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Leveraging Pension Funds for Financing Infrastructural Development in Nigeria

M.K. Tule, P.N. Okafor, E.C. Obioma, G. Okorie, A.O. Oduyemi, A.A. Muhammad and O.J. Olaoye

CENTRAL BANK OF NIGERIA

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By

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Abstract

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This Working Paper should not be reported as representing the views of the CBN. The views expressed herein are those of the author(s) and are not necessarily those of the Central Bank of Nigeria and its Management.

The study focuses on how to leverage on pension funds in order to finance infrastructure in Nigeria. This investigation becomes paramount considering the observed increasing trend in the volume of available pension funds; since the introduction of the contributory pension scheme in 2004, the fund has risen from N815.18 billion in 2007 to N4.575 trillion in October 2014. Despite the availability of such level fund, it has been widely acknowledged that there exist, a significant infrastructure financing gap, which has been estimated at US\$2.9 trillion, an amount that is needed to actualize the Nigeria Infrastructure Integrated Master Plan (NIIMP). The paper carried out an extensive survey on the model adopted by different countries in channeling the pension fund to financing infrastructure. Lesson from the survey was then used to develop a framework. The study noted that the Federal Government of Nigeria can issue special purpose infrastructure bonds whose funds can be ring-fenced and ear-marked for infrastructural projects. Given the nature of pension funds, it would provide long-term financing at reduced interest rates and thus free the pressure to borrow at high interest rates from banks to finance such projects. The paper concludes by recommending the adoption of the framework which would be beneficial to the CBN, Pensioners and ultimately propel economic growth and development of the Country

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1.0 Introduction

Traditionally, infrastructure was viewed as purely a public good, built and maintained with public funds. In recent years, however, the increasing constraints on public finances, associated with growing demands for social expenditures, have posed great challenges in the maintenance of existing infrastructure and the construction of new facilities. The global financial and economic crises have worsened the situation, further reducing the scope for public investment in infrastructure within governments' budget in several countries, including Nigeria. This has resulted in a significant infrastructural financing gap and the need for greater recourse to other sources of financing for infrastructure. Nigerian banks have limited ability to finance long term infrastructure projects due to the structure of the banks' deposits which are mostly short term in nature. Although multilateral institutions have provided some level of support for infrastructural financing, the support, however, is inadequate to address the country's huge infrastructural financing gap.

In January 2012, the Federal Government of Nigeria partially removed the subsidy on petroleum products, in order to deliver on public infrastructure especially in the areas of roads maintenance and construction. While some progress has been made, the infrastructure-finance gap still exists. The power sector reforms depict a typical case of inadequate finance for infrastructural development. It has been projected that over US\$15 billion would be required in the next 2 to 3 years to finance the power project.

Three important developments threaten the attainment of this target. First, there is limited fiscal space for infrastructure finance in National Government budget as a result of dwindling revenue in the face of falling oil prices, high country risk premium and risk of exchange rate volatility. Second, Nigeria's long term financing market is still shallow and offers limited capital that would support the huge financing requirement for infrastructure. Third, there are limited longer term instruments with maturities commensurate with long-term nature of infrastructure projects.

The contributory pension scheme came into operation in Nigeria in 2004, following the enactment of the Pension Reform Act of 2004 (as amended in 2014) which allowed for

the establishment of pension funds custodians and administrators. This has led to a remarkable shift towards funding and private sector management of pension funds and rapid growth in pension funds. Modalities for leveraging on the tremendous growth in pension funds to finance infrastructure projects in Nigeria have been an issue of great concern.

This paper is broadly aimed at examining the modalities for leveraging on pension funds in financing infrastructural development in Nigeria. It is divided into six sections. Following this introduction, section 2 reviews the theoretical and empirical literature while section 3 discusses the experiences of selected countries on the use of pension funds in infrastructure financing. Section 4 focuses on the stylized facts on pension funds in Nigeria, looking at the growth of the Nigerian pension Assets as well as the distribution of pension assets amongst investible instruments under the Pension Act schedule. Section 5 dwells on the likely challenges for leveraging pension fund to finance infrastructure in Nigeria and presents a proposed Framework for leveraging on the pension funds' assets in Nigeria to finance the construction, maintenance and upgrade existing of infrastructure projects while providing safe and sustainable return on investment. Section 6 concludes the paper. The modalities of implementation that would ensure that pensioners do not lose their pension fund due to poorly executed projects would be put in place.

2.0 Literature Review

2.1 Theoretical Literature

The African Development Bank (AfDB) revealed that a country's Infrastructure development should amount to a minimum of 6% of its Gross Domestic Product (GDP) in order to attain reasonable level of sustainable development (AFDB 2010). In the same vein, the World Bank estimates show that poor Infrastructure across Africa reduces economic growth by 2% (World Bank 2009, Mohammed, 2011). By this instance, it is clear that infrastructure development is central to sustainable growth and development of any economy. It is highly capital intensive, and thus requires enormous long term investment finance.

The importance of harnessing pension funds for long term investment in infrastructure is underscored by the theory of "Capital Accumulation" which says that some proportion of present income is saved and invested in order to augment future output and income. That could be directly supplemented by investments in what is known as social and economic infrastructure, roads, electricity, water, and communications and the likes which facilitate and integrate economic activities (Todaro and Smith 2009).

Todaro and Smith (2009) revealed that one of the strategies of development necessary for any takeoff was the mobilization of domestic savings in order to generate sufficient investment to accelerate economic growth. This assertion was supported by Harrod-Domar growth model which stated that in every economy the savings ratio (s) and the capital coefficient (k) are regarded as critical factors for capital accumulation and growth assuming that all saving is used to finance fixed investment. The rate of growth of the real stock of fixed capital (K) is:

$$\frac{\Delta K}{K} = \frac{\frac{\Delta K}{Y}}{\frac{K}{Y}} = \frac{s}{k}$$

where Y is the real national income. If the capital-output ratio or capital coefficient ($k = K/Y$) is constant, the rate of growth of Y is equal to the rate of growth of K . This is determined by s (the ratio of net fixed investment or saving to Y) and k .

The pension fund is expedient for sustainable development, particularly in the context of financing infrastructure projects. According to Mohammed (2011), pension fund has a vital role to play in financing infrastructure and ultimately economic development, while lack of infrastructure development negatively affects the economy. Sustainable development has been described as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (NESG 2012).

2.2 Empirical Literature

Hu (2012) studied the impact of Asian pension funds, in particular, the key transmission mechanisms from pension reform to financial development. With the aid of the panel error correction model, a statistical relationship between pension asset growth and development of financial and capital markets was established. This was corroborated by Catalan et al. (2000) in their investigation of the relationship between capital markets and contractual savings. The study found that contractual savings institutions, like pension funds, granger-cause capital market development. The study used data on capital market capitalization and value traded from 26 countries, six of which were developing economies.

Gunu et al (2012) studied the effect of introduction of Contributory Pension Scheme (CPS) on savings mobilization, capital market development and economic growth stimulation in Nigeria. Using secondary data which were analysed using descriptive statistics, charts and percentages, the study noted that pension funds investment as a percentage of the total market capitalization rose consistently from 2.36 per cent in 2007 to 4.53 per cent at 2010. The paper therefore inferred that through the capital market, the CPS had contributed to the general economic development in Nigeria.

Della-Croce et al (2011) examined latest ideas in the world aimed at leveraging pension funds in financing green growth related projects. The paper itemized various financing options and the role of government and pension fund regulatory and supervisory authorities in utilizing pension fund for the economic growth. Major recommendations made by the authors include the need to ensure enabling business environment, creation of a more liquid market to support the commitment of funds in enhancing green infrastructure and removal of impediments to investments.

Angeliki (2008) studied the effect of pension reforms on macroeconomic performance. A wide-ranging research on the impact of pension reforms on output, capital stock and consumption as well as the underlying factors leading to cross country heterogeneity was presented. In conclusion, the Author asserted that pension reform brought an improvement in macroeconomic performance. However, it provided evidence that the

success recorded was more visible in countries with lower public debt, age dependency ratio, developed financial markets and a higher rate of privatizations.

