

Impact of Contributory Pension Scheme on Economic Growth in Nigeria: An Empirical Analysis

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Abstract

This study was embarked upon to provide empirical evidence on the impact of contributory pension scheme on economic growth in Nigeria. Data for the study were sourced from various issues of PenCom Annual Reports and World Bank Development Indicators (database). The data were computed with the use of Statistical Package for Social Sciences (SPSS). It was concluded that pension fund assets and pension contribution /savings mobilized over the years have positive but insignificant impact on economic growth. The implication of this finding is that the authorities concerned have not been able to use the pension fund asset and savings mobilized to boost economic growth in Nigeria. It was therefore recommended that, there should be more emphasis on the management of pension assets in the capital market as well as government bond, real estate and investment trust to boost Gross Domestic Product (GDP) of the country (Nigeria). Secondly, there should be prompt reconciliation between Pension Fund Administrators (PFAs) and Pension Fund Custodians. This will bring transparency and accountability to the system. Finally, PenCom should ensure effective monitoring, supervision and enforcement of the provision of the PRA 2004, which are the inevitable ingredients in the Contributory Pension Scheme towards Gross Domestic Product (GDP).

Key words: Contributory Pension Scheme, Pension Savings, Economic Growth, Investment, SPSS

Introduction

It is generally expected in social welfare theorizing that an employee who has worked for an organization for some years is entitled to some benefits which could be in form of gratuity and pension payable to such employee by its employer at the time of retirement. Conceptually, pension is the amount paid by government or company to an employee after working for some specific period of time, considered too old or ill to work or have reached the statutory age of retirement. It is monthly sum paid to a retired officer until death because the officer has worked with the organization paying the sum.

Pension is also the method whereby a person pays into pension scheme a proportion of his earnings during his working life. The contributions provide an income (or pension) on retirement that is treated as earned income. This is taxed at the investors' marginal rate of income tax. On the other hand, gratuity is a lump sum of money payable to a retiring officer who has served for a minimum period of term year, usually ten years (Adam, 2005). In Nigeria however, life after retirement is dreaded by most workers. The fears of facing the future after retirement create an ambiance of disturbance among employees. Retirement is seen by

workers as a transition that could lead to psychological, physiological and economic problems (Ogunbameru & Bamiwuye, 2004).

The provoking thoughts of facing uncertain future after retirement by workers is responsible for most bureaucratic corruption (Agba, et al, 2008); and could also be responsible for low commitment to work by employees and service ineffectiveness of vital institutions in Nigeria. The extended family system, the lack of adequate social welfare for the aged, huge deficit, and the arbitrary increase in salaries/wages by the Obasanjo led administration which amplified the propensity to consume, compounded the mysteries of most employees (Awiosika, 2009). Pension Scheme was introduced into Nigeria by the Colonial Administration following the 1951 Pension Ordinance with retroactive effect from 1946. The Ordinance provided public servants with both pension and gratuity (Ahmad, 2006). The first pension scheme in Nigeria was set up for the employees of the Nigerian Breweries Limited in 1954, followed by United African Company in 1957. The first Social Security Scheme in Nigeria came into being in 1961 by the Act of Parliament, which established the National Provident Fund (NPF). The NPF scheme was set up to address pension matters of private organizations in Nigeria (Nnanta, Okoh and Ugwu, 2011). In 1993, the National Social Insurance Trust Fund (NSITF) was set up by Decree No 73 of 1993 to replace the defunct NPF (Balogun, 2006).

The pre-2004 pension reforms had a number of problems and were replaced by the Pension Reform Act 2004. Olanrewaju (2011) and Dostal (2010) pointed out the major weaknesses of the pre 2004 pension reforms to include: Massive accumulation of debt estimated at over two trillion naira; large-scale arrears of unfunded entitlement of retirees; inadequate budgetary provisions coupled with rising life expectancy; increasing number of employers, wages and pensions; and inadequate supervision and regulation of pension system. These shortcomings adversely affected payments of retirement benefits to retirees in Nigeria. Consequently, the pension system prior to 2004 was characterized by many problems which made the payment of the retirement benefit a failure in Nigeria. The old pension scheme lacked adequate and timely budgetary provision coupled with rising life expectancy, increasing number of employers, poor implementation of pension scheme in the private sector due to inadequate supervision and regulation of the system and the fact that too many private sector employees were not even covered by the pension scheme. The problems associated with the old pension system in Nigeria necessitated the systematic pension reform which changed the defined benefit scheme to the defined contributory scheme (Koripamo-Agari, 2009 and Yunusa, 2009). The new Pension Reform Act, predicated upon a defined contributory scheme, was established in 2004 to ameliorate the inadequacies of the old scheme.

