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Research Report

Infrastructural financing using pension funds of the West African Monetary Zone's member states

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**WEST AFRICAN
MONETARY INSTITUTE**

**INSTITUT MONETAIRE DE
L'AFRIQUE DE L'OUEST**



**INFRASTRUCTURAL FINANCING USING PENSION FUNDS
OF THE WEST AFRICAN MONETARY ZONE'S MEMBER
STATES**

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GLOSSARY OF TERMS

Alternative assets: Alternative investment assets are assets usually held by institutional investors or accredited high net worth individuals because of the complex nature and limited regulations of the investments. Alternative investments include private equity, hedge funds, managed futures, real estate, commodities and derivatives contracts, etc.

Brownfield investments: When a company or government entity purchases or leases existing production facilities to launch a new production activity. Thus, brownfield infrastructure investment occurs when an existing project is modified or upgraded by a different entity.

Capital formation: Is a term used to describe the net capital accumulation during an accounting period for a particular country, and the term refers to additions of capital stock, such as equipment, tools, transportation assets and electricity.

Collective Investment Schemes: Collective investments (also known as unit trusts or participatory interests) are investments in which many different investors put their money together or pool their money into a portfolio, and then this pooled money is managed by professional investment managers.

Duration hedging: A process of dynamically changing portfolio allocation to fixed income instruments—such as Treasury securities or futures, or interest rate swaps or swaptions—so as to limit fluctuation of the portfolio interest rate duration.

Emergency Power Program: Liberia's energy problems peaked when the country's long civil conflict left its energy sector— including its power distribution system and the 60-megawatt Mt. Coffee hydropower plant— completely destroyed. The national power utility, Liberia Electricity Corporation (LEC), ceased operations after its headquarters and distribution infrastructure were looted. To launch efforts to rebuild, the Government of Liberia began

working with a group of donors and established the Emergency Power Program, and within a year, the public network had 2 MW of diesel-powered generators in operation. Europe 2020 Project Bond Initiative

External infrastructure fund: External Infrastructure Fund makes equity and equity-related infrastructure investments in companies focused on power, transportation, water, telecommunications, and other infrastructure.

Fiscal space: is the flexibility of a government in its spending choices, and, more generally, to the financial well-being of a government.

Fiscal sustainability: the ability of a government to sustain its current spending, tax and other policies in the long run without threatening government solvency or defaulting on some of its liabilities or promised expenditures.

Fragmented pension schemes: Pension scheme made up of large number of pension funds.

Greenfield projects: means a work that is not following a prior work. In infrastructure the projects on the unused lands where there is no need to remodel or demolish an existing structure are called Green Field Projects.

Index funds: An index fund (also index tracker) is a mutual fund or exchange-traded fund (ETF) designed to follow certain preset rules so that the fund can track a specified basket of underlying investments.

Infrastructure bonds: Are bonds issued by the government or the private sector with the purpose of financing infrastructure projects of public interest. They are usually subject to concession contracts with the public sector and there are usually public guarantees involved.

Infrastructure financing gap: Is the difference between actual financing of infrastructure by both the government and the private sector and estimated financing required to provide adequate infrastructure in a country or region.

Infrastructure fund: This is a specialized Fund or Scheme that invests primarily in the securities, secured loans or securitized debt instrument of infrastructure companies, infrastructure projects or special purpose vehicles which are created for the purpose of facilitating or promoting investment in infrastructure.

Maturity mismatch: A maturity mismatch is the tendency of a business to mismatch its balance sheet by possessing more short-term liabilities than short-term assets and having more assets than liabilities for medium- and long-term obligations.

Military Superannuation Fund: is the Military Superannuation and Benefits Scheme of Australia, established under the Military Superannuation and Benefits Act 1991. It is a partly funded, defined benefit superannuation scheme.

National Integrated Infrastructure Master Plan: is a framework for accelerated infrastructure development in Nigeria. The Master Plan seeks to raise the stock of infrastructure from current levels of 25.0 percent of GDP to at least 70.0 percent by 2043.

OPTrust: OPTrust is a legal trust formed by contractual agreement between the two plan sponsors, Ontario Public Service Employees Union (OPSEU) and the Government of Ontario. It manages one of Canada's largest pension funds and administers the OPSEU Pension Plan. It is responsible for investing the plan's assets to support the cost of members' and retirees' pension benefits. It manages the fund for OPSEU members who are employed by the Government of Ontario and certain agencies, boards and commissions.

Pay-as-you-go Pension Funds: A pay as you go pension plan is a retirement scheme where the plan beneficiaries decide how much they want to contribute either by having the specified amount regularly deducted from their paycheck or by contributing the desired amount in a lump sum. The employees can choose among the various investment options and decide on whether they want a higher return by investing in a more risky fund or a safer fund which provides steady returns.

Pension fund assets: Pension funds' assets are defined as assets bought with the contributions to a pension plan for the exclusive purpose of financing pension plan benefits. The pension fund is a pool of assets forming an independent legal entity. This indicator is measured in either nominal funds or as a percentage of GDP.

Public Sector Investment Program: introduced in Liberia to provide government funding through capital expenditures to high level priority projects to meet the goals of the Agenda for Transformation.

Risk-adjusted return: Risk-adjusted return refines an investment's return by measuring how much risk is involved in producing that return, which is generally expressed as a number or rating. Risk-adjusted returns are applied to individual securities, investment funds and portfolios.

Risk-adjusted returns: Risk-adjusted return refines an investment's return by measuring how much risk is involved in producing that return, which is generally

expressed as a number or rating. Risk-adjusted returns are applied to individual securities, investment funds and portfolios.

Sukuk: Sukuk (Islamic bonds) is structured in such a way as to generate returns to investors without infringing Islamic law (that prohibits riba or interest). Sukuk represents undivided shares in the ownership of tangible assets relating to particular projects or special investment activity.

UniSuper: UniSuper is an Australian superannuation fund that provides superannuation services to employees of Australia's higher education and research sector.

Unlisted infrastructure funds: An unlisted infrastructure asset typically represents investments made in capital intensive, long term assets required to fulfill major economic and social needs. It may include a range of infrastructure projects - Such as toll roads, railways, airports, ports and public utilities. Unlisted infrastructure funds are funds that provide those assets.

ABBREVIATIONS

AfDB	African Development Bank
AfT	Agenda for Transformation
AICD	Africa Infrastructure Country Diagnostic
APRA	Australian Pensions Regulatory Authority
AU	African Union
BABs	Build America Bonds
BOI	Bank of Industry
BOT	Build Operate and Transfer
CBN	Central Bank of Nigeria
CNPSAE	National Social Insurance Fund for State Employees of Guinea
CNSS	National Social Security Fund of Guinea
CPPIB	The Canadian Pension Plan Investment Board
DB	Defined Benefit
DC	Defined Contributory
DFR	Division of Retirement Funds of Guinea
EAC	East African Community
EIB	European Investment Bank
EIS	Employment Injury Scheme
EPP	Emergency Power Program
EU	European Union
FOAI	Fond Ouest Africain d'Investissement (West African Investment Fund)
GEPF	Government Employees Pension Fund South Africa
GEPS	Government Employees Pension Scheme

GIF	Global Infrastructure Fund
GIITF	Ghana Infrastructure Investment Trust Fund
GLF	The Gambia Local Fund
GOL	Government of Liberia
GPIF	Government Pension Investment Fund
GSE	Ghana Stock Exchange
HIPC	Highly Indebted Poor Countries
IA	Australia Infrastructure
ICRC	Infrastructure Concession Regulatory Commission
ICT	Information and Communication Technology
JGB	Japanese Government Bonds
JSE	Johannesburg Stock Exchange
MDRI	Multilateral Debt Relief Initiative
MPPS	Military Personnel Pension Scheme
NASSCORP	National Social Security & Welfare Corporation
NASSIT	National Social Security and Insurance Trust
NEPAD	New Partnership for Africa Development
NPRA	National Pension Regulatory Authority
NPS	National Pension Scheme
OECD	Organisation for Economic Co-operation and Development
OMERS	Ontario Municipal Employees' Retirement System
OTPP	Ontario Teachers' Pension Plan
PF	Provident Fund
PIDA	Programme for Infrastructure Development in Africa
PNDES	National Program for Economic and Social Development

PPP	Public-Private Partnership
PRA 2004	Nigerian Pension Reform Act 2004
PRA 2014	Nigerian Pension Reform Act 2014
PSIP	Public Sector Investment Program
PSTPS	Private School Teacher's Pension Scheme
SADC	South Africa Development Community
SSHFC	Social Security and Housing Finance Corporation
SSNIT	Social Security and National Insurance Trust
TEN-T EA	Trans-European Transport Network Executive Agency
WAEMU	West African Economic and Monetary Union
WAMZ	West African Monetary Zone
WARCIP	West Africa Regional Communications Infrastructure Project
WIDF	WAMZ Infrastructure Development Funds
WPIC	WAMZ Project Implementation Committee
WS	Welfare Scheme

INFRASTRUCTURAL FINANCING USING PENSION FUNDS OF THE WEST AFRICAN MONETARY ZONE'S MEMBER STATES

*Ngozi E. Egbuna (PhD), Abdoulaye Barry, George Okorie (PhD)
Oyebanji J. Olaoye*

Executive Summary

This study is pursuant to the directive by the Convergence Council of the West African Monetary Zone (WAMZ) during its Statutory Meetings held from August 1 - 5, 2016 in Conakry, Guinea, to WAMI to carry-out a comprehensive assessment on the feasibility of using pension funds of the Member States of the Zone for infrastructural financing. The overall objective is to accelerate economic growth by leveraging on pension funds to finance infrastructure in the WAMZ.

Infrastructure deficit has been a major challenge to growth of WAMZ economies over the years. Apart from telecommunication infrastructure which has recorded considerable improvement in the last decade, huge deficit exists in basic infrastructure such as road networks, railways, airways, waterways and electricity supply. Infrastructure gaps have existed in the Zone dating back to the colonial era and have widened due to political instability, high population growth rate, poor economic development, poor governance and overdependence on external and public sources for infrastructure funding. Weaknesses in public sector salary and wage policies, and unsustainable rate of debt accumulation resulting in huge interest payments, have led to rising recurrent expenditure, which limited available public funding for investments in infrastructure. Volatile commodity prices also adversely affected public funding of infrastructure due to significant reduction in fiscal revenues.

Infrastructure development is critical to economic development as it enhances the productive capacity of the economy. As a capital good, it facilitates the delivery of final goods and services to promote economic growth and prosperity. In particular, infrastructure enhances quality of life including social well-being; and health and safety of citizens. The effect of infrastructure on economic development occurs through diffusion of technology, trade facilitation, division of labour, market competition, and efficient allocation of economic resources across countries and regions. Infrastructure also facilitates adoption of new organizational practices and harnessing of latent resources.

While the Zone's total pension fund assets are estimated at US\$24.3 billion in 2016 with potential to increase significantly, allocation of pension assets to infrastructure financing is generally low. The low rate of pension fund investment in infrastructure is partly due to insufficient investment vehicles, as well as the inadequacy of financial instruments to support pension fund investment in infrastructure. The capital markets in the WAMZ are not adequately developed to offer long-term capital needed to support the huge financing outlay for infrastructure development.

The enormous challenges experienced by governments in bridging infrastructure funding gaps, have compelled WAMZ countries to formulate new policies and programmes to enhance critical infrastructure financing in their economies. Prominent among the policies is the framework that promotes private-sector participation in infrastructure financing.

The advocacy for using pension fund to finance infrastructure is hinged on the following rationale: First, shrinking or grossly inadequate traditional funding sources for infrastructure has made pension fund a viable global alternative. Second is the urgent need to bridge the infrastructure funding gap; third is the characteristics of pension fund as a long term instrument which is appropriate for infrastructure financing; fourth, the steady cash flow nature of infrastructure investments makes it ideal for pension fund investment.

International experiences suggest that progress towards improving the management of pension funds rely on good governance. Corollary to that is the widely accepted principle that investment using pension fund assets must be done prudently and cost-effectively with quantitative limits. Global infrastructural gap is undoubtedly huge and the pension fund has provided alternative source of funds for infrastructure financing, without any reported case of default wherever it had been experimented. International experience revealed the need for a comprehensive review of strategy for infrastructure financing in the WAMZ countries. This would require issuing infrastructure bonds, with strong ratings premised on strong project analysis and competencies, and good prospects for repayment on Private-Public-Partnership (PPP) models.

The population growth and increasing labour force in the WAMZ creates higher potential for increase in the size of pension funds. The large size of the informal sector in the zone, however, constitutes a serious drag on this potential. Currently, pension fund contributors are predominantly from the formal sectors as the informal sector remains informational opaque. The bulk of the

contributions to the pension fund are from the public/civil service and the formal private sector as the information available on the informal sector is low.

The size of pension funds in the Zone is growing rapidly. However, utilization of these funds to finance infrastructure projects remains low due to some inhibiting factors. These challenges border on the size of pension fund assets relative to the financing need of infrastructure; regulatory and institutional restrictions; weak enforcement of pension laws; underdeveloped financial markets; capacity gap in managing pension funds for investment in infrastructure; unavailability of suitable investment projects; public institutions acting as custodians and managers of pension fund; multiplicity of schemes handled by the pension fund institutions; and lack of regional platform for exchange and collaboration of the pension sector.