Beeferman (2008) explained that investing in infrastructure was a potential avenue for pension fund to reap a higher and consistent yield in the near future when the fund matured. However, he noted that as lucrative as infrastructure investment might appear, it does not provide a distinct asset class and that fact explains the complexities of investing pension fund in such areas.

Evidence shows the existence of a considerable global infrastructure gap, which is more pronounced in less advanced countries in comparison with advanced economies. The Organisation for Economic Cooperation and Development (OECD) in its report of September 2011 estimates the global infrastructure financing till 2030 at US\$50 trillion, while achieving green growth transformation requires cumulative investment in eco-infrastructure to the tune of US\$40 trillion between 2012 and 2030 (Dellacroce, 2011), about US\$2trillion or 2 per cent of global GDP per annum. The International Energy Agency estimates the cost of adjustment to climatic changes till 2050 at US\$45 trillion or about US\$1 trillion per annum. However, average ratio of capital expenditure on fixed investment (mainly infrastructure) to GDP in OECD countries declined from over 4.0 per cent to 3.0 per cent between 1980 and 2005. Though this subsequently stabilized, the recent global economic crisis and fiscal adjustments carried out by the affected economies (particularly key OECD states), is expected to impact infrastructure investment, given that the state is the major provider of infrastructure asset.

The use of pension fund to finance infrastructure projects became more prominent in the past 2 decades as a result of mandatory pension schemes, to fund pay-as-you-go systems particularly in the private sector and the need to guarantee the pensions and pension payout of contributors to the scheme. This trend was further fuelled by the need to diversify risk and match assets to the liabilities of pension fund schemes.

Infrastructure asset is a suitable vehicle that delivers strong long-term economic inflation-linked returns at an acceptable level of risk, while matching asset to liability tenures of

pension schemes and has thus attracted significant funding from pension schemes. Within the OECD, key institutional investors held US\$65 trillion in assets as at 2009, which is expected to continue rising as coverage increases and workforce ages. The following section looks at the experiences of some countries regarding the evolution of their pension fund market and the contribution of same to infrastructure investment.

A major inference from the literature indicates that infrastructure financing using the pension fund deepened the financial market, engendered higher returns which was beneficial to investors and retirees as well as improved macroeconomic performance. However, there seems to be no study to explore the potency of utilizing pension funds for infrastructure development in Nigeria. This could be due to the fact that there is no framework and modalities on how to use pension funds to finance infrastructure projects in Nigeria presently. That is the overriding objective of this paper.

2.3 Country Experiences³

This section examines some country experiences in leveraging on pension funds to finance infrastructure projects and draw some useful lessons for Nigeria.

2.3.1 Canada

The Canadian government took a prominent role in infrastructure development particularly in the 60s and 70s. However, worsening fiscal balance in the 80s and 90s led to a slowdown in infrastructure development that led to a backlog of dilapidated infrastructure requiring repair or replacement. Furthermore, emerging demographic trend contributed to an infrastructure deficit of about C\$50 billion to C\$125 billion. The Municipalities infrastructure deficit was estimated at C\$123.5 billion in 2007.

The pension fund market in Canada has steadily grown from US\$376 to US\$806 billion, between 2001 and 2009. Investment in infrastructure as at 2009 was about CAD\$34.9 billion, approximately 3.84 per cent of total managed assets (OECD, 2011).

³ This section draws heavily from Organisation for Economic Co-operation and Development (2011), Pension Funds' Investments in Infrastructure: A Survey, OECD Project on Strategic Transport Infrastructure to 2030, September 2011, pp.78

Over the years, large Canadian pension schemes have been involved in infrastructure. These include:

- **Ontario Municipal Employees' Retirement System (OMERS)** whose commitment to infrastructure was C\$8.3 billion in 2010, representing 15.5 per cent of its total assets, with a target of 21.5 per cent.
- **Ontario Teachers' Pension Plan (OTPP)** which investment in infrastructure commenced in 2001 with C\$7.7 billion or 7.7 per cent of its total assets allotted to infrastructure in line with its target allocation.
- **OPTrust** who is an active investor in infrastructure class asset with assets totalling C\$13.3 billion in 2010. It launched its internal investment team in 2006, and has a target infrastructure allocation of 15 per cent, which represents about 5 per cent of its total assets.
- **The Canadian Pension Plan Investment Board (CPPIB)** which is a pseudo government corporation set up to invest the assets of the Canada Pension Plan, which amounted to C\$148.2 billion as of March 2011. CPPIB infrastructure investment stands at C\$9.5 billion representing 6.4 per cent of its total portfolio as at March 2011.

2.3.1.1 Efforts by the Canadian Government

The Canadian government launched the Building Canada plan in 2006 to provide C\$33 billion for infrastructure projects between 2007 and 2014, which would be driven through Public Private Partnerships (PPP). The Building Canada plan also encourages the development and use of PPP best practices by requiring that PPPs be given consideration in larger infrastructure projects funded through the Gateways and Border Crossings Fund and by the Building Canada Fund. Various initiatives to support the building Canada plan include:

- **Infrastructure Canada**

Infrastructure Canada was established as a department of the Transport, Infrastructure and Communities (TIC) portfolio in August 2002, with the objective of aligning government infrastructure projects with the Building Canada plan, championing efforts

at alleviating infrastructure challenges, supporting nationwide infrastructure initiatives and facilitating the transformation of Canadian infrastructure to world class standards.

- **Government focus on PPPs**

As part of the building Canada plan, the government set up two initiatives to help engender PPP opportunities namely;

- The PPP Fund (C\$1.25 billion) – The PPP Fund helps to expand infrastructure -financing alternatives, encourage private sector infrastructure investments and build the technical competencies in alternative financing methods. It provides up to 25 per cent of the direct capital costs and leverage on the C\$5 billion in PPP infrastructure investments in Canada.
- The Federal PPP Office – established to contribute C\$25 million annually, in the next five years, to facilitate the utilisation of PPP vehicle in infrastructure projects.

- **Infrastructure bonds**

There have been rapid developments in the Canadian bond market in recent years for PPPs debt and these have received significant interests of institutional investors such as pension funds. The project design ensures strong rating leveraging on strong project analysis competencies. Consequently, Canadian provinces have maintained high credit rating indicating good prospects, for repayment on PPP projects. Examples include the Montreal University Hospital Research Centre project, financed by issuance of C\$400 million A-rated bond and The McGill University Health Centre bond issue in 2010.

2.3.2 Australia

The Australian State like most economies was the key provider of public infrastructure. However, the economic recession of 1989-1990 necessitated a change in the management and construction of public infrastructure, which led to the reform and privatization of infrastructure assets. The reforms in the 1990s accelerated the development of the infrastructure market and private sector participation in it.

The private sector currently accounts for about half of capital investment in infrastructure in Australia since the early 2000s and accounts for 35, 45 and 100 per cent investment in

water, transport and telecommunication sectors, respectively. Estimates in 2008 suggest that an infrastructure investment of A\$770 billion was required to sustain her economic growth, with required private sector contribution of about A\$360 billion (Cella-Croce, 2011).

2.3.2.1 Infrastructure investments by Pension funds in Australia

Investment in infrastructure class assets by Australian retirement funds commenced over a decade ago and has been steadily rising, with significant portfolio allocation to the sector. Their infrastructure investment amounted to A\$8 billion or about 2 per cent of total fund assets in 2002, with projections that the figure would rise to A\$65 billion or 5 per cent of total funds asset by 2012. Large Australian pension schemes involved in infrastructure investment include: the MTAA, the Military Superannuation Pension Fund and UniSuper.

The Military Superannuation Pension fund had a total asset of A\$3.1 billion in June 2010, 8.0 per cent of which is invested directly or indirectly into infrastructure class assets. MTAA had a total asset of A\$5.8 billion in June 2010 about 24 per cent of which is invested in infrastructure portfolio. UniSuper had a total asset of A\$ 25.4 billion in assets at 30 June 2010, A\$ 1.2 billion of which is invested in infrastructure asset class.