Ten years after the establishment, several amendments have been made to the 2004 Act. These include; the Pension Reform Amendment Act 2011 which exempts the personnel of the Military and the Security Agencies from the contributory pension scheme as well as the Universities (Miscellaneous); Provisions Act 2012, which reviewed the retirement age and benefits of University Professors and the Pension Reform Act 2014. This incorporated the Third Alteration Act, which amended the 1999 Constitution by vesting jurisdiction on pension matters in the National Industrial Court (FGN, 2014). However, whether the new pension act has been able to address the problems associated with retirement schemes in the past is a major concern. Specifically, some have asked whether the Contributory Pension Act of 2004 has been able to address the problems of corruption, poor administration of pension fund, embezzlement, inadequate build-up of pension fund, poor monitoring and evaluation, and the general institutional failure which characterized pension schemes in Nigeria. This situation poses great challenge to the financial security of workers after retirement.

The Pension Reform Act 2004 came into being on 25th June, 2004. The Pension Reform Act 2004 (PRA 2004) is a multi-pillar pension scheme copied from 1981 Chilean Pension Scheme (Orifowomo, 2006). The idea of Pension Reform Act 2004 was to allow Nigeria follow the Chilean model of providing long-term capital to develop the financial markets and improve economic growth; to solve the problem of growing pension arrears and unfunded entitlements; and to add to credibility of general economic reform effort of the government (IMF, 2005). Gunu and Tsado (2012) stated that the idea behind the introduction of the contri-

butory pension scheme is to serve as a tool towards the realization of the goal of savings mobilization, which can lead to capital market development, thereby fostering economic growth in Nigeria. The PRA 2004 introduced a Contributory Pension Scheme, which is mandatory on employees and employers in public and private sector organizations with five or more employees to contribute 7.5% of each emoluments of the employee into a Retirement Savings Account (RSA). For the military, the employees contribute 2.5% while the employer contributes 12.5% (Nyong and Duze, 2011). The provisions of PRA 2004 provides for the establishment of National Pension Commission (PENCOM) which is empowered to register, license, supervise and regulate corporate organizations that will act as Pension Fund Administration (PFAs) and each PFA, in turn selects a Pension Fund Custodian (PFC) who manages the fund on its behalf (Eme and Sam, 2011).

Currently, there are 26 Pension Fund Administrators, 7 Closed Pension Fund Administrators (CPFA) and 5 Pension Fund Custodian, and they are expected to capture a potential 50million contributors (BGL Pension Report, 2010). PENCOM (2010) reports indicates that pension fund assets have grown from N47 billion in 2004 to N2, 029.77 billion in 2010 while Pension savings contribution from the public and private sectors has grown from N15.6 billion in 2004 to N289.9 in 2010. These pension funds are expected to be invested in 11 specified asset classes which include: Local Ordinary Shares, Federal Government of Nigeria, State Government Securities, Corporate Bonds, Financial Institution Deposits, Open and Closed-End Funds, Foreign Money Market Securities, Real Estate Properties, Unquoted Securities and Cash /Other Assets. This study seeks to determine the impact of contributory pension scheme on economic growth in Nigeria. Pension funds add value to world economies through direct contribution to the GDP, accumulation of savings, financial market development, reducing old age poverty and acting as consumers of financial services (Njugana, 2010).

Statement of the Problem

One major problem facing the contributory pension scheme in Nigeria is the dearth of investment outlets. For instance, there are only eleven classes of investment available for investment of pension assets which is estimated at N2, 029.77 billion (PENCOM, 2010). The fear is that the limited investment outlets may not be enough to assimilate the accumulated pool of pension fund assets. Thus a pool of pension funds may be chasing relatively few quality investments. Nine years after the introduction of contributory pension scheme in Nigeria, there is still doubt as to the ability of the scheme to solve the problem of scarcity of long-term funds for long-term investment. Olanrewaju (2011) expressed similar fear that forced savings in a low income country with large scale poverty and inadequate complementary social security system may not be desirable in Nigeria. However, Balogun (2006) and Ogumike (2008) cited in Gunu and Tsado (2012) have expressed optimism that the contributory pension scheme has the potentials of mobilizing savings for economic growth. The contributory pension scheme is expected to mobilize savings for financial market development and economic growth. Surprisingly, as at 2010, pension contributors were 3.89 million which represents 7.62% of the estimated 51 million working population in Nigeria. The pension fund assets as percentage of the GDP in 2010 was 7.8% while pension savings as percentage of the GDP was 1.11% in 2010 (BGL Report, 2010 and PENCOM, 2010).

Gunu (2012) conducted a study on the contributory pension scheme as a tool for economic growth. He used descriptive statistics and found that contributory pension scheme enhance economic growth. Nwanne (2015) investigated the impact of contributory pension on economic growth using simple percentage and chi-square. Most of the studies reviewed employed descriptive statistics which may not give a clear and robust results of the impact of contributory pension fund on Gross Domestic Product, hence this study seek to re-examine the concept through the use of a more robust econometric tool of SPSS and Granger Causality testing. The main objective of this study is to assess the impact of contributory pension scheme on economic growth in Nigeria. . The specific objectives are to examine the impact of pension fund savings on economic growth in Nigeria; examine the impact of pension funds assets on Gross Fix Capital Formation in Nigeria and investigate the causal relationship between pension scheme (savings contributed by the private and public sectors in Nigeria) on economic growth. Deriving from the above, research questions are formulated as

follows: what is the impact of contributory pension scheme on economic growth in Nigeria? what is the impact of pension fund savings on economic growth in Nigeria? what is the causal relationship between pension scheme (savings contributed by the private and public sectors in Nigeria) on the Nigerian economy?

