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## PENSION FUND ADMINISTRATION AND ECONOMIC GROWTH IN NIGERIA

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### Abstract

*The Study examined Pension Fund Administration and Economic Growth in Nigeria. The specific objectives of the study being to determine to what extent does Pension Asset, pension fund Contribution, pension fund investment (which are the pensions fund indicators); affect economic growth in Nigeria. The study adopted the longitudinal research design and the study scope in terms of time covered 2004 to 2022 time period. The study employed the OLS regression technique as well as the Error correction Mechanism in the estimation of data. The study found that Pension Asset, pension fund investment, has positive and significant effect on economic growth and hence on GDP growth rate within the period. It was however recommended that government should ensure that pension coverage extends more to private, public, as well as individual pensions, in order to increase more pension contribution and coverage across the Nigerian state. This will contribute significantly to gross domestic product and economic growth overtime. Also, government should make frantic effort to ensure a more developed capital market with more products, as derivatives, to further deepen the markets and encourage more investment in pensionable funds for more gross domestic product contribution and thereafter, economic growth. The study then concluded that there exists a positive, significant relationship between growth (the dependent variable) and the respective independent variables used in the study.*

**Keywords:** Pension, Economic Growth, GDP, OLS.

### 1. Introduction

Most sub Saharan African countries do not have meaningful publicly managed pension and social security systems, though some form of pension coverage is available in a limited number of countries. Where benefits are offered to formal sector workers, they are provided either by public service pension schemes (the public sector being by far the largest employer in most countries in the region), national (usually mandatory) schemes covering private sector workers (which may also cover the public sector), occupational schemes managed by employers other than the government and individual / personal pension schemes (usually offered by insurance companies on a voluntary basis). For example, universal pension systems operate in Botswana, Mauritius and Namibia, whilst a means tested public pension is available in South Africa. Social pensions also operate in Lesotho and Senegal, whilst occupation pensions are available, albeit for a limited percentage of the MMV OIJK population, in countries such as Nigeria and Kenya. However, it should be noted that the majority of people in the region work in the informal sector and are therefore not covered by these

schemes, implying that they rely on informal and their own/ family resources (Michael *et al*, 1999). The fundamentals changes in regulations and investment processes of pension funds are having a significant impact in private equity in Africa. What that means is that for the first time, pension funds are explicitly allowed to be invested in private equity in Africa. This change is becoming well pronounced and spreading across African continent and beyond. And Nigeria, like other emerging economies is headed in the right direction by setting up a legislative framework for local pension funds to invest up to 5% of their assets in the local equity. Five percent which equates about USD 800 Million of resources held by pension funds in Nigeria.

The 2004 pension legislation, abolished by the 2014 Pension Reforms Act (PRA), was aimed to prevent a precipitous reduction in workers 'financial ability and living standard when retirees' monthly income and allowances stopped. The PRA aims to give public and private retirees with a respectable income, which will likely enhance their consumption, investment, and savings overtime. The plan was to encourage economic growth by investing cash in the fund

According to Njuguna (2010) pension funds are the principal sources of retirement income for millions of people in the world and very important contribution to GDP in many countries. The privilege of receiving pension and gratuity appear to be the greatest manifestation of the victory of an employee after a long service to his or her employer'. The burden of financial risk of pension was merely shifted from the employer to the employee by the contributory pension scheme thus removing the web of government guarantee pension system. The reason for the change was the inefficient and dysfunctional administration of the old pension scheme. Pension Reform Act tends to unify the features of the public service with those of private sector in terms of the rate of contribution of benefit.