Given the myriad challenges affecting the flow of pension funds for financing infrastructure in the WAMZ and the need to address the infrastructure deficit, the following policy recommendations are proposed at the country and regional levels to harness the potentials of pension funds. At the national level, the study advocates for the expansion of the size of pension funds and diversification of investment options, through the formalization of the informal sector, enforcement of existing pension regulations, attracting foreign investors and raising awareness. Furthermore, in order to increase access to long term financing, capital markets should be established in those Member States where they are non-existent and further deepened in those countries where they already exist. Pension fund institutions could invest in financial instruments that are linked to particular infrastructure projects. Such instruments should be tradable in the secondary market and granted liquidity status to attract pension fund investors.

Other recommendations include: the need for human capital development considering the evolving nature of this initiative; Member States are encouraged to share risk on the basis of Public-Private-Partnership (PPP) models; Authorities should provide guarantees for institutional investors to mitigate anticipated risk; increase transparency in infrastructure financing using pension funds; and sensitize stakeholders, investors and supervisors on the importance of financing infrastructure with pension fund. Further, Member States should reform their legal, institutional and regulatory frameworks to enhance the use of pension funds for the financing of infrastructure; the regulatory framework and guidelines should inter alia set limits or conditionalities for infrastructure financing. Member States should also establish autonomous agencies to regulate and supervise pension funds in countries where none exists. There is need for a

platform for regional collaboration, information sharing and harmonization to raise the level of development of the pension sector in the WAMZ.

At the WAMZ level, it would be necessary to establish a collaborative platform where pension fund institutions and supervisors in the Zone could meet for cooperation and information sharing on issues regarding pension funds development and infrastructure investments. This synergy would also help members of the association in mitigating inherent risk in investment projects as well as identify project viability gaps in order to achieve sustainability.

Finally, the study finds that regardless of the novelty of the concept in the Zone, pension funds have helped to provide alternative sources of funds for financing infrastructure in most jurisdictions. In addition, there has been no report of default that has resulted in erosion or misplacement of pension funds due to its use in financing infrastructure project.

Consequently, using the pension funds of WAMZ Member States in financing infrastructure is feasible. However, Member States are strongly encouraged to put measures in place to adequately address the challenges identified in order to unlock the inherent potentials in pension funds with a view to accelerating growth and development of the sub-region.

SECTION ONE

1.0 Introduction

Sustainable economic growth in the WAMZ countries has been constrained by huge infrastructural deficits. The World Bank estimates African infrastructure need at USD 93.0 billion annually, while the New Partnership for Africa Development (NEPAD) estimates that USD 68.0 billion would be required to execute the Programme for Infrastructure Development in Africa (PIDA) Priority Action Project by 2020. The precarious infrastructure condition has not only increased the fragility of these economies but has equally impinged on the Zone's integration agenda.

The infrastructure landscape of the WAMZ is characterized by huge energy deficit, inadequate and ineffective roads and railways, air and seaports, as well as weak information and communication technology (ICT). These factors remain an obstacle to unlocking the growth potentials of Member States. Financing the infrastructural gap remained a daunting challenge in view of the dwindling domestic financial resources and tighter external financing conditions. The limited fiscal space is due to declining fiscal revenues emanating largely from declining international commodity prices. This is more so, as domestic revenues in terms of taxes, rates and levies are grossly inadequate for

addressing infrastructure development. For instance, capital expenditure as a percentage of Gross Domestic Product (GDP) in the WAMZ in the period 2007 – 2016, averaged 7.6 percent, indicating a far less proportion compared with the rest of the world.

The capital markets in the WAMZ are not adequately developed to offer long-term capital needed to support the huge financing needs for infrastructure development. Institutional investors face specific barriers to long-term investment, such as the lack of appropriate financing vehicles as well as dearth of data on opportunities in the sector. Furthermore, the policy environment for infrastructure investment is not sufficiently enabling, undermining investor confidence even when the necessary finance is available. Existing regulations create disincentives for institutional investors to invest in illiquid and non-rated projects in their balance sheets. In addition, the reluctance of banks to finance long-term infrastructure projects due to the risk of maturity mismatch poses another barrier.

The main challenge inhibiting infrastructural development in the WAMZ has compelled policy makers in the Zone to rethink infrastructure financing including leveraging on pension funds as obtained in other jurisdictions.

The Zone's total pension fund assets are estimated at US\$24.3 billion in 2016 with potential to increase significantly. However, the allocation of pension funds' assets to infrastructure projects is generally low¹. This low rate of pension fund investment in infrastructure is partly due to insufficient investment vehicles such as bonds and equities, through which pension funds can be channeled. The fundamental rules for pension fund management are to generate adequate and stable long-term revenues for pension contributors. This matches with the characteristics of infrastructure assets, which yield stable and long-term revenues and therefore becomes attractive to pension fund managers.

There are divergent views between policy makers and practitioners regarding the use of pension funds in financing infrastructure. Among others, investment in long term infrastructure projects is adjudged risky, coupled with the absence of the right governance, regulations, information disclosure and instruments to assess and manage the inherent risks.

Though, practitioners and policy makers have divergent views on the appropriateness of pension fund for

¹*Globally, pension funds investment in infrastructure is less than 1.0 percent of Total Pension Fund Assets.*

infrastructure financing. Some view the investment as risky, coupled with the absence of the right governance, regulations and instruments to assess and manage the inherent risks. Advocates of using pension funds in financing infrastructure hinged their views on a number of pillars: First is the global acceptability of pension fund as traditional funding sources for infrastructure as other sources are shrinking and grossly inadequate. Second is the ever increasing potential of the size of pension fund globally and in the Zone. Third is the peculiar characteristic of pension fund as a long-term asset class that is appropriate for infrastructure financing. Fourth is the steady cash flow nature of infrastructure investments which makes it ideal for pension fund investment. The overall objective of this study is to accelerate economic growth by leveraging on pension funds to finance infrastructure in the WAMZ.

This study is in response to a directive by the Committee of Governors of the West African Monetary Zone (WAMZ) during its statutory meetings held from August 1-5, 2016 in Conakry, Guinea, to WAMI to carry-out a comprehensive study on assessing the feasibility of using pension funds of the Member States of the Zone for infrastructural financing.

The methodology adopted involves a survey of country experiences, desk reviews and study visits to the Member States of the WAMZ. During

the visit to Member States, the study which was majorly qualitative relied on information that were obtained from questionnaires designed and administered to national pension fund institutions and authorities, ministries of finance, national bureau of statistics, and related institutions in the six (6) WAMZ countries. The analysis was largely descriptive and inferences drawn benefitted from the various sources of information that have been stated. The study also leveraged on the methodology earlier adopted by the Africa Growth Initiative at the Brookings Institution and the Organization for Economic Cooperation and Development (OECD).

The rest of the paper is structured as follows. Section two reviews conceptual issues on infrastructure finance by pension funds. Section three reviews the international experiences on pension fund infrastructure investment, while section four focuses on an evaluation of current practices in pension funds management and infrastructure financing in the WAMZ countries. Section five analyses the challenges with investing pension funds for infrastructure development in the WAMZ while Section six concludes the study with policy recommendations and conclusion.

SECTION TWO

2.0 Conceptual Issues on Infrastructure Finance by Pension Funds

2.1 Infrastructure

Several definitions of infrastructure exist in extant literature due to disagreement among scholars and practitioners on the constituents of infrastructure. The World Bank defines infrastructure to include transport, water, energy and information and communications technology (World Bank, 2011). It is also regarded as the capital equipment used to produce publicly available services including transport and telecommunications, gas, electricity and water supplies. These provide an essential background for other economic activities. Their non-availability and unreliability are characteristics of less developed countries (LDCs) and handicap their development (Black 2002). Infrastructure can be broadly divided into two categories: social and economic. Economic infrastructure covers a wide range of sectors and assets such as transportation (roads, railways, air and sea ports, bridges and tunnels), utilities (energy plants and distribution network, storage, power generation, water, sewage and waste), communication (fixed/mobile networks, towers, satellites etc.), industrial infrastructure (including industrial parks and special economic zones) renewable energy and infrastructure that enhances tourism and hospitality. Social infrastructure

includes schools, hospitals, defense buildings, prisons, stadia, etc. Infrastructure may be publicly owned, privately owned, or public-private partnership which are not used directly to produce final goods and services but facilitates production in primary, secondary and tertiary activities.

2.2 The Role of Infrastructure in Economic Development

Infrastructure is critical to economic development as it enhances the productive capacity of an economy. As a capital good, it facilitates the delivery of goods and services and ultimately promotes economic growth and prosperity. In particular, infrastructure enhances quality of life including social well-being, health and safety of citizens and environmental quality. The effect of infrastructure on economic development occurs through technology diffusion, trade facilitation, division of labour, market competition, and efficient allocation of economic resources across countries and regions. Infrastructure also facilitates adoption of new organizational practices or through access to new resources.

2.3 Characteristics and Vehicles for Infrastructure Investment

A number of characteristics of infrastructure make it a special or perhaps a more profitable area of

investment. First, infrastructure is a long term investment that provides a steady and predictable cash flow which is appropriate for the periodic amortization of any line of credit. Revenue generated through user charges, regulated income or contractual guarantees constitute an important aspect of output growth. Infrastructure services have inelastic demand as they are usually necessities or basic services which provide upward price-adjustment flexibility that matches inflation and thus ensure gains. Infrastructure assets such as highways, bridges, and dams, among others, enjoy natural or quasi-monopoly due to high entry barrier or difficulty involved in duplication resulting from scale, cost and resources required. Traditionally, infrastructure projects, where privately sourced, were provided and operated by large-cap publicly listed companies engaged mainly in construction and engineering services. Investors access infrastructure investments through equity and fixed income securities. Equity infrastructure investments are accessed through listed companies such as utilities, energy or transport companies. Traditional fixed income instruments issued to raise capital for infrastructure projects include State and Municipal infrastructure bonds, corporate infrastructure bonds, among others.

In recent times, new fixed income and equity investment vehicles are being issued to raise capital for infrastructure projects. New equity

infrastructure investment vehicles in the form of index funds, mutual funds and exchange-traded funds (ETFs) have been created for investors unwilling or unable to provide and operate infrastructure projects. Private-public partnership (PPP) bonds and bonds earmarked for specific infrastructure such as dams, bridges are also gaining popularity. Aside fixed-income and equity investments, a recent growing trend for financing infrastructure investment is alternative investment such as private , real estate, commodities, hedge funds and infrastructure funds. These new vehicles in contrast to equity and fixed-income allow a broader range of smaller and institutional investor participation. Alternative assets for infrastructure include publicly listed funds trading on a stock exchange (Brookfield Fund), un-listed equity funds that focus on infrastructure investment and debt capital.

2.4 Pension Funds and Infrastructure Investments

Despite the argument that pension funds are risk averse to investing in long-term infrastructure projects, it has been established that with the right governance structure, effective regulation and availability of sufficient risk mitigating instruments pension funds could be invested in infrastructure. This arises from the fact that pension fund has viable long-term asset characteristics such as constant cash flows, positive and

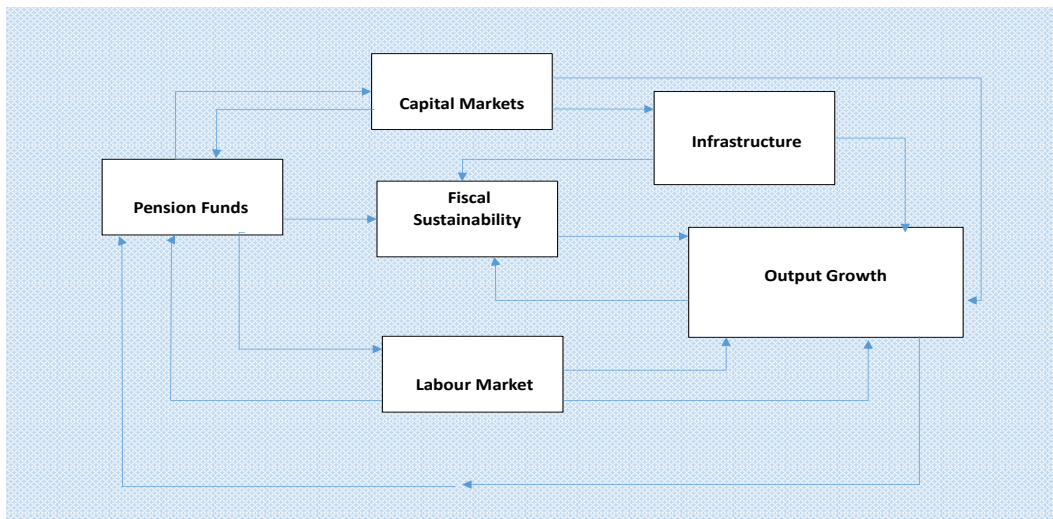
stable returns on investment, and good portfolio mix in terms of portfolio diversification whilst playing a role in closing the infrastructure gap for economic growth and development (Alonso et. Al, 2009).

First, there is a neat-match between the long-term time horizon for infrastructure projects to mature and the long-term duration of pension fund assets and liabilities, providing duration hedging. Secondly, given the sensitivity of pension fund liability to inflation and output developments, infrastructure investment could provide suitable hedge against inflation and the business cycle as such investments are linked to inflation and output. The rather low correlation between the assets in infrastructure investments and traditional investment vehicles such as fixed income, equity and cash serves as opportunity for diversification for pension fund portfolio. It is also argued that infrastructure tends to operate like a natural or regulated monopoly and there is little or no competition, which might cause its assets value to fluctuate widely. Thus, there is a good risk-return trade-off and stability and predictability in cash-flow. (Alonso et. Al, 2009; Andrews and Wahba. 2007; Weber and Alfen 2010; Sawant 2010). Pension fund investment in infrastructure has also become necessary in view of the constrained and declining government budgetary allocation and dearth of foreign capital for infrastructure vital to economic growth in most countries.

