

---

**Effect of Pension and Insurance Funds on Financial Deepening in Nigeria**

ABDUL, Hussaini Zainab<sup>1</sup>, JACOB, Zaccheaus<sup>2</sup>

<sup>1,2</sup>Department of Banking & Finance

Faculty of Administration

Nasarawa State University Keffi

doi.org/10.51505/IJEBMR.2023.71212      URL: <https://doi.org/10.51505/IJEBMR.2023.71212>

Received: Nov 11, 2023

Accepted: Nov 24, 2023

Online Published: Dec 27, 2023

**Abstract**

This study examines the effect of pension and insurance funds on financial deepening in Nigeria for the period 2012Q1 to 2023Q1. Quarterly time series data for pension funds, insurance funds and financial deepening were collected from the Central Bank of Nigeria statistical bulletin. Philip Perron test was used to test the stationarity of the data and the ARDL Bound cointegration test was utilized to determine the presence of long-run relationship. The Fully Modified Ordinary Least Squares regression method was used to test the effect of pension and insurance funds on financial deepening in Nigeria. The findings showed that there was no long-run relationship among the variables, while pension funds have a significant effect on financial deepening in Nigeria, insurance funds do not have a significant effect on financial deepening in Nigeria. It was recommended that, in order to increase the financial depth of the Nigerian economy, a critical upward review of the investment outlet available to pension fund administrators should be done. On the other hand, the Central Bank of Nigeria in collaboration with the National Insurance Commission can take advantage of opportunities in the insurance industry, especially by enforcing all the mandatory insurance policies given by law.

**Keywords:** Pension funds, Insurance funds, Financial deepening.

**Introduction**

The first industry that comes to mind when financial intermediation is mentioned is the banking industry. However, in the past two decades, financial intermediation has grown beyond the banking industry with a boost given to pension funds and insurance companies. Investment of pension funds in Federal and state governments' securities has assisted both Federal and state governments to cost-effectively manage national debts, thereby contributing to the financial needs and contributing to the financial sector development (Haruna et al., 2015). The pension fund has come in as an independent financial intermediary as the nation's private business enterprises no longer rely on banks as the sole sources of capital for financing their businesses. Insurance companies, especially composite and life insurers, are large investors in financial markets since they invest their insurance funds (Oyedotun & Adesina, 2015). Most of the time, given their often long-term investment horizons, insurers are a source of depth for financial markets. However, because of the sheer size of their investment portfolios, reallocations of funds or the unwinding of positions by these institutions has the potential to move markets and, in extreme cases affect financial sector development by destabilizing asset prices.

Financial deepening on the other hand refers to the increased provision of financial services with a wider choice of services geared to all levels of society. It also refers to the macro effects of financial deepening on the larger economy (Alrabadi & Kharabsheh, 2016). Financial deepening generally means an increased ratio of money supply to GDP or some price index. It refers to liquid money. The more liquid money is available in an economy, the more opportunities exist for continued growth. Financial depth captures the financial sector relative to the economy. It is the size of banks, other financial institutions, and financial markets in a country, taken together and compared to a measure of economic output (Andabai & Igbodika, 2015).

The financial intermediation theory emphasized the roles of financial intermediaries in the financial systems. The theory establishes that the contribution of intermediaries like pension funds and insurance funds is to ensure a steady flow of funds from the surplus units to the deficit units. One major problem facing the pension funds in Nigeria is limited investment outlets. The limited investment outlets may not be enough to assimilate the accumulated pool of pension funds. Thus, a pool of pension funds may be chasing relatively few quality investments (Eche, 2017). A foremost problem of the insurance funds is the low implementation of compulsory insurance. This reduces the insurance funds that should have been available for financial intermediation.

Several studies have in the past examined the contribution of pension funds and insurance funds separately on economic growth rather than financial deepening. Gunu and Tsado (2012) conducted a study on the contributory pension fund as a tool for economic growth. Nwanne (2015) investigated the impact of contributory pensions on economic growth. Fadun and Shoyemi (2018) examined insurance investment funds and economic growth in Nigeria: An empirical analysis (2000-2015). Etale (2019) investigated insurance sector development and economic growth in Nigeria: An empirical analysis. Few works considered the relationship between pension funds and financial development or insurance funds and financial development are: Shouji and Jiye (2014) examined the impact of pension systems on financial development in 55 countries. Cosmas and Okeke (2016) examined the influence of the contributory pension scheme on the financial system development in Nigeria. Baruti (2020) examined insurance sector development and its effect on the financial markets in Developing Countries: The case of Kosovo. However, none of the studies mentioned above examined the effect of pension and insurance funds on financial deepening in Nigeria. Also, none of Shouji and Jiye (2014); Cosmas and Okeke (2016); and Baruti (2020) looked at the depth of the financial system alone. Shouji and Jiye (2014), and Baruti (2020) are not on Nigeria's economy. While Cosmas and Okeke (2016) which is on the Nigerian economy only used primary data for its analysis. Thus, this study fills these gaps in the literature by examining the effect of pension and insurance funds on financial deepening in Nigeria from 2012Q1 to 2023Q1 using cointegration and regression techniques.