Adeoti, Gunuand and Tsado (2013) wrote that pension fund development and economic growth relationship contributes to effective management of the scheme in Nigeria evenly over time hence, pension in Nigeria has undergone reforms over the years. Because of that, pension fund assets has increased remarkably and contributed immensely to growth and development of the country. Governments all over the world are still having trouble deciding what the optimal retirement age should be, ensuring that pension payments are sufficient, and locating funding systems and sources that are acceptable. These problems have a variety of potential resolutions, but they all involve altering the structure of pension systems, altering either the retirement age or the amount of contributions and payments that can be made to the funds, either raising or lowering the current retirement age economy. The demographic projections by the World Population index (2017) indicate that there will be even more elderly to worry about between 2015 and 2050 time period. The narrowing and more porous safety nets because of the changes in household structure and the migration of workers to urban areas for job opportunities mean that old-age poverty will become an even more pressing challenge for policy makers in the region. Innovative solutions to improve the coverage of the working-age population, the majority of which are active in the informal sector, need to be found now given that pension systems are designed to provide benefits in the medium to long term. Meanwhile, governments have not yet attain the aim of the scheme. It is against this background that the paper empirically examines pension fund administration and economic growth in Nigeria. The study covered the period from 2004 to 2022.

## 2. Literature Review

### 2.1. Conceptual issues

#### 2.1.1. Concept of Economic Growth

According to Jhingan (2006), 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, they are different. According to Jhingan (2006), Economic growth 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. Economic growth according to Jhingan (2006) 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.

**Measuring Economic Growth:** There are certain fundamental indices for measuring economic growth. Such indices include the following:

#### Gross Domestic Product (GDP)

It is simply the total measure of the sum total of goods and services that are produced in a country, within a specified period of time, usually a year. GDP tend to measure the monetary value of final goods and services that are bought by the final consumers, produced in a country during a year (Todaro & Miller, 2000). There are three different ways for measuring GDP: output method, expenditure method and income method or approach.

- i . Output method or approach- this refers to the measure of GDP based on the sum total of the goods and services produced in the economy (country) within a year.
- ii . Expenditure approach- this refers to the total amount of money invested in by businesses and spending by households and Governments during one year in a country.

iii. Income approach- This is third and last measure of GDP, which involves the sum total of income received by households, businesses and Government in a country within a year (Jhingan, 2006).

### 2.1.2. Pension fund Administration

The Contributory Pension Scheme (CPS), which was established by the Pension Reform Act of 2004, is contributory in nature, fully funded, DC, privately managed and based on individual accounts. Existing private sector pension schemes are allowed to continue provided there is evidence to show that the pension scheme is fully funded at all times, and any shortfall will be made up within 90 days, pension funds assets are segregated from the assets of the employer, the pension funds assets are held by a licensed custodian and the scheme is specifically approved by the National Pension Commission. Membership in the CPS is compulsory for all public sector employers (except diplomats) and for those private sector employers with 5 or more employees. Retirement Saving Accounts are set up for all covered employees under the CPS. Some groups of employees are exempted from the contributory pension scheme, for example those who, at the coming into force of the Pension Reform Act 2004 are covered by a different pension scheme, which existed before the commencement of the Pension Reform Act 2004 and who have 3 years or less to retire. Public services employees and private sector employees pay a minimum of 7.5% of their gross monthly earnings. Employers also pay a minimum contribution of 7.5% and may pay the full 15% themselves. Military personnel pay a minimum of 2.5% of their gross monthly earnings and their employers pay 12.5%. The gross monthly earnings comprise basic salary, housing allowances and transportation allowances. Voluntary contributions are allowed. Contributions may be revised upwards by agreement between the employer and the employee. The National Pension Commission must be notified of this revision (Nwanne, 2015)

Upon retirement the member has a choice as to how to receive his retirement benefits:

- i. monthly or quarterly withdrawals, based on life expectancy;
- ii. Annuity for life purchased from a life insurance company (with monthly or quarterly payments);

- iii. a lump sum, provided that the amount left after that lump sum withdrawal is sufficient to permit an annuity or programmed withdrawals of at least 50 per cent of the employee's annual preretirement salary.