It is also argued that pension fund investments in infrastructure create a situation for mutual gain for pension funds administration and macroeconomic stability and growth (Escriva et, al, 2010). This interaction between pension fund infrastructure investments on the one hand and macroeconomic stability and growth on the other, occurs through various channels such as capital market, fiscal channel and labour market mechanisms (Alonso et al, 2015) as shown in figure 1. A well-developed and efficient capital market is crucial for creating suitable investment vehicles to match investment objectives and risk preference and tolerance of pension funds with that of infrastructure projects and investments. The labour market determines the coverage, size, and contribution of pension fund assets available for infrastructure investments. A well-functioning pension system that guarantees and pays attractive retirement benefit improves labour productivity. This will boost growth and output, and in turn increase employment, aggregate income (wages and salaries) and the coverage, size and the growth of pension funds. The presence of private pension funds in infrastructure finance and investments could lead to lower public borrowing requirement, fiscal sustainability and reduction in vulnerability- the fiscal channel. Fiscal sustainability brought about by private pension fund infrastructure investment will enhance growth and in turn

increase pension fund assets through the labour market.

Figure 1: Pension Funds and Infrastructure Nexus



Source: BBVA Research

SECTION THREE

3.0 International Experiences on Pension Fund Infrastructure Investments

3.1 Overview

Global experiences show that, in the past pension funds engaged in infrastructure investment through listed companies (such as utilities) or through real estate portfolios. However, recent years have seen some large pensions particularly, Australian, Canadian and Dutch pension funds initiating investments in infrastructure directly or through private equity funds in search of better yields and diversification opportunities (Inderst, 2009). It is argued that the change in asset allocation of global pension funds towards infrastructure were driven by the burst in stock prices in the early 2000s, as stock markets had supported pension fund developments in the early 1990s by providing avenues for long-term investments. The burst in the bubble of Technology, Media and Telecom (TMT) stock prices between 1995 and 2002 and the subsequent recession, which led to huge financial loss and insolvency, influenced the decision of pension fund managers to seek alternative asset classes as investment outlets.

As the developments revealed, pension funds unhedged or unprotected exposure to interest rate, inflation, recessions and longevity, the investment industry came out with new investment vehicles for pension

funds. Infrastructure investments became more attractive than derivatives or other strategies of managing these risks as pension fund managers found them less complex (in terms of estimating the underlying value) and suitable for hedging long-term liabilities. In addition, pension funds managers found it more sustainable and socially responsible investments (Inderst, 2009). The mid-1990s witnessed developments of dedicated infrastructure funds in Australia which attracted investments from Suprannuation plans in the USA. Canadian pension funds which are considered second after Australian superannuation funds in terms of early investors in infrastructure were largely influenced by search for diversification, gains and a suitable match between brownfield infrastructure investments and DB fund liabilities. Since 2005, a number of large European and US pension plans have been exposed to infrastructure investments.

According to data from OECD, assets in funded and private pension funds in OECD economies totaled US\$38.1trillion in 2016. United States dominated the OECD pension fund industry in terms of asset size, with total assets valued at US\$25.1 trillion. This was followed by Canada, United Kingdom and Australia, with fund

assets of US\$2.4 trillion, US\$2.3 trillion and US\$ 1.5 trillion, respectively as shown in table 3.1. However, Australian pension funds invest substantial proportion of pension assets (about 5-6 percent) in infrastructure on average, despite the fact that they are largely Defined Contribution (DC) scheme. Large pension funds dominate infrastructure investment in the country with strong appetite for privatized assets. Small pension funds on the other hand, have little or no infrastructure investments (Inderst and Croce, 2013). An annual survey undertaken by Watson Wyatt (2008a) of managers of alternative asset classes shows that the Australian Macquarie Group is the biggest manager, managing over US\$20 billion of pension fund assets. Torrance (2008) explains that Macquarie Group organizes infrastructure acquisition, funding and management, managing approximately US\$45 billion in infrastructure equity invested in more than 100 assets across 25 countries. Prequin (2011b) observes that Canadian pension funds

show diversity in investment preference in infrastructure with large pension funds exhibiting preference and expertise in direct infrastructure investment. It is estimated that 75.0 percent of infrastructure investment by large pension plans are direct while 25.0 percent are in indirect investment vehicles.

Inderst (2009) explains that big US pension fund, CalPERS, adopted a new investment policy in 2008 with a target of 3.0 percent allocation or US\$7.2 billion in infrastructure. CalSTERS, the Washington State Pension Plan, Alaska Permanent Fund Corporation and Oregon PERD and the World Bank are other US pension funds with infrastructure allocation or intentions. Mercer (2008) shows in a survey that only 0.7 percent of UK pension funds are shown to invest in infrastructure. For Continental Europe, only 1.1 percent of pension plans are said to be invested in infrastructure, with an average allocation of 2.0 percent to the asset class by those funds invested.

Table 1: Assets in funded and private pension arrangements in the OECD area, by country, 2011-2016 (In USD Trillion)						
Country	2011	2012	2013	2014	2015	2016
United States	18.0	19.9	22.7	23.9	23.8	25.1
Canada	2.2	2.4	2.4	2.5	2.2	2.4
United Kingdom	2.2	2.5	2.8	2.8	2.7	2.3
Australia	1.4	1.4	1.5	1.7	1.5	1.5
Japan	1.8	1.7	1.4	1.3	1.3	1.4
Netherlands	1.1	1.2	1.3	1.3	1.3	1.3
Switzerland ²	0.7	0.7	0.9	0.9	0.9	0.9
Other OECD countries	2.7	3.1	3.4	3.3	3.1	3.2

Source: OECD Global Pension Statistics

² Data for Switzerland cover personal plans in addition to occupational plans from 2013 onwards. The amount of assets in personal plans in 2016 is assumed to be the same as in 2015 (OECD estimate).

Aside the search for yields and risk diversification opportunities by pension funds, limited state or public funding for infrastructure is another factor which has driven the growth in private sector participation and investments in infrastructure across the globe in recent times. Private-public partnership (PPP) has been one of the popular models being adopted by governments in both advanced and emerging market economies.

This section examines and draws lessons from global experiences of pension fund investment in infrastructure among countries which are considered major players.

3.2 The Australian Experience

Australia is not only considered as one of the pioneers of pension fund infrastructure investment but also an early adopter of the PPP model for infrastructure financing (Inderst and Croce, 2013). The State was solely responsible for planning, funding and construction of public infrastructure until the economic recession which occurred during 1989-1990 necessitated major reforms. Private participation in infrastructure began in the early 1990s, with privatization of several large-scale infrastructure assets largely, in the energy, transport and communication sectors. In 1992, infrastructure bonds were introduced under a taxation scheme to encourage private sector participation in infrastructure investment. Tax exemptions were granted on interest

income to privately secured lenders. The scheme was reviewed in 1994 and 1997 but limited to large-scale transport projects (Tule et al, 2015). In 2008, the Australian government gave a renewed political commitment and approach to planning, funding and implementation of infrastructure projects. This led to a number of initiatives including the establishment of a stakeholder forum dubbed “*Infrastructure Australia*” (IA). The IA forum helped in developing an “Infrastructure Priority List” which serves as a guide to reforms and investments in nationally important infrastructure.

The country’s pension reforms which began in 1992 saw the introduction of a compulsory occupational pension system popularly called “Superannuation System”. The superannuation system consists of highly fragmented pension schemes with a number of very large pension funds of global scale. Despite the fragmentation of the superannuation system, the pension industry in the country has seen some consolidation of smaller pension funds. Most of the Australian pension funds are DC schemes with private sector pension funds constituting 85.0 percent with average contribution rate of 13.0 percent of salary.

Australian pension funds invest about 5-6 percent of pension assets in infrastructure on average, despite the fact that they are largely DC schemes. Inderst and Croce (2013) attribute the

investment pattern to confidence of trustee boards of industry-wide pension schemes in infrastructure. Large pension funds dominate infrastructure investment in the country with strong appetite for privatized assets. Small pension funds, on the other hand, have little or no infrastructure investments (Inderst and Croce, 2013). The infrastructure investment by pension funds amounted to A\$8 billion, about 2.0 percent of total funds in 2002. Large Pension fund schemes involved in infrastructure include: MTAA, the Military Suprannuation funds and UniSuper. Military Superannuation Fund invested 8.0 percent directly and indirectly into infrastructure assets out of its total assets of A\$3.1 billion in June 2010 while MTAA invested 20.0 percent out of its A\$5.8 billion asset in 2010. Unisuper invested 5.6 percent of its total asset of A\$25.4 billion in infrastructure (Tule et al, 2015). Inderst and Croce (2013) explain that the growth of pension assets was driven by economic growth and favourable demographic dynamics.

In what is described in the literature as “the old Australian model”, pension fund investment in infrastructure were in listed companies and funds and were outsourced to external fund managers. After experiencing poor performance with the original model, the investment vehicle used switched to open-ended funds with a few bigger funds engaged in direct investment (“the new Australian model”). Infrastructure investment performance

has been mixed according to Inderst and Croce (2013). Unlisted funds have recorded positive and high risk-adjusted returns with high diversification gains, owing to low correlation of returns of the new model with other asset classes.

The high participation of Australian pension funds in infrastructure investment in the early 1990s, and favourable investment performance did not come without challenges. Pension funds in Australia, following adverse surprises with some toll road projects remained concerned or averted to construction and patronage risks particularly with greenfield projects³. The original PPP model adopted, which saw the private sector taking demand side risks in new or greenfield infrastructure projects, led to huge losses in transport and toll road projects such as Cross City Tunnel or the Lane Cove Tunnel Projects. It was reported that in the two projects, the bidding for the project overestimated the traffic forecast and toll drivers would pay (AMP 2011). Infrastructure investment has also been limited to equity. Though the debt side is growing, the absence of infrastructure bond market is a major constrain. There have also been concerns about illiquidity of infrastructure investment by the Australian Pensions Regulatory

³ *Greenfield Projects also called primary projects are assets constructed for the first time at a specific site.*

Authority (APRA). The absence of a deep and liquid corporate bond market was a major challenge to infrastructure finance as most project bond market alternatives, and debt finance come from local or international banks. There is limited supply of infrastructure projects and an integrated, coordinated pipeline across the State and Federal Governments. Political and regulatory risks in the form of uncertainty about tax policies relating to infrastructure investment are other challenges.

3.3 The Canadian Experience

In the past, particularly in the 1950s and 1960s, infrastructure projects in Canada were financed solely from the public budget. Infrastructure development and finance occurred at different levels of government; the country being a federal state. The federal government was responsible for projects of national significance such as major ports whilst the provinces and territories took charge of hospitals, schools and large intercity highways. Local infrastructure such as roads, water and sewage services were financed by municipalities (Blain, 2012; Inderst and Croce, 2013). Following the deteriorating fiscal situation in the 1980s and 1990s, the country experienced a slowdown in infrastructure development, which led to worsened infrastructure maintenance, repairs and replacement. This paved the way for private sector, particularly pension funds,

participation in funding and development of infrastructure. Since the late 1990s and early 2000s, Canadian pension funds have nurtured great expertise in this field especially, in direct infrastructure investments, inventing what is now described in the literature as the “*Canadian model*” of infrastructure investment (Inderst and Croce 2013).

The pension industry in Canada is dominated by Defined Benefit (DB) pension schemes. The industry has about 5,000 corporate pension schemes with wide dispersion in terms of the asset size of pension funds, ranging from a few million US dollars to over USD100 billion (Aegon 2012, Archer 2011 and Inderst and Croce 2013). The pension fund market in Canada steadily grew from US\$376 billion 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). While contributions and assets of employment-based mandatory pension plans continue to record growth, voluntary schemes have had to grapple with negative net cash contributions as the DB plans mature. Many underfunded DB pension funds in the pension industry took remedial actions such as benefit redesign, governance and “de-risking” of investment portfolios (Inderst and Croce, 2013).

Canadian pension funds, in terms of early investors in infrastructure investment, are considered second after Australian superannuation funds, with some Canadian pension funds⁴ having begun investment in this asset class in the late 1990s and early 2000s. Pension funds participation in infrastructure have been largely influenced by search for diversification gains and the suitable match between brownfield infrastructure investments and DB fund liabilities (Inderst and Croce, 2013). A striking feature of the Canadian model is the diversity in investment preference among pension funds. It is asserted that 80.0 percent of the Canadian investors accessed infrastructure investments through unlisted funds while 15.0 percent passed through listed funds. It is also claimed that 51 percent engaged in direct investment, a percentage which is considered the highest globally (Prequin 2011b)⁵. Small and medium-size funds have preference for unlisted infrastructure funds or do not invest in infrastructure. Large pension funds preference and expertise in direct infrastructure investment is the most unique characteristic of the “Canadian model”. It is estimated that 75.0 percent of infrastructure investment by large pension plans are direct whilst 25.0 percent are in indirect investment

⁴ notably OTTP and OMERS

⁵ Prequin(2011b), *Canadian Infrastructure Universe*

vehicles (Prequin 2011b). The expertise, knowledge and resources acquired by the large funds over the years enabled them to engage in co-investment and take leading roles in bidding and competing for projects with other funds and financial sponsors. Large pension funds have strong governance models with capacity to evaluate, conduct research and assess risks of sophisticated direct investment opportunities. Inderst and Croce (2013) identify relative lower cost of direct investment rather than fund management fees of external infrastructure fund as a major determinant of this investment preference by large pension funds. Other factors include the desire to have direct control over the assets, the time horizon and exit decision of the investment. Elimination of agency problems relating to external infrastructure funds and the longer term focus of direct investment which is suitable for pension liability are other considerations.