2.3.2.2 Infrastructure Australia (IA)

IA was established in 2008, as a stakeholder forum to streamline the infrastructure project processes nationwide. From it, emerged the "Infrastructure Priority List" to guide reform initiatives and investment in nationally important infrastructure.

IA developed the national PPP guidelines for infrastructure projects, in conjunction with the States and Territories, which was published in November 2008. It published the "National Infrastructure Priorities in which it identified nine key infrastructure projects and 28 other projects worth A\$60billion in seven key sectors of the Australian economy. It led to funding of seven of the nine priority projects selected as part of the 2009/2010 budget largely with support from Building Australia Fund.

2.3.2.3 Infrastructure bonds

These were introduced under a taxation scheme in 1992 to stimulate private participation in infrastructure investment and offer tax exemption on interest earned on the instrument (mostly for secured private lenders). The programme was modified in 1994 and 1997, but limited to large scale land transport project under the 1997 review. Unsecured equity investors were exempted from the tax benefits.

2.3.3 United States of America

Infrastructure development in the USA had 2 distinctive phases; the first being between the colonization period up till the great depression, during which investment was jointly carried out between the state and private sector under a two-tier approach, entailing part funding by the government while land concessions were granted to private sector to incentivize them to fund the remaining portion of the projects. The second phase was the post-depression era, where infrastructure development was seen as a social good to foster both economic development and job creation, thus making it necessary for the government to take overriding control of the nationwide infrastructure development. Successive laws (Armed Services Procurement Act of 1947, Federal Property and Administrative Services Act of 1949, Brooks Act of 1972) effectively created an environment where state financing dominated infrastructure project funding strategy.

The American Society of Civil Engineers (ASCE) estimated the infrastructure funding requirement of the upgrade of existing infrastructure of the USA at US\$2.2 trillion from 2009 – 2014, but spending in that period was half of what is required, thus requiring additional \$1.1 trillion per annum over a 5 year period.

More recent steps taken by the US government in the area of infrastructural development include:

- **Obama's Infrastructure Plan** – a US\$50 billion work programme for the transport sector, to revitalize the sector by making it more competitive, dynamic and efficient to deliver on the growth expectations of the USA in the coming few

decades is one of such government efforts. It is expected to facilitate 80 per cent generation of electricity from clean sources, 80 per cent access to high-speed rail system for American citizens, 98 per cent wireless coverage for the population and creation of infrastructure bank to leverage on government resources to facilitate private sector funding of projects of national and regional strategic importance.

- **Build America Bonds (BABs)** - Introduced in 2009 under the US\$787 billion American Reinvestment and Recovery Act, it allows municipalities access 35 per cent rebate on interest cost from the US Treasury when they issue taxable debt. Institutional investors have taken up 25 per cent of the US\$165 billion worth of BABs issued by local government or municipalities. Its attraction stems from its tax rebate properties. It provides a good asset match for pension fund liabilities and is an introduction to debt financed infrastructure projects.

2.3.3.1 Infrastructure funding by Pension Funds in US

Over the years, big American pension schemes have been involved in infrastructure. These include:

- California Public Employees' Retirement System (CalPERS) – With a market value of US\$239.1 billion as at April 2011 represents the largest public pension fund in the US. It has more than four funds within its infrastructure portfolio (exposure biased towards energy sector) with US\$700m in commitments, which is 0.4% of its total asset mix. However its target allocation to the asset class is 1 to 3 per cent of total portfolio, following the funds strategic allocation review in 2010.
- California State Teachers' Retirement System ("CalSTRS") – with a market value of US\$154.65 billion at March 2011 represents the largest teacher pension fund in the US. It created the Absolute Return asset class to be implemented in a 5-6 year investment horizon, which is 5 per cent of its total asset, 2.5 per cent (US\$3.5 billion) of which would be dedicated to infrastructure.
- State Universities Retirement System of Illinois ("SURS") – with a net asset value of US\$13.2 billion in May 2010 has a 1.0 per cent target allocation for infrastructure and commodities. It had limited exposure to energy infrastructure via infrastructure fund in 2004, but made a US\$80 million commitment to two managers in 2009 as

direct investment in infrastructure class asset, US\$28 million of which was funded in 2010.

- Los Angeles County Employees Retirement Association (Lacera) - with a market value of US\$35 billion as at March 2010 has had indirect investment in infrastructure assets of about US\$226 million via publicly traded securities comprising US\$169 million and US\$57 million in equities and fixed income instruments, respectively. It is also indirectly exposed to this asset class by US\$119 investment made by private equity general partners. Its investments are concentrated in energy, transport and utility sectors and is of the opinion that the asset class is still at its infancy and is unlikely to treat it as a separate investment class within its portfolio.
- Teacher Retirement System of Texas ("TRS") – The pension fund had a net worth of US\$1.2 billion as at August 2010 and had committed all of this to infrastructure asset class, through opportunistic investment strategy, under the real assets allocation being 15 per cent of its total portfolio.

2.3.3.2 Private activity bonds (PABs)

The legislative amendment in 2005 to include the issuance of private bonds for highways and freight transfer was government initiative to encourage private sector financing for such projects due to the tax-exempt interest status of the bonds, which translates to lower capital cost. The limit on total bond issued under the scheme was US\$15 billion, and the application of which was at the discretion of Secretary of Transportation. About US\$5 billion worth of PABs, was approved by the Department of Trade (DOT) for eight projects (including US\$1.8 billion for Texas for development of State Highway), US\$2 billion of which had been issued by August 2010.

2.3.4 European Union

The infrastructure need of the EU was estimated to be between €1.5 trillion and €2 trillion, of which €500 billion is required for transportation (implementation of the Trans-European Transport Network (TEN-T) programme) until 2020. About €1.1 trillion is required for the energy sector (€400 billion on distribution networks and smart grids, €200 billion on transmission networks and storage and €500 billion to upgrade and build new generation

capacity) by 2020. The funding requirement to meet the broadband target is between €181 and 268 billion.

The Member states government, in recognition of the role of transportation in the EU economy and infrastructure need, set up the Trans-European Transport Network Executive Agency (TEN-T EA) in 2006 to coordinate, manage and implement the TEN-T programme.

2.3.4.1 Pension Market

The pension markets in countries such as, UK, the Netherlands, Sweden, Denmark and Finland are quite developed and followed similar growth trend as those observed in the United States, Canada and Australia. Pension assets in the United Kingdom for example have grown to a market value of US\$1,589 billion equivalent in 2009, while pension assets in Netherlands, Finland and Denmark were US\$1,028 billion, US\$184 billion and US\$134 billion, respectively. Active allocation in infrastructure as a separate class of investment assets only occurred in the past 5 years, with investments generally limited to between 1 and 3 per cent of total portfolio amongst the largest players. The indirect method of investment is generally preferred. In so doing, they leverage on infrastructure fund managers

2.3.4.2 Infrastructure Investment by Pension Funds in Europe

A number of pension funds in Europe play active roles in infrastructure investment. This includes:

- PGGM which manages about €100 billion of pension assets on behalf of five Dutch Pension Funds and has committed €1.25bn through the PGGM Infrastructure fund as investment in infrastructure projects on behalf of three clients between 2010 and 2011.
- PFZW manages €99 billion total asset portfolio, 1.5 per cent of which is invested in infrastructure, with a target of 3.5 per cent. The initial strategy of co-investment and limit of €100 million was recently reviewed with the greater focus on direct investments.

- APG Manages assets totaling about €272 billion, of which about €3bn is invested in infrastructure. It commenced investment in infrastructure sector in 2004, classified infrastructure as a separate investment class by 2006 and increased its allocation in the class from 1 to 2 per cent in 2008.
- Arbejdsmarkedets Tillaegs Pension (ATP) – With a total asset of DKK399 billion in 2010 is the largest pension fund in Denmark, and has invested about 2.3 per cent of its total portfolio in infrastructure since 2005. Its target for inflation class of asset is set at 25 – 30 per cent of its portfolio. Infrastructure class assets are separated for investment purpose.
- University Superannuation Scheme (USS) was established in 1974 to administer pension scheme for staff in tertiary institutions. It had a total asset of GBP30 billion in March 2010, making it the second largest pension fund in the UK. It commenced investment in infrastructure class asset in 2005 with a target for the asset class of 4 to 5 per cent of total portfolio. Its accumulated investment in the class stood at GBP797 by end-March 2010.
- Varma Mutual Pension Insurance Company (Varma) is the largest private investor with a total asset of €33.2 billion in December 2010. Investment in infrastructure class asset commenced in 1996, and represents less than 1.0 per cent of its total portfolio.