The following hypotheses were formulated for the study.

H₀: Pension Fund Assets has no significant impact on Gross Domestic Product in Nigeria

H₀: Pension Fund Contribution has no significant impact on Gross Domestic Product in Nigeria

H₀: There is no significant relationship between investment and gross domestic product in Nigeria

The rest of this paper is divided into four parts; part II contains the literature review and theoretical framework, Part III contains the methodological issues, presentation and discussion of results is contained in Part IV while Part V is devoted to conclusion and policy recommendations.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This section is a review of the existing literature on pension administration and the relevant reforms articles, journals and specific emphasis on the defined contribution as a sustainable system of pension management and administration in Nigeria and the World at large. It also attempts a conceptualization of pension, its administration as well as an insight into some theoretical issues on pre-pension reform act 2004 and post 2004 pension reforms. The theories underpinning the study are categorized under four major hypotheses which underscores the relevance of the various theories to the study of public finance in Nigeria. Based on the theoretical literature that were reviewed, a theoretical framework was adopted for this research as well as the gap in the literature that necessitates the present research.

Evolution of the Nigeria Pension System

In consideration of the rationality of the Nigeria pension scheme, the concept of pension could be said to be as old as man and his working environment. As suggested by scholars, and as noted in historical notes, even in primitive time, man was inclined to put aside something, in cash or kind, but mostly in kind to take care of the rainy day. The rainy day according to Okpaise (2005) also included the old age. Also, in modern times, it is generally conceived as the sum of money paid regularly by employers to former employees who retired from their service usually as a result of attaining a fixed age limit in service or due to other reasons like sickness, widowhood or disable people, or by former employers or financial institutions to retired people (Assein, 1998). According to Mohammed (2013), to account for the Nigerian pension system, it is essentially a legacy of the British colonization which was first applied to the few white colonial lords and workers in the colony of Lagos in 1861. The pension then was designed to guarantee a fairly normal retirement age with generous provisions for voluntary early retirement of its target beneficiaries (Assein, 1998).

The system operated until 1960 when Nigeria gained independence and the pension law began to witness changes. In like manner, the first major legislation in Nigerian was the pension ordinance of 1951, with retroactive effect from January, 1946 (Oloniniyi and Olofunlola, 2004). The law allowed the Governor-General to grant pensions and gratuities in accordance with the approval of the secretary of state colonial affairs in the British government. Vesting period was fixed at 10years of service. Though pensions and gratuities were provided for in the legislation, they were not a right as they could be reduced or withheld altogether if it was established to the satisfaction of the Governor-General that, the officer was found guilty of negligence, irregularity, misconduct (Demakin, 2006). As earlier mentioned, the pension scheme in the public sector has undergone various developmental stages after the first pension ordinance. For example, the civil service pension scheme was established by the basic pension decree 102 of 1979, the local government pension scheme was established by the military fiat in 1977 and the armed forces pension scheme created through decree 103 of 1979 with retroactive effect from April 1974. There were also the pension's rights of judges Decree No5 of 1958 as amended by amendment Decree No5 of 1988. The police and other agencies pension scheme Decree No75 of 1993 which took retroactive effect from 1990 represented another landmark development in the history of the Nigerian pension system (Mohammed, 2013).

As regard the private sector, the first pension scheme in Nigeria was set up for the employees of the Nigerian breweries in 1954, which was followed by United African Company (UAC) in 1957 (Okpaise, 2005). In like manner, national provident fund (NPF) was the first formal pension scheme in Nigeria established in 1961 for the non-pensionable private sector employees. It was largely a saving scheme, where both employees and employer would contribute a sum of four naira (#4) each on monthly basis (Onuoha, 2006). The scheme provided for only one-off lump sum benefits. The Nigeria social insurance trust fund (NSITF) was established by Decree No73 of 1993 to take over the NPF scheme and provide enhanced pension scheme to private sector employees.