Infrastructure investments of some large Canadian pension schemes include the following: **Ontario Municipal Employees’ Retirement System (OMERS)** whose commitment to infrastructure was C\$8.3 billion in 2010, representing 15.5 percent 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 percent of its total assets

allotted to infrastructure in line with its target allocation. **OPTrust** 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 15.0 percent, which represents about 5.0 percent of its total assets. **The Canadian Pension Plan Investment Board (CPPIB)** is a pseudo government corporation set up to invest the assets of the Canada Pension Plan, which amounted to C\$148.2 billion as at March 2011. CPPIB infrastructure investment stood at C\$9.5 billion, representing 6.4 per cent of its total portfolio as at March 2011.

A number of challenges were confronted particularly, with assets in the transportation sector which suffered demand side risks during the financial crisis. There were issues relating to indirect investments such as high fund management fees, control and agency problems like conflict of interest, asymmetric information and preferential treatment. Limited resources of smaller and medium-sized pension funds for direct investment and greater need for liquidity were demand side limiting factors to infrastructure investments in Canada. A major supply side challenge has been lack of investment opportunities in the Canadian economy which forced large pension funds to engage in offshore investments, exposing them to

regulatory and political risks in foreign countries. The shift away from large-scale privatization of public infrastructure by the country has also limited available infrastructure investment opportunities for Canadian pension funds (Inderst and Croce, 2013).

The global recognition of the Canadian model of Pension fund Investments in Infrastructure did not come without critical role of 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 was driven through PPP. The Building Canada plan also encouraged 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. There was rapid development in the Canadian bond market in recent years for PPP 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.

3.4 United States of America

Infrastructure development in the USA from the colonization period up till the great depression, were jointly carried out by the state and private sector. These state and private partnerships were executed with funding by the government while land concessions were granted to private sector to incentivize them to fund the remaining portion of the projects. After the Great Depression, infrastructure development was seen as a social good necessary for economic development and job creation. Consequently, the government took overriding control of the nationwide infrastructure development. A number of legislative reforms were rolled out which led to the enactment of successive laws such as Armed Services Procurement Act of 1947, Federal Property and Administrative Services Act of 1949, Brooks Act of 1972. These created an effective legal environment for state dominance of financing infrastructure projects and funding strategies.

Deye (2015) observes that under-investment in existing and new infrastructure in US due to limited federal funding for infrastructure resulted in the country losing its position as a global leader in infrastructure competitiveness, and ranked 16th in the world as at 2015.

The American Society of Civil Engineers (ASCE) estimated the infrastructure funding requirement to upgrade 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.

Private-financing or PPP became an alternative approach to funding infrastructure in the last decade. The PPP-market in US has experienced dramatic growth, recording about 48 Infrastructure PPP transactions between 2005 and 2014 with an aggregate value of US\$61 billion (Deye, 2015). Major projects executed under PPP in US include the US\$1.8 billion Chicago Skyway lease and the US\$3.8 billion lease for Indiana Toll Road. It is argued that political risks or lack of political consensus on underlying projects has been a major constrain to the growth of Infrastructure PPP as these has resulted in unsuccessful completion of some major projects such as US\$12.8 billion Pennsylvania Turnpike lease and the US\$452 million Pittsburgh Parking concession (Deye, 2015).

Privatization-style transactions involving “brownfield or existing assets dominated the PPP market in 2005 and 2007, prior to the financial crisis. The private sector assumed significant risks and made aggressive assumptions regarding future levels of demand. Subsequent to the financial

crisis, the U.S. infrastructure PPP market moved away from “brownfield” transactions in favor of “Greenfield”. There have been transformations and improvements towards more robust PPP market in US (Deye, 2015). The Transportation Infrastructure Finance and Innovation Act(TIFIA) enacted in 1998 was instrumental in developing the US PPP market as this made available credit assistance for projects of national and regional importance.

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. It is expected to facilitate 80.0 percent generation of electricity from clean sources, 80.0 percent access to high-speed rail system for American citizens, 98.0 percent 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,

which allows municipalities access 35.0 percent 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.

3.4.2 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\$700 million in commitments, which is 0.4 percent of its total asset mix. However, its target allocation to the asset class is 1 to 3 percent 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 percent (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 percent target allocation for infrastructure and commodities. It had limited exposure to energy infrastructure, but made a US\$80 million commitment to two fund managers in 2009 as direct investment in infrastructure class assets.

- 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 million 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 which the real assets

allocation was 15.0 percent of its total portfolio.

3.5 South Korea

The importance of the pension system is more pronounced in South Korea than in many other countries due to its fast aging population and increasing costs to support the elderly. South Korea has four (4) public pension fund schemes, namely: South Korea National Pension Scheme (NPS), Government Employees Pension Scheme (GEPS), Private School Teacher's Pension Scheme (PSTPS), and Military Personnel Pension Scheme (MPPS). South Korea's National Pension Service (NPS), the world's third largest pension fund, with 540.7 trillion won (US\$476.27 billion) in assets as at end-July 2017, is also looking to beef up its holdings of alternative investments and trim its allocation to lower-yielding domestic bonds. NPS, which sees infrastructure and the medical industry as good prospects for returns in a low interest rate environment, bought a 12.0 percent stake in London's Gatwick Airport through the company's Global Infrastructural Partners. NPS also acquired a 23.44 percent stake in Colonial Pipeline, the biggest pipeline operator in the United States.

South Korea's infrastructure development began in the 60's and can be divided into two periods. The first period spans 1960s to mid-90s and the second period began in the mid-1990s. During the first period,

infrastructure was considered supportive or auxiliary investment, but during the second period, infrastructure started to be considered as a separate strategic investment asset to increase national competitiveness and wealth. Most domestic investments using pension fund are made in core infrastructure, such as bridges, highways, airports, and social infrastructure project such as public libraries, hospitals, etc. In recent years, Korean pension funds have become active investors in infrastructure abroad.

3.6 European Union (EU)

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-State governments, in recognition of the role of transportation in the EU economy and other infrastructure needs, set up the Trans-European Transport Network Executive Agency (TEN-T EA) in 2006 to coordinate, manage and implement the TEN-T programme.

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 the 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 percent of total portfolio amongst the largest players. The indirect method of investment is generally preferred. In so doing, they leverage on infrastructure fund managers.

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 was expected to provide 14.0 percent 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.

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).

3.7 Sub-Saharan Africa

In sub-Saharan Africa, Mbeng Mezui and Hundal (2013) stress that a weak enabling environment is one of the key barriers to infrastructure finance. A number of parastatals in the utilities sector have financial and governance problems. For instance, the regulatory and tariff framework in many sectors is incomplete, and although many countries have established public-private partnership laws (PPP), they

often lack resources and capacity to prepare bankable projects for investors. Parastatals, rather than the government, are often the sponsors of infrastructure projects and this setup limits investors' interest in infrastructure projects in many countries in the region.

The infrastructure deficit is particularly high for sub-Saharan Africa least developed countries (LDCs) even when compared with that of other low-income countries. As pension funds are also rapidly growing in African countries in particular in South Africa, Nigeria, Kenya, Uganda and Tanzania, they are gradually becoming a substantial source of financing for local infrastructure projects.

3.8 The West African Economic and Monetary Union (UEMOA)

Analysis of uses of pension funds in the UEMOA zone found that the Member States of the Zone are yet to enter fully into funding infrastructure with pension funds. The only organ that acts as a pension fund and on which basic information was available is the Caisse de Retraite par Répartition Avec Epargne de l'Union Monétaire Ouest Africaine (CRRAE/UMOA, West African Monetary Union Pay-as-you-go Saving Pension Funds).

In terms of shareholding, the Fund subscribed to the Fond Ouest Africain d'Investissement (FOAI, West African

Investment Fund) with a share of FCFA 2,500 million on an initial capital of 8,500 million, representing 29.41 per cent of shares. The FOAI invested its mobilized funds in shares, obligations, negotiable debt securities and all other assets issued by privatized companies or being privatized in the UMOA countries. Precisely, the FOAI invests in the privatized companies or being privatized in the so-called strategic infrastructure sectors (electricity, water), as well as companies operating in private funding of infrastructure (ports, airports, roads, energy).

3.9 East African Community (EAC)

The pension sector of the EAC is currently undergoing reforms. Traditionally, pension funds in the EAC only catered for a small percentage of formal employment sector dominated by public servants. This has stifled the growth prospects of the sector. To address this, pension supervisory authorities in the region have opened discussions on a reform process that would harmonise and restructure the pension sector to capture the large informal sector employees and make the scheme more inclusive.

Pension funds in the EAC have favored instruments such as government bonds earmarked for infrastructure financing particularly in Kenya and Uganda. Also, Pension funds have directly participated in infrastructure investment through

loans and private placements in the sub-region. Meanwhile, available data indicates that 3 of the 5 EAC countries (Tanzania, Kenya and Uganda) are currently investing pension funds in infrastructure albeit under very restrictive regulatory regimes. It is envisaged that successful reforms would lead to a more liberal and flexible pension regime and also large pension assets that could be used to grow the regional economies through increased investment in infrastructure. It is understood that if the new reforms succeed, regional economies stand to benefit from large pension assets that could be used to develop regional capital markets as well as build economic and social infrastructure.

3.10 South Africa

The Government Employees Pension Fund (GEPF) in South Africa is Africa's largest pension fund and the seventh biggest in the world. It is also the single largest investor in the Johannesburg Stock Exchange (JSE) listed companies. GEPF's infrastructure investment is guided by the Development Investment Policy, through the Isibaya Fund managed by the Public Investment Corporation in South Africa. GEPF in its strategic asset allocation, sets aside 5 percent of the Fund's portfolio for investing in developmental projects, mostly infrastructure projects in South Africa to be achieved overtime and a further 5 percent was committed to pursue investment opportunities in other African countries.

3.11 Other African Initiatives

The New Partnership for Africa's Development (NEPAD), an African Union (AU) initiative established in 2001, supported the Programme for Infrastructure Development in Africa (PIDA) in 2011. PIDA is a flagship initiative which included 51 regional and continental projects to be implemented by 2020. PIDA is to identify and assess key cross-border infrastructure investment over the period 2012-2040. These projects were designed to meet Africa's more immediate regional and continental infrastructure needs.

3.12 SADC and Sundry Multilateral Infrastructure Initiatives in Africa

In the South Africa Development Community (SADC), the Regional Infrastructure Development Master Plan (RIDMP) of 2012, was anchored on the six pillars of energy, transport, ICT, meteorology, trans-boundary water resources, and tourism (trans-frontier conservation areas). The World Bank, in partnership with the African Development Bank (AfDB) developed the Africa Infrastructure Country Diagnostic (AICD) that provides a detailed series of infrastructure investment needs by the sub-region in 2011. In 2014, the World Bank launched the Global Infrastructure Fund (GIF) as a "platform" for identifying, preparing, and financing large complex

infrastructure projects and cover infrastructure financing in Africa.

Additionally, bilateral and multilateral development resources flow to African infrastructure such as the US Power Africa initiative and the EU-Africa Infrastructure Trust Fund have increased. Other non-traditional bilateral flows (from China, Brazil, and India) as well as substantial opportunities from the establishment of the BRICS' (Brazil, Russia, India, China and South Africa) New Development Bank (BRICS Bank) and the Asian Infrastructure Investment Bank are options for infrastructure financing.

3.13 Lessons from Country Experiences

From the country experiences reviewed, it is clear that global infrastructural gap is undoubtedly huge. The OECD (2011) has estimated the global infrastructural financing gap till 2030 at US\$50 trillion. In order to tackle the infrastructural financing problem, most countries have designed blue print initiatives and lined up 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 funds for financing infrastructure. 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 the countries and regions reviewed.

As observed in the country reviews, 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 countries of the WAMZ. The Trans-European Transport Network Executive Agency (TEN-T EA) set up by the EU in 2006 to coordinate, manage and implement the TEN-T programme in recognition of the role of transportation in the EU economy is an example for countries considering a monetary and/or economic union.

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 infrastructure, among others. WAMZ Member States could also provide technical and financial support for companies undertaking large-scale infrastructure projects through the issuance of debt instruments, with good rating to make them attractive to institutional investors. The EU adoption of a similar initiative is worthy of emulation by other economic blocs.

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 WAMZ countries should be well developed to follow similar growth trend as those observed in the UK, the US, Canada, Australia, South Korea, Japan and Chile.

SECTION FOUR

4.0 Pension Funds and Infrastructure Financing in WAMZ Countries

4.1 Infrastructure Gap in the WAMZ

Infrastructure deficit has been a major challenge to economic growth and development in the WAMZ economies over the years. Apart from the telecommunication infrastructure which has recorded considerable improvement in the last decade, huge deficits exist in basic infrastructure such as road network, railways, airways, waterways and electricity. Gaps in infrastructure have existed in the Zone dating back to the colonial era and have widened due to political instability, high population growth rate, poor economic development initiatives, governance and overdependence on external and public sources for funding infrastructure. The impact of protracted civil wars in Liberia and Sierra Leone did not only slow down infrastructure development in these countries but also resulted in considerable destruction and poor maintenance of existing infrastructure. Weaknesses in public sector salary and wage policies and management and unsustainable rate of debt accumulation resulting in huge interest payments have led to high and rising proportion of recurrent expenditure, limiting available public funding for investments and infrastructure development in most WAMZ Member Countries. Public funding for

infrastructure have also been on the decline in recent years due to unfavourable commodity price developments, leading to significant reduction in fiscal space for most countries.

