Impact of Contributory Pension Scheme on the Growth of Nigerian Economy

ARUMONA, Jonah, Ph.D

Department of Accounting,
Bingham University,
Karu, Nasarawa State
E – Mail: jonaharumona@yahoo.com, Phone No: +234 7034684686

OGBAJE, Daniel

Department of Accounting,
Bingham University,
Karu, Nasarawa State
Phone No: +234 8037034981

OBAFEMI, Ojo Benjamin

Department of Accounting,
Bingham University,
Karu, Nasarawa State
E – Mail: rotimiojo72@gmail.com, Phone No: +234 8150611222

Abstract

The study examined the impact of contributory pension scheme on the growth of Nigeria economy. The primary aim of this study is to determine how Retirement Savings Account contributes to Nigeria economic growth. The study runs from 2006 through 2018. Data for this study were obtained from the 2018 edition of the Central Bank of Nigeria (CBN) statistical bulletin, National Pension Commission (PenCom) Annual Reports and National Bureau of Statistics (NBS). Descriptive research design was adopted for the purpose of this study. The tools of data analysis is ordinary least square regression methods which were carried out with the aid of E-view statistical packages. Findings from the study revealed that Retirement savings Account (RSA) which was used as a proxy for contributory pension scheme has a positive and significant effect on the economic growth of Nigeria. The study recommends that employees should be made to understand that even within the new pension scheme they can still access up to 25 per cent of their retirement savings as a single bulk payment to enable them start a new business or deal with the issues of transition from active employment to retirement.

Keywords: PENCOM, PFAs, PFCs, Economic Growth, Pension, AES. GDP

INTRODUCTION

Nigeria like most other countries in the world adopted the Contributory Pension Scheme (CPS) in 2004, as a panacea to the worsening conditions of the Defined Benefit (DB). The conditions associated with the old pension system in Nigeria necessitated the systematic pension reform, which changed the Defined Benefit Scheme to the Contributory Pension Scheme (Koripamo-Agari, Yunusa, 2009). The pension system prior to 2004 were characterized by 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 employees, higher wages and pensions and inadequate supervision and regulation of pension system. The new Pension Reform Act, predicated upon a Contributory Pension Scheme, was established in 2004 to address the inadequacies of the Defined Benefit Scheme. The Act creates more stringent measures in regulating and supervising the pension industry. This is with the ultimate goal of promoting the growth and deepening of the pension system. Indeed, this development assigned a greater role to the pension sector in the allocation of pension assets particularly in areas of more efficient and productive use as launch pad for the overall growth of the economy. Though all the three central labour organizations (the Nigeria Labour Congress [NLC], the Trade Union Congress [TUC]and the Conference of Free Trade Unions [CFTU] were opposed to the fundamentals of the pension reform, radical changes were made in the new legislation on pension without reflecting the inputs

of labour. Similarly the organized private sector resisted the lumping together of pension schemes in both the public and private sectors. However, the new law disregarded private sector's inputs to the new scheme, in spite of existing constitutional provisions, which support their position. Despite the inability of the unions to prevent the enactment of the Pension Reform Act, 2004, they seem to have delayed its full implementation.

Given the foregoing, Nigeria embarked on pension reforms through a Pension Reform Bill submitted to National Assembly September 2003. The Bill was signed into law as Pension Reform Act 2004 (PRA 2004) and its implementation began 1st July 2004. Consequently, the Act brought about fundamental changes to the structure of leaving service benefits and the way they are provided for. The Act in section 1 establishes a Contributory Pension Scheme (CPS) for any employment in the Federal Republic of Nigeria. The scheme ensure that every worker (public or private) receives his retirement benefit as and when due, assist improvident individuals save for their old age and establish a uniform set of rules for administration and payment of retirement benefits. It is useful to note that all pension schemes existing before the commencement of this Act ceased to operate. The Act applies to persons in the permanent employment of the public sector as well as private sector employees who are in the permanent employment of organizations in which there are five or more employees subject to the provision of section eight. However, a firm having less than five employees is eligible to participate in the scheme. Every employee is required to choose a Pension Fund Administrator (PFA), maintain a Retirement Savings Account (RSA) and each employee shall neither have access to the account nor have any dealings with the custodian with respect to the Retirement Saving Account except through the Pension Fund Administrator. The employers shall deduct at source the monthly contribution of the employees and remit an amount comprising the employees' contribution and the employers' contribution to the Pension Fund Custodian. The Custodians are as specified by the Pension Fund Administrator of the employee, and the remittance has to be done not later than 7 working days from the day the employee is paid. The custodian shall notify the Pension Fund Administrator who shall cause the Retirement Saving Account of such employee to be credited.