The Challenges of the Old Pension Scheme

According to Iwunze (2006), the need for pension reform was necessitated by the myriad of problems that plagued both the Define Benefit (DB) arrangement-pay as you go (PAYG) in the public sector and other forms of pension systems like occupational scheme that operated in the private sector. One of the challenges of the public sector DB scheme as viewed by Orok (2005) lied in its dependence on budgetary provisions from various tiers of government for funding. The scheme became largely unsustainable due to lack of adequate and timely budgetary provisions. This was the reason for the soaring gap between pension fund obligations and revenues, which threaten not only economic stability but also crowded out necessary investments in education, health and infrastructure. This was exacerbated by various increases in salaries, which ultimately led to increase pension and hence undue pressure on government fiscal responsibilities. Another challenges encountered by the old pension was the weak, inefficient and cumbersome administration due to poor staffing and equipping (Duze, 2005). This had often been caused by poor record keeping at all pension offices throughout the country as a result of which many pensioners had to spend years before their retirement benefits were paid. The exit phase was quite challenging where payment procedure was often very tedious, sometimes the pensioners had to wait for days and years, to collect their entitlements. Similarly, the reimbursement process for the split of pension and gratuity payment between federal and state services and other agencies was very clumsy, untidy and sometimes fraught with bribery and corruption. There were undocumented cases where the reimbursing agency holds the recipient to ransom. The private sector schemes on the other hand were characterized by very low compliance ratio due to lack of effective regulation and supervision of the system. Most of these schemes were subjected to provident fund schemes which did not provide for periodic benefit (Ghilarducci, 1992).

The New Pension Scheme

The Pension Reform Act 2004 (PRA) 2004, is the most recent legislation of the federal government aimed at addressing the problems associated with the old pension system. It established the contributory pension scheme (CPS), which is a uniform pension system for both the private and public sector. Similarly, for the first time in the history of Nigeria as a country, a single authority, the National Pension Commission was established to regulate and supervise all pension matters in the country. The scheme is being managed by authorized pension administrators (PFAs) while the custody of the pension fund assets are provided by licensed pension fund custodians (PFCs) (Adeleke, 2005).

The move from Direct Benefit scheme to define contributory scheme is now a global phenomenon following the success stories of the Chilean pension reform of 1981. The paradigm shift from the Direct benefit scheme to funded schemes in developed and developing countries was ascribed to such factors as increasing pressure on the central budget to cover deficits, lack of long term sustainability due to internal demographic shifts, failure to provide promised benefits etc (Onuoha, 2006). Thus, developed countries like USA, UK and emerging market economics of Chile, Mexico, Nigeria etc. adopted the founded pension scheme because it enhances long term national saving and capital accentuation, which if well invested can provide resources for both domestic and foreign investment (Mohammed, 2013).

Contributory Pension Scheme of 2004

The 2004 Pension Reform Act is a paradigm shift from the 1979 Pension Act. Under the new scheme, employers and employees alike are to contribute 7.5 percent of employees' monthly emolument which include basic salary, housing and transport allowance. However, military personnel are to contribute 2.5 percent while the Federal Government contributes 12.5 percent of the employees' monthly emolument (Pension Reform Act, 2004). The scheme covers the private sector with five or more employees. The only exceptions are public employees who have three years or less to retire with effect from the date of enactment of the Pension Act being 30th June 2004 (National Pension Commission, 2004). The employer may elect under the 2004 Pension Act to bear the full burden of the pension by contributing not less than 15 percent of the employees' monthly emolument.

Objectives of 2004 Pension Reform Act

The objective of the new pension scheme include among others to ensure that every employee in the private and public sectors receives his/her benefits as and when due; to establish uniform rules, regulations, standards and laws for the administration, management and payment of pension funds in the country. The scheme was also established to assist employees by ensuring that they save to cater for life after retirement.

Contributory Pension System in Nigeria (Features and Safeguards)

The contributory pension scheme was to address the huge unsustainable pension deficit estimated at about two trillion naira which characterized the former Pay-As-You-Go (PAYG) Pension Scheme. According to Aminu (2004), the contributory pension scheme would address the pension deficit of the past in Nigeria; that the scheme as of July, 2010, has an asset of 1.7 trillion naira (11.3 billion dollars) across the country. The contributory pension scheme is expected to have multiplier effect on workers commitment and attitudes towards retirement in the Nigeria Public Service, as well as attitude towards corruption especially in the civil or public service. This is because the uncertainty of receiving pension and gratuity after retirement was largely responsible for high labor turnover in the public service. WHO (2007), posits that, poor remuneration, delay in payment of fringe benefits and poor condition of service among others are jointly responsible for the exodus of medical personnel from Nigeria to the United States of America and the United Kingdom. There are certain features and safeguards that position the scheme with success chances.

First we discuss the features.

Features:

Retirement Savings Account (RSA)

Section 8(1) of the Act provides that every employee shall open and maintain an account in his or her name with any pension fund administrator of his or her choice. This account belongs to the employee throughout his or her life whether he changes job or otherwise. The account is meant to receive monthly contributions from the employee and his employer. This fund is to be invested in such prescribed investment outlets. For security reasons, pension fund's administrators are allowed to invest 75% of fund assets in federal government securities (FGN Bond) while the balance of 25% assets may be invested in publicly quoted companies.

Pension Fund Administrators (PFAs)

The Act provides for the licensing of PFAs whose duty is to open retirement savings account for employees, invest and manage the funds in fixed income securities and other instruments as may be determined by the Regulatory Agency, National Pension Commission (PENCOM).