Available statistics show huge deficit in road network in the Zone, highlighting the extent of infrastructure gap in Member Countries. The Gambia had a total of 1,413 km of roads, out of which 38.62 percent had been paved as at the end of 2015. The total length of road in Ghana was 71,710 km, of which 24.08 percent had been paved. Guinea had 9.39 percent of its total length of roads of 45,360km paved during the same period. For Liberia, only 10 percent of its 10,000km of roads had been tarred while Nigeria had 69.28 percent of its 33,801.1 km federal roads paved. Sierra Leone had a total of 11,300 km of roads out of which 11.65 percent had been paved.

In the energy sector, actual electricity generated in The Gambia stood at 24.9 Mega Watts (MW) compared with a total installed capacity of 82MW of electricity in 2015. In Guinea, 127.6 MW actual electricity is generated, out of a total installed capacity of 603 MW. In the case of Nigeria, actual electricity generated stood at 3,817.2 MW out of a total installed capacity of 9,950 MW. The actual electricity generated in Sierra Leone was 29.2

MW, out of the total install capacity of 128.7 MW (see Table 2).

Table 2: Road and Energy Infrastructure Gap in the WAMZ as at December 2015

Country	Road			Electricity		
	Length of Roads (Km)	Percentage of Roads Paved (%)	Percentage of Roads Not Paved (%)	Total Installed Capacity of Power Plants (MW)	Available Capacity of Power Plants (MW)	Actual Electricity Power Generated (MW)
The Gambia	1,413.2	38.62	61.38	82.0	65.1	24.9
Ghana	71,710.0	24.08	75.92			
Guinea	45,360.0	9.39	90.61	603.0	282.1	127.6
Liberia	10,000.0	10.00	90.00	22.0	16.0	7.1
Nigeria ⁶	33,801.1	69.28	30.72	9,950.0	6,303.0	3,817.2
Sierra Leone	11,300.0	11.65	88.35	128.7	100.5	29.2

Source: WAMI/ECOWAS Database

⁶*Only Federal Roads

4.2 Public Investment in Infrastructure

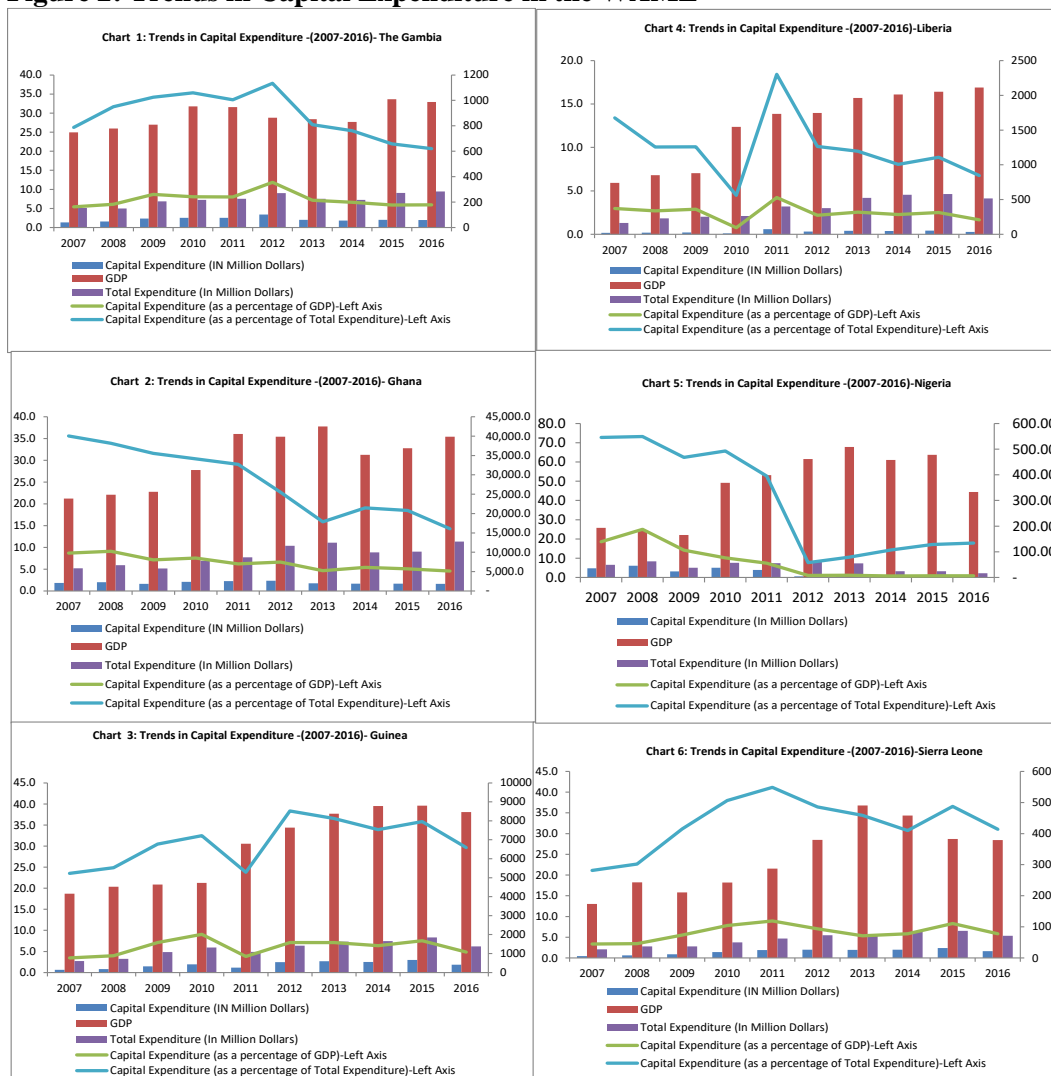
Over the years, most WAMZ Member countries have financed infrastructure largely from public resources sourced mainly from external loans and grants.

Infrastructure in The Gambia have been mainly financed from external sources in the form of project loans, concessional loans and grants from development partners. For instance, in 2016, about US\$44.4 million, representing 75.6 percent of total capital expenditure was financed from external sources. This composed of grants (US\$16.1 million) and loans (US\$28.3 million), respectively. Similarly, Ghana's capital expenditure has largely been funded from Multilateral Debt Relief Initiative (MDRI) and Highly Indebted Poor Countries (HIPC) funds over the years. In 2016, externally financed capital expenditure constituted about 73.3 percent, while 26.7 percent was financed from domestic sources. Total capital expenditure in Guinea in 2016 amounted to US\$408.8 million, of which about 71.3 percent of the funds was domestically financed, while the balance of 28.7 percent was financed from external sources. The Government of Liberia (GoL) provides funding mainly from domestic sources to the Public Sector Investment Program (PSIP) through capital expenditure to finance high

level priority projects. However, its major public investments in infrastructural development were largely financed through external sources – grants from bilateral and multilateral development partners in addition to concessional loans – and were not included in the country's capital expenditure outlay. Capital spending in Sierra Leone amounted to US\$220.8 million in 2016, of which about 64.7 percent was financed from external sources.

In the last decade, WAMZ economies have experienced decline in public financing of infrastructure as depicted by downward trends in both capital expenditure as a percentage of total budget (total expenditure) and capital expenditure as a percentage of GDP. For instance, capital expenditure as a percentage of total expenditure in WAMZ countries stood at 17.1 percent in 2016, compared with 18.8 and 18.9 percent in 2015 and 2014, respectively. Similarly, capital spending as a proportion of GDP was 1.4 percent in 2016, compared with 1.3 percent each in 2015 and 2014. These declines adversely affected infrastructure in most of the WAMZ countries and were attributable to the continuous increase in recurrent expenditures on account of higher debt service obligations and wage bills as well as decline in commodity-based revenues (see Figure 2).

Figure 2: Trends in Capital Expenditure in the WAMZ



Source: WAMI Database

4.3 Policy Initiatives and Arrangements for Private Sector Involvement in Addressing the Infrastructure Gap in the WAMZ

In view of the limited and declining budgetary resources of government for investments, some Member countries have come up with new policies and programmes to enable them finance

critical infrastructure in their economies. These include national policy frameworks which allow private-sector participation in infrastructure financing. For instance, The Gambia explored various Public Private Partnership options through Build Operate and Transfer (BOT) arrangements, such as the WARCIP

project, and joint venture arrangements, which culminated in the building of a Petroleum Storage Facility (Gam-Petroleum Investment). In Guinea, the framework for the implementation of the Public Private Partnerships (PPP) was adopted in 2017 and empowered the Ministry of PPP to coordinate all activities relating to the partnership. Further, mining companies are obligated to pay 2.5 percent of their export revenue to fund local infrastructure development. Projected investments in the National Programme for Economic and Social Development (PNDES 2016-2020), in terms of PPP are estimated at US\$22.84 billion or 36.9 percent of the total PNDES. This investment is divided into mining sector development of 60.55 percent and transport of 39.45 percent.

In Ghana, the Ghana Infrastructure Investment Trust Fund (GIITF) was established under GIITF Act 877 of 2014. The primary source of funds for the GIIF is the 2.5 percent of the Value Added Tax (VAT) rate, a portion of the petroleum revenue meant for amortisation and infrastructure development called the annual budget funding amount (ABFA), and other such funds as Ghana's parliament may decide. Other sources include escrowed and on-lent funds from prior investments; private or public domestic and foreign funds from multilateral institutions and development banks. Other avenues from which the GIIF may source

funds are capital markets, including the Ghana Stock Exchange, pensions and mutual funds, social security and insurance funds. The GIITF which became operational in 2015 is mandated to provide financial resources to manage, coordinate and invest in a diversified portfolio of infrastructure projects in the country for national development.

In the case of Liberia, the response to reducing the infrastructural gap included the Agenda for Transformation (AfT) focusing on building infrastructure as a first step towards achieving the goals set out in Liberia's long term vision of socio-economic and political transformation and development. The Public Sector Investment Program (PSIP) was then introduced to provide government funding through capital expenditures to high level priority projects to meet the goals of the AfT.

In Nigeria, the power sector reforms depict a typical case of inadequate finance for infrastructural development as projections indicate that over US\$15 billion would be required in the next 2 to 3 years to finance the power project. In order to fill the infrastructure gap, several initiatives were undertaken. For example, the CBN provided a N300 billion facility for investment in debentures to be issued by the Bank of Industry (BOI) in order to finance power and aviation projects. The government, on its part, set up an Infrastructure Concession Regulatory

Commission (ICRC) which empowered government agencies to grant concessions to finance, construct, operate and or maintain infrastructural facilities. Further, the Government, under the Nigeria Sovereign Investment Authority, established the Nigeria Infrastructure Fund to enhance the development of infrastructure primarily through investment in domestic infrastructure projects that meet targeted financial returns. The focus sectors for the Fund are real estate, healthcare, power, motorways and agriculture.

4.4 The WAMZ Pension System

According to Sy (2017), the design of pension systems can have two effects, in terms of its sustainability and performance. These can determine the level of pension funds available for investment in infrastructure. Pension systems design are typically classified into three pillars:

1. A non-contributory “zero pillar,” which includes schemes that provide benefits regardless of contribution history in the form of cash transfers targeted at the elderly. These schemes are sometimes called “social pensions” given their social-policy goal of offering a safety-net in the form of poverty-alleviating income in old age. Benefits are publicly provided and are typically financed out of general government revenues. Programs can be targeted to pay benefits only to the poor elderly. They can also be universal and pay a flat-rate benefit to all older people meeting

certain age and citizenship eligibility criteria.

2. A mandatory earnings-based “first pillar,” which has the objective of replacing earnings of covered members. The schemes are typically financed on a pure PAYG where contributions from today’s workers pay the benefits for today’s retirees. They can also be partially funded when the schemes accumulate assets, which will be later used to pay for some portion of the benefits.

3. A mandatory savings-based “second pillar,” which includes specialized and privately managed pension saving schemes rather than general contractual savings vehicles such as bank accounts, mutual funds, and life insurance policies that may also be used for retirement-related savings. Such schemes are typically fully funded and privately provided defined contribution (DC) arrangements.

The pension schemes of WAMZ Member States were established to provide for future financial security of insured employees (and their dependents) in event of inability to earn income temporarily or permanently, due to work-related injury, occupational disease, old age, invalidity or death. Pension schemes are also seen as an important vehicle to mobilize private savings for funding long-term investments. In the WAMZ, Member States adopt different types of pension systems, which are publicly managed, except in Nigeria that is entirely managed by the private sector.

Table 3: Pension Systems in the WAMZ

Country	Pillar 0	Pillar 1	Pillar 2
The Gambia	-	PF	-
Ghana	-	Defined Benefit Schemes(DB)	Mandatory privately Managed schemes fully-funded (DC) and Optional or voluntary privately managed schemes (Op)
Guinea		Defined Benefit Schemes(DB)	
Liberia	Targeted (T)	Defined Benefit Schemes(DB)	
Nigeria			Mandatory privately Managed schemes either fully-funded (DC)
Sierra Leone	Basic Pensions (B)	Defined Benefit Schemes(DB)	

Notes:

Pillar 0: (i) Targeted programs (T), (ii) Basic pensions (B), (iii) Universal (U)

Pillar 1: Mandatory publicly managed schemes (i) Defined benefit schemes (DB), (ii) Notional defined contribution schemes (NDC), and (iii) Provident Funds/Publicly managed defined contribution schemes (PF),

Pillar 2: Mandatory privately managed schemes either fully-funded (DC) or defined benefit (DB).