The rates of contribution to the Retirement Saving Account by the employee and the employer are specified in section 9 (1) of the Act. However, these rates of contribution may upon agreement of the employer and the employee be revised from time to time and notice of such revision shall be given to National Pension Commission (PenCom). As at 2018 December, there were 22 Pension Fund Administrators (PFAs), 7 Closed Pension Fund Administrators (CPFAs) and 4 Pension Fund Custodians, and they are expected to capture a potential 50million contributors. Commission's 2018 report indicates that pension fund assets have grown up to ₦8.64 trillion in 2018. The report also shows that pension savings contributions from the public and private sectors have grown up to ₦5.09 trillion. These pension funds are expected to be invested in about 12 specified asset classes which include: Local Ordinary Shares, Federal Government Securities, State Government Securities, Corporate Bonds, Financial Institution Deposits, Open and Closed End Funds, Foreign Money Market Securities, Supra-National Bonds, Infrastructural Funds, Real Estate Properties, Unquoted Securities and Cash /Other Assets.

In view of the foregoing, conscious attempts have been made to examine the effects of Contributory Pensions Asset on the various aspects of the Nigerian economy. Ameh, Ajie, & Duhu, (2017) examined the impact of contributory pension scheme on economic growth in Nigeria. In a similar study, Nwanne (2015) carried out a research on the impact of contributory pension on economic growth in Nigeria covering 2004-2012. In a separate study, Edogbanya (2013), by correlation analysis using t-test examined the impact of contributory pension scheme on Nigeria economic development. Oladapo (2016) examined funded pension scheme and economic growth in Nigeria, covering 2004-2014. Although, the study examined the time series properties of the variables employed as well as carried out co-integration, this research work extends Oladapo (2016) in terms of the period covered. In addition, the Error Correction Model (ECM) employed in Oladapo (2016) does not show causality as to whether Contributory Pension Scheme is driving economic growth. The individual effect of each fund under the CPS is also examined in this present study as opposed to the aggregate pension asset employed by Oladapo (2016). The

researcher also employed data from 2004, there is no congruency between the scopes which dated from 2004 to 2014 due to unavailability of data on Contributory Pension Scheme between 2004 to 2005. Previous research works have indicated that the contributory pension scheme is yet to have a significant impact on the Nigerian economic growth and this is traced to the inefficient management of the pension asset. The wellbeing and interest of Nigeria retirees, for the past ten years, had not received proper attention as expected from the contributory pension scheme. The Contributory Pension Fund (CPF) is expected to support economic growth by providing extra funds for investment as well as expand the capital market, thereby leading to increased capital allocation which translates to improved and general efficient allocation of resource. Thus the Research Hypothesis underlying this study is stated thus:

H_{0i}: Retirement Savings Account does not impact significantly on the growth of Nigeria economy.

LITERATURE REVIEW

Conceptual Framework

Concept of Contributory Pension Scheme (CPS)

The Pension Reform Act 2014, as amended, 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 (PenCom) was established to regulate and supervise all pension matters in the country. The scheme is being managed by authorized Pension Fund Administrators (PFAs) while the custody of the pension fund assets are provided by licensed Pension Fund Custodians (PFCs), Adeleke (2005).
Onuoha (2006) reported that the move from Defined Benefit to Contributory Pension Scheme is now a global phenomenon following the success stories of the Chilean pension reform of 1981. The paradigm shift from the DB scheme to contributory schemes in developed and developing countries was ascribed to such factors as increasing pressure on the central budget to cover deficits- the accrued benefits of the old scheme were not always fully provided for by the Federal/State Governments in their annual budget, and this has been a recording decimal till date for those employees/pensioners. In addition, lack of long-term sustainability due to internal demographic shifts- the liability keeps increasing as more workers are being employed yearly due to increase in numbers of employable youths. Also, annual promotions occur regularly, while some employee exits and there were failure to provide promised benefits – this occur when retirees wait for long years and some even die without getting their benefits. Thus, developed countries like USA, UK and emerging market economics of Chile, Mexico, Nigeria etc. adopted the contributory pension scheme because it enhances long term national savings and capital accumulation, which if well invested can provide resources for both domestic and foreign investment (Mohammed, 2013).

The 2014 Pension Reform Act is a paradigm shift from the 1979 Pension Act. Under the new scheme, employers and employees alike are to contribute 10 and 8 percent of employees' monthly emolument respectively, which include basic salary, housing and transport allowances. However, military and secret security personnel had pooled out of the CPS since April 2011. 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 Reform Act being 30th June 2004 (National Pension Commission, 2004). The employer may elect under the PRA 2014 to bear the full burden of the pension by contributing not less than 18 percent of the employee's monthly emolument. The contributory pension scheme was established 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 (estimated at ₦2 trillion as at June 2004) of the past in Nigeria. The scheme's asset as of December 2018 according to PenCom's monthly report, stood at ₦8.63 trillion (about $30 billion). 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 labour 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, and of recent the United Arab Emirate. There are certain features and safeguards that position the scheme with success chances, these include among others:

a. 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/she 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, PFAs are allowed to invest the greater percentage of the fund, as much as 70% in federal government securities (FGN Bond) while the balance may be invested in other prescribed outlets like the publicly quoted companies.

b. Pension Fund Administrators (PFAs)

The Act provides for the licensing of Pension Fund Administrators (PFAs) as a requirement for the Contributory Pension Scheme. The pension funds are to be privately managed exclusively by licensed PFAs. The main functions of the PFAs are to open Retirement Savings Account (RSA) for employees; invest and manage pension fund assets; payment of retirement benefits and accounting for all transactions relating to the pension funds under their management. The Commission considers applications for license to operate as a PFA from entities that fulfil the requirements as enshrined in Section 60 of the PRA 2014. Prior to the issuance of an operating license, the PFA must be a limited liability company whose sole object is the management of pension fund assets. The PFA must also satisfy the Commission that it has the professional capacity to manage pension funds and administer retirement benefits.