If the employee retires before the age of 50, a maximum of 25% of retirement savings can be withdrawn as a lump sum (six months after retirement and the individual cannot re-enter the workforce). All retirement savings account holders who have contributed for 20 years are guaranteed a minimum pension as specified by the Government on the recommendation from the Pension Commission. Additional or voluntary lump sum contributions into the RSA can be withdrawn before retirement or attainment of the age of 50 years. Contributions to the new pension scheme are tax free whereas Investment income is taxed. Benefits are exempted from tax, while early withdrawals (withdrawn from voluntary additional contributions) are taxed. Pension funds can only be managed by pension fund administrators who have obtained a license from the National Pension Commission. The employee is free to choose an administrator. Custodians often hold the employees assets and execute transactions for the employee. The Pension Reform Act provides that administrators may only charge clearly defined and reasonable fees. Pension funds and assets can be invested in:

- i. bonds, bills and other securities issued or guaranteed by the Federal Government and the Central Bank of Nigeria;
- ii. Bonds, debentures, redeemable preference shares and other debt instruments issued by stock listed corporations;
- iii. Ordinary shares of public limited companies listed on the stock exchanges with good track records having declared and paid dividends in the preceding five years; Bank deposits and bank securities;
- iv. Investment certificates of closed-end investment fund or hybrid investment funds listed on a Stock exchange with a good track record of earning;
- v. units sold by open-end investment funds or

specialist open-end investment funds

listed on the stock exchange recognized by the Pension Commission;

vi. Bonds and other debt securities issued by listed companies;

vii. Real estate;

viii. Such other instruments as the Commission may prescribe.

## 2.2. Empirical Review

According to Lefort and Walker (2019), pension funds have the potential to reduce the cost of financing in emerging market economies (EMEs) via three different channels. The pension system has been reformed, which has resulted in a more established capital market and a reduction in the cost of issuing securities. This is the first channel. Second, even when taking into account the short-term performance of an investment, the predicted investment time horizon of pension funds is significantly longer than that of individuals and corporations, which reduces the "term premium." Third, a reduction in the equity risk premium can be attributed to the pooling of pension funds and the careful management of those funds, (Davis & Steil, 2004).

Injections of cash into the various markets can also help to boost local economies and have incredibly large beneficial impacts across a wide variety of communities. And as such, many small business owners stand to benefit from increased economic activity in their local markets. The traders in particular having shown success when taking advantage of these opportunities, For instance, unemployed younger people can sell their work to older people in retirement communities. Pension payments are another tool that governments can use to attract financial service providers to expand their operations into more rural areas of the country, (Nyangarika & Bundala, 2020). People spending their pensions can be a huge motivating factor to national economies, resulting in benefits for businesses operating at the national level. This increased consumption and demand can be obtained by people spending their pensions. Pensions that are more inclusive can help increase social cohesion, which can lead to more peaceful and equitable societies, as well as a climate that

is more favourable to investment. Pension plans can be universally enhanced by tax-funded pension, which may enable them to diversify their reserves and provides resources for large-scale investments in the economy. Additionally, according to the International Monetary Fund (IMF), excessive levels of inequality can stifle economic growth, and it has been demonstrated that old-age pensions are an effective instrument for lowering inequality. Other Macroeconomic indicators can also affect the rate of growth in any economy, which include amongst others, interest rate, inflation rate, money supply; number of listed securities/ securities traded Liquidity, etc. (Nyangarika & Bundala, 2020).

Nwanne (2015) examine the impact of pension funds on economic growth and the impact of mobilized pension savings. The study used an ex-post-facto research design. The Ordinary Least Squares Regression approach was used in the data analysis. Economic growth is negatively impacted by pension funds, while pension savings have a positive and large impact, according to the study. Essentially, this means that the goal of using pension funds to generate long-term capital to support economic growth was achieved. Also, it indicates that the program's coverage is low because the pension savings contribution is so small Sun and Hu, (2014) claim that a country's financial well-being and economic growth are bolstered by a well-funded pension system. The authors found that a 1% increase in pension fund assets can result in a 0.15-0.23 percent increase in the value of the capital market. Niggemann and Rocholl (2017) claim that restructuring pension funding causes a spike in stock and corporate bond markets, development of emerging nations. International variations in financial sector development can be predicted by the level of pension financing. Pension assets have a positive impact on the capital market. Remizova, (2017) acknowledge, but they also point out the limitations of this impact because of the tendency of pension assets to invest in short-term assets (bank deposits and short-term government bonds). Investment returns are lowered as a result, posit the authors. Foreign investment limits should be increased while encouraging innovative investment mechanisms should also be prioritized, according to the report. Studying Jordan's 1980-2017 capital market development in relation to pension funds, Daradkah and Al-Hamdoun (2021) found no statistically significant influence between pension funds and capital market development, but they found a statistically