2.3.4.3 EU Focus on PPPs

In November 2009, the European Commission formally recognized the significance of PPP as a vehicle for mobilizing private sector participation in infrastructure investment necessary to deliver long-term infrastructural development to actualise the EU's growth objectives.

Since the 1980s, The European Investment Bank (EIB) has actively supported PPP schemes in Europe, providing about €30 billion loans to fund infrastructure projects particularly in the transport sector. As the lead financier, the EIB is expected to provide 14 per cent of the funding under the TEN-T programme between 2007 and 2013. The EIB in partnership with the EC and member states established the European PPP Expertise Centre to

provide expertise, which public institutions in member states can leverage on at every stage of PPP project life cycle.

2.3.4.4 The Project Bond initiative

The EU launched the Europe 2020 Project Bond Initiative to provide technical and financial support for companies undertaking large-scale infrastructure projects through debt instruments, which is designed to enhance the rating of such instruments to make them attractive to institutional investors. Effectively, the EIB could absorb a greater risk component of the debt instruments and or provide support guarantee to cover some risks peculiar to the projects. The SunPower Montalto di Castro Solar PV park bond in Italy is an example of project bond successfully issued in the EU, with support from the EIB and the Italian export credit agency SACE and 50 per cent take up by institutional investors (mainly pension fund custodians).

2.3.5 Latin American Experience

In Latin America, participation in infrastructure by pension schemes is very small and quite recent, strongly driven by the need to accommodate the transaction framework to the particular needs of the pension funds (i.e. highly graded paper and simplified structures).

Chile and Peru have been ahead in the region in facilitating the entry of pension funds in infrastructure by designing government sponsored programme with high degree of standardization and risk reduction (PPP contract, bond, and guarantee). Most of the equity investments are done through small window created for alternative investments including private equity. There is no separate asset class recognition.

In general, Pension Funds and investments in Infrastructure in Latin American Countries are in the forms of:

- Indirect investment, which is through investments in fixed income or equity assets in companies tied to the construction or management of infrastructure projects.
- Direct investment through project finance or PPPs where the pension fund acquires assets that are linked to the return on investment of the project.

2.3.5.1 Latin American Experience: Chilean Case

- Infrastructure Bonds were created in 1998, and are debt instruments issued by companies awarded public infrastructure concessions. They had no pre-payment option and were generally 100 per cent guaranteed by insurance policies issued by international insurance companies (monoliners).
- The secured instrument were created despite the fact that bonds are issued by the concession company and therefore, the only source of revenues supporting the financing structure is the expected future cash flow of the project.
- These bonds were designed according to institutional investors' needs and they are therefore standardized to facilitate risk assessment (PPP and bond contracts). The bonds were all rated 'Investment grade'.
- Following the downgrade of the monoliners as a result of the subprime crisis, the issuance of such infrastructure bonds in Chile has reduced drastically.

2.3.6 Lessons from Country Experiences

From the country experiences reviewed, it is clear that global infrastructural gap is undoubtedly huge. The OECD estimates global infrastructural financing till 2030 at US\$50. In order to tackle the infrastructural financing problem, most countries have designed blue print initiatives and lined up with strategies to enable them solve the infrastructural financing problem. Examples are the Building Canada plan launched in 2006, the Building Australia Fund from pre-crisis budget surpluses, as well as the establishment of Infrastructure Australia in 2008. In the US the Build America Bonds (BABs) – introduced in 2009 under the US\$787 billion American Reinvestment and Recovery Act and the Europe 2020 Project Bond Initiative are examples of the use of pension fund to finance infrastructure project.

The pension fund has helped to provide alternative source of funding for financing infrastructure. It has also shown that there has been no report of default that has resulted in erosion or misplacement of pension fund in spite of its use to finance infrastructure project.

In Nigeria, Infrastructure financing and development have always been subsumed in the country's vision and development plans mainly finance by Government through annual capital budgets. A clear cut, national infrastructure development plan and strategy leveraging on pension funds and mining tax (such as crude oil and LNG) is required if meaningful progress is to be made in this direction. This should be clearly outlined in the current Vision 20: 2020 plan.

As observed in other countries, the substantial financial resources required to close the infrastructure gap, maintain and add to existing infrastructure, calls for a comprehensive strategic review of the funding of infrastructure assets in Nigeria. Increasingly, there is an urgent need to tie the funding of such assets with appropriate instruments and commercial arrangements, particularly from the private sector; this could be driven through Public Private Partnerships (PPP).

Drawing from the reviewed country experiences, there is need to consider issuing infrastructure bonds, with strong ratings premised on strong project analysis and competencies, and good prospects for repayment on PPP projects. This could be used to finance fee paying and toll collecting projects such as refineries, roads, hospitals, bridges and transportation infrastructures among others. The Nigerian government could also provide technical and financial support for companies undertaking large-scale infrastructure projects through debt instruments, which is designed to enhance the rating of such instruments to make them attractive to institutional investors. The EU adopted a similar initiative.

Furthermore, government's commitment to private sector infrastructure project initiatives (support for PPP schemes) should include the removal of tax impediments, reduction of sovereign risk and increased project cycle transparency. Its attraction stems from its tax rebate properties. The tax-exempt interest status of the bonds, could translate to lower capital cost.

Lastly, the pension market in Nigeria should be well developed and follow similar growth trend as those observed in the UK, the US, Canada, Australia and Chile.

3.0 Stylized Facts on Nigeria’s Infrastructure Financing Gap

3.1 Infrastructure financing Gap in Nigeria

In Nigeria, there exist large Infrastructure needs but limited fiscal spaces and private sector participation in infrastructure financing. The World Bank estimate has shown that the economy requires over US\$15 billion in the next 2 to 3 years to finance government's Roadmap to infrastructure on Power Sector reforms alone. However, there are limited fiscal spaces for infrastructure finance in public budget. The International market is increasingly risk averse and expensive due to shorter tenors, high country risk premiums and risk of currency mismatch designed for infrastructural investment. The nature of the existing financing gap in infrastructure can be shown in the table 1:

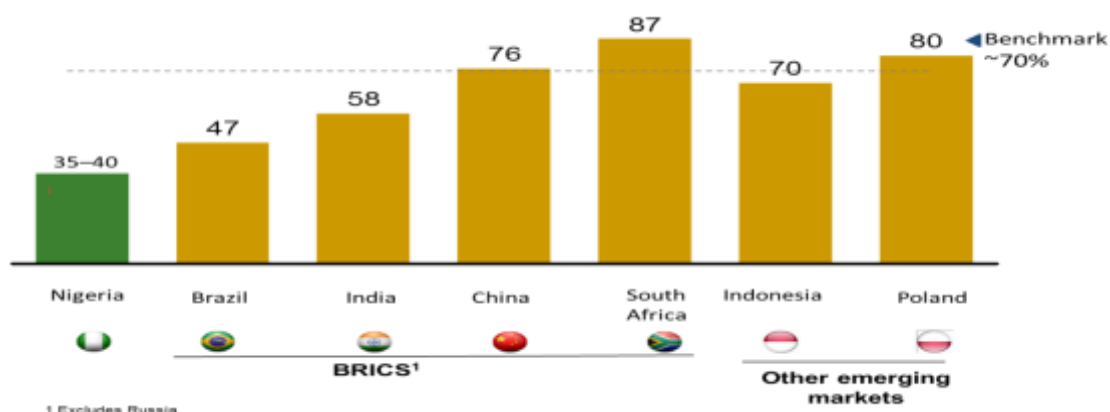
Table1: Infrastructural financing Gap in Nigeria

Infrastructural Financing Gap			
Sector	Federal Needs (N'Billion)	State & local Govt. Needs(N'Billion)	Total(N'Billion)
ICT	2,063.00	-	2,063.00
Irrigation	145.00	794.00	939.00
Power	7,593.00	-	7,593.00
Transport	661.00	561.00	1,222.00
Health & Education	5,231.00	1,355.00	6,586.00
Water & Sanitation	-	2,340.00	2,340.00
Domestic Fuel & Gas	3,000.00	-	3,000.00
Total	18,693.00	5,050.00	23,743.00

Source: BGL Research & Intelligence (2012), “Infrastructure bonds and public investment deficit in Nigeria”, BGL Research and Intelligence

3.2 Current State of Infrastructure financing in Nigeria and Some Selected Countries

Chart 1: Stock of infrastructure as a percentage of national GDP for some selected countries



Source: Usman, S. (2013). "Financing Infrastructure through the Capital Market" presented at the Infrastructure Roundtable Organised by the Securities and Exchange Commission (SEC) in collaboration with the National Planning Commission (NPC), August 5, 2013.