c. Closed Pension Fund Administrators (CPFAs)

Pension schemes in the private sector existing prior to the introduction of the Contributory Pension Scheme (CPS) in June, 2004 were allowed to continue as CPFAs, subject to guidelines issued by PenCom. The companies are required to have operated a fully funded existing pension scheme with assets of at least ₦500 million. A condition precedent on the issuance of a CPFA license is that the company must possess the requisite capacity for the management of pension fund assets and show that it had managed its pension scheme effectively for at least five (5) years prior to the commencement of the CPS.
The CPFAs operate mostly as Defined Benefits Schemes with a guarantee from the sponsor companies over any funding deficit. The Pension Reform Act, 2014 has foreclosed new entrants into the CPFAs. Commencing 1st July, 2014, all new employees of the sponsor companies are required to join the CPS and open Retirement Savings Accounts (RSAs) with a PFA of their choice. Furthermore, an existing employee still reserves the right/option of pulling out of the CPFA to join the CPS.

d. Approved Existing Schemes (AESs)

Section 50 (1) of the Act provides that notwithstanding any other provisions of this Act, any pension scheme in the private sector existing before the commencement of this Act may continue to exist provided that the pension scheme shall be fully funded and in case of any contributory scheme, contributions in favour of each employee including the attributable income shall be computed and credited to a retirement savings account opened for the employee.
The pension funds and assets shall be fully segregated from the funds and assets of the company. Also, the pension funds and assets shall be held by a PFC. Every employee in the existing scheme shall be free to exercise the option of coming under the Scheme established under section 3 of this Act and his

employer shall compute and credit to his account, his contributions and distributable income earned as at the date the employee exercises such an option subject to the regulations, rules and standards established by the Commission. Any amount computed under paragraph (d) of this subsection shall be transferred to the retirement savings account of the employee maintained with a PFA of his choice. All investments in assets other than those specified as permissible investment for pension funds and assets under section 86 of the Act may be maintained and from the commencement of the Act all investments shall be subject to the regulation, rules and standards established by the Commission. The employer shall undertake to the Commission that the pension fund shall be fully funded at all times and any shortfall to be made up within 90 days or as may be prescribed by the Commission. The existing scheme shall be closed to new employees and such new employees shall be required to open a retirement savings account.

e. Pension Fund Custodians (PFC)

The law also provides for the licensing of PFCs 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 informs the PFA, and credit the account of the employee(s) concerned with the total contributions thus remitted. The PFA then instructs the PFC to invest the funds in such and such instruments. 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. 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 five billion naira (₦5bn) unimpaired by loses.

National Pension Commission (PenCom)

To ensure effective administration of pension matters in Nigeria, the Act established a regulatory agency National Pension Commission, otherwise referred to as 'The Commission', to regulate and supervise the scheme. The Commission is to make certain that payment and remittance of contributions are made and retirees are paid as and 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 stakeholders.

i. Licensing requirements for PFAs/CPFAs

The Act stipulates that any person applying to be licensed as a PFA in Nigeria must inter alia, meet the following requirements stipulated in section 60 (1) of the PRA 2014:

i. Shall be a limited liability company incorporated under the Companies and Allied Matters Act whose object is to manage pension funds.
ii. Shall have a minimum paid up share capital of such sum as may be prescribed by the Commission;
iii. Shall satisfy the Commission that it has the professional capacity to manage pension funds and administer retirement benefits;
iv. Has never been liable for mismanagement of pension fund, of a PFA or any of its subscribers, directors or officers;
v. Shall undertake to the satisfaction of the Commission, that it shall not be engaged in any business other than the management of pension funds; and
vi. Shall satisfy any additional requirement or condition as may be prescribed, from time to time, by the Commission.

Section 60 (2) of the PRA 2014 stipulates that all companies and institutions managing pension funds prior to the enactment of the PRA 2004 that are not licensed by the Commission shall transfer such funds and assets to licensed Pension Fund Administrators. Accordingly, this section requires such institutions

and companies to compute and credit all contributions to the Retirement Savings Account opened for each contributor, including distributable income. In this regard, all companies and institutions referred to in subsection (2) of this section are required to transfer all pension funds and assets held by them to a licenced PFA, to be kept under custody of a PFC as may be determined by the Commission.

ii Licensing requirements for PFCs

Pursuant to the provisions of section 116 of the Companies and Allied Matters Act, the voting rights of every shareholder in a PFA or PFC shall be proportionate to his contribution to the paid-up share capital of the Pension Fund Administrator or Pension Fund Custodian. Section 61 (1) of the PRA 2014 requires a corporate entity that intends to become a Custodian of Pensions to make an application to the Commission for a licence in a required, form with payment as may be prescribed by the Commission. Pursuant to the above provision, Section 61(2) of the PRA 2014 provides that where the Commission is satisfied that the applicant meets the requirements set out in Section 62 of the Act, it may issue a licence to the applicant to carry out the business of a Pension Fund Custodian (PFC). It is pertinent to note that the format for application to undertake business as a PFC and the fee payable by an applicant are not fixed. Such matters are prescribed by the Commission, from time to time. To switch from the pay–as–you–go to the CPS 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.