significant long-term balance between pension funds and capital market development (both in the market depth and its liquidity). Holzmänn (2017) finds a positive correlation between pension reform and economic growth using the Solow model. A pension asset is incorporated into a Cobb-Douglas production function presented by Davis and Hu (2018). Both OECD and developing countries, according to Davis and Hu (2018), pension assets positively influence per capita output, with the latter having a greater impact. The impact of pension assets on GDP growth and the inessential data about the impact of GDP growth on pension assets are both established by Hu (2015) using Granger causality tests. Pension benefit levels, pension savings value, as well as the structure of mandatory pension payments to the distribution and accumulation systems are all modeled mathematically by Nepp and Dolgodvorov (2016). An inverse relationship between GDP and the share of pension payments that go to a fully funded pension plan was found by the authors.

Wanjala and Christopher (2013) examined the link between Pension Fund Assets and Economic Growth in Kenya and objective was to find the correlation between Retirement Pension Assets, Equity Turnover, Treasury Bills, Inflation and Domestic Debt was examined. The relationship between Pension Assets and Inflation was also examined in depth. Using data from 2002 to 2011 and the SPSS, frequency tables, percentages and multiple regression technique, findings revealed a link between Kenya's retirement pension assets and the country's economic growth. Farayibi and Adesoji (2016), a study on the impact of Nigeria's funded pension scheme on economic growth since its inception in 2004 used error correction mechanisms (ECMs) and Ordinary Least Squares (OLSs). Researchers found that both private and public contributions to Nigeria's pension funds increased significantly, leading to the creation of enormous investment funds on the capital and money markets. As a result, the economy was flooded with cash, new jobs were created, and the investment climate was improved. Contributory pensions, according to the findings of the study, have the potential to boost Nigeria's GDP while also providing retirees with greater convenience than the old defined benefit program. But the report recommended that delays in payments, administrative obstacles, and corruption in the management of Nigeria's pension funds should be eliminated by any means possible.

Fashagba (2021) examines how Nigeria's economic growth would be affected by the new plan. Secondary data on GDP and pension funds from the public and private sectors was used because it was readily available for a ten-year period. Ordinary least squares were used and findings were that Nigeria's economy grew significantly as a result of the new pension fund's implementation. According to the study, a consolidation of the country's contributory pension system is needed to help the economy grow.

Ebenezer, Ashley, Gideon, Boako, and Ernest (2019) examined how much workers in Ghana contribute to the various pension systems available and how this affects GDP. And using a cross-sectional design, a quantitative method of scientific investigation and findings however suggested a correlation between Ghana's GDP and pension fund assets. That around 94.93% of Ghana's GDP volatility is accounted for by pension fund assets, according to the data. Facts are that World Bank does not collect data on African economies' pension fund assets, except for Kenya. The Trustee and other pension fund managers were advised to keep a close eye on local and international financial markets in search of the best investment "deals" in order to ensure higher real returns on pension fund investments because financial market volatility cannot be avoided.