Pension Fund Custodians (PFC)

The law also provides for the licensing of PFC to keep all pension fund assets in a safe custody. That is, all monthly contributions on behalf of each employee are sent to a Pension Fund Custodian who, upon receipt

of such contributions, duly instructs the PFA to credit the account of the employee(s) concerned with the total contributions thus remitted. Evidently, the person who keeps the assets (PFC) is different from the person who carries out the investment (PFA). The custodian will execute transactions and undertake activities relating to the administration of pension fund investments upon instructions by the PFA. (Federal Min. of Information and National Orientation, 2006). In view of the large amount of assets to be handled, the licensed Pension Fund Custodian, being a limited liability company, and a licensed financial institution, must have a minimum capital base of N5,000,000,000 unimpaired by losses.

The National Pension Commission (PENCOM)

To ensure effective administration of pension matters in Nigeria, the Act established a regulatory agency, (PENCOM) to regulate and supervise the scheme. The commission is to make certain that payment and remittance of contributions are made and retirees are paid when due. Furthermore, the agency will ensure safety of funds by issuing guidelines for licensing, approving, regulating and keeping a tab on the investment behaviour of PFAs. It is the watch dog of the scheme who must act in the interest of all stake holders.

Transition gap: Retirement Benefit Bond Redemption Fund

To switch from the pay-as-you-go to the new scheme creates a financing gap for workers who have earned pension rights under the old scheme. The retirement benefit bonds are to be issued to workers concerned, the value of which will be equal to the accrued pension benefits up till the commencement of the funded scheme. The bonds are redeemable at the retirement date for each worker as appropriate. The law provides that a fund known as the ‘Retirement Benefits Bond Redemption Fund’ be established and maintained by the Central Bank of Nigeria (CBN). FGN pays 5% of its total monthly wage bill in the public service of the Federation and Federal Capital Territory into the fund to retire any retirement benefit bond issued. The fund shall cease to exist after all affiliates in the old scheme have had their bonds redeemed.

The Concept of Economic Growth and Development

According to Gordon (1984) and Todaro (2000), Economic growth is generally defined in terms of increase in the GDP to distinguish growth from development. Even though, these concepts are sometimes used interchangeably, one can still make an attempt to distinguish them. Economic growth according to Todaro (2000) refers to an increase in a country’s national output of goods and services or increase in the volume of output of goods and services within a specific period. Growth is usually taken to mean economic progress which is the rate at which the annual output of goods and services grow in real terms but economic development on the other hand is a less precise and more complex term which cannot be easily reduced to quantitative measurement in monetary terms alone. It involves a multitude of variables all of them dealing with man’s existence.

To Jhingan (2006), economic growth is related to quantitative sustained increase in a country’s per capital output or income accompanied by expansion in its labour force, consumption, capital and volume of trade, while economic development is a wider concept than economic growth. It relates to qualitative change in economic wants, goods, incentives, institutions, productivity and knowledge. It is the upward movement of the entire social system. This implies that an economy can grow but cannot develop because poverty, unemployment and inequalities may continue to persist. Thus, while economic growth is the increase in the total output of an economy over a certain period of time, economic development means growth plus change.

In the end however, economic development would said to have taken place if the totality of changes in these variables end up in improving the living conditions of the people. This explains why many economists believed that while economic growth is about things economic development is about persons. In the context of this work therefore, economic growth refers to increase in the value of GDP or increase in the GDP growth rate.

Measurement of economic growth and development.

There are certain fundamental indices for measuring economic growth and development. Such indices include the following:

Gross National Product (GNP). It is simply the total measure of the flow of goods and services at market value resulting from current production during a year in a country, including net income from abroad (Todaro, 2000 and Miller, 2000). This is one of the popular methods of measuring economic growth and development. It therefore implies that when GNP of an economy increases over a long period of time, such an economy is said to be growing or developing.

GNP Per Capita. It is the average income of the people of a country in a particular year. It is also known as per capita income (Jhingan, 2006). It is calculated by dividing national income of a country by the country's total population. When the per capita income of an economy increases over a long period, it is recognized as economic growth. It is to this regard that Meier (1976) defined economic development to mean a process whereby the real per capita income of a country increases over a long period of time.

Welfare: There is also a tendency to measure economic growth and development from the point of view of the economic welfare. This is because economic growth and development is regarded as a process whereby there is an increase in output and consumption of goods and services of individuals. Thus when there is a great increase in the welfare of the people in a country, it means there is growth and development.

Social Indicators: Other economists have tried to measure economic growth and development in terms of social indicators. They include items like inputs which include nutrition standard or number of hospital beds or doctor per head of population, while others may be 'outputs' corresponding to these inputs such as improvement in health in terms of infant mortality rates, and sickness rates. Social indicators are often referred to as the basic needs for development. Basic needs focus on the alleviation of poverty by providing basic human needs for the poor. The direct provision of such basic needs as health education, food, water, sanitation and housing affects poverty in a shorter period with fewer monetary resources. When this is done in an economy, it is recognized as economic growth or development (Jhingan, 2006).

