that rice is one of the most important staple foods for about one-half of the world's population. The rice industry in Nigeria is about 70 percent import based despite the country's potential to produce the commodity to meet domestic demand and even export surplus. Rice can be cultivated in all the ecological zones of Nigeria, although with varying prospects from one location to the other. What is more demand for rice in Nigeria is expected to be sustained as the commodity has become the most popular staple food as it is no longer the exclusive preserve of the affluent, thus it has exited the list of luxury foods (Sanni, 2010). Besides, the demand from households which has been on steady increase, the bourgeoning fast foods business or joints presents a new frontier for rice demand with increasing urbanization. According to Enebeli-Uzor, (2011) in order to meet the surging demand, some firms are already beginning to look inwards in developing interest in domestic production while others have already commenced production. For instance, Veetee Group invested about US$15 million in rice milling plant in the Ofada rice growing area of Ogun State to boost domestic production of rice. Also, Notore Chemical Industries Limited has ventured into the lucrative rice farming segment of the agricultural sector. The firm recently signed a Memorandum of Understanding (MoU) with the governments of Cross River and Taraba States. The two projects have 500,000 metric tonnes of rice milling capacity, which would provide employment for over 70,000 individuals. The Churchgate Group, a major player in the rice industry in Nigeria has set up rice farms in about five states in the country. Stallion Group too has also embarked on large scale rice milling ventures throughout the country in collaboration with world leaders in rice production. All these efforts and initiatives have impacted minimally on agricultural production in Nigeria. We review briefly the problems militating against agriculture in Nigeria.

2.1 Problems Confronting Agriculture in Nigeria

It is no gainsaying that agriculture has faced serious challenges in Nigeria since the discovery of oil in commercial quantity and subsequent leapfrogging of oil earnings over agricultural earnings. From then, agriculture according to Uzor (2011) has experienced stunted growth. Between 1970 (when crude oil export gained momentum) and 2010, agriculture grew at about 1.7 percent per annum on the average. This growth rate is highly worrisome for a country with a population growth rate of 2.7 percent per annum on the average. As observed elsewhere, although agriculture has propelled economic growth in countries that share developmental similarities with Nigeria notably Malaysia, Indonesia, and Brazil, the pletheora of challenges the sector has faced due largely to neglect has relegated the nation to the infamous list of net importers of food and sadly enough; even the ones the country has natural comparative advantage over other countries.

The major problem of agricultural sector in Nigeria is that the sector is still largely informal, subsistent, rain-fed and lacking mechanization. Transportation which is important for the evacuation of produce from the rural areas is virtually non-existent, leading to huge losses which in turn discourage farmers in the next planting season. The efficient flow of agricultural produce from the farms to the markets requires good feeder road network between the rural areas where agricultural production mainly takes place and the urban areas where major markets exist (Enebeli-Uzor, 2011).

Another major problem of the sector is lack of storage facilities. The absence of storage facilities culminates in huge post-harvest losses especially during periods of bumper harvests. It is estimated that between 15 and 40 percent of agricultural commodities produced in the country are lost annually through post-harvest waste as a result of lack of processing and storage facilities. The absence of an efficient pricing mechanism is another serious disincentive to farmers. There is virtually no provision to compensate farmers during periods of sharp price fluctuations to cushion the effects of losses on them.

Moreover, there is dearth of skilled manpower in the sector especially male manpower. It is estimated that women constitute 70 percent of the total workforce in the sector. Able bodied young men that would have been more productive in agricultural production often migrate to the cities in search of white collar jobs. It has been observed that this rural-urban migration became acute after the famous 'Udoji awards' when stupendous remuneration was approved for public servants in the early 1970s. The new found wealth encouraged profligate spending among the urban dwellers who at the time were mainly public servants. This affluent lifestyle of these urban dwellers attracted their compatriots in the predominantly rural agricultural areas who subsequently jettisoned agriculture and migrated from the villages to the urban centres in search of paid employment. In a bid to produce skilled manpower for agriculture, a large number of tertiary institutions were established to train agricultural scientists and extension workers who are supposed to come with research findings and convey same to practitioners in the farms for improved productivity. The low level of agriculture in the country is a testimony that these institutions have impacted minimally on their supposed mandates (Enebeli-Uzor, 2011).