Source: World Bank HDNSP Pensions Database

In The **Gambia**, the Social Security and Housing Finance Corporation (SSHFC) is the only pension fund in existence and was established by an act of Parliament in 1981 with self-regulatory status. The corporation is a quasi-public institution bestowed with the responsibility of administering four pension schemes designed for eligible formal sector workers. These four schemes constitute the social security system in The Gambia and eligible members include both public/civil servants and private sector workers in the country. The entire pension systems in The Gambia is classified under Pillar 1, which is the Provident Fund and the schemes are

publicly managed defined contributions schemes.

The pension system in **Ghana** has a 2-tier scheme, comprising defined benefit and contributory pension schemes, with the bulk of the funds (75 per cent) managed by public institutions and the rest managed by private institutions. The contributory scheme involves all employees in the private sector and most of the employees on government payroll. However, in line with the practice in most jurisdictions, the military and the police are exempted. The regulation of pension fund assets is undertaken by National Pension Regulatory

Authority (NPRA). Investment of pension fund is guided by the provisions of the National Pensions Act, 2008 (Act 766) as amended, and Occupation and Personal Pension Schemes (General) Regulations, 2011 (L.I. 1990). Based on the provisions of the Act, the objectives of the investment include safety of the asset and fair returns on the fund, diversification of investment options, enhancement of the capacity of trustees and fund managers in making sound investment decisions, and creation of an enabling environment for pension fund to impact positively on Ghanaian economy. Ghana's pension system is classified under Pillars 1 and 2.

In Guinea, the pension funds are managed by two separate self-regulatory entities, namely; the National Social Security Fund (CNSS) and the National Social Insurance Fund for State Employees (CNPSAE) which were created in March 2014. The CNPSAE replaced the Division of Retirement Funds (DFR) at the National Budget Directorate that covers public administration employees and the military. The CNSS is responsible for the management of the general social security scheme for the private sector and parastatals and is currently under the supervision of the Ministry of Technical Education, Vocational Training, Employment and Labour. The pension system in Guinea is classified under Pillar 1, which is the

defined benefit scheme and publicly managed.

The Government of **Liberia (GoL)** established the National Social Security & Welfare Corporation (NASSCORP) on July 10, 1975. It is an autonomous self-regulatory public institution charged with implementing three schemes designed to provide social security protection to eligible formal sector workers. These schemes are the Employment Injury Scheme (EIS), the National Pension Scheme (NPS), and the Welfare Scheme (WS). These three schemes constitute the social security program in Liberia. Eligible employees include civil and public servants as well as workers in the private sector across Liberia. The Act creating the Corporation empowers it to carry out several important functions to ensure that anyone covered will have means of financial-support when he/she is no longer in position to rely on his/her own abilities as a source of livelihood. The scheme is currently undergoing reforms with the enactment of a new law guiding the corporation's activities. The pension system in Liberia is classified under Pillars 0 (targeted programme) and Pillar 1 (defined benefit scheme), and managed by public institutions.

In Nigeria, the Pension Ordinance of 1951 was the first legislative intervention on pensions. Several other interventions and reforms followed but the enactment of the Nigerian Pension Reform Act 2004

(PRA 2004) changed the landscape. To address the huge unsustainable pension deficit of the former schemes, PRA 2004 introduced the defined contributory pension scheme and made it a mandatory requirement for employers and employees in both the public and private sectors to contribute to the retirement benefits of their employees. It also introduced uniform rules, regulations, standards and laws for the administration, management and payment of pension funds in the country. However, following its failure to meet the expectations of stakeholders, it was replaced with the Pension Reform Act 2014 (PRA 2014) to continue to govern the contributory pension scheme, tighten the safeguards of pension fund assets and grow the industry. Nigeria's pension system is classified under Pillar 2, an entirely privately managed and fully funded mandatory defined contributory scheme.

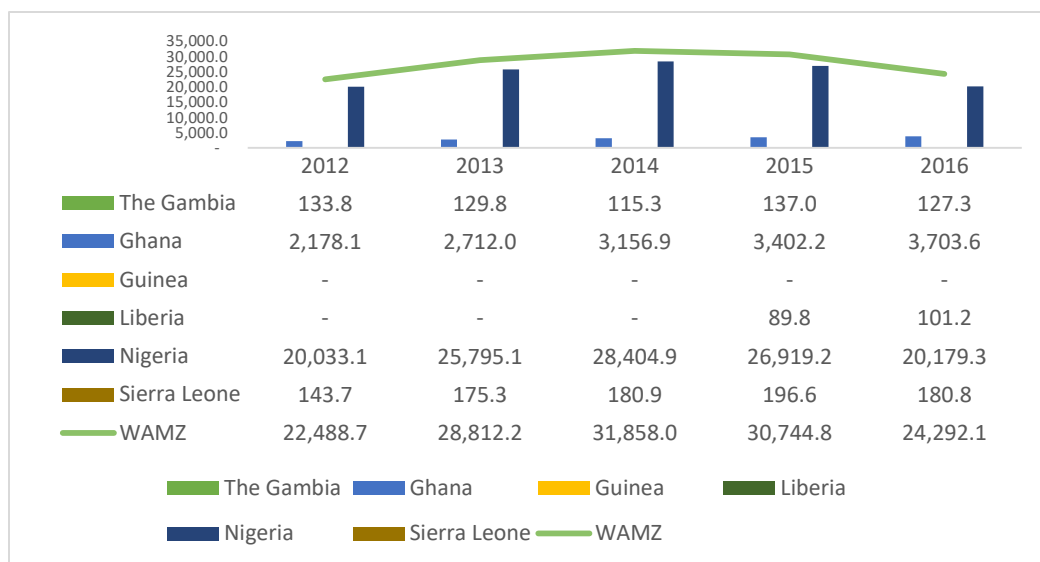
In Sierra Leone, the National Social Security and Insurance Trust (NASSIT) scheme was established through an Act of parliament known as the National Social Security and

Insurance Trust Act No. 5 in 2001, to administer Sierra Leone's National Pension scheme. The Trust is autonomous and guaranteed by the State with the aim of administering a Social Security scheme that provides financial security to all employees in the form of old age, invalidity and survivors. There is no pension regulatory body at the moment, but the scheme is supervised by the Ministry of Labour & Social Security and a Tripartite Board of Trustees. The pension system in Sierra Leone is classified under Pillar 0 (Basic pensions) and Pillar 1 (Defined benefit scheme), managed by public institutions.

4.5 Pension Fund Assets and Investment Portfolio

As at 2016, total pension fund assets in the WAMZ was estimated at US\$24.3 billion, representing an increase of 8.0 percent from 2012. However, total investment decreased by 8.33 percent, from US\$22.32 billion to US\$20.47 billion, reflecting depreciation of Member States' currencies against the US dollar during the period.

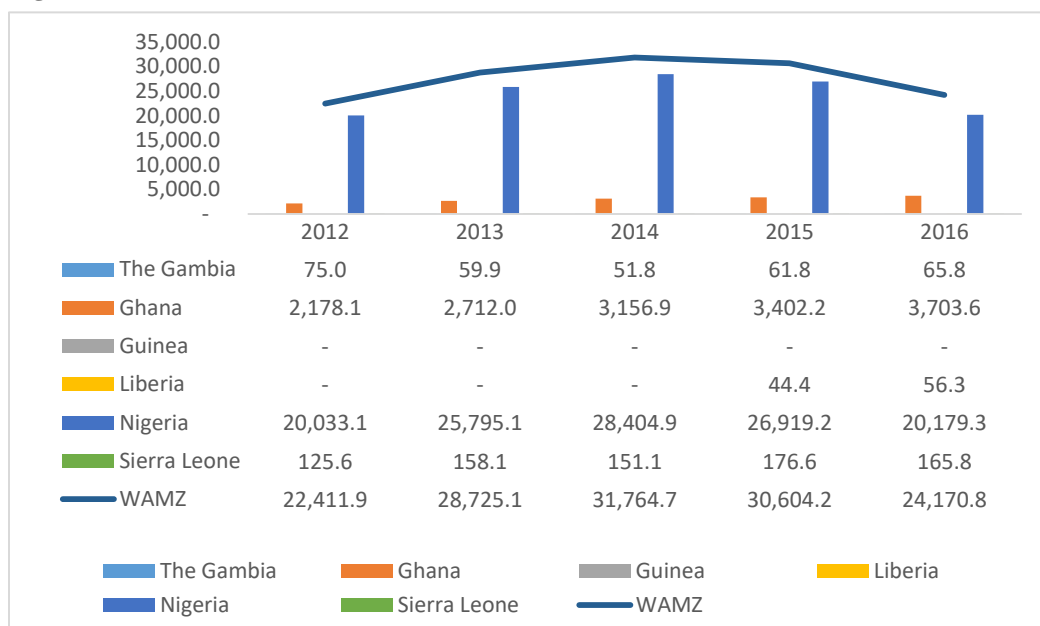
Figure 3: Pension Fund Assets in WAMZ Countries 2012 - 2016 (US\$ Million)



N/A: Not Available

Source: Country authorities

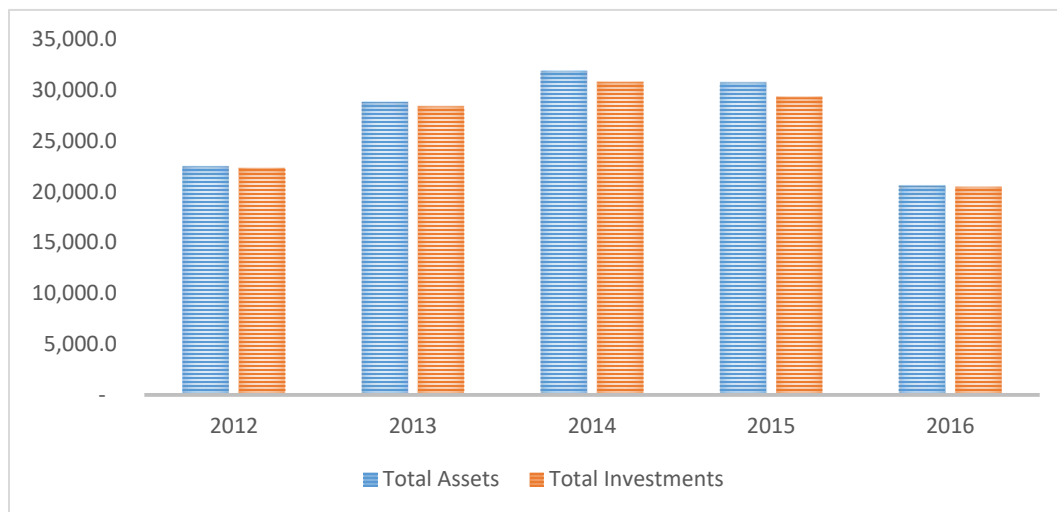
Figure 4: Investment of Pension Assets in WAMZ Countries 2012 - 2016



N/A: Not Available

Source: Country authorities

Figure 5: Total Assets and Investments of Pension Funds of the WAMZ (US\$ million)



In **The Gambia**, total pension fund assets managed by SSHFC declined by 3.0 percent, from US\$133.8 million (15.4 percent of GDP) in 2012 to US\$129.8 million (15.2 percent of GDP) in 2013. It fell further by 11.2 percent to US\$115.3 million (14.0 percent of GDP) in 2014. The total assets stand at US\$127.3 million (13.0 percent of GDP) in 2016. Total investments also declined by 20.2 percent to US\$59.9 million in 2013. However, it rose by 19.3 percent and 6.5 percent to US\$61.8 million and US\$65.8 million in 2015 and 2016, respectively. All investments undertaken by the Corporation are domestic in nature, even though, there is a provision in the 2015 Act that allows for investment of not more than 25.0 percent of pension fund assets outside the country. The main investment areas were in time deposits, equities, government

securities, hotels and housing development. Returns on investment in time deposits and government securities ranged between 4.0 and 4.5 percent.

In **Ghana**, total pension fund assets witnessed tremendous growth during the 2012 to 2016 period. Total assets, which stood at US\$2.18 billion (6.0 percent of GDP) in 2012, increased by 24.5 percent and 16.4 percent to US\$2.71 billion (6.7 percent of GDP) and US\$3.16 billion (8.4 percent of GDP) in 2013 and 2014, respectively. It rose further to US\$3.40 billion (9.0 percent of GDP) and US\$3.70 billion (9.1 percent of GDP), in 2015 and 2016, respectively. Investment portfolio of Social Security and National Insurance Trust (SSNIT) is made up of three classes of investments namely, equity, fixed income and alternative investments.

Equity has been the most dominant investment class over the years, constituting about 43.2 percent of the scheme's portfolio in 2015. This is followed by fixed income and alternative investments which constituted 36.4 percent and 20.4 percent of total investments in 2015, respectively. Property and infrastructure investments have been a major component of alternative investments since 1974. Investments in properties and infrastructure included those in residential real estate, commercial properties, student hostels, industrial estates, power plants and hospitality.