Concept of Economic Growth

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 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 many variables that deal with man's existence.

Jhingan (2006), economic growth is related to quantitative sustained increase in a country's per capita 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 may not 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 be 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 GDP value or increase in the GDP rate of growth.

Empirical Literature

The effect of CPS on economic growth has often been addressed from cross-country studies with little emphasis on country case studies. In addition, such cross-country studies have focused on advanced and Organisation for Economic Cooperation and Development (OECD) countries Davis and Hu Wei (2008); Zandberg and Spierdijk (2013). The concern here is that most of these cross-country studies suffer from endogeneity and causality problems. Apart from the fact that the numbers of observations (i.e. countries) is often relatively small compared to the many diverse factors that may affect pension and growth, some of these studies do not reflect the peculiarities of different countries being studied Bell and Rousseau (2001). Babatunde (2012) studied the impact of contributory pension scheme on workers savings in Nigeria using analytical method on raw data generated from Oyo state public workers in 2010 using the Ordinary Least Square (OLS) regression method. He discovered that there is significant relationship existing between contributory pension scheme and savings. He also reiterated that Nigeria must avoid minor pension reforms that are repeated periodically because of political problem associated with such adjustment. His recommendation is that both Government and pension fund administrators should educate the public on the operations of the Contributory Pension Scheme.

Oladapo (2016) examined the effect of the operation of the funded pension scheme since its inception in 2004 on economic growth in Nigeria using error correction mechanism (ECM) and Ordinary Least Square (OLS) methodologies. Findings revealed that the pension fund contributions from both private and public sectors in Nigeria increased greatly and constituted a huge investment fund in the capital and money markets. This increased liquidity in the economy and created employment opportunities as well as improvement in the investment climate. The study concluded that with good risk and portfolio management by pension fund administrators and custodians, the contributory pension has the capacity to boost the Gross Domestic Product (GDP) in Nigeria and very convenient to retirees compared to the previous defined benefit scheme. The study however recommended the removal of delay payment, administrative bottlenecks and corruption in the management of the pension fund in order to boost economic growth in Nigeria. Similarly, Tijani and Adekunle (2018) studied the impact of the contributory pension fund scheme on Nigeria economic growth analysing data from 2006-2016, using ex-post facto research. The study employed secondary source of data collection. The data were sourced from the central bank of Nigeria statistical bulletin. The data was analysed using ordinary least square method of statistical analysis. The study revealed that a contributory pension funds asset has significant impact on Nigeria economic growth while population of pensioners has no significant impact on the growth of Nigeria economy. The study recommended that pension fund assets should be invested productively in diversified investment portfolios so as to generate increased returns and at same time minimize risks to both pension funds administrators and the contributors to the funds in Nigeria.

Nwanne (2015) undertook a study on the impact of contributory pension scheme on economic growth in Nigeria for the period 2004-2012. The objectives of the study were to determine the impact of pension funds on economic growth and as well as to ascertain the impact of pension savings mobilized on economic growth. The study used Ex-post-facto research design. Ordinary Least Square Regression method was used in data analysis. The study finds that pension funds have negative and significant impact on economic growth while pension savings had positive and significant impact on economic growth. The implication of the finding is that the contributory pension scheme has achieved the objective of using pension funds to provide long term capital that will promote economic growth. It also implies that pension savings contribution is low an indication of low coverage of the scheme. It was recommended that investment outlets of pension funds should be increased and efforts should be intensified to ensure greater compliance and mobilization of savings from contributors. The result of this study should however be handled with care due to the sample size selected which covered a period of nine years. Hence, there is serious analytical problem in terms of sufficiency of the degree of freedom for useful analysis. This is because despite the fact that Pension Reforms Act was promulgated in 2004, contributions did not commence until 2006. Moreover, this study will not pass multicollinearity test when subjected to such a test. This is due to the fact that one of the explanatory variables – pension fund

savings contributed by private and public sectors in Nigeria is a component of the second explanatory variable – pension funds invested in specified investment outlets.

Ojiya (2017) examined 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) covering 2005-2016. The data were computed with the use of Statistical Package for Social Sciences (SPSS). It was found 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).

However, like Nwanne, there was no available data on pension in 2005 which was used by the researcher. This means that there is no congruency in the scope adopted analysing the data.

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 hypotheses include the intermediation theory, life-cycle theory and deferred wage theory, however, for the purpose of this study the endogenous growth theory of economic growth are adopted.

Life-Cycle Theory

In the early 1950s, Franco Modigliani and his student, Richard Brumberg, developed a theory based on the observation that people make consumption decisions based both on resources available to them over their lifetime, and on their current life stage. Modigliani and Brumberg observed that individuals build up assets at the initial stages of their working lives. Later on during retirement, they make use of their stock of assets. The working people save up for their post-retirement lives and alter their consumption patterns according to their needs at different stages of their lives. 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 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).