### 2.3. Theoretical Framework

#### The Endogenous Growth Theory

The theory of endogenous growth was propounded by Romer, (1986) and it suggests that the development of money is caused by factors that enter the economy, not external forces. Factors of production, such as the labour factor, can be managed internally and the economy can be improved to ensure economic growth. The theory is thus based on a closed market economy. According to the endogenous theory of growth, the development of the stock market, and hence capitalization, leads to a high level of economic growth by affecting the level of investment and productivity. According to the theory, stock market helps to mobilize savings and stimulate investment and thus improve economic growth over time (Dorco, 2012). The stock market, being part of the overall financial system, helps to mobilize and increase financial resources from surplus units in the economy, and then such funds are efficiently and effectively directed to the supply units of the deficit. Thus, resources

are efficiently allocated to many areas of production, and over time, such efficiency has a positive impact on the growth of the economy. This is the theory upon which this research work is built.

### 3. Methodology

#### 3.1 Research Design

The research design for the study was the longitudinal research design. Reasons being that, it is the research design that has to do with already existing data and which minimizes the chance of manipulation, which is usually the case with secondary data and in which response in the nature of effects on individual variable is being studied. The population and scope of study covers the Nigerian economy only, from 2004 to 2022 period. Data was sourced from the respective Pension fund annual report (various issues) for Nigeria, as well as the World Bank financial development indicators WBI 2004 – 2022.

#### 3.2. Model Specification

For the purpose of this study, we adapted the model of Ezenduka and Joseph (2020). Their theoretical models are specified below:

$$\begin{aligned} \text{GDPR} &= f(\text{MCR}, \text{NSL}) \dots\dots\dots (1) \\ \text{GDPr} &= f(\text{TOR}, \text{ASI}) \dots\dots\dots(2) \\ \text{M2R} &= f(\text{MPR}, \text{ASI}) \dots\dots\dots(3) \\ \text{CPSR} &= f(\text{TOR}, \text{ASI}) \dots\dots\dots(4) \end{aligned}$$

Where;

GDPR = Economic growth as proxy for Gross Domestic Product growth rate

NSL = Number of securities listed on the Nigerian Stock Exchange

ASI = All share index growth

MPR = Monetary Policy Rate

M2R = Money Supply ratio (M2/GDP)

CPSR = Credit to Private Sector ratio (CPS/GDP)

However, the model for the study was a modification of their model and it is specified thus:

$$\text{GDPGR} = f(\text{PFA}, \dots\dots\dots)(5)$$

Where:

PFA = Pension Fund Administration indicators (pension fund investment, Pension Asset and contribution)

Where:

GDP = economic growth, for which the growth rate of real gross domestic product (GDPGR) is used as a proxy and the Dependent variable of the study.

PFI is pension fund investment

PA is Pension Asset, and

PFC is pension fund contribution.

In addition to pension and management variables, other independent variables have been included in the model which are financial deepening (FDEP) and Interest rate (INTV) variables, which have been found to affect growth dynamics over time. Thus, the functional equation (5) is written econometrically as .... (6)

Subscript  $t$  takes cognizance of the time trend, and while  $i$  takes care of the cross sectional effect,  $\alpha$  is the intercept term,  $\beta$  are the coefficients of the explanatory variables to be estimated,  $\epsilon$  is the stochastic error term, which measures the portion of changes in economic growth not explained by the independent variables.

#### Error correction Mechanism

Error Correction Models (ECMs) are a category of multiple time series models that directly estimate the speed at which a dependent variable -  $Y$  - returns to equilibrium after a change in an independent variable -  $X$ . ECMs are useful for estimating both short term and long term effects of one time series on another. ECMs are useful models when dealing with integrated data, but can also be used with stationary data. Error Correction is a part of the model that looks at how fast the past deviations from equilibrium are corrected. As such, by bringing in the econometric model in equation (6): we had

$$\text{GDPGR}_t = \alpha + \dots\dots\dots (7)$$

#### 3.3 Method of Data Analysis

Method of data analysis was the OLS regression technique, as well as the error correction mechanism, and Data were subjected to Preliminary test such as the ADF unit root test, correlation test as well as the summary statistics: the descriptive statistics.