3.3 A cross country comparison of infrastructure by sector

Table 2: State of Infrastructure in selected countries

Country	Roads per sq. km	Quality of port infrastructure WEF index (1 to 7)	Power Consumption kWh/capita	Access to water (% of population)	Access to sanitation (% of population)	Mobile subscriptions per 100 people
Japan	3.31	5.2	8,394	100	100	105
Brazil	0.21	2.7	2,384	98	79	124
Russia	0.06	3.7	6,452	97	70	179
Mexico	0.19	4.0	1,990	96	85	82
Indonesia	0.29	3.6	641	82	54	103
South Africa	0.30	4.7	4,803	91	79	127
Nigeria	0.21	3.3	136	59	31	56
Pakistan	0.34	4.1	457	92	48	62
Bangladesh	1.66	3.4	279	81	56	56

Source: Usman, S. (2013). "Financing Infrastructure through the Capital Market" presented at the Infrastructure Roundtable Organised by the Securities and Exchange Commission (SEC) in collaboration with the National Planning Commission (NPC), August 5, 2013.

3.4 Nigeria's Effort on Financing Infrastructure

Severally efforts have been made to enhance the level of infrastructure in Nigeria. Some of these laudable policies are as follows;

3.4.1 Power and Aviation Intervention Fund (PAIF)

The Central Bank of Nigeria (CBN) in its Monetary Policy Circular No. 38 for the 2010/2011 fiscal years observed the inadequacy of the Nation's infrastructure due to lack of funds. The CBN in its effort to provide a sustainable financing framework which would stimulate long-term infrastructure financing created an Infrastructure Finance Office on the 1st of March, 2010. The CBN provided N300 billion facility for investment in debentures to be issued by the Bank of Industry (BOI) in order to finance power and aviation projects.

3.4.2 Infrastructure Concession Regulatory Commission Act 2005

The Infrastructure Concession Regulatory Commission (ICRC) empowers any federal government ministry, department, Agency, corporation or body to grant concessions to finance, construct, operate and or maintain any infrastructure. The ICRC Act stipulates the terms associated with concession arrangements within Nigeria and set up Commission to regulate these concessionary terms and activities. The Commission in essence is the independent advisory body that is currently been proposed as part of the framework to leverage pension assets for infrastructure finance.

The ICRC Act is the legal foundation upon which the government through its agencies grants concessions for the finance, construction, operation and maintenance of infrastructure in Nigeria⁴ has some loopholes, which hinders ICRC's ability to successful deliver infrastructure projects. These include:

1. Coordination gap leading to multiplicity of PPP arrangements by MDAs
2. No provision on private collection of fees for use of infrastructure and private acquisition of public land for creation of infrastructure asset
3. Lack of clarity on concession approval process for PPP projects
4. Lack of clarity on ICRC's role in the PPP evaluation and tender process

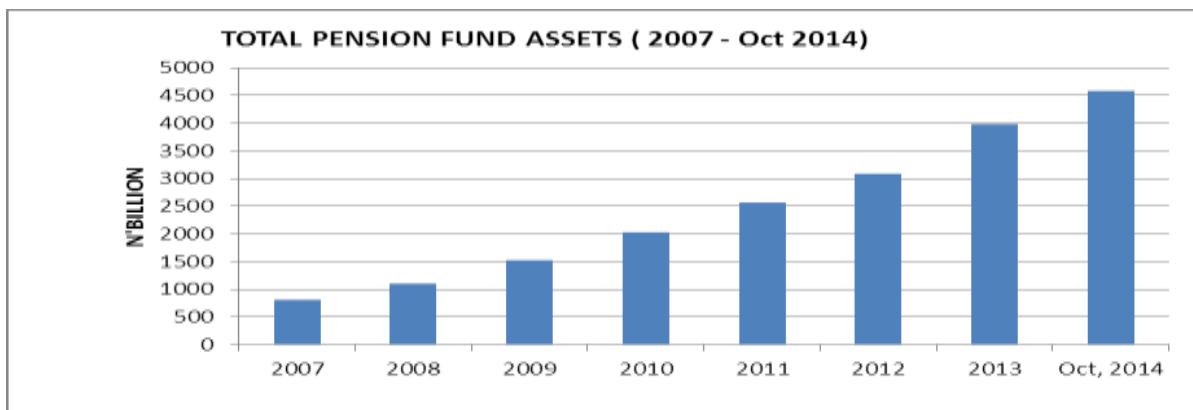
⁴ It provides a basis for the implementation of the national policy on public private partnerships

5. Lack of guidelines governing the project scale under which private sector participation is permitted, likewise the ICRC lacks an appropriate mechanism for handling unsolicited proposals and dispute resolution
6. ICRC lacks provision to classify as illegal any PPP transaction executed outside its terms of agreements
7. The ICRC lacks the appropriate provision to ensure the legality of contractual agreements
8. The ICRC makes no provision for the preparation, analysis and review of new projects or government privatization projects
9. Weak interface between the ICRC and other related laws (PPA, PEA, NIWA, LVTA, DMOA and EPSRA) to facilitate the execution of infrastructure projects.

3.4.3 Pension Fund Assets

Over the years, Nigeria's Pension Fund Assets had grown consistently as shown in Chart 2.

Chart 2: Total Pension Fund Assets during the period 2007 – Oct 2014

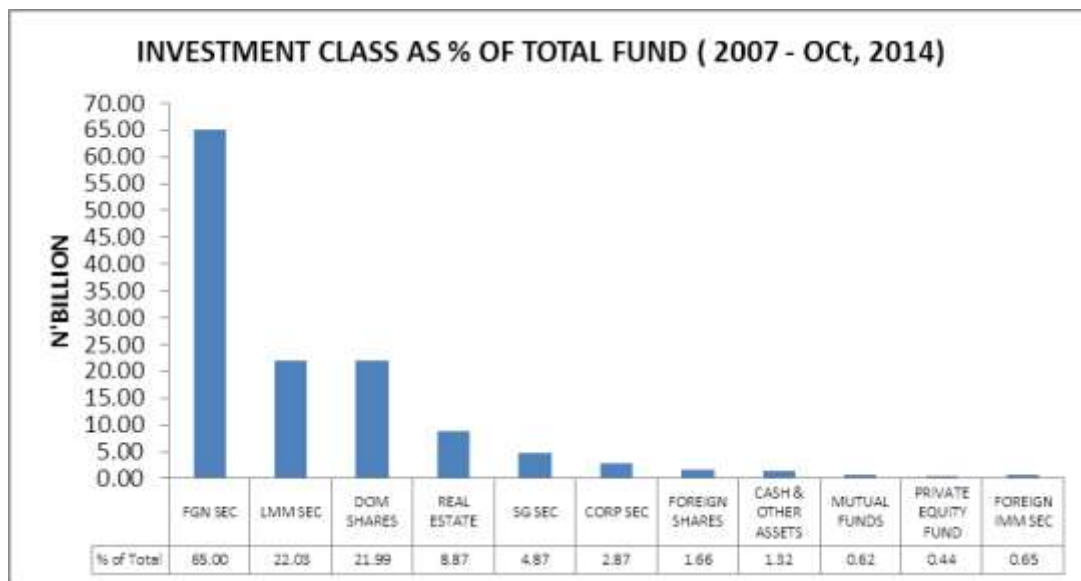


Source: National Pension Commission (Pencom), Monthly, Quarterly and Annual report and Annual Accounts (2007 – 2014), <http://www.pencom.gov.ng>

3.4.4 Nature of Investments

Critical investigation revealed that the bulk of investment of the pension fund is in the Federal Government of Nigeria's (FGN) Securities, local Money Markets Securities (LMMSec), Domestic Shares, among others. Very insignificant proportion is invested in Corporate Bonds. Though there are enormous investment opportunities in the corporate bonds, pension assets administrators are risk-averse.