Lack of and affordability of farm inputs especially fertilizer is also a major constraints to agriculture in Nigeria. Fertilizer in particular is very crucial to the success of modern agriculture. In order to meet the fertilizer needs of farmers in the country, the federal government established the National Fertilizer Company of Nigeria (NAFCON) in Onne, Rivers State, in 1981, the first and the largest modern nitrogenous fertilizer complex, not only in Nigeria, but also in West Africa. The plant commenced production in 1987 but come comatose years after. In its renewed bid to meet the fertilizer needs of farmers, the federal government through the Bureau of Public Enterprises (BPE), privatized the moribund NAFCON and sold it for US$152 million to core investors. Now Notore Chemical Industries Limited, the company has undergone complete rehabilitation to realize its potential and meet the fertilizer demands of Nigerian farmers. The fertilizer plant which gulped a total investment sum of US$400 million has the potential to dominate the sub-Saharan Africa agro-allied market and become number one agro-allied company by market share and profitability in Africa if well managed (Enebeli-Uzor, 2011).

Another problem that militates against agriculture is lack of large expanse of land for modern farming due to land ownership system in most parts of the country. Small land ownership and family ownership of land still predominate in most parts of the country making it difficult to access large expanse of land for modern and irrigation farming.

3. Agricultural Policies and Financing in Nigeria

In this section, we review past government policies in agriculture and financing options with special focus on Agricultural Credit Guarantee Fund Scheme of the Central Bank of Nigeria. It must be stated from this onset that Nigeria has never been bereft of policy measures to encourage agricultural growth. To this end, successive governments in Nigeria have introduced one form of policy or the other to encourage agricultural sector. For instance, from the early to mid 1950s, Farm Settlement Schemes (FSS) modeled after the Isreali Moshaw-type agriculture were formed to create farmsteads intended to increase agricultural productivity and generate employment for young school leavers. Shortly after the scheme was introduced, the nation gained independence in 1960, the National Food Acceleration Programme (NAFPP) was introduced by the new nationalists who sought to use periodic national economic development plans as a means of achieving sustained growth and development. The First National Development Plan, spanning 1962 – 1968, had agriculture as its main thrust with an investment of 2.3 billion US dollars provided for by the plan. The focus of the plan was the establishment of farm settlement schemes that would be exclusively dedicated to the cultivation of export crops.

The 1967 – 1970 civil war truncated the plan and was subsequently jettisoned during the period (Enebeli-Uzor, 2011).

At the end of the civil war, the federal government modified the progremme to a less ambitious one – the National Food Acceleration Production Programme (NFAPP). This new policy only sought to improve peasants' productivity in staple food crops and consequently failed to solve the problem of declining food productivity. Government also established Agricultural Development Programmes (ADPs) in all states of the federation to help organize farmers for more productive agriculture through the provision of modern inputs. The succeeding government introduced Operation Feed the Nation (OFN) in May 1976 with the specific focus of increasing food production on the premise that improved availability of affordable food would ensure a higher nutrition level and invariably culminate in national growth and development. The programme provided N2.2 billion for agriculture and rural development.

According to Olagunju (2010) the River Basin and Rural Development Authorities (RBDAS) were also established by the federal government in 1976 to facilitate and accelerate the production of food crops and mobilize the rural agricultural population towards increased food production. Currently, the following are existing River Basin Development Authorities: Anambra-Imo River Basin Development Authority; Benin-Owena River Basin Development Authority, Chad River Basin Development Authority, Cross River Basin Development Authority, Hadejia-Jama'are River Basin Development Authority, Lower Benue River Basin Development Authority, Lower Niger River Basin Development Authority, Niger Delta River Basin Development Authority; Ogun-Osun River Basin Development Authority, Upper Benue River Basin Development Authority, Upper Niger River Basin Development Authority and Sokoto-Rima River Basin Development Authority. They were put in place to solve the problem of declining agricultural productivity and encourage the diffusion of agricultural innovation through extension services to the rural areas to improve the living standard of the rural dwellers.