**Table 1. Measurement of Variables**

Variables	Description / Measurement	Sources
GRGDP	This will be the proxy for economic growth in each country and will be measured as growth rate of real gross domestic product.	Ezenduka and Joseph (2020)
PFI	Pension fund investment will be measured as the aggregate investment made by all Pension Fund Custodians (PFC) or equivalent in each country of interest	Farayibi and Adesoji (2016) Fashagba (2021); Farayibi and Adesoji (2016).
PFC	Pension fund contribution will be measured as the aggregate sum of money contributed annually from employers and employees who are registered by all Pension Fund Administrators (PFA) in each country	Fashagba (2021)
PA	This Represents Pension Asset value per year: annual value of pension assets.	Ebenezer, et al (2019)& Wanjala and Christopher (2013)
FDEP	Financial deepening will be measured as the ratio of broad money supply (M2) to GDP.	
INTV	Interest rate will be taken as the prime lending rate. This is the rate at which the Deposit Money Banks grant credits to their most reliable customers.	

Researcher's Computation, 2025.

#### 4. Results and Discussion

**Table 2: Descriptive Statistics**

	GDPGR	PA	PFC	PNFI	INTRT	FDEP
Mean	7700.826	4.146647	710.1900	4440.441	11.45118	18.01882
Median	7344.530	4.343000	458.9600	2461.560	12.00000	19.90000
Maximum	16473.56	7.978000	6375.330	22653.58	15.00000	25.16000
Minimum	-1.794253	0.000000	15.60000	0.000000	6.000000	0.000000
Std. Dev.	4010.099	2.491782	1476.130	5665.895	2.633123	6.031522
Skewness	0.436270	-0.418532	3.610751	2.090405	-0.751432	-1.637976
Kurtosis	3.078212	2.194527	14.41917	7.299600	2.717055	5.685782
Jarque-Bera	0.543606	0.955869	129.3045	25.47574	165.8872	19.95118
Probability	0.762004	0.620063	0.000000	0.000003	1035.348	1.024388
Observation	19	19	19	19	19	19

Source: Author's Computations, 2025 using the Eviews 9.0 for Windows.

It is worthy of note that the essence of conducting the descriptive statistics is to determine the features of the data set and also, to determine the variability of the data set: which are revealed by the variance and standard deviation values. Table 1 therefore shows the result of the descriptive statistics of the variables of study used in the analysis. It shows that between 2004 and 2022, the average GDPGR (gross domestic product growth rate), Pension Asset (PA), Pension fund contribution (PFC) and PNFI (Pension fund investment) variables are 14797.52, 4.146647, 710.1900 and 4440.441, respectively. Others include, interest rate (INTRT) and Financial deepening (FDEP) variables, which have

averages of about 11.45118 and 18.01882 respectively. This shows that variables of study exhibited significant variations in magnitude, which implies that estimation at levels may lead to result bias. The same goes for both the variance and standard deviation of the estimation process. It is also observed that while variables such as PA, FDEP and INTRT are negatively skewed (to the left side), others were positively skewed to the right side of the tail of the normal distribution curve. Consequently, the variables such as PA, FDEP, INTRT, and others of PFC, PNFI, were normally distributed within the period of study. Based on the descriptive statistics, we needed to carry out the correlation test as well as the ADF

stationarity test to further clean the data for an improved regression estimation output.

**Table 3: The Correlations Results**

	GDPGR	PA	PFC	PNFI	INTRT	FDEP
GDPGR	1.000000					
MCAP	0.164698					
PA	0.377006	1.000000				
PFC	-0.388991	0.522464	1.000000			
PNFI	-0.016088	0.773777	0.891376	1.000000		
STOR	-0.225936	-0.390801	-0.242157	-0.350449		
VOT	-0.441698	-0.940683	-0.451157	-0.755059		
INTRT	0.337362	0.137452	-0.118325	0.126573	1.000000	
FDEP	0.775498	0.233641	-0.681981	-0.363498	0.143072	1.000000

Source: Researcher's Computations, 2025

The correlation matrix according to spearman correlation analysis tends to reveal amongst other things, the strength and magnitude, as well as the direction of relationship between variables of interest in a research: using the probability vales. Consequently, from the result in table 3, it reveals the correlation of the dependent variable (GDPGR) with itself is a perfect correlation of 1.000. Similarly, there tends to be varying

correlations of other variables of study with the dependent variable and their direction is either negative or positive correlation. While there exists a negative relationship between the dependent variable (GDPGR) with PFC, PNFI, and while the others of PA, FDEP and INTRT exhibited a rather positive correlations with GDPGR, within the period of estimation.