Empirical Review

Many studies abound in the literature that provided empirical evidence on the contributions of funded pension schemes. For instance, in an assessment of the impact of contributory pension scheme to Nigerian economic development by Edogbaya (2013), the result of correlation analysis using t-test revealed that Contributory Pension Scheme (CPS) has significant impact on the GDP while the result of ANOVA revealed that risk prevalent has positive effect on the pension fund management. The study recommended that the Pension Fund Administrators should invest in less risky portfolio to enhance prompt payment of pension to retirees.

Poterba, Venti and Wise (1996, 1998) examined the effect of tax deferred savings accounts on overall savings rate. They opined that tax deferred savings mechanism like Individual Retirement Accounts lead to a net increase in savings, while others (Gale and Scholz 1994, Engen et al, 1996; and Gale, 1998) argues that the balances in these savings vehicles are offset by reductions in other forms of household wealth (Card and Ransom, 2007).

Thaler and Benartzi (2004) assessed the effectiveness of contributory pension scheme at increasing employee savings rate. From the study, employee who opted into an automatic annual 3% increase in their contribution rate saw their average contribution rate increase almost 4-folds from 3.5% of pay to 13.5% of pay, over the course of 4 years. In the opposite direction, employees who did not elect contribution pension scheme saw their average contribution rate increase by much less over the same time period, from 5.3% - 7.5%. Interestingly, this latter group started out saving much more than those who opted into contributory pension scheme but the relative positions were reversed 4 years later. The literature is also of the opinion

that people with a future orientation save more than people who live for the here and now (Munnell et al, 2000). Further in the literature, Komolafe (2004) submitted that the Nigerian Pension System in general is fragmented, lack an adequate overall policy, a legal and regulatory framework and an empowered coordinating body to supervise it. Babatunde (2012) on the Nigerian scenario summarized that there is significant relationship existing between contributory pension scheme and savings. He therefore reiterated on the advice of Adegbayi, that Nigeria must avoid minor pension reforms that are repeated periodically because of political problem associated with such adjustment. However, Eme and Uche (2014) has added to the fact that in the 10 year period, the pension industry in Nigeria has experienced phenomenal growth from a deficit of N2trn in the form of pension liabilities in 2004 to an accumulation of pension fund assets of up to N4.1trn by the end of 2013, a firm backing to the economy by the huge pool of funds.

The findings of Chizueke et al, (2011) revealed that contributory pension scheme significantly affects workers commitment to work, retention and attitude towards retirement. The study recommended among others that strict measures be put in place by government to ensure the effective monitoring and implementation of the provisions of the 2004 Pension Reform Act. Ikeanyibe and Osadebe (2014) noted that a mandatory contributory pension scheme should be distinguished from poverty relief programme and universal social security benefits to avoid scheme overloading. Above all, the study opined that there is need for enlightenment directed towards the employees understanding their rights and demanding it from the employers as concerning private sector coverage. However, the study of Egbe, Awogbemi, and Osu (2013) about Portfolio Optimization of Pension Fund Contribution in Nigeria found that the PenCom guided portfolio is not optimum.

The findings of Ozokwere (2008) showed that the Pension Fund Administrators play their roles according to the dictates of 2004 Pension Reform Act. Such factors as finance, too many regulations and overlapping functions amongst others, affect them in playing their roles effectively and more so, those problems affecting the Pension Fund Administrators are rated as significantly high. In the light of this discovery, the study recommended the formulation of a robust policy that would enhance the capacities of the Pension Fund Administrators and boost economic growth and development. Dagauda and Oyadiran, 2013 did an analysis of the impact of the 2004 pension policy on the welfare of the Nigerian civil servants, with emphasis on selected Federal ministries. From the analysis, findings that emerged clearly indicated that the implementation of the funded pension significantly improved the welfare of the civil servants but does not address the problem of corruption and inadequate budgetary allocation and therefore not effective in overcoming the problems of retirees in Nigeria. In view of the above findings, the study recommended among others that government and Pension Commission must strengthen monitoring and supervision unit of the commission to ensure effective monitoring, supervision, and enforcement; and effective implementation of penalties as provided by the Act on non-compliers regardless of their status in the society.

Ayegba (2013) did an evaluation of Pension Administration in Nigeria. The study advocated the need for public enlightenment on the merit of the new contributory pension scheme, the 2004 Pension Reform Act is key to enable Nigerians in Diaspora who may want to contribute to the retirement saving scheme to do so and the government should punish those who steal pensioners' funds to serve as deterrent to others. The study concluded that a well-organized structure that will ensure prompt payment of retirees and pensioners is highly desirable and this must be vigorously pursued by the government to facilitate economic development. The study recommended that the Nigerian government should encourage the option of having the banks where the salary accounts of employees are domiciled to make pension deductions on monthly basis possible and have it remitted to the Pension Fund Administrators.