Endogenous growth theory

The theoretical framework for the study is the Endogenous "AK" Growth Theory. According to Endogenous "AK" growth theory, an economy's long-run growth rate depends on its saving rate. The endogenous "AK" growth theory offered by Pagano (1993) assumes that financial intermediation could affect economic growth through three channels namely: changing productivity of capital, savings funneled to investment and savings rate. In other words, financial development reduces the loss of resources needed to allocate resources, encourage greater savings ratio, and increase capital productivity. The theory assumes that only one type of goods is produced with capital as the only input factor.

Yt = AKt …(1)

Where Yt = Output, t = Time, K = Capital, and A = Capital Productivity.

This implies that capital stock in time t + 1 is given as:
Kt = It + (1-d) Kt-1 … (2)

Where, d = rate of depreciation and , I = investment.

The implication is that if a fixed fraction (s) of output (y) is saved and there is a fixed rate of depreciation (d), the rate of aggregate net investment is given as:

$$\frac{dk}{dt} = sy - sk \text{ ....(3)}$$

This implies that the growth rate (g) is driven by:

$$g = \frac{1}{Y}\frac{dy}{dt} = \frac{1}{k}\frac{dk}{dt} = SA - \delta \text{ ....(4)}$$

The supporting theory guiding this study is therefore the endogenous 'AK' growth theory because it explains the growth of an economy on the long run depends largely on its long-term savings.

METHODOLOGY

Descriptive research design is adopted for the purposes of this study. Descriptive design method helps in gathering information about the existing status of the phenomena in order to describe what exists in respect to variables. According to Coopers and Schindler (2008), descriptive studies are formalized and typically structured with clearly stated hypothesis or investigative questions. This method is used because it addresses the objective of the study in investigating the relationship between the variables of the study. The study employs secondary sources of data based on quarterly frequency from various issues of Annual Report and Statement of Accounts of the National Pension Commission; Central Bank of Nigeria Publications like various issues of the Annual Report and Statement of Accounts and Statistical Bulletin; Nigerian Stock Exchange and Nigeria Bureau of Statistics publications and Nigeria Stock Exchange (NSE) Database for the same period. In this regard, Data on real gross domestic product (RGDP) were sourced from National Bureau of Statistics publications, while data on total retirement saving account (RSA) were sourced from Annual reports of National Pension Commission.

Procedure for Data Analysis and Model Specification

Using yearly data from 2006 to 2018, this study examines the linkage between contributory pension scheme and economic growth in Nigeria. In this regard, the proxy for economic growth is the real GDP growth. The study uses pension assets as proxy for contributory pension scheme. Hence, a vector of pension assets indicators was adopted, including Active Retirement Savings Account Assets (RSA Fund), these is one of the pension assets in the CPS and represent the explanatory variables for the modelling. Following the theoretical framework and based on the practice in the literature Oladapo (2016), the study specifies the growth function for Nigeria in the form of equation:

$$EG = f(RSA). \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

The log-linear formulation of the model is:

$$Lneg = \alpha + \beta_1 lnRSA + \varepsilon_t \quad . \quad . \quad . \quad . \quad (2)$$

where:

LnEG = Log of real GDP
RSA = Real retirement savings account assets
B = Beta factor
ε_t = Random Error
α = Constant Term

Given that the study employs time series data, the stationarity of the data is examined using the Augmented Dickey-Fuller (ADF) statistic to investigate the presence of unit root under the alternative

hypothesis that the series is stationary around a fixed term trend. The ADF tests are performed using the ordinary least-square technique to estimate the following equation:

$$DX_t = c_0 + c_1 X_{t-1} + \sum_{i=1}^{n} \gamma_i D X_{t-i} + \varepsilon_t \quad . \quad . \quad . \quad . \quad (3)$$

Where t is a time trend.

It can be seen from equation 3 that the null hypothesis of non-stationarity is rejected if D_i is less than zero and statistically significant. However, equation 3 can be reformulated with the error correction representation as:

$$D Y_t = c_0 + c_1 Y_{t-i} + c_2 D X_{t-i} - \rho Z_{t-i} + \varepsilon_t \quad . \quad . \quad . \quad (4)$$

Where Z is the residual term from the static regression of Y_t on X_t. The analysis is carried out from a general model to the specific model with the optimal lag length for each variable being determined using Akaike Information criterion.

RESULT AND DISCUSSION

In examining the econometric analysis of the impact of Contributory Pension scheme on the Nigerian economic growth, Contributory Pension scheme is proxied by Retirement Saving Account (RSA), and Economic Growth is proxied by Gross Domestic Product (GDP), for the period 2006 to 2018. Data were obtained from Central Bank of Nigeria (CBN) statistical bulletin, National Pension Commission (PenCom) Annual Reports and National Bureau of Statistics (NBS). The data as discussed earlier were analysed in two folds, namely: the descriptive analysis, which describes the data and gives the graphs showing the trends of the independent variable on the dependent variables; and empirical analysis, where the Unit Root result and regression analysis estimates are shown.