The following specific objectives were considered in the study:

- i. To examine the effect of pension funds on financial deepening in Nigeria.
- ii. To ascertain the effect of insurance funds on financial deepening in Nigeria

The following hypotheses were formulated for the study:

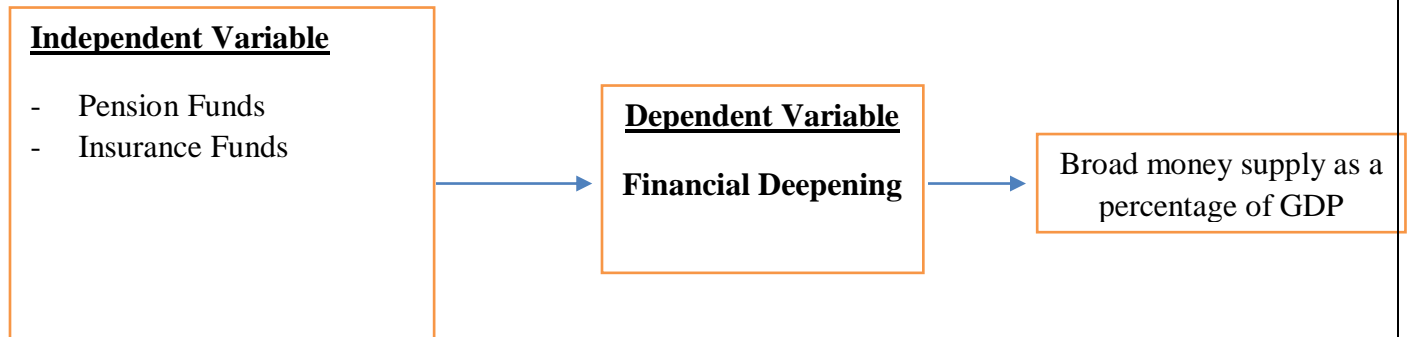
H<sub>01</sub>: Pension funds have no significant effect on financial deepening in Nigeria.

H<sub>02</sub>: Insurance funds have no significant effect on financial deepening in Nigeria.

**Literature Review**

**Conceptual Framework**

**Figure 1: Conceptual Framework of the Study**



**Pension Funds**

The concept of pension has often been a subject of debate. This is primarily because pension issues are connected to many areas of economic and social policies, thus making their reform and administration a difficult task to undertake. Pension is simply the amount set aside either by an employer or an employee or both to ensure that at retirement, there is something for employees to fall back on as income (Fapohunda, 2013). It is a periodic income or annuity payment made at or after retirement to employees who have become eligible for benefits through age, earnings and service. A pension is a contract for a fixed sum to be paid regularly to a pensioner, typically following retirement from service (Haruna et al., 2015). It is different from severance pay because the former is paid in regular instalments while the latter is paid in one lump sum.

Robelo (2012) asserted that a pension is also a method whereby a person pays into a pension scheme a proportion of his/her earnings during his working life. The contributions provide an income (or pension) on retirement that is treated as earned income. This is taxed at the investor's marginal rate of income tax. On the other hand, gratuity entails a lump sum of money payable to a retiring officer who has served for a minimum period. Adams (2015) in his assessment of pension, declared that pension is the amount paid by the government or company to an employee after working for some specified time, considered too old or ill to work or have reached the statutory age of retirement. Similarly, Ozor (2016) explained that a pension consists of a lump sum payment paid to an employee upon his disengagement from active service. He further stated that pension plans may be contributory or non-contributory, fixed or variable, group or individual, insured or trustee, private or public, and single or multi-employer. According to Adebayo (2016) and Ugwu (2016), there are four main classifications of pensions in Nigeria, namely, retiring pension, compensatory pension, superannuating pension, and compassionate allowance.

The pension fund, also known as a superannuation fund in some countries, is any plan, fund, or scheme that provides retirement income (Yunusa,2019). Pension funds are pooled monetary contributions from pension plans set up by employers, unions, or other organizations to provide for their employees' or members' retirement benefits. Pension funds are the largest investment blocks in most countries (including Nigeria) and dominate the stock markets where they invest (Nyong &Duze, 2017). When managed by professional fund managers, they constitute the institutional investor sector along with insurance companies and investment trusts. Typically, pension funds are exempt from capital gains tax and the earnings on their investment portfolios are either tax-deferred or tax exempt (CFA Institute, 2021).