In May 1980, the succeeding administration embarked upon yet a new programme, the famous Green Revolution, to boost agricultural productivity in the country. The main thrust of the initiative was to create the means to meet the needs of smallholder farmers and spread the benefits of rural development. The programme also sought to encourage Nigerians in both urban and rural areas to go into agriculture for both commerce and for the provision of food for domestic consumption. Government's focus on jumpstarting activities in agriculture changed in 1986 with the establishment of the Directorate of Food, Roads and Rural Infrastructure (DFRRI). The directorate was established as an enabling facility management organization to coordinate and streamline all rural development activities in the country and accelerate the pace of integrated rural development with agriculture as an important segment. Besides the programme sought to directly improve agricultural productivity, the challenge of funding was also identified by successive administrations and they established institutions to meet the need of financial intermediation for the sector. For instance, the Nigerian Agricultural and Cooperative Bank (NACB) was established in 1973 with the responsibility of providing credit for the production, processing and marketing of agricultural produce. Its target groups comprised individual farmers, cooperative organizations, limited liability companies, states and the federal government. It has however, metamorphosed into the Nigerian Agricultural, Cooperative and Rural Development Bank (NACRDB) limited following its merger with former People's Bank of Nigeria (PBN) and the risk assets of the Family Economic Advancement Programme (FEAP) (Adams, 2009).

As a result of the inability of the Nigerian Agricultural and Cooperative Bank to deliver on its mandate, the Agricultural Credit Guarantee Scheme (ACGS) was established in 1977 under the management of the Central Bank of Nigeria. The Scheme was designed to encourage banks to increase lending to the agricultural sector by providing guarantee against inherent risks associated with agricultural production. The Scheme is by far the most ambitious and pervading of all financial schemes to date to support agriculture by government. We shall return to the scheme shortly. Also, in order to mitigate the risks associated with agricultural activities, the federal government established the Nigerian Agricultural Insurance Corporation (NAIC) in 1987 to provide risk cover for farmers (Newman, 2009). Specifically, the insurance corporation was set up to promote agricultural production by enhancing greater confidence in adopting new and improved farming practices and at the same time bring about greater investment and increased productivity. The corporation was also expected to provide financial support to farmers in the event of losses arising from natural disasters. Besides the corporation was expected to increase the flow of agricultural credit from lending institutions to farmers and also minimize or eliminate the need for emergency assistance usually provided by government in times of emergency. But as rightly observed by Uzor (2009), despite the avalanche of programmes and policies to resuscitate agriculture over the years, the country still faces acute shortage of food supply.

Before delving into the capital market option as a means of financing agriculture, it is pertinent to review the operations of the Agricultural Credit Guarantee Scheme (ACGS) of the federal government through the Central Bank of Nigeria.

In a study conducted in 1976 by the CBN (Olaitan, 2006), shortage of primary production credit was identified as one of the major causes for declining agricultural production. This shortage was attributed to reluctance by the banks to provide credit for real sector activities, especially agricultural production. The reasons were obvious and include:

- Inherent risks associated with agricultural production;
- Urban/semi urban based nature and mode of operations of the banks;
- High cost of administration of agricultural loans and;
- Inability of farmers to provide the necessary collateral.

As a probable solution to the above problems the Agricultural Credit Guarantee Scheme Fund was established by the Federal Government (60 percent) and Central Bank of Nigeria (40 percent) in 1977 with an initial Fund of Naira (₦)100 million subscribed and paid up capital of ₦ 85million. The Scheme provides guarantee cover for loans advanced to the agricultural sector by banks. The scheme cover pledges to pay to the banks, 75% of any outstanding default balance by borrowers provided that collateral pledged has been realized and applied to the account. The Central Bank of Nigeria manages the Fund, and is responsible to a Board. To operate the Scheme, the CBN opened Agricultural Finance Offices (now Development Finance Offices) in its branch offices in 22 states of the federation then. Through the branch offices, the Central Bank of Nigeria handles the day-to-day operations of the Scheme. The CBN issues a Guarantee Certificate to the lending bank to pay 75% of any outstanding balance in the event of default less the amount realized from the security pledged by the borrower. The lending bank can file a claim on the Fund if the above has been fulfilled. Few details of the scheme include:

(a) Scope of the Scheme

The scope of the scheme of agricultural activities the Fund can guarantee are:

- establishment or management of rubber, oil palm, cocoa, coffee, tea and similar crops;
- cultivation or production of cereal crops, tubers, fruit of all kinds, cotton, beans, groundnuts, sheanuts, benni seed, vegetables, pineapples, banana and plantains;
- animal husbandry, that is, poultry, pigs, cattle rearing and the like, fish farming and fish capture; and
- processing in general where it is integrated with at least 50 per cent of farm output e.g. cassava to garri, oil palm to palm oil and kernel, groundnut to groundnut oil etc.