The descriptive statistics in this study is used to provide simple summaries about the samples selected for the study. The mean, minimum, maximum, skewness and the standard deviation of the independent variables under study provide answers to whether they comply with established standards or not. The variable series include the active and retiree retirement savings scheme assets (RSA) and the real gross domestic product (RGDP). The summary of these statistics are presented in the Tables below:

Table 1: Raw Data Presented for Analysis

YEAR ₦Billion	RGDP ₦Billion	RSA ₦Billion
2006	31,240.50	64.99
2007	42,922.41	213.31
2008	46,012.51	193.48
2009	49,856.10	275.26
2010	54,621.26	360.55
2011	57,511.04	361.04
2012	59,929.89	600.70
2013	63,218.72	722.54
2014	67,152.79	501.77
2015	69,023.93	582.59
2016	67,931.24	722.88
2017	68,490.98	1,079.23
2018	69,799.94	903.99

Source: CBN Statistical Bulletin and PenCom Annual Report (2018)

Table 2: Selected Descriptive Statistical Values on the Variables

	RGDP	C	RSA
Mean	57516.25	1.000000	506.3331
Median	59929.89	1.000000	501.7700
Maximum	69799.94	1.000000	1079.230
Minimum	31240.50	1.000000	64.99000
Std. Dev.	12063.13	0.000000	298.4686
Skewness	-0.806486	NA	0.366036
Kurtosis	2.640454	NA	2.228159
Jarque-Bera	1.479267	NA	0.612987
Probability	0.477289	NA	0.736023
Sum	747711.3	13.00000	6582.330
Sum Sq. Dev.	1.75E+09	0.000000	1069002.
Observations	13	13	13

Source: E-View Result (2020)

Shown above are the mean, standard deviation, minimum, skewness, kurtsis, jarque-Bera, probability and maximum values of retirement savings account assets (RSA) employed in this study. The above statistics is obtained using Augmented Dickey-Fuller (ADF) statistical package. The mean values of rgdp, and rsa are 57,516 and 506.333 respectively. The common feature of these variables is that they all have positive mean values. This means that each of the variables display increasing tendency throughout the sampling period. The retirement savings account assets (rsa) ranges from minimum of 64 to maximum of 1,079 and deviated by 298, and real gross domestic product (rgdp) from minimum of 31,240 to maximum of 69,799 and deviated by 12,063. This revealed that the RSA assets have positive impact on the gross domestic product which is the proxy for the Nigerian economy. It can be observed that while the mean value of RSA is ₦506.33 billion, The picture of the effect of the RSA to economic growth can be clearer when we interpret the bar chart below;

It can observed from the graph that there is a steady growth in the retirement savings scheme assets (RSA) from 2006 to 2018 and therefore impact greatly on the real gross domestic product (RGDP).

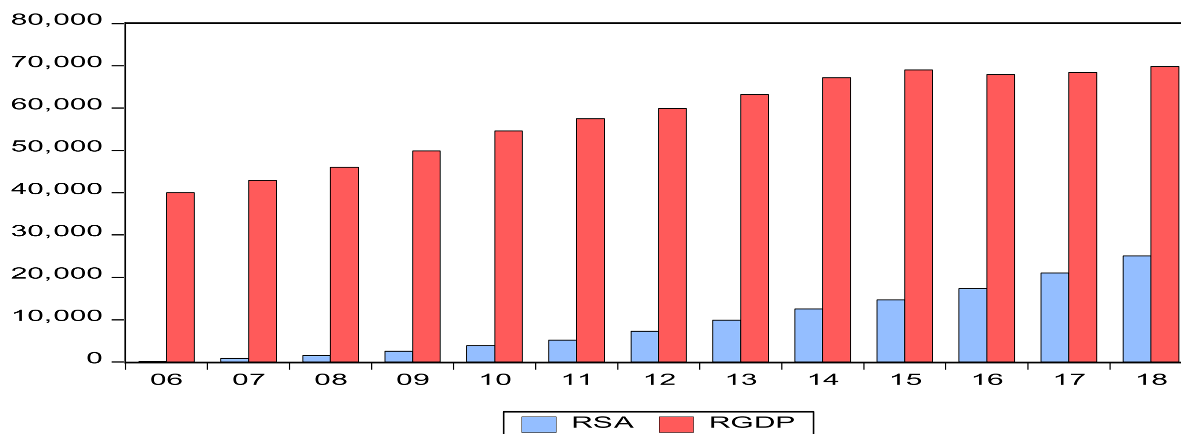

Figure 1 showing the RSA and the RGDP

Unit Root Test

The unit root test is conducted to ascertain the stationarity of the panel data. Regression investigation

conducted without subjecting the data to unit root test may be hazardous or spurious because the estimated parameters would be bias and inconsistent. To avoid this, a test was conducted using the Augmented Dickey-Fuller (ADF) statistic to investigate the presence of unit root. The unit root test was conducted on the assumption of determining the trend and the intercept. All the variables are first differenced or transformed to order 1. The specified variables are gdp and rsa.