### **Insurance Funds**

When an insurance company underwrites a new policy, it agrees to indemnify or compensate the policyholder for covered losses. In exchange for taking on this risk, the insurer is paid a premium. The premium is used to pay claims, as well as generate investment income. Insurers must balance the mechanisms they use to manage funding for future claims with their desire to generate profits by investing the premiums in viable investments (Akinlo,2015). This accumulated premium is the insurance funds which is the responsibility of the insurance company to manage appropriately. Insurance companies invest insurance funds in many areas, but most of them invest in bonds. This makes sense because bonds are perhaps the safest of all investment categories. Insurance companies – being in the business of risk assessment – would logically find the low risk that bonds represent appealing, but there are other reasons as well (Patrick, 2019).

### **Financial Deepening**

The term "financial deepening" describes the rise in financial assets inside the financial industry. Financial deepening, according to Chepkinyeng (2017), is the improvement of financial services that are suited to all societal levels, hence raising the accessibility and availability of financial services within an economy. The increase in the money supply to price index ratio, which shows that there is more money accessible in the economy due to high liquidity, is another term for financial deepening. In that economy, there are more prospects due to its high growth rate and sustainability (Ochanda, 2019). Therefore, the expansion of financial institutions drives economic growth. The mobilization, pooling, and channeling of savings into a productive capital pool that boosts economic growth are made easier by financial depth in financial institutions (Ndege, 2012).

Stiglitz and Greenwald (2011) assert that financial deepening reduces the degree of information asymmetries, improves capital allocation, increases savings, and enables financial institutions to regulate and manage their risk exposure. Financial deepening strengthens the financial system in a way that increases accessibility to financial services for all societal levels, enhancing the financial performance of financial institutions in the process, and eventually spurring economic growth (Odhiambo, 2015). The ability of financial institutions to efficiently mobilize savings for investment objectives is referred to as financial deepening (Andabai & Igbodika, 2015). The actual framework for the development of the financial claim's diversification is provided by the rise in savings levels in financial institutions. Financial deepening also results in the availability

of financial instruments and services as well as the active participation of financial institutions in the financial markets. Growing investment levels and savings rates will be consistent with a system free from financial repression (Nnanna & Dogo, 2018).

Proxies variable that has received much attention in the empirical literature in this regard is private credit relative to gross domestic product and the ratio of the broad money supply to gross domestic product. More specifically, the ratio of private credit relative to gross domestic product is defined as domestic private credit to the real sector by deposit money banks as a percentage of local currency GDP. Therefore, private credit excludes credit issued to governments, government agencies, and public enterprises. It also excludes credit issued by central banks. The ratio of broad money supply to GDP is cash and other assets easily converted into currency. It is the sum of currency outside banks; demand deposits other than those of the central government; the time, savings, and foreign currency deposits of resident sectors other than the central government; bank and traveller's checks; and other securities such as certificates of deposit and commercial paper (World Bank, 2023). Broad money supply is the most comprehensive method of calculating the money supply of a given country, the totality of assets that can be used by households and businesses to make payments or keep as short-term investments, such as currency, funds in bank accounts, and anything of money-like value (Komal, 2023). The Central Bank of Nigeria measure financial deepening using broad money supply to GDP, which is the path that this study also tail since it all inclusive of the money in supply except the central government as it relates to the total value of all the finished goods and services produced within a country's borders within a specified period.

## **Empirical Review**

### **Pension Funds and Financial Deepening**

Cosmas and Okeke (2016) examined the influence of the contributory pension scheme on the financial system development in Nigeria. Evidence accumulated from both theoretical and empirical literature points to the power of contributory pensions to deepen the financial system. An empirical work earlier done showed that the total domestic savings (TDS) increased during the post-pension period; and that the capital market capitalization rose significantly over the period. It was also observed that its implementation has created an impressive scenario whereby pension funds account for 30% and 8% of bond and stock market capitalization, respectively.

Shouji and Jiye (2014) examined the impact of pension systems on financial development in 55 countries. The impact of pension assets on financial development is both quantitatively and qualitatively. On quantitatively, pension funds increase capital supply to the financial market. On qualitatively, pension funds as institutional investors could promote corporate governance, information disclosure and transaction efficiency. Based on regression results of 55 countries and regions, the study found that different pension systems formed different sizes of pension funds; every 1% increase in the pension funds' assets could bring about a 0.15%-0.23% increase in the market value, which could explain cross-countries difference of financial development. Based on panel data analysis, the study found that the impact of pension funds on financial development is very significant, especially in civil law and underdeveloped countries. By using co-integration analysis and the Vector Auto regression model (VAR) with time series data from Chile, the study

found a positive relationship between pension funds and financial development again. The empirical results indicate that legal origin, endowment and pension fund views are not exclusive but compatible. A country cannot change its legal origin and endowment, but it can change pension policies and reform the social security system. A funded pension system with accumulated pension assets could promote a country's financial development and economic growth.