(b) Loan Limits under the Scheme

The Scheme as at 2009 has a capital base of ₦3.0 billion and loan limits of ₦20,000 for loans without tangible securities, ₦1.0 million for individual borrowers, and ₦10.00 million for cooperatives and corporate borrowers.

(c) Types of Security Accepted for Loans:

Acceptable securities for loans under the Scheme can be any of the following:

(i) a charge on land on which the borrower holds a legal interest, or a charge on fixed assets, crops or livestock;
(ii) a charge on any moveable property of the borrower;
(iii) a life assurance policy, a promissory note or other negotiable security;
(iv) stocks and shares;
(v) a personal guarantee and
(vi) Any other security acceptable to the bank.

One of the major factors identified by Olaitan (2006) as militating against the success of the ACGS is scarcity of loanable funds due to lack of bank support for the Scheme. The number of participating banks rose gradually from 10 in 1978 to 28 in 1986 and peaked at 34 in 1989. Thereafter, the number declined with only six participating now.

It has always been argued that banks are in business to make a profit. They cannot be borrowing short and lending long to agriculture that are characterized by high risk. Furthermore, in a free-market economy, which is private-sector driven, government's intervention is expected to be minimal.

Other constraints are (i) inadequate capital base, (ii) unwillingness of farmers sometimes to repay loans; (iii) non-settlement of claims; (iv) poor project appraisal by banks; (v) lack of adequate collateral; (vi) high cost of administering small loans; (vii) reduction in the number of participating banks.

These constraints have shown that a better financing option is needed to boost agricultural financing in Nigeria. This calls for capital market destination as an alternative source of funding for agricultural development.

4. Capital Market as a Long Term Option for Financing Agricultural Development

The importance of agriculture in a nation's economic development and growth can never be over-emphasized. In a nut shell, agriculture is important in attaining a well functioning economy. Reliance on government revenues like taxes and grants are never sufficient to fund agricultural production as past experiences in Nigeria has shown. Increase in taxes is a disincentive which places more burdens on the citizens and can cripple an economy. Therefore rather than relying strictly on internally generated revenue, governments can float bonds at intervals for specific developmental projects especially for agricultural projects. All tiers of government and their agencies have the opportunities to finance their agricultural projects through the issuance of bond instrument. Different shades of bonds can be structured to suit the project peculiarities, investor's expectations, concerns and issuers requirements. Thus, there is Federal Government (sovereign) Bonds, Government Agency Bonds, State/Local Government (sub national) Bonds and Corporate Bonds.

There is no gainsaying that capital market is a critical pillar to long term fund mobilization needed for capital formation to fast track economic growth and development through agriculture. The short term funding profile of the money market makes it unsuitable for agricultural project investment hence the capital market which creates an enabling environment for the generation of long-term financing and active private sector participation in agricultural development. In addition, the capital market provides variety of financing instruments and investor categories which could lead to larger pool of funds than other financing options.

The capital market is the market for securities, where companies and governments can raise long term funds. The main function of the capital market is to channel investments from the investors who have surplus funds to the investors who have deficit funds. The different types of financial instruments that are traded in the capital markets are equity, debt, hybrid, insurance and derivative. The capital market consists of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded. Usually the capital market provides relatively cheaper source of fund.

According to World Bank Report (2010), Nigerian's stock market significance measured by total market capitalization as percentage of the Gross Domestic Product (GDP) was as high as 52.0% in 2007 but declined to 24.0% and 19.7% in 2008 and 2009 respectively due to the impact of the global economic crisis.

Table I below shows a comparative position of the Nigerian capital market with other developing and developed economies.

Table I: Market Capitalization as Percentage of GDP of Some Countries (2005 – 2009)

Country	2005	2006	2007	2008	2009
Nigeria	17.2%	22.3%	52.0%	24.0%	19.7%
Ghana	15.5%	25.4%	15.9%	20.4%	16.1%
Egypt	88.8%	87.0%	106%	52.7%	47.8%
Kenya	34.1%	50.6%	49.4%	36.0%	35.6%
India	66.1%	86.3%	147.6%	53.2%	90.0%
Belgium	76.6%	99.3%	84.3%	33.2%	55.8%
Brazil	53.8%	65.3%	100.3%	36.0%	74.3%
Malaysia	131.5%	150.4%	175.1%	84.6%	133.6%
South Africa	228.9%	273.9%	291.1%	177.7%	246.5%
Tunisia	9.9%	14.4%	15.0%	15.6%	23.1%
United Kingdom	134.1%	155.5%	137.9%	69.6%	128.6%
United States	134.9%	145.7%	142.4%	81.7%	105.8%