The Unit Root hypothesis is stated as follows;
H_o: Panel data contains unit roots
H_a: Panel data are stationary (Does not contain unit roots)
The decision rule is to reject the null if the p-value is less than the critical value at 5% and to accept the alternative hypothesis. This means that the panel data is stationary and therefore does not contain unit roots. If however the p-value is greater than the critical value at 5% then we have no reason to reject the null hypothesis and reject the alternative signifying the existence of unit roots. The results of the Augmented Dickey-Fuller test conducted on the variables is shown below:

Table 4: ADF UNIT ROOT TEST
Table 5: Summary of Augmented Dickey-Fuller (ADF) **Test Results**

Variables	t- Statistic	P-value
GDP	-4.908751	0.0006
RSA	-1.067964	0.3106

The ellipses are gdp = gross domestic product, rsa = retired savings account.
SOURCE: ADF RESULT

The results of the Augmented Dickey-Fuller (ADF) test conducted on the series of GDP, and RSA are depicted in table 4. A quick view of the table reveals that all the p-values are less than the critical value at 10%. This suggests that the null hypothesis of panels unit root is rejected with 90 percent confidence level. Thus, the panels do not contain unit roots and all the variables are stationary at first and second difference. This means the data series have been purged of unit root or white noise by taking their first and second difference and they can now be fitted into models stated in chapter three for onward estimation.

Test of Hypothesis

Ho1: Retirement Savings Account (RSA) does not impact significantly on the growth of Nigeria economy.

From the null hypothesis above, we postulate that Retirement Savings Account (RSA) has no significant effect on the growth of the Nigerian economy. The model earlier defined in the previous chapter is restated as;

RGDP $= \beta_0 + \beta_1\ rsa_{it} + ei$ . . . . **(i)**
RGDP = 40252.56 + 35.11522 (rsa)

Table 5: OLS REGRESSION RESULT
Dependent Variable: RGDP
Method: Least Squares
Date: 05/11/20 Time: 20:38
Sample: 2006 2018
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	40252.56	4440.369	9.065138	0.0000
CPF	-17.54431	54.91467	0.319483	0.7567

AES	26.19179	26.82644	-0.976343	0.3544
RSA	35.11522	6.632191	5.294664	0.0005

R-squared	0.778577	Mean dependent var	57516.25
Adjusted R-squared	0.704769	S.D. dependent var	12063.13
S.E. of regression	6554.520	Akaike info criterion	20.66136
Sum squared resid	3.87E+08	Schwarz criterion	20.83519
Log likelihood	-130.2988	Hannan-Quinn criter.	20.62563
F-statistic	10.54872	Durbin-Watson stat	1.397050
Prob(F-statistic)	0.002647		

The simple linear regression estimate of model 1 shows that Retirement Savings Account (RSA) has a positive effect on the real gross domestic product which is the proxy for growth in the economy. This is indicated by the sign of the coefficients, that is $\beta_1 = 35.11522 > 0$. This result is consistent with the a priori expectations.

Discussion of Findings

From Table 5 the size of the coefficient of the independent variable (β_1) shows that a 1% increase in Retirement Savings Account (RSA) will cause a 35% growth in the Nigerian economy. Also, the R-squared showed that about 78% variations in gross domestic product (GDP) can be attributed to Retirement Savings Account (RSA), while the remaining 22% variations in GDP are caused by other factors not included in this model. This shows a strong explanatory power of the model. This is further emphasized by the p-value of 0.0005 which shows that the regression result is statistically significant because this is less than 5%, the level of significance adopted for this study.

Therefore, the model is adequate and the null hypothesis one which states that Retirement Savings Account (RSA) has no significant impact on the growth of the economy of Nigeria is rejected. Hence, Retirement Savings Account (RSA) has a positive and significant relationship and impact on economic growth of Nigeria. This research work agrees with other studies in the literature. For instance, the findings of Oladapo(2016) revealed that increases in pension fund contributions from both private and public sectors in Nigeria positively affects economic growth. This implies that increases in pension contribution increases the pool of investible fund, which ensure capital adequacy for industrial take-off and increase in national output.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the impact of contributory pension scheme on economic growth in Nigeria using ordinary least square. It is clear from the analysis that increases in pension fund assets in Nigeria positively affected economic growth. In the light of the foregoing, the study recommends that:

i. The institutions of governance need to be strengthened to walk the path of maximum benefit for the Nigerian workers.
ii. Second, employees should be made to understand that even within the new system they can still access up to 25 per cent of their retirement savings as a single bulk payment to enable them start a new business or deal with the issues of transition from active employment to retirement.
iii. Third, transparency should be built into every stage of pension administration.
iv. Fourth, management principles should be formulated with emphasis on creativity, innovativeness, openness, transparency, persuasiveness for a win – win situation for the employers / employees and the national economy.
v. Fifth, there should be consultations with major stakeholders to ensure the successful

implementation of the pension reform policy. This would require gleaning ideas and lessons from successful stories in other parts of the world.

vi. Sixth, PenCom needs to develop the capacity for treating pensioners as obtained in other parts of the world, where they enjoy some free facilities such as health care and transportation.

References

Babatunde M. A (2012). The impact of contributory pension scheme on workers' savings in Nigeria. *The Social Sciences,* 7: 464-470.