Olarenwaju (2011) examined the pension act of 2004 and the well-being of retirees in Nigeria using descriptive statistics. The study relied on the Marxian theory to analyse the descriptive data that was collected through structured questionnaires administered to retirees in Nigeria. It was gathered that while operators in the private sectors have started benefitting from the scheme, the public operators are yet to benefit as bureaucracy in government especially the delay in releasing counterpart funding from government has de-

prived many retirees from assessing their benefit after retirement. Gunu and Tsado (2012) studied contributory pension scheme as a tool for economic growth in Nigeria. They used descriptive statistics to analyse the primary data which was collected through structured questionnaire administered to pensioners, managers and contributors. Their findings revealed that contributory pension scheme has begun to impact positively on the lives of operators and Nigerian capital market. The authors therefore, recommended for an increased awareness and strict monitoring of managers of the pension funds to ensure the huge success of the programme in Nigeria.

Odia and Okoye (2012) compared the old pension act and the new pension act in a comparative analysis using descriptive statistics. The study finds that the new pension act started on a better note compared to the old pension act in terms of mobilization, participation and funds accumulation. The study simply recommended for continued awareness and mobilization for a successful pension scheme. Nwanne (2015) carried out a research on the impact of contributory pension on economic growth in Nigeria between 2004 and 2012 in an ex post facto research design using a multiple regression model. The study find out that pension funds have negative significant relationship with economic growth in Nigeria. The author recommended for the expansion of investment outlets from the pension fund and general expansion in pension administration in Nigeria for a positive to be achieved. However, despite these studies, there is still a gap in the empirical literature as regards studies that assess the overall effect of the operation of the Contributory Pension Scheme on economic growth in Nigeria since its inception in 2004. This is the focus of this study.

Theoretical Framework

Economists in their quest to examine the contribution of pension scheme to economic growth in different countries have come up with three alternative hypotheses to explain this phenomenon. These hypothesis include the intermediation theory, life-cycle theory and deferred wage theory, However, for the purpose of this study only the deferred wage theory and life-cycle theory with endogenous growth theory of economic growth are adopted for this study.

The Life-Cycle Theory

In adopting the life cycle theory, it was discovered that the development of pension fund can be seen in three stages namely, start-up, growth and maturity stages. The life cycle theory explains the three stages of development of pension fund administrators and their respective financing needs. The life-cycle theory also posits that the sources of pension fund administrator's financing are linked to their respective stages of development and thus, economic growth (Lapenu & Zeller, 2001 and Farington & Abrahams, 2002).

The Deferred Wage Theory

The Deferred Wage Theory (Malaski, Firend and Capelli, 1981-82 and March 1980) views the pension plan as a method to defer some compensation until an employee retires. The employer promises to provide a pension payment in exchange for current services. The deferral of wages often results in individual tax savings. The advantages to the employer of providing a pension plan are less obvious. Under the deferred wage theory, firms offer pension plans because of economies of scale in administrative, portfolio management and other costs, e.g. Lester (1967), Fosu (1983) and Freeman (1981). The employer receives cash flow benefits to the extent that the present value of deferred wages exceeds the required funding (especially as now required by ERISA). The deferred wage theory generally incorporates a long-term or lifetime implicit labor contract between the employer and employee that has various implications for the employer (Logue, 1979). Salop and Salop (1976) and Blinder (1982) suggest that the delayed vesting of pension plans may decrease employee turnover costs. Becker (1964) suggest that firms have an incentive to expand training costs as a result of delayed vesting, since it causes "average" employees to work longer for the company, resulting in a greater payback of these training costs.

Endogenous growth theory

Endogenous growth theory highlight the fact that if productivity is to increase, the labour force must continuously be provided with more resources. Resources in this case include physical capital (Technology). Therefore, growth is driven by accumulation of the factors of production while accumulation in turn is the result of investment in the private sector. This implies that the only way a government can affect economic growth, at least in the long run, is via its impact on investment in capital, education and research and development. Reduction of growth in these models occurs when public expenditure deter investments by creating tax wedges beyond necessary to finance their investments or taking away the incentives to serves and accumulate capital Folster and Henrekson, (1997).

Method of Study

This section explains the methodology adopted in this research. It consists of the sources of data collection, method of data analysis, model specification etc.

Sources of Data Collection

To examine the impact of contributory pension scheme on Nigeria's economic growth, a number of variables have been taken into consideration. These variables are Gross Domestic Product (RGDP) as dependent variable, Pension fund invested in specialized investment (PFA), Pension savings contributed by private and public sectors (PFS) and investment (INVT), as independent variables respectively. Data for this study were sourced from various issues of PenCom Annual Reports and World Bank Development Indicators (database).

Scope of Study: The study covers the period of eleven years (2005 – 2016). Pension fund reforms started in 2004 under the administration of President Olusegun Obasanjo, hence we deem it necessary to start our analysis from there.