Source: World Bank Report 2010

4.1 The Importance of Bonds

Bonds can attract foreign savings when open to international participation. Bonds are important for various developmental projects including agriculture. All tiers of government can issue well structured bonds for large scale agricultural production with the sale of the produce directed at meeting debt obligations. Companies can also issue debentures to finance factories and other fixed assets which are key in the production process and ultimately aids economic development. Transparency and accountability of capital markets can promote proper use of funds generated from bond issuance. The bond market offers less risky investment and regular returns which guarantee investor patronage. Constant creation of new products that would widen investment horizon, give investors value-based investment options and provide the needed cheaper long-term funding to finance agriculture and other critical infrastructural development has been the prime mandate of the Stock Exchange Commission.

4.2 Capital Market as an Option for Agriculture and Infrastructural Development – The Nigerian Experience

The Nigerian capital market has performed relatively well in the area of bond issuance. Records show that the capacity of the market for raising long term funds have been put to test by the Jumbo offers of governments and corporate bodies which ran into several hundreds of billions of naira in value. The over subscription of most of these offers were instructive as they suggest that the market can finance many more viable infrastructural projects especially agriculture. The Nigerian capital market is being positioned to play more significant role in the area of infrastructural development with far reaching reforms in the financial sector.

Reforms in the bank and insurance sector as well as the pension system among others have promoted investment in this regard. In 2007, the first mortgage backed security by the Federal Mortgage Bank worth N100 billion (about US$670 million) was issued for residential houses. A review of fund mobilized in the capital market for infrastructural development in the last twenty years showed the dominance of the sovereign bond, which was reactivated in 2003. However, the Nigerian capital market has been a viable source of financing state and local government infrastructural projects through bond issuance. The first state to use the capital market was the defunct Bendel State which issued a “ten-year N20 million 7% Bendel State of Nigeria Loan Stock” in1978. Since then other state governments have issued bonds for developmental projects. Below is a summary of bonds raised by some state governments between year 2000 and 2009:

Table II: Analysis of States that have accessed the Capital Market between 2000 and 2009

State	Coupon Rate	Year of Issue	Amount (N)	Level of Subscription	Project
Edo State Revenue Bond	21.0%	2000	1 billion	205%	Development of Ogba River Side Housing Estate
Delta State Revenue Bond	16.05%	2000	5 billion	101.74%	Market, Health care, water and education
Yobe State Revenue Bond	23.0%	2002	2.5 billion	81.22%	Urban road and housing drainage improvement
1st Tranche Ekiti State Revenue Bond	24.5%	2002	2.5 billion	81.28%	Financing Urban and rural road and establishment of palm plantation, rural electricity, expansion of water project
2nd Tranche Ekiti State Revenue Bond	24.5%	2002	2.5billion	100%	Financing urban rural road and establishment of palm plantation, rural electricity and expansion of water project
Lagos State Bond	4.0 above TB	2002	15 billion	77.58%	Financing development projects
Cross River Tourism Dev. Bond	20.5%	2004	15 billion	79.69%	Upgrading and expanding of Obudu ranch
1st Akwa State Revenue bond	19.5%	2004	6 billion	100%	Financing infrastructural development
Kebbi State Revenue Bond	14.0%	2006	3.5 billion	100%	Kebbi State University of Science and Technology and Zauro polder irrigation
Lagos State Govt. Bond Series 1 (Under N275 billion debt insurance programme	13%	2008	50 billion	117.93%	Refinancing loans on ongoing infrastructural projects
Imo State Govt. Bond series 1 (under the N40 billion debt insurance programme	15.5%	2009	18.5 billion	100%	Part-financing of water rehabilitation schemes and construction of critical roads. Finance of State Govt Equity Investment in the Imo Wonder Lake and conference centre Oguta
Kwara State Govt Bond series 1 (under N30billion debt insurance programme)	14%	2009	17 billion	100%	Kwara State Truck Plaza International Aviation College Asa Dam Mixed Used Development, New Secretariat, Commercial Agriculture Project (Phase II) Kwara State University, Ilorin Water Distribution project, Agriculture irrigation support project, Kwara Advanced diagnostic centre and loan refinancing
Niger State Govt Infrastructure Dev. Bond	14%	2009	6 billion	100%	Rehabilitation and construction of roads