David C. & Ransom M (2007). Pension Plan Characteristics and Framing Effects in Employee Savings Behaviour. *Working Paper* 13275 http://www.nber.org/papers/w13275

Davis E.P & Hu Y.W (2008). Does funding of pensions stimulate economic growth? *Journal of Pension Economics and Finance,* 7, (1) 221-249

Edogbanya A. (2013). An Assessment of the Impact of Contributory Pension Scheme to Nigeria Economic Development. *Global Journal of Management and Business Research,* Volume 13 (2) 23-29.

Federal Republic of Nigeria official gazette: Pension Reform Act, 2004. No. 60, Vol. 91 *Government Notice Number* 133, 29- 67.

Franklin Allen & Anthony M. Santomero, (1996). The Theory of Financial Intermediation, Center for Financial Institutions. *Working Papers* 96-32, Wharton School Center for Financial Institutions, University of Pennsylvania

Egbe G.A, Awogbemi C. A and Osu B. O (2013). Portfolio Optimization of Pension Fund Contribution in Nigeria. IISTE Vol. 3 No. 8 2013. https://www.iiste.org/Journals/index.php/MTM/article/view/6984/7032

Eme O.I & Sam C.U (2011). The laws and administration of retirement in Nigeria: a historical approach. *Kuwait Chapter of Arabian Journal of Business and Management Review.* 1 (2), 21-27

Eme O.I., Uche O.A and Uche I.B (2014). Pension Reform Act 2014 and the Future of Pension Administration in Nigeria. *Arabian Journal of Business and Management Review* (OMAN Chapter) Vol. 4, No.2 -156.

Gale W.G., and Scholz J. K. (1994). Intergenerational Transfers and the Accumulation of Wealth. *Journal of Economic Perspectives,* 8 (4): 145-160.

Ghilarducci T. (1992), Labor's Capital: The Economics and Politics of Private Pensions. http://teresaghilarducci.org/books/51labors capital the economics and politics of private pensions.html

Gordon W (1984). Developmental States in East Asia. *New York: St. Martin's Press,* 1988.

Gunu, U. And Tsado E. (2012) Contributory Pension Scheme as a Tool for Economic Growth in Nigeria. *International Journal and Behavioural Sciences.* Vol 2 (9) pp 6 -13

Jhingan, M.L. (2006). Economic Development. *Vrinda Publications Ltd.,* New Delhi.

Koripamo –Agary, T. A. (2009). Analytical Review of Pension System in Nigeria. www.pencom.gov.ng/analytical-reviewpension- system-in-nigeriadiscussion. oc

Mohammed J (2013). Contributory pension scheme: An overview. A paper presented at institute of public management seminar.

Muller K. (2003). The Making of Pension Privatization in Latin America and Eastern Europe, *Washington DC: The World Bank,* pp. 47 – 78.

National Pension Commission (2008). Highlights of the Contributory Pension Scheme in Nigeria. http://www.pencom.gov.ng/ download/faq/highly ghts- of- CPS.pdf. Retrieved 20/9/10.

Nigeria - Gross domestic product in constant prices growth rate 2000-2018 .World Data Altas https://knoema.com/atlas/Nigeria/Real-GDP-growth

Nwanne T.F.I (2015). Impact of Contributory Pension Scheme on Economic Growth in Nigeria. *Global Advanced Research Journal of Management and Business Studies,* 4(8) 333-337

Odia J.O & Okoye A.E (2012). Pension Reform in Nigeria: A Comparison between the Old and New Scheme. *Afro Asian Journal of Social sciences,* 3(3.1), 1-17.

Ogunbameru, O. & Bamiwuye, S. (2004).Attitude Towards Retirement and Pre- retirement Education among Nigerian Bank Workers. *Education Gerontology,* 30 (5): 391- 401.

Ojiya E. A. (2016) Impact of Contributory Pension Scheme on Economic Growth in Nigeria: An Empirical Analysis. *International Journal of Research in Humanities and social Studies,* 4, (6), 24-35.

Okpaise R. (2005). The effect of pension reform act 2004 on investment opportunities and retirement planning in Nigeria. *Educ. Reconstruction.* 1(1): 119-127.

Oladapo A.F. (2016). The Funded Pension Scheme and Economic Growth in Nigeria. *Pension Risk Management eJournal.* 10. 1-17. 10.2139/ssrn.2836965.

Olanrewaju EA (2011). The Pension Reform Act 2004 and Wellbeing of Nigerian Retirees: A Sociological Evaluation of its Provisions, *International Journal of Humanities and Social Sciences,* 1(21), 315-325.

Onuoha H. I (2006) .Pension fund administration: A critical appraisal. Journal of *Institute of Chartered Secretary,* 2(1): 98-118

Ozokwere, H.N. (2008). An Appraisal of Pension Fund Administrators in the Management of the New Contributory Pension Scheme. Retrieved from http://naulibrary.org/dglibrary/admin/book_directory/Thesis/10976.pdf.

Pencom 2010.Annual Report. Retrieved from www.pencom.gov.ng.on 26 february,2011.

Tijani J.A & Adekunle J.K (2018). Impact of the Contributory Pension Fund Scheme on Nigeria Economic Growth. *International Journal of Economics, Commerce and Management,* 11(10), 253-261