In **Liberia**, NASSCORP has total pension fund assets portfolio of US\$101.2 million as at fiscal year end-June 2017, constituting about 4.8 percent of GDP and representing an increase of 12.8 percent, compared with US\$89.8 million (4.3 percent of GDP) as at end-June 2016. Similarly, total investments increased by 26.8 percent to US\$56.3 million as at end-June 2017, compared with US\$44.4 million as at end-June 2016. Total investments represent about 55.6 percent of total assets. NASSCORP's investment portfolio during 2016/2017 comprised on-going real estate projects (65.0 percent), equity investment (19.0 percent), undeveloped property (7.0 percent), loan and guarantees (5.0 percent) and market securities – fixed deposits (4.0 percent). Average return on

investment portfolio in 2016/2017 was recorded at 4.0 percent.

In **Nigeria**, the total pension assets increased by 10.1 percent to US\$28.4 billion (5.1 percent of GDP) in 2014 relative to US\$ 25.8 billion in 2012. However, the asset portfolio declined by 25.0 percent to US\$20.2 billion (6.0 percent of GDP) in 2016 relative to 2014 due to the depreciation of the domestic currency. As at 2016, the country's pension assets were mostly invested on Federal Government of Nigeria debt instruments (71.82 percent), ordinary shares (9.48 percent), money market securities (6.51 percent), corporate debt securities (4.64 percent) and real estate properties (3.79 percent), among others.

In **Sierra Leone**, pension assets peaked at US\$196.6 million in 2015 relative to US\$143.7 million in 2012. However, it fell to US\$180.8 million (5.4 percent of GDP) in 2016, relative to 2015 mainly due to the depreciation of the domestic currency.

In the same vein, total investments peaked at US\$176.6 million in 2015 compared with US\$ 125.6 million in 2012. However, it declined to US\$165.8 million in 2016 relative to 2015. The pension funds investment portfolio in 2016 comprises on-going real estate projects (31.0 percent), equity investment (16.8 percent), corporate debentures (17.9 percent), government securities (12.0 percent), fixed deposit (11.3 percent), call

deposit (8.2 percent) and landed properties (2.8 percent).

4.6 Private Sector Participation in Infrastructure Financing

The provision of infrastructure has mainly been undertaken by governments in most countries. However, the enormous challenges experienced in providing adequate infrastructure due to funding gaps compelled WAMZ countries to embrace Public Private Partnerships (PPP) in financing infrastructure.

In The Gambia, government has paved the way for the private sector to intervene in addressing its infrastructure challenges by setting up a PPP unit at the Ministry of Finance and Economic Affairs. Prior to this, the Government explored the various PPP options particularly the Build Operate and Transfer (BOT) arrangement such as in WARCIP project, and a joint venture arrangement which culminated in the building of the Petroleum Storage Facility called Gam-Petroleum Investment.

In recognition of the widening infrastructural deficit, both government and the private sector have been involved in the development of infrastructure projects in Ghana. The government plays a dominant role in the provision of hard infrastructure like roads, waterways, and electricity while the private sector involvement is mainly in the area of

soft infrastructure such as building of schools, hospitals, and retail markets like shopping malls. The key challenges to the effective participation of the private sector include inadequate access to private capital from both domestic and international markets partly due to high interest rates. Another major challenge is the absence of an appropriate pricing model that engenders a good return on some public goods like road projects.

In Guinea, the framework for the implementation of the PPP was adopted in 2017 and empowered the Ministry of PPP to coordinate all activities relating to the partnership. Further, mining companies are obliged to pay 2.5 percent of their export revenue to fund local infrastructure development. Projected investments in the National Programme for Economic and Social Development (PNDES 2016-2020), in terms of PPP are estimated at US\$22.84 billion or 36.9 percent of the total PNDES.

To address the infrastructure deficit in Liberia, the Government is in the process of initiating a legislative bill to enable PPP in infrastructure financing.

For Nigeria, infrastructure provision had always been seen as mainly the responsibility of the government. This is largely because private investment decisions are guided by high returns, low risk, as well as confidence in

government policy. However, in recent years, PPP arrangements have started gaining ground, leading to increased involvement of private investments in the country's infrastructure financing.

In Sierra Leone, private sector participation has been the main focus of government during the last decade to help nurture the country's recovery program after the civil war. To achieve this, the government set up the Private Sector Development Project which aims at supporting the country's efforts to improve investment, generate foreign and local investment and build government capacity for PPP.

4.7 Regulatory Provisions for Investment of Pension Fund Assets

International experiences suggest that progress towards improving the management of pension funds rely on good governance (Edward Whitehouse, 2005). Consequently, the widely accepted principle that investment of pension fund assets must be done prudently and cost-effectively with quantitative metrics cannot be over-emphasized.

In The Gambia, investment of Pension funds is guided by the Social Security and Housing Finance Corporation Act (SSHFC), 2015. The Ministry of Finance and Economic Affairs has oversight responsibility for the operations of the Corporation. Section 39(1) of the SSHFC Act states that the

Corporation may from time to time, with the approval of the Minister, invest: in a property held by it and forming part of the Social Security Fund or sell such property as it deems fit; moneys forming part of the Social Security Fund in Gambian Government stock (subject to certain limitations); in shares or debentures of a Statutory Corporation; and Society or Company registered in The Gambia or by way of loans at the rate of interest the Board determines. The Corporation may also invest an amount not exceeding twenty five (25) percent of its total investable funds in in other countries.

In Ghana, Section 1.2(a) of the Guidelines on Investment of Pension Scheme Funds promotes the objective of ensuring safety of assets and fair returns on the funds. Section 5 provides for permissible investments. The section permits pension funds to be invested in government infrastructure bonds as part of their investment portfolio. Specifically, a pension fund may invest in Government of Ghana Securities and local Government and Statutory Agency Securities including infrastructure bonds. Pension Funds could also be invested in Collective Investment Schemes (unit trusts, private equity funds and Exchange-Traded Funds) and Alternative Investments, such as Real Estate Investments, Trusts/Funds and Private Equity Funds which might have Infrastructure Bonds as part of their investment portfolio. Investments in

and outside Ghana are all subject to quantitative limits.

Pension funds are managed by two separate entities in Guinea. These are the National Social Security Fund (CNSS) and the National Social Insurance Fund for State Employees (CNPSAE). The CNPSAE which replaced the Division of Retirement Funds (DFR) at the National Budget Directorate covers civil service employees and the military. The CNSS, which is under the aegis of the Ministry of Technical Education, Vocational Training, Employment and Labour, covers the private sector and parastatal employees. The Board of Directors is responsible for the implementation of the social security policy and ensures the proper functioning of the National Social Security Fund.

Liberia relies on the relevant provisions of its National Social Security and Welfare (General) Regulations, 1988 and the New Chapter 89 of the Executive Law Establishing the National Social Security and Welfare Corporation of the Republic of Liberia to guide investments of Pension fund reserves. The Regulations provide that: the overall rate of interest from investment of the Reserves shall not be less than the rate of interest assumed by the Actuary in the preceding actuarial review; an amount at least equal to the Employment Injury Reserve shall be kept in time deposits; that an amount at least equal

to the total expenditure of the National Pension Fund during the preceding financial year shall be kept in time deposits; and not more than 25 percent of the reserves were to be invested in real estate (including buildings occupied by the Corporation). The law allows the Director General of the Corporation the latitude to invest funds within the overall policies issued by its Board of Directors, which are not otherwise budgeted for the operational purposes of the scheme, in securities issued or guaranteed by the government or in approved financial institutions.

In the case of Nigeria, the PRA 2014 provides for the modes of investments of pension funds and assets, in accordance with guidelines issued by the National Pension Commission (PenCom). In furtherance of this, the PenCom in April 2017, issued Regulation to provide uniform rules and standards for the investment of pension fund assets in Nigeria. The Regulation provides detailed guidelines on investment of pension funds and assets with investment and exposure limits; and fund structure types. It provides that pension assets can be invested in infrastructure projects, through eligible Bonds, Sukuk, if, *inter alia*, the project: has a minimum value of N5billion; is awarded to a concessionaire with good track record through an open and transparent bidding process, in accordance with extant laws and regulations; and core infrastructure projects, whose business plans and

financial projections indicate that they are viable as well as economically and financially rewarding for investment by pension funds.

Investments of Pension funds are guided by the provisions of the National Social Security and Insurance Trust Act, 2001 in Sierra Leone. The Act empowers the Board of Directors of the NSSTIF to invest the funds of the Trust subject to certain criteria. In investing the funds, considerations should be given to: safety; yield; liquidity; preservation of the real value and spread of the investment; maintenance of the fund and diversification of the portfolio of the investment; and the harmony of the investment with the public interest.

4.8 Potential Base of Contribution to Pension Funds in the WAMZ

The demography of most sub-Saharan African (SSA) countries offers a potential advantage for the accumulation of pension funds owing to the prevalence of low old-age dependency ratio⁷(Amadou, 2017). As at 2014, International Labour Organization (ILO) estimated the old-age dependency ratio in SSA at about 3.8 percent, which was considered as the lowest when compared with the world average position of about 10.8 percent. This position was also

buttressed with the low social protection spending in the region of about 1.3 percent compared with the world average of 3.3 percent. This statistics presupposes that Africa and indeed the WAMZ has a relatively young population that can contribute and boost the level of pension fund in the Zone. Further, the population growth rate in the WAMZ, complemented by the labour force participation rate has continued to rise, a development that could increase the rate of contribution to the pension funds and thereby make available a pool of investible resources for infrastructure and other long-term investments in the Zone (see Figure 6 and 7).

⁷*This ratio shows the proportion of the elderly to the young working population*

Figure 6: Population Growth Rates in the WAMZ 2014 – 2016

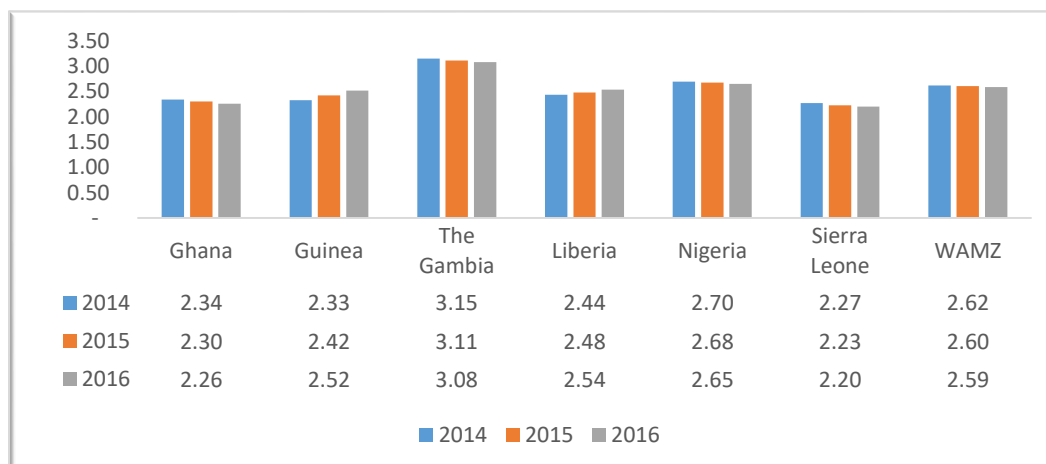
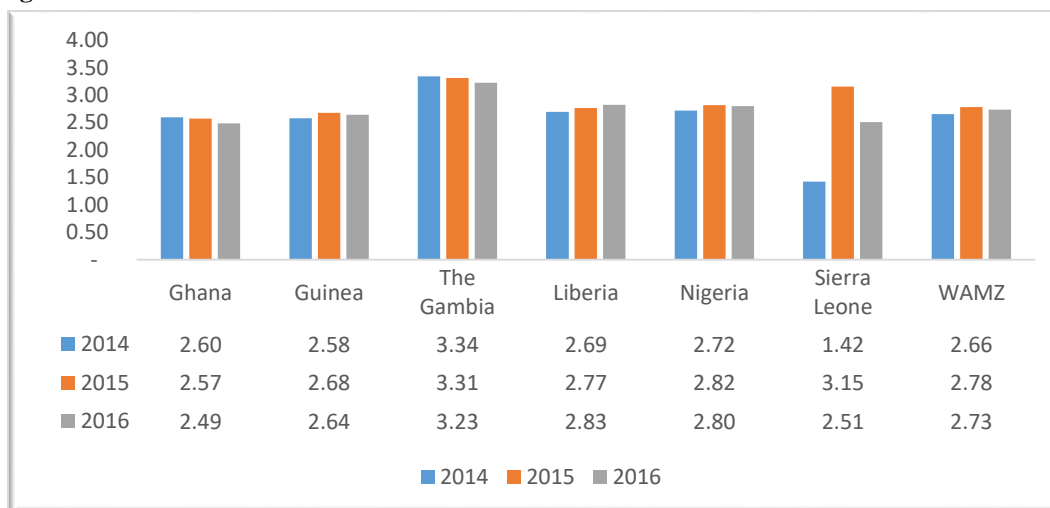


Figure 7: Growth Rates of Labour Force in the WAMZ 2014 - 2016



According to the World Bank, the WAMZ’s population on the average consistently grew by 2.6 percent on annual basis for the last three years compared with the global average of 1.1 percent. The Zone’s population rose from 229 million in 2014 to 241million in 2016. In the same vein, the labour force grew by an

average of 2.7 percent on an annual basis, from 76 million to 80 million during the period. Considering the rate of growth in population and in particular, labour force, the WAMZ’s potential for increasing the size of the pension funds could be large. However, policies aimed at realizing this potential would be

necessary. A major constraint to the realization of the huge potential is the high proportion of the informal sector in the WAMZ economies which is capable of limiting the accumulation of pension fund in the

Zone. The bulk of the contributions to the pension fund are from the formal sector as the information available on the informal sector is inadequate.