Source: SEC Report (Various Years)

A cursory look at the table shows that bond issuance for agricultural projects is still not very popular with various tiers of government despite the enormous potentials of agriculture in economic transformation. Only

Ekiti State and Kwara States appeared to have factored in agricultural development in their bond issuance. The reason may not be farfetched. Most states in the federation are still battling with acute infrastructural deficiencies the reason for the preponderance of infrastructural development in most of the bond issues. There is serious lack of infrastructure in Nigeria to the point that 'democracy dividend' in Nigeria has been equated with the provision of infrastructure. The pressure on elected governments to deliver on infrastructure like roads, portable water, buildings, electricity has crowded out other critical elements (like agriculture) needed for sustainable economic development. From the table, between 2003 to date, sovereign bonds auctioned in the market were worth over N3.36 trillion i.e. about 90.2% of debt securities issued in 20 years. Most of issues were largely oversubscribed. Sub-national and corporate bonds only accounted for 7.1% and 2.7% respectively. There was a consistent increase in the amount of bond issuance by the federal government, states and corporate bodies between 1991 and 2005, as shown in the Table III.

Table III: Bond Issuance between (1991 – October 2010)

Billion Naira	**1991 – 1995**	**1996 - 2000**	**2001 - 2005**	**2006 - 2010**	**Total**
FGN Bonds	0.00	0.00	290.00	3,070.50	3,360.50
State/Municipal	0.13	4.50	31.50	227.50	263.63
Corporate Bonds	1.94	10.44	17.61	70.30	100.29
Total Debt Securities	2.07	14.94	339.11	3,368	3,724.43

Source: DMO

Between 2005 and 2009, six (6) corporate bonds were floated, mainly by blue chips which were well received by investors. These include Cadbury Nigeria PLC issue of an irredeemable convertible zero coupon bonds of N5 billion in 2005. Similarly, Access Bank PLC floated a N1.9 billion and 13.5 billion convertible loan stock in 2005 and 2006 respectively. While Crusader PLC, C&I leasing Plc and Guaranty Trust Bank Plc issued N4 billion, N2.2 billion and N13.17billion respectively.

Secondary market trading on sovereign bonds is currently active Over-The- Counter (OTC). Over N50 trillion worth of sovereign bonds have been traded since 2006, when trading began on the platform. Secondary bond trading on the floor of the exchange has been very minimal and work is going on to reactivate trading in that segment.

It must be remarked that municipal bonds are one of several ways states, cities and counties can issue debt. Other mechanisms include certificates of participation and lease-buyback agreements. While these methods of borrowing differ in legal structure, they are similar to the municipal bonds.

The potential advantages of bond issuance by various tiers of government have been widely documented in the literature. Ujunwa and Ogbuagu (2010) enumerated some of these. The advantages are as follows:

a. access to the capital markets has the tendency to strengthens government fiscal discipline
b. bond issuance provide governments with a cheaper source of financing than domestic bank loans and other sources of loans
c. access to the capital market improves management performance of governments;
d. capital markets provide long term funding for critical developments in agriculture and infrastructure
e. bond issued in the capital markets are supposed to have maturities that extend to the useful life of the asset they finance.

Other benefits according to Securities & Exchange Commission (2011) include:

1. Longer term funding - a company may need financing to build another plant for its manufacturing operations which may take three years to build. Banks are currently capping their bank loans, generally to may be one year. In order to gain the tenor of loans needed, the company may seek to issue a 3-year bond in the capital market, thus meeting its financing needs. Similarly, an infrastructure bond may be issued to fund a 5 or 7 or 10 year project of a State to install or upgrade roads, build structures in the State, including buildings for government or housing or hospitals, or fund the building and operations of water treatment and electricity facilities.
2. Meet liabilities: Some investors such as pension funds or insurance companies have known liabilities at some future data, such as payments to be made to pensioners or payoffs to be made to customers; to meet these liabilities, these institutional investors demand such fixed income investments where there is principal payoff at the time of the liability being realized and interest payments during the life of the

bond or else a zero coupon bond bought at a discount with principal payoff to coincide with the liability coming to realization