Chart 3: Class of Investment as percentage of Total Pension Fund



Source: National Pension Commission (Pencom), Monthly, Quarterly and Annual report and Annual Accounts (2007 – 2014), <http://www.pencom.gov.ng>

3.4.5 Pension Fund Investment Guidelines

The guidelines for investment of pension funds remain a major impediment for utilizing the fund for infrastructure finance due to various limitations on alternative investment areas. Some stipulations in the guidelines are presented in the Table 3.

Table 3: Nigerian Pension Investment Guidelines

ASSET CLASS	GLOBAL PORTFOLIO LIMIT	PER ISSUER LIMIT	PER ISSUE LIMIT
Government Securities	FGN & CBN Securities: 80%	Max: 80% of Total Issue	80% of the issue
	State & Local Govts: i. 20% if issue is backed by ISPO/Guarantee ii. 3% for issue not backed by ISPO/Guarantee	Max: 5% of Pension Assets under Mgt in total issues of any one State or Local Govt	Based on credit rating of bond / debt instrument: 1. BBB Rating = 16% of issue ii. A Rating = 18% of issue iii. AA Rating & Above = 20% of issue
Corporate Bonds/Debt Securities (including ABS, MBS and Infrastructure Bonds)	35% subject to max of 15% in infrastructure bonds	Max of 5% pension assets under mgt in total issue of any one corporate entity	Based on credit rating of bond / debt instrument: 1. BBB Rating = 16% of issue ii. A Rating = 18% of issue iii. AA Rating & Above = 20% of issue
Supra-national bonds	20%	Max of 5% pension assets under mgt in total issue of any one multilateral development finance organisation	Based on credit rating of bond / debt instrument: 1. BBB Rating = 16% of issue ii. A Rating = 18% of issue iii. AA Rating & Above = 20% of issue
Money Markets Instruments (including certificate of Deposits; Bankers Acceptances and Commercial paper of corporate entities	35%	1. Max investment of pension assets under mgt in all money market instrument issued by any one bank shall be subject to the issuer's credit rating: 1. BBB Rating = 16% of issue ii. A Rating = 18% of issue iii. AA Rating & Above = 20% of issue 2. Max of 3% of assets under mgt in money market instruments issued by any one discount house with a minimum rating of 'A' 3. Max of 5% of assets under mgt in corporate papers of any one corporate entity with a minimum rating of 'A'	Applicable to Commercial paper issues only: 1. BBB Rating = 16% of issue ii. A Rating = 18% of issue iii. AA Rating & Above = 20% of issue
Ordinary Shares	25%	Max of 5% of assets in any one corporate entity	Max of 4.5% of the issued capital of any one corporate entity
Infrastructure funds	5%	Max of 5% of assets in any one issuer	Max of 20% of the value of any one fund
Private Equity Funds	5%	Max of 5% of assets in any one issuer	Max of 20% of the value of any one fund
Open, Close-end and Hybrid Funds (including REITS)	20%	Max of 5% of assets in any one issuer	Max of 10% of the value of any one fund

Source: Sogunle, D. (2011), "Pension Funds and Investment in Bonds" presented at the bond training workshop for accountants and insurance companies organised by NAICOM and SEC Lagos, September 2011, StanbicBIC Pension Managers.

The pension investment guidelines are mainly to protect pensioners against the loss of their pensions, after years of service, probably as a result of wrongly managed infrastructure project or high risk of corporate bonds. Infrastructure projects are usually bedeviled by such risks as construction risk, availability risk and demand risk, among others. Construction risk encapsulates all events that relates to the construction and completion of the project on time and within budget. It is associated with events such as late delivery, non-compliance with specified standards, significant additional costs, technical deficiency and negative externalities. Availability risk includes partially or wholly unavailability of services required for completing the projects according to specification or situations where available services fail to meet the specified quality and

standards. All these problems are common during operational phase of infrastructure projects and often late to risk of underperformance of projects. Demand risk, on the other hand, encompasses all the usual commercial risk borne by private businesses in a market economy, such as probable changes in final users' preferences or technological obsolescence. To mitigate such risks government should provide some form of guarantees and insurance against losses associated with risk of investing in infrastructure projects (See section 6.2 for discussion on risks and measures to mitigate them). Learning from the Eurostat experience, the pension funds administrators can be involved in a PPP infrastructure projects with the government. Under such PPP arrangement, the risks would be appropriately distributed to make the investment less risky for the pension funds that generally are highly risk averse.

4.0 Developing a Framework for leveraging on Pension Fund for Financing Infrastructure in Nigeria

4.1 Key considerations in the development of an appropriate framework include:

- Selection Criteria
- Project risks identification and allocation
- The instruments available to mitigate the risk
- The legal and commercial arrangement in place to support the actualization of the infrastructure project.

4.2 Challenges

- The major challenge would be the initial resistance to use pension fund for infrastructural development given past history of incomplete or abandoned infrastructure projects, project delays and cost overruns. Pension fund managers may be averse to investing in such projects as they may jeopardise the returns on their assets and ultimately the realization of retirement benefits of their benefactors.
- There is an absence of an effective framework to leverage on pension assets to fund infrastructure projects. Furthermore, there is an absence of an effective public awareness campaign to enlighten pensioners and pension fund managers on the potential benefits of using pension fund to finance infrastructure projects.

- Lack of experience of pension funds and fund managers in PPP and project finance. The general weak capacity in the area of infrastructure building and funding, currently hinders the investment of pension assets in infrastructure finance.
- Nigeria's long term financing market is underdeveloped, shallow and offers limited investment opportunity.
- Lack of the appropriate capacity in the area of infrastructure building and funding often results in the weak participation of local institutions in funding infrastructure projects. Furthermore, the prohibitively high interest rates hamper debt financing of infrastructure projects, thus further limiting overall capacity of local institutional investors to finance infrastructure projects.
- Bureaucratic bottle necks in obtaining relevant approvals and perceived weak regulatory institutions (i.e. enforcement of contract terms) poses a significant hindrance to infrastructure financing. This is particularly as a result of the long gestation and revenue generation period of such projects, which gives room for litigations in a system where contractual agreements are often breached and not easily redressed due to weak enforcement.
- Insecurity in the economy pose a major hindrance to construction of infrastructure projects as the operation of the assets, the contractors and the personnel responsible for the operation and management of the assets may come under threat. This thus could potentially dampen investor confidence to fund such projects.

4.3 The framework

In principle, the long-term investment horizon of pension funds makes them ideal source of funds for financing infrastructure. These investments are expected to produce predictable and stable cash flows over the long term if well managed.

The previous discussion has highlighted key issues of consideration in the development of an appropriate framework for leveraging on pension funds for infrastructure development. Fundamentally, the key framework hinges on providing sufficient mechanisms – financial, legal and regulatory that would facilitate the rapid investment of pension fund assets in infrastructure.

4.3.1 Financial Mechanism

The major obstacle is that The Pension Act severely limits the ability of pension fund managers to invest in infrastructure assets (i.e. bonds, shares, projects or funds), while encouraging investment in FGN bonds and Treasury bills. Consequently, there needs to be instruments that could be leveraged upon to engender investment of pension funds directly and or indirectly in infrastructure projects.