SECTION FIVE

5.0 Challenges with Investing Pension Funds in Infrastructure Development in the WAMZ

The size of pension funds in the Zone is growing rapidly. However, utilization of these funds to finance the much needed infrastructure projects remains low due to some inhibiting factors. These challenges border on creating a vehicle for channeling the pension fund assets into financing infrastructure, regulatory and institutional restrictions, as well as inadequate fund management expertise. These issues are discussed in this section with a view to providing insight on appropriate policy measures to enhance the use of pension funds in financing infrastructure in the Zone.

Limited size and growth rate of pension fund assets: The size of pension fund assets in the Zone is low primarily due to factors such as:

i) relatively large size of the informal economy where most workers are not covered by pension schemes and high unemployment. As such, contributions to the pension schemes are predominantly from public sector and organized private sector employees, which limits the size of pension funds that would be available for infrastructure development;

ii) contributors' low income may also explain the small size of the asset of pension funds;

iii) high rate of unemployment or productive employment: and

iv) fragmentation of some pension schemes in the WAMZ which makes it difficult for their assets to be pooled together for large-scale investment like infrastructure.

Institutional, Legal, and Regulatory Restrictions:

Institutional arrangements of pension systems in the WAMZ allow a relatively small percentage of pension assets to be invested in infrastructure. Laws and regulations set stringent limits on investments in infrastructure using pension funds.

Most of the agencies/institutions charged with the supervision and management of pension funds lack autonomy and regulatory independence to play their oversight functions for pension funds in the region. Except for Nigeria and Ghana, pension fund institutions in other member countries of the WAMZ are supervised by either the Ministry of Finance (The Gambia) or Ministry of Labour (Guinea and Sierra Leone).

Weak Enforcement of Pension Laws: One of the key factors that

contribute to the low capital base of pension funds in most member countries is non-compliance with the provisions of pension laws by employers of labour. Most employers have devised various means of circumventing the provisions of the extant laws on payment of pension to their employees, leaving such employees with no retirement benefits and invariably reduce the size of pension assets in the Zone and globally. Some of the measures employed by employers are the use of contract staff instead of permanent staff, the use of sub-contractors to carry out key activities of their organization, and routine disengagement of permanent staff based on flimsy excuses. Also, cases of failure of employers to make good their share of the pension contribution abound, while others are involved in non-remittance of employees' contribution to designated statutory institutions.

Underdeveloped Financial Markets:

The financial markets, particularly capital markets, in most WAMZ economies are either non-existent or underdeveloped. Consequently, there are limited investment vehicles that can match pension fund investment objectives, which ensures competitive risks-adjusted return, improves diversification of pension fund portfolio and provides long-term predictable and stable cash flow. Most countries of the WAMZ do not issue infrastructure bonds (The Gambia, Guinea, Liberia and Sierra Leone) due

to the aforementioned reasons. With regards to Nigeria and Ghana, the capital markets in both countries have limited instruments with maturities that match the long-term nature of infrastructure projects and its enormous financing requirements.

Inadequate expertise in managing pension funds for investment in infrastructure:

A critical challenge of using pension funds for infrastructure development in the WAMZ is the limited expertise of regulators and pension fund managers in managing pension fund investments for infrastructure on the part of Member States. Regulators and fund managers possess inadequate technical capacity to evaluate investments in infrastructure assets. Infrastructure projects contain inherent risks that the regulator needs to address. Knowledge and understanding of the cost, liquidity, long-term nature of a project, associated risks; technical skills in managing and monitoring infrastructure projects, investment and floatation processes, among others, are limited.

Unavailability of Suitable investment projects:

Investment of pension funds in infrastructure have been hampered by lack of suitable structured and bankable infrastructure projects across the WAMZ. Most projects embarked on in the sub-region are not commercially viable to generate the required returns to

payback the capital employed or cost of capital.

Public institutions acting as custodians and managers of pension fund: In the WAMZ, government agencies act as custodians and managers of pension assets, except in Nigeria. This has implications for sustainability of the pension schemes as they are vulnerable and subject to abuse as well as being inefficiently managed due to weak enforcement of existing laws. There are instances where these agencies play dual roles of being self-regulatory and custodians/managers of pension funds. Except where the schemes are efficiently managed by these public institutions, the above-mentioned factors tend to affect the scale of pension funds and the feasibility of investing in infrastructure projects.

Multiplicity of schemes handled by the pension fund institutions: The institutions managing pension funds in the region handle multiple schemes alongside pension, which are typically found in The Gambia, Ghana, Liberia, Guinea and Sierra Leone. Given the nature of pension funds and its effect

on the beneficiaries, there is need to unbundle the schemes to create specialist agency/institution for supervising, regulating and managing pensions in member countries. This would help to improve capacity to develop the pension sector and consequently increase the scale of pension funds.

Lack of regional platform for exchange and collaboration of the pension sector: There is absence of a platform for collaboration and information sharing which are major prerequisites for effective deployment of pension assets across the zone to finance infrastructure. This is due to the existence of different levels of development in the pension industry of the WAMZ. While countries like Nigeria and Ghana are relatively more developed in terms of diversification, design, coverage and capitalization, others are at low levels of development. There is therefore the need to expedite action in the development of all aspects of the financial market in the Zone to ensure that the Zone's resources are employed for its own economic growth and development.

SECTION SIX

6.0 Policy Recommendations and Conclusion

6.1 Policy Recommendations

Given the myriad challenges affecting the use of pension funds for financing infrastructure in the WAMZ and the need to address the infrastructure deficit, the following policy recommendations are proposed at the country and regional levels to harness the potentials of pension funds.

National Level

1. Expand the Size of Pension Funds and Diversify Investment Options

The authorities are encouraged to formulate policies intended to consolidate and pool pension funds so as to increase their asset base. In this regard, the following measures could be adopted:

a. Incorporating the Informal Sector into the Pension Schemes

The informal sector in Africa remains relatively large, and the WAMZ countries are no exception. It is therefore imperative for authorities in the WAMZ countries to adopt policies that would enhance the participation of the informal sector in the pension scheme.

b. Enforcement of Existing Pension Regulations

Based on the findings from the assessment of the pension systems in the WAMZ, it is important to enhance the enforcement of existing pension fund regulations. There is a compelling need for various countries of the Zone to strengthen the existing pension laws with a view to tightening all loose ends being exploited by employers. Towards this, stricter penalties should be imposed on employers who default in payment of contributions, while the laws should be amended to qualify all categories of employees for inclusion in the pension schemes regardless of their employment status. In the same vein, government over-sight function of the pension industry should be stepped-up to ensure zero-tolerance for default and usher in a culture of absolute compliance to all pension statutes.

c. Raise Awareness

The low coverage and attendant small size of pension fund assets in the WAMZ has been partly attributed to the large number of potential participants in the pension scheme that are not captured. The authorities should therefore enhance the level of awareness by carrying out sensitization programmes on regular basis highlighting the benefits inherent

in the scheme to both employees and employers.

2. Need to Develop and Deepen Capital Markets

In order to increase access to long-term financing, capital markets should be established in those Member States where they are non-existent and further deepened in those countries where they are already established. Pension fund institutions could invest in financial instruments that are linked to a particular infrastructure project. Such instruments should be tradable in the secondary market and granted liquidity status to attract pension funds.

Further, the creation of private sector financial intermediaries such as venture capital and micro-credit providers with the capacity to make good use of pension funds, could provide foreign investors with the motivation to invest in the infrastructure bonds and other assets in the sub-region's capital market. In addition, higher capitalisation of the pension funds through mergers, acquisitions, or other methods of raising capital, would boost operational capacity and confidence in the market and hence, attract foreign investment.

In order to increase investment options for pension funds, the extant pension laws should be amended to keep pace with developments globally. Such initiatives will create an avenue for utilizing the sub-region's resources

domestically rather than allowing the much needed scarce resources to escape to other jurisdictions. The required amendment should include infrastructure-linked exchange-traded funds (ETFs), private equity, global depository receipts/notes, Eurobonds, indirect investment through ownership of stocks of listed utility and infrastructure firms, among others. Given that some of these alternative investment assets are not traded on official exchanges, there is need for strengthening the regulatory and supervisory functions of government to ensure success.

3. Need to Develop Expertise in Pension Funds Management for Infrastructure Financing

The financing of infrastructure using pension funds is an evolving phenomenon. In view of this, human capital development is essential to build the necessary expertise in structured infrastructure financing and management. This would go a long way in making the Zone build a reservoir of sound management skills that is a necessary requirement in infrastructure investments, especially when funded with pension funds.

4. Encourage Public-Private-Partnership in Project Financing

Due to the high level of risk and substantial capital outlay in executing infrastructure projects and given the ever dwindling government resources, Member States are encouraged to

share risk on the basis of PPP models for infrastructure financing. In addition, the authorities may consider providing guarantees and tax exemptions for institutional investors to mitigate anticipated risk.

5. Transparency

Member States should ensure transparency in infrastructure financing by enhancing dissemination and access to information. In addition, there is need for sensitization to improve knowledge and understanding of pension fund investment, particularly in infrastructure, by stakeholders and supervisors.

6. Reform and Strengthen Legal, Institutional and Regulatory Framework

- i. Member States should reform their legal, institutional and regulatory frameworks to make it easier to use pension funds for the financing of infrastructure.
- ii. The regulatory framework and guidelines should inter alia set limits or conditionalities for infrastructure financing and favour transparency in business model.
- iii. Establish autonomous agencies to regulate and supervise pension funds in countries where none exists.

7. Risk Management

In order to ensure protection of the pension funds from market and related risks, policies should be formulated to provide robust risk management framework for infrastructure financing.

WAMZ Level

8. Creation of a Collaborative Association

It would be necessary to establish a collaborative platform where pension fund institutions and supervisors in the Zone could meet for cooperation and information sharing on issues regarding pension funds development and infrastructure investments. This platform would bring together all stakeholders, including investors, financial industry players and government agencies to harmoniously align long term investment opportunities with available pension funds in pursuit of the success of infrastructure financing. The synergy would also help members of the association in mitigating inherent risk in investment projects as well as identify project viability gaps in order to achieve sustainability.

9. Establishment of WAMZ Infrastructure Development Fund (WIDF)

Over the years, Member States of the WAMZ have worked towards achieving some level of monetary and economic convergence. This project

could be enhanced with the development of a regional approach to financing infrastructure such as toll roads and ICT that link the sub-region using pension funds. To this end, the Zone could establish an infrastructure development fund with the various pension fund institutions in Member States as major shareholders. The role of such a fund would be the financing of shared infrastructure projects in the Zone. However, a WAMZ Project Implementation Committee (WPIC)⁸ would need to be set-up under the Fund to ensure that these projects can recoup the investment outlay.

10. Issuance of WAMZ Infrastructure Bonds: As a vehicle for the Infrastructure Development Fund, there is need to float infrastructure bonds in the zone for the purposes of financing joint infrastructure projects such as inter-country roads, ICT and other shared projects that can be self-financing. For the bonds to enjoy high patronage, there must be incentives including liquidity status through admission into the money market and mandatorily made a liquid asset to be held by commercial banks and other money market participants, guarantee, tax exemption and bearer status. These are necessary in order to bring such bonds

⁸ major functions of WPIC will include accessing feasibility of projects, investments appraisal, identifying strategic infrastructure, among others.

to investment grade level and thus guaranty secondary market trading and ensure success.

6.2 Conclusion

This study examines the feasibility of leveraging on growing pension funds to finance infrastructure in the WAMZ countries. The motivation is hinged on the compelling need to identify the challenges and proffer policy recommendations in order to fast-track broad based growth and shared prosperity in the Zone. On a general note, Member States of the WAMZ are confronted with huge infrastructure deficits, which have not only constrained sustainable growth and development but have equally constituted a drag on the progress of the sub-region's integration agenda. Although various governments in the sub-region have undertaken bold initiatives to address the imbalance, the level of success is limited by inadequate financial resources in view of the dwindling domestic financial resources and tighter external financing conditions.

Given the significant increase in the level of pension funds in most Member States in recent times, coupled with important achievements recorded in a number of countries in the financing of infrastructure through pension funds, the quest for the use of pension fund to bridge the infrastructure gap is now occupying the front burner in policy discourse within the Zone. The study therefore,

attempts to take the issue head-on with a view to providing guidance for policy makers in the sub-region. The approach adopted involved a survey of experiences in other jurisdictions, assessment of legal and regulatory environment as well as socio-economic factors that affect pension fund investment in the WAMZ countries.

The study found that pension fund assets have grown in the WAMZ Member States in the last five years but investment of these assets is largely restricted to government securities and equities. The deployment of pension funds in infrastructure financing is constrained by a wide range of factors. These include limited size of pension funds, institutional, legal and regulatory restrictions; low level of capital market development; inadequate expertise in managing pension funds for investment in infrastructure; non-availability of quality investment projects. Others are high level of

informal sector economy; the use of public institutions as custodians and managers of pension funds; multiplicity of schemes handled by the pension fund institutions and; lack of regional platform for exchange and collaboration for the pension sector.

Finally, the study finds that regardless of the novelty of the concept in the WAMZ, pension funds have helped to provide alternative sources of funds for financing infrastructure in most jurisdictions. In addition, there has been no report of default that has resulted in erosion or misplacement of pension funds due to its use in financing infrastructure project.

Consequently, using the pension funds of WAMZ Member States in financing infrastructure is feasible. However, Member States are strongly encouraged to put measures in place to adequately address the challenges identified in order to unlock the inherent potentials in pension funds with a view to accelerating growth and development of the sub-region.

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