**Table 4: the ADF Unit Root Test Results**

Variable	Augmented Dickey fuller Intercept and Trend	Augmented Dickey fuller Intercept and Trend	Order of Integration
	Levels	1 <sup>st</sup> Difference	
PNFI	1.645319	-4.709204	I(1)
PFC	-3.636170	5.063120	I(1)
PA	-1.694571	-0.176923	I(2)
FDEP	-2.611200	-3.907703	I(1)
INTRT	-3.907703	5.231733	I(1)

Source: Researcher's Computation using Eviews Software 9.0 for Windows. 2025

Table 4 represents the unit root test results for variables in the model. The first variable of PNFI had a unit root and was integrated of order 1, that is, at the first difference and 1 percent level of significance. The second variable of PFC, was also integrated of order 1, meaning at the first difference and at the 1 percent significant level. PA was integrated of order 2 and at 5 percent level. All the capital market performance was

integrated of order 1, except for STOR, which was integrated of the order 2, in the result. Furthermore, the macroeconomic variables employed in the model, were also integrated of order 1, in the analysis. The result further validates the wide spread and variation of the means of the variables: the dependent versus the independent of the study. We then preceded with the ECM short run analysis estimation techniques.



**Table 5: The ECM Short Run Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PA	180.7033	0.000145	1244669.	0.0000
PFC	-5.306054	2.68E-07	-19784439	0.0000
PNFI	0.897381	3.93E-08	22856384	0.0000
INTRT	-145.2207	2.80E-05	-5191618.	0.0000
FDEP	8.33E-05	5.30E-05	1.572177	0.1599
ECM	1.000000	2.87E-08	34873956	0.0000
C	-519.7601	0.001770	-293627.2	0.0000
R-squared	1.000000	Mean dependent var		7700.826
Adjusted R-squared	1.000000	S.D. dependent var		4010.099
S.E. of regression	0.000168	Akaike info criterion		-14.25096
Sum squared resid	1.99E-07	Schwarz criterion		-13.76083
Log likelihood	131.1331	Hannan-Quinn criter.		-14.20224
F-statistic	1.01E+15	Durbin-Watson stat		2.288530
Prob(F-statistic)	0.000000			

Source: Regression output using Eviews 9.0 for Windows. 2025.

From the result of the ECM short run analysis, it is observed that while some of the independent variables are positively signed, others are negatively signed from the estimated regression output. All except the financial deepening variable have significant relationship with the dependent variable of GDPGR, which is indicated by the P- values in the result. This implies that all variables of estimation passed the test of significance at the 1 percent and 5 percent level of significance, and thus have a strong relationship with the dependent variable of study, except for FDEP variable. And why variables such as INTRT conform to apriori expectation, the others except the PFC variable, also conforms to theory in the estimated model.

The Durbin Watson test of autocorrelation, which stood as 2.2, is indicative of absence of auto correlation amongst variables in the study. Also, the F – statistics, which is the test of overall significance of the model, indicates that the estimated model is an equation of best fit. It passed the test at 1 percent level of statistical significance, which is about 99 percent confidence level. The coefficient of determination known as the R-Squared as well as the adjusted are both 100 percent, which shows a perfect explanation of the systematic variation of the dependent variable by the respective independent variables of study. That means, in the short run analysis, with the ECM methods, variables of study are able to account for the systematic change in GDPGR, over the period.