3. Lock in rates: flexible rates – an issuer is fine with issuing a bond paying a fixed amount of interest per year, as its cash flows are adequate to pay off the known interest rates payments over the coming years, projects that are funded by the issuance will cover the payment of principal at the maturity of the bond or an issuer wants investors to be attracted to its bond issue that will meet interest rates and inflation variances, thus will issue a floating rate (coupon) bond where interest rates are adjusted semi---annually or annually based on a particular index if interest rates rise, the coupon will rise and the issuer will be paying as well as the investors will be receiving more in interest as interest rates decline, the coupon will be diminished and the issuer will be paying less in interest as well as the investors receiving less in interest payments.
4. Leverage – Borrowing can increase shareholder returns. Let's say you build a new factory and finance this through a mix of borrowing and equity. If you can borrow at an interest rates that is lower than the return from the factory, the return to shareholders will increase. This is called leverage. Bonds can be one method of leverage.
5. Delayed principal payment – Compared to the typical bank loan which requires that the principal is repaid in installments; the bond principal is paid as a lump sum on maturity. A zero coupon goes even further. This type of bond is issued at a discount to its face value and pays no coupons. The net present value of the difference between the face and the issue price is the internal rate of return which compensates investors for not getting coupons during the life of the bond with a big capital gain at maturity.
6. Flexibility – Bonds can be structured in many ways, to suit the needs of the issuer. For example, the issuer can choose how often coupons are paid, the term, whether the coupon rate is fixed or floating and the type of embedded put or call options that will benefit the investor or the issuer.

4.3 Drivers of Bond Financing in Agricultural Development

To effectively raise and mobilize funds for agricultural development through fixed income securities, some basic conditions have to be satisfied.

They include:

1. Existence of contractual savings institutions to create a pool of long term investible funds;
2. Stable macroeconomic environment;
3. Establishment of credit rating agencies and development of rating culture by issuers. The development of rating culture could be fostered by the market demanding rating of fixed income instruments
4. Strong issuer base
5. Development of a reference bond and yield curve for appropriate pricing of other fixed income instruments
6. Efficient trading and settlement infrastructure
7. Good legal regulatory and institutional framework
8. Market liquidity
9. Low trading cost
10. Tax policies which encourage issuance and participation in bonds
11. Fixed income pricing capacity by intermediaries

The development of the bond market especially the corporate and sub-national segment to enhance patronage of the bonds sector can be described as 'work in progress' with the introduction of tax waiver granted to investors. The Stock Exchange Commission appointed an IFC resident adviser on bonds to assist in improving the efficiency of issuance processes of bonds, legal and regulatory matters, infrastructure and capacity building.

Other measures which the Stock Exchange Commission has taken to aid bonds issuance include:

- Reduction in registration fees to 0.15%
- Maximum approval time for applications at 6 weeks
- Rules on Shelf Registration and Book Building have been introduced to ease corporate bond issuance

5. Conclusion and Recommendations

We have tried in this short paper to present the capital market as a viable option for funding agriculture in Nigeria by all tiers of government. This has become imperative, considering the dwindling fortunes of the federation account and internally generated revenue of various tiers of government. The capital market option not only provide long term funding that meets the peculiar characteristics of agricultural production but will also will instill fiscal discipline and consequently, good corporate governance practices at all levels of government. The listing requirements for capital market access make it imperative for fiscal discipline because of statutory monitoring by capital market regulators and the individual creditors. Besides the use of capital market by different tiers of government will fast-track the development of the government bond market. A well developed bond market would attract foreign investors and improve the overall output of the economy.

No doubt, the capital market is a vital and efficient vehicle for long-term funds mobilization and channeling. Funds could be mobilized from the market to address the huge financing gap in agriculture in Nigeria. In many countries bonds are known to have financed numerous development projects in agriculture and infrastructural development such as colleges and universities, hospitals, power stations etc. Given their potential to accelerate development in Nigeria, bond issuance should be encouraged.

Notwithstanding the benefits inherent in the market, one of the major constraints to agricultural financing has been the low level awareness of the capital market as a viable avenue for funds mobilization. The opportunities/benefits offered by the Nigerian capital market are begging to be explored. Governments at all levels and even corporate organizations should take advantage of same to facilitate their respective agricultural projects.

A good regulatory environment with adequate safeguards to protect investors and other participant is currently being pursued by the Stock Exchange Commission. It is also important to ensure that agricultural projects for which funds are obtained are strictly executed. This is where the on and off-site inspections carried out by the Commission become imperative.

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