From the financial perspective, appropriate mechanisms must be established to de-risk and improve the credit rating of instruments issued to fund infrastructure projects. Critically as discussed earlier, most of the risks upon maturity would hamper the cash flow and thus economic viability of the projects. Consequently, instruments must be made available by the Nigerian government through relevant institutions to provide appropriate covers for eventualities of shortages in revenue and investible funds as well as help moderate the cost of funding. The European experience has shown that the European Central Bank (ECB) provided guarantees on some projects, which helped improve the ratings of the bonds issued by the concessioner to fund the projects. In a similar vein, we are proposing that a special fund be created by the government and the Central Bank of Nigeria to provide guarantees to mitigate the risks previously identified. The proposed guarantees include:

4.3.2 Nigerian Infrastructure Guarantee Scheme (NIGS)

This would help de-risk instruments and debt facilities for the finance of infrastructure projects. The modalities could be similar to that of the Small and Medium Scale Enterprises Guarantee Scheme (SMECGS), by providing guarantees on instruments issued to finance infrastructure projects thus moderating the risks which have hindered market interests in such instruments in the Nigerian economy. The NIGS would guarantee 80.0 per cent of the loan/bond amount (up to a maximum of US\$1 billion) of ICRC approved projects, for the tenor of the facility.

4.3.3 Nigerian Pension Fund Asset Guarantee Scheme (NPFAGS)

This scheme would be primarily dedicated to covering a portion of pension fund assets invested in instruments issued for infrastructure finance or the direct participation of pension funds in an infrastructure project. It would help to reduce the risk on investments of pension fund managers in instruments and debt facilities for the finance of infrastructure projects. It would have a similar operational modality as the existing SMECGS. Furthermore, it would guarantee 80.0 per cent of pension fund assets invested in instruments issued for infrastructure finance or the direct participation of pension funds in an infrastructure project to a maximum of N2.0 billion, for the tenor of the facility.

4.3.4 Nigerian Infrastructure Project Revenue Guarantee Scheme (NIPRGS)

This scheme would be primarily dedicated to providing guarantee on shortage in revenue as a result of inadequate demand/market for the services provided by the assets under the infrastructure projects approved by the ICRC. In essence the scheme would help improve the project economics and thus make it more attractive to investors. The strategy for the NIPRGS is as follows:

- The FGN/CBN could initiate the NIPRGS to provide 25.0 per cent guarantee on the projected revenue stream of ICRC approved infrastructure projects.
- Guarantee would crystallise only when revenue shortages occur due to inadequate demand/market for the services provided.
- All other cause of revenue shortages would not be covered under the Scheme to eliminate problems of moral hazard emanating from the decisions of the project operator.

4.3.5 Build Nigeria Infrastructure Bonds (BNIB)

These are bonds issued to

- (1) Partly fund ICRC approved infrastructure projects.
- (2) Provide technical and financial support for companies undertaking ICRC infrastructure projects through debt instruments⁵

⁵ The BNIB is operationally distinct from other infrastructure Bond issued by the FGN in that it is not meant to cover the FGN's infrastructure project cost, but merely to enhance senior debt instruments issued by the FGN or private concessioners on ICRC

- (3) Enhance the rating of instruments issued to fund ICRC approved projects to make them attractive to institutional investors

The strategy for the issuance of the BNIB is as follows:

- The CBN, DMO and FGN could float the BNIB to support ICRC approved infrastructure projects.
- The BNIB would be covered by guarantees purchased from international private and multilateral financial institutions, which include:
 - (1) *Political Risk Guarantee (PRG)* – this is obtained from multilateral financial institutions to mitigate losses to investors associated with the adverse impact of political developments to infrastructure projects.
 - (2) *Political Risk Insurance (PRI)* – this like the PRG is obtained from private international financial institutions to mitigate losses to investors associated with the adverse impact of political developments to infrastructure projects.
 - (3) *Full Credit Guarantee (FCG)* – this is obtained from multilateral financial institutions to fully mitigate losses to investors on infrastructure projects but in compliance with the terms of the guarantee.
 - (4) *Partial Credit Guarantee (PCG)* – this is obtained from multilateral financial institutions to partially mitigate losses to investors on infrastructure projects but in compliance with the terms of the guarantee.

4.3.6 Legal & Regulatory Mechanism

4.3.6.1 Pension Act

As earlier discussed, a significant impediment to pension funds' assets being invested in infrastructure projects is the existing Pension Act. The Pension Act severely limits the ability of pension fund managers to invest in infrastructure assets (i.e. bonds, shares, projects or funds). Currently, the Act only permits 5 per cent of pension funds' assets to be invested

approved infrastructure projects. Likewise, the proceeds of the BNIB would be deployed in creating and enhancing infrastructure project capacity and thus the benefit would cut across several infrastructure projects. The Federal Government has proposed issuing a US\$1 billion infrastructure Bond and a total of US\$7.11Eurobond to fund gas to power infrastructure from the World Bank between 2014 and 2015. Furthermore, the FGN recently issued the US\$300 million Diaspora bond to enable Nigerians in diaspora play an active role in building the Nation's infrastructure (Source:<http://www.myfinancialintelligence.com/banking-and-finance/infrastructure-bonds-set-thrive-ppp#sthash.zZJ3vQYV.dpuf>).

in infrastructure projects. These needs to be urgently reviewed to facilitate the leveraging of pension assets for infrastructure finance. As discussed earlier, the availability of the NPFAGS can be leveraged upon by pension assets managers to increase their total asset in infrastructure. The scheme could be used to guarantee 50 – 80 per cent of pension funds' assets invested in infrastructure projects thus increasing their direct investment by 25 – 40 per cent. This would consequently increase the potential investment of pension assets in infrastructure projects to between 7.5 and 9.0 per cent.

Significantly, the build Nigeria infrastructure bonds (BNIBs) can be included as part of government bonds which pension fund can be invested in. This could considerably increase the potential investment of pension funds in infrastructure projects from the current 5 per cent to between 87.5 and 89 per cent. This is because the Pension Act currently stipulates that 80 per cent of pension assets can be invested in government bonds. Consequently, including BNIBs as part of government bonds would invariably provide an avenue for increasing the proportion of pension assets investible in infrastructure projects.

4.3.6.2 Development Planning and Project Continuity Bill

Poor record of abandoned and incomplete projects due in part to changing economic and political landscape is a disincentive for investors to fund infrastructure projects. A significant step towards achieving this would be the enactment of the "Development Planning and Project Continuity Bill" currently before the National Assembly. This would mandate successive Nigerian government to continue to implement projects initiated by the past administration(s). Furthermore, the Bill makes mandatory development planning at all tiers of government thus creating clear and determinate development targets to facilitate the actualization of national, state and community development of infrastructural projects.

The projects that have been selected for execution in a fiscal year should be included in the budget and enshrined into law to ensure their execution and continuity of the project irrespective of change in government. The implication of this is that in making

budget provision for the projects, investors would have improved confidence in the funding of the projects, which could improve the rating of instruments issued for the projects, help to reduce cost of funds as well as improve project economic viability. This would significantly help to mitigate political and regulatory risks, which constitute a major hindrance to investment in infrastructure projects in developing economies.

4.3.6.3 Nigeria Sovereign Investment Authority (NSIA) Act

The NSIA Act 2011 aimed amongst others to prepare for the eventual depletion of Nigeria's hydrocarbon resources. A key object of the authority as contained in Section 3 of the NSIA Act is to enhance the development of Nigerian infrastructure; through the ring fenced "*Nigeria Infrastructure Fund*" (NIF) (Section 4(1)(b) and Section 41), with the mandate of assisting the development of Nigeria's critical infrastructure.

The major proposal is that the review should facilitate the transfer of portions of the NIF to the special funds used to finance the guarantee schemes previously discussed. As earlier discussed, this would help de-risk instruments issued for the project and provide additional comfort for pension assets invested in infrastructure through the Nigerian Pension Fund Asset Guarantee Scheme.