#### 4.1 Discussion of Findings

From the empirical analysis, it has been observed with the ECM estimation that under the Nigerian analysis that all the independent variables possessed a strong relationship with the dependent variable of GDPGR, except for the FDEP variable. This implies that the independent variables of study such as PFC (pension fund contribution), PNFI (pension fund investment), PA (pension asset), which are pension fund administration indicators; tend to have a positive strong impact on GDP and growth rate also over the period. Consequently, it means anytime pension fund (whether in asset, investment or contribution) dwindles; it is bound to affect gross domestic product growth rate (GDPGR) over time. These findings also validated the work done by Holzmann (2017), Daradkah and Al-Hamdoun (2021) in Egypt, Farayibi and Adesoji (2016) (Nigeria) and Remizova, (2017): that pension asset tend to affect growth dynamics, while it is at variance with the work of Nwanne (2015). The discussion of major findings is listed below:

- i. Pension fund investment has significant impact on GDP within the period under study
- ii. Pension fund contribution and pension asset have significant relationship with GDP within the period of study
- iii. All capital market indicators have significant impact on GDP under the period under review.

Financial deepening and Interest rate also possessed positive significant relationship with economic growth, within the period of study

## 5. Conclusion and Recommendations

The title of this research work is Pension fund administration, Capital market performance and economic growth in some selected countries of Africa. The issues overtime has been that pension's schemes and reforms have not been effective to bring about growth across the economies of Africa. Also, the capital market of selected countries; though the variables had performed well in our study, still need to be develop and deepened, by bringing derivatives into the markets, so as to continue to contribute significantly to the growth of these under studied economies. Furthermore, the issues of the Federal Government of Nigeria going to borrow from pensions fund, which is capable of worsening the challenges with payment of pensions entitlements as and when due.

The objective of the study has been to determine whether or not significant relationship existed between pensions fund indicators, as well as, capital market performance indicators with economic growth, proxy by GDP growth rate. The finding suggests a significant impact with pensions fund indicators and capital market indicators at varying degrees across the countries of study. For Nigeria; a positive and significant relations with pensions and capital market performance indicators on GDP, and hence, on economic growth within the study period; there is also recommendations for these findings and policy implications from the study.

From the findings, it has been established that Pension fund indicators exacted a significant impact on GDP over the period under review, there are implications for the economy. Implications are that, if Nigeria (policies and Government) can improve its pension system, by ensuring both the private and public sectors are well covered; for more investment, asset and contribution, it would not only increase GDP, but also contribute immensely to economic growth over time. From the results also, it is also established that the contributory pension scheme will work in Nigeria if the requisite regulatory and institutional standards are maintained in the country, and economic growth would be attained in no time in the country.

It is based on the study findings and policy implications, that we make the following recommendations

- i. Government should ensure that pension coverage extends more to private, public, as well as individual pensions, in order to increase more pension contribution across the African countries concerned. This will contribute significantly to GDP and economic growth overtime.
- ii. Government should ensure a more interest rate friendly environment through instrumentation of Central Banks, to encourage more investments by investors in both the money market and the capital market; this will not only increase GDP, but also economic growth over time. It should also ensure adequate funding of pension schemes across the respective countries of Africa.
- iii. Based on these findings government should address the shortage of investment assets through effective policy measures that enhances the performance of stock market in Nigeria and to restore confidence of the investors and ensure depth of the market.
- iv. The Nigeria Government should ensure necessary and enabling environment to attract foreign investors into their economies, through foreign direct investment, which serves as a booster of economic growth over time.
- v. Government should ensure a more interest rate friendly environment through instrumentation of CBN, to encourage more investments by investors in both the money market and the capital market; this will not only increase GDP, but also economic growth over time.

## Suggestion for Further Study

We strongly suggest that further study should extend scope to cover the Sub Saharan Africa countries; since present study only centered on the Nigerian economy alone. Again, present studies had employed some of the pension fund administration indicators; further studies can extend the indicators to include private pension contribution and public pension contribution. Also, only

two (2) macroeconomic variables of financial deepening and interest rate were considered in present study, future

studies can consider exchange rate, foreign direct investment, and gross capital formation, amongst others.

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