Analysis of Data

Multiple regression models was used to analyze the collected data, this was to establish a functional relationship between real gross domestic product as dependent variable and pension fund invested in specialized investment (PFA), pension savings contributed by private and public sectors (PFS) and gross fix capital formation as independent variables. The data were computed with the use of Statistical Package for Social Sciences (SPSS). The model is as stated below:

$$GDP = f(PFA, PFS, GFCF)$$

$$GDP = (PFA + PFS + GFCF)$$

$$\text{Log}(GDP) = \alpha_0 + \alpha_1(PFA) + \alpha_2(PFS) + \alpha_3(GFCF) + U_t$$

Where:

GDP = Gross Domestic Product

PFA = Pension Fund Assets

PFC = Pension Fund Contribution

INVT = Investment

U_t = Stochastic error term

α_0 = Intercept

$\alpha_1, \alpha_2, \alpha_3$ = Parameter coefficients

Estimation of Results and Analysis

The regression analysis of the parameters of the model are presented in table 1 below, describing gross domestic product - GDP (a proxy for economic growth) as the dependent variable and pension fund asset (PFA), pension fund contribution (PFC) and investment (INVT) as explanatory variables. The sign and significance of the coefficient indicate the direction of the regression. The multiple regression analysis is sup-

posed to show whether the relationship between the independent variables and the dependent variable are positive or negative and significant or not

Dependent Variable: GDP

Variable	Coefficient	Standard Error	T-statistic	P-value
Constant	22.005	1.375	16.005	0.000
PFA	0.032	0.040	0.807	0.443
PFC	0.051	0.383	0.132	0.898
INVT	1.453	0.629	2.310	0.050
R-square:	0.816			
Adjusted R-square	0.747			
Durbin-Watson Statistic:	1.555			
F-Statistic:	11.815			
Probability (F-Statistic):	0.003			

The model shows a good fit since it has an R-square of about 82 per cent. This suggests that about 82% of the variation in economic growth is associated with variation in pension fund asset, pension fund contribution and investment in the economy. In other words, only about 18% variation in economic growth is attributed to other variables other than PFA, PFC and INVT, captured by the stochastic error term. However, the p-value of 0.443, 0.898 and t-statistic values of 0.807 and 0.132 respectively suggest an insignificant effect of the variables PFA and PFC on economic growth. Conversely, the p-value of 0.050 and a t-value of 2.310 suggest that only investment coefficient is statistically significant in explaining variation in economic growth. On the basis of a priori expectation, all variables have the expected positive signs.

The F-statistic of 11.815 and p-value of 0.003 shows that the overall model is statistically significant at 5% level, thus the hypothesis of significant linear relationship between the dependent and independent variable is upheld. The Durbin-Watson statistic, which is a test for first-order autocorrelation shows that the model is free from the problem of autocorrelation. This was indicated by the Durbin-Watson statistic value of 1.555 which is approximately 2.

Discussion of Results

The model result tells us that Gross Domestic Product (GDP) has a positive but insignificant relationship with PFA and PFC and positive and significant relationship with INVT. Thus a one billion increase in pension fund asset (PFA), pension fund contribution and investment will result into about 3.2, 5.1 and 145 billion naira increases in gross domestic product (economic growth) respectively. This implies that increase in the pension fund asset, pension fund and investment arising from contributory pension leads to increase in the gross domestic product of Nigeria. The result from the coefficient of investment is so because, increases in the volume of investible fund increases the level of production and boosts the national output, thereby giving rise to the large contribution to the national economy.

To test for the significance of pension fund assets and pension fund contribution (savings) and economic growth in Nigeria, we used the sign and size of the statistics. The t-value is 0.807 and 0.1324 at 5% level of significance. We conclude that pension fund assets and pension contribution / savings mobilized over the years have positive but insignificant impact on economic growth. The implication of this finding is that the authorities concerned have not been able to use the pension fund asset and savings mobilized to boost eco-

conomic growth in Nigeria. It is expected that with increased level of compliance and coverage rate of the scheme, more savings would be mobilized and economic growth enhanced. In testing the last hypothesis that there is no significant relationship between investment and gross domestic product for the period of 2005 to 2016, we conclude based on the t-statistic value of 2.310 and p-value (0.050) that there is a significant relationship between investment and economic growth.

Conclusion / Recommendations

This study has provided evidence on the impact of contributory pension scheme on economic growth in Nigeria using SPSS version 16. It is clear from the analysis that increases in pension fund contributions and pension fund assets in Nigeria positively affected economic growth but with minimal impact. Investment coefficient however was statistically significant in its contribution to economic growth with 145 billion naira. The following are the policy implications of the findings of the study:

- (a) There should be more emphasis on the management of pension assets in the capital market as well as government bond, real estate, investment trust to boost Gross Domestic Product (GDP) of the country (Nigeria).
- (b) There should be prompt reconciliation between PFAs, PFCs and PENCOS statements of accounts should be given to contributors regularly. This will bring transparency and accountability to the system.
- (c) PenCom should ensure effective monitoring, supervision and enforcement of the provision of the PRA 2004, which are the inevitable ingredients in the Contributory Pension Scheme towards Gross Domestic Product (GDP).

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