4.3.6.4 Tax Incentives to Attract Investment of Pension Fund in Infrastructure

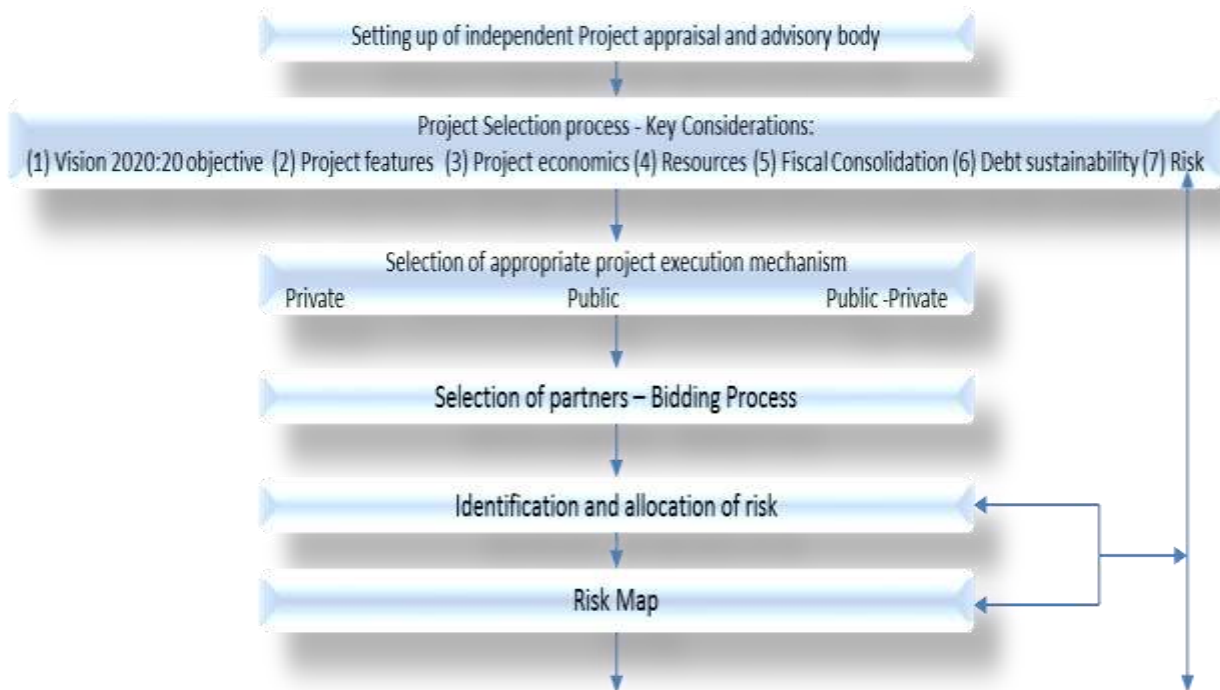
The country studies have shown how governments have leveraged on changes in tax laws to induce greater participation of pension assets in infrastructure projects. We are also proposing a review of existing tax laws towards providing special rebates on returns on instruments issued for infrastructure projects as well as rebates on revenues generated from infrastructure projects. Specifically, tax rebates could be graduated based on the classification of investors in the instruments issued for infrastructure projects.

4.3.6.5 Fast track of approval process

Legal provisions should be made for the fast tracking of approval process from relevant bodies and agencies for projects approved by the advisory body. Furthermore, provision should be made for the approvals to cover the entire project lifecycle. This would help mitigate regulatory risk as well as moderate concerns about approval process.

Based on the above discussions, the schematic for the proposed framework for the leveraging of pension assets for infrastructure finance is presented in figure 10.

Figure 2: Schematic for the proposed framework to leverage on pension assets



RISK												
Corporate Risk		Sovereign Risk			Project Risk							
Foreign exch.	O&M	Political	Economic	Regulatory	Design/Const.	Mkt/Traffic/Dmd	Availability	Fin./Invest	Defect	Tech. Obsolescence	Procurement	Other
Derivative products to hedge against fx volatility.	Proper design, Documented operational procedure	Political Risk Guarantee	Political Risk Guarantee	Legal Provision to fast track the issuance approvals once project is approved by advisory body.	Proper design Certification of equipments used	Subsidies on rates Increase in concession period	Penalties and fines	Partial credit guarantees	Certification of equipments used	Detailed technological study	Terms of engagement and reference	periodically renewable comprehensive project insurance
Back up and recovery measures	Back up and recovery measures Certification by international standard	Political Risk Insurance	Political Risk Insurance		Extendable warranty	Rate payment guarantees		Full credit guarantee	Extendable warranty	Engage services of expert consultants		
					Severe fines and penalties	Minimum revenue guarantees			Severe fines and penalties	Execute MOU for provision of parts with supplier for the life cycle of the project	Engagement of Consultants to handle all aspects of procurement process.	



4.3.7 Modalities for Using Pension Fund in Nigeria to Finance Infrastructure

The guidelines for pension fund investment could be used to finance infrastructure in the following ways:

- Identify a specific infrastructure that would be financed with the fund
- Determine the amount required to complete the infrastructure project and make it functional
- The time frame required to complete the project.
- Ensure the project would pay for itself and still be useful; for example, a road/bridge constructed with a 20 year bond. The time frame for completing the project would be 3 years and the quality control on the project construction is such that it would have a life span of 50 years.
- PPP- Public Private Partnership
- Corporate bond could be issued for specific projects by a consortium (the construction firm). However, there should be government regulation to ensure that the project cost is not over-valued.
- Instruments that are project tied should be issued to finance project using pension fund
- The instrument should be tradable in the secondary market
- The instrument should be granted liquidity status to attract the pension fund
- Direct and Indirect investment of pension fund in infrastructure
- Under the direct investment option, a pension fund would undertake to finance a particular project once approved. It would ensure that the project has met all the requirements of the project actualization and completed on schedule as well as begin to generate income that would give attractive return on investment.
- The role of government is to ensure that all requirements and standards are met with respect to the project execution and income realization.
- Under the indirect option, the project would be financed using the pension fund through the issuance of infrastructure bonds tied to a particular project that allows different pension fund institutions to invest in it.
- Ensure high level maintenance of these infrastructure projects when completed to give the investors value for money.

- It would reduce the number of abandoned (uncompleted) infrastructure projects.
- It would lead to early completion of the projects as they would no longer depend on budgetary fiscal appropriation.
- It would ensure that the infrastructure constructed are of high quality
- Government and the general public particularly the resident of the communities where such infrastructures are sited have to ensure the security of such projects by confronting and stampeding out vandalism.
- Pensioners' apprehension over the loss of their pensions fund would be eliminated as the safety nets through the proposed central bank and government guarantees of the instruments have been provided.

5.0 Conclusion

Pension Funds are seen as additional source of much needed capital to fund Nigeria infrastructure projects. They provide means for individuals to accumulate savings over their working life in order to finance their consumption needs in retirement, either by means of a lump sum or by provision of annuity, while also supplying funds to end users such as corporations or governments for investment. Infrastructural projects are long term investments that could match the long duration of pension liabilities. In principle, the long term investment horizon of pension funds makes them ideal source of funds for financing less liquid assets such as infrastructure. These investments are expected to produce predictable and stable cash flows over the long term if well managed.

The Federal Government of Nigeria can issue special purpose infrastructure bonds whose funds can be ring-fenced and ear-marked for infrastructural projects. This approach can raise the exposure of pension funds to infrastructure while ensuring safety of the funds. Over time, the pension fund managers will develop capacity to invest directly in projects. Investment of pension fund in infrastructure would provide long-term financing at reduced interest rates and thus free the pressure to borrow at high interest rates from banks to finance such projects. This would in turn increase the stock of infrastructure and

thus lead to economic growth and stable prices. Contributors would benefit from the returns on the investment as well as the infrastructural projects.

It is believed that if this recommended framework is well implemented, pension fund would provide alternative source of funding for bridging the infrastructural financing gap at minimal cost and offer great benefit to the citizens and the country. This would provide the needed ingredients to propel economic growth and development with a higher return on investment for pension fund in Nigeria.

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