### **Insurance Funds and Financial Deepening**

The impact of Nigeria's formal financial industry on financial deepening was studied by Jacob et al. (2023) from 2012Q1 to 2022Q3. One of the proxies utilized for the formal financial sector on financial deepening in Nigeria was the development of the insurance business. The Central Bank of Nigeria statistical bulletin's quarterly time series data on deposit money bank development, insurance sector development, stock market development, and financial deepening were used in the study's ex-post facto research design. The Fully Modified Ordinary Least Squares estimator and the Johansen co-integration test were used to analyze the data. The results demonstrated that the growth of the insurance sector and deposit money banks both had a major impact on Nigeria's financial deepening, whereas the expansion of the stock market had a negligible impact. It was suggested that Nigerian deposit money institutions should use industry-development tactics, particularly by investing in technology and artificial intelligence (AI), so that the majority of their banking services and products are provided to clients seamlessly and comfortably. In addition, it is recommended that the National Insurance Commission build a regulatory framework that fosters the growth of new insurance businesses, upholds industry accountability and openness, and guarantees sufficient capitalization for insurers. Lastly, further work needs to be done by the Nigerian Exchange Group to list companies.

Baruti (2020) examined insurance sector development and its effect on the financial markets in Developing Countries: The case of Kosovo. The market study aimed to analyse the insurance system in Kosovo by determining and then analyzing its structure, the degree of concentration of insurance companies on the insurance market, their behaviour towards price, the number of participants, companies operating in this market and types of products and services they provide. The study analysis was gathered on statistical and qualitative data through the study of the theories on insurance market development in other countries. Furthermore, the study used secondary data from the Central Bank of Kosovo, Insurance Companies and Association Insurance of Kosovo. Also, the study conducted two surveys. The study surveyed finance managers from all insurance companies and the secondary survey was in general, for people who work. In the end, the study concluded that insurance development affects the financial markets in developing countries. Therefore, the insurance sector in Kosovo is an important factor in the further development of the financial system.

Etale and Edoumiekumo (2020) investigated the financial sector policies and economic growth link in Nigeria with a focus more on the insurance sub-sector. The study adopted the time series research design, where data for evaluation covering the period 2010 to 2018 were obtained from several editions of the Central Bank of Nigeria (CBN) Statistical Bulletin. Gross capital formation, total insurance premium and total insurance investment were used to represent

financial sector policies, while gross domestic product was used as a proxy for economic growth. Data were analyzed using descriptive statistics and multiple regression techniques. The study found that gross capital formation and total insurance investment were significantly related to gross domestic product, while total insurance premium had an insignificant effect on gross domestic product. Also, gross capital formation and total insurance premium had a negative effect on gross domestic product, but total insurance investment was positively related to gross domestic product. The study concluded that financial sector policies made a statistically substantial contribution to the growth of the Nigerian economy. It was therefore recommended that the regulatory authorities should put in place policies to make it attractive for Nigerians to patronize the insurance business as this would translate to increased insurance investment and further result in the growth of the Nigerian economy since insurance investment was found to have a positive link with gross domestic product.

### **Theoretical Framework**

#### **Financial Intermediation Theory**

Leland and Pyle created the theory of financial intermediation (1977). The idea placed a strong emphasis on the functions of financial intermediaries within financial systems. They realized that there are four main ways to group financial intermediaries: short-term deposits, liabilities (deposits) that are set for a fixed amount and unrelated to portfolio performance, a large percentage of their liabilities that are payable by check, and assets and liabilities that are not transferable. According to the theory, the intermediaries' role is to guarantee a constant flow of money from surplus units to deficit units.

To guarantee the expansion of the economy through the supply of financial commodities, financial intermediaries play a crucial role (Scholtens & Wensveen, 2003). A platform that facilitates the exchange of various commodities is created by the financial intermediaries. Market flaws are the reason financial intermediaries are in place. Hence, financial intermediaries would not have existed in a perfect market with no transaction or information costs. Disparities in information between buyers and sellers are a common feature of many financial markets.

Information asymmetries are especially noticeable in financial markets. When investors borrow money, they typically need collateral, and entrepreneurs who are looking for financing have inside knowledge about their investments (Leland & Pyle, 1977). The theory is crucial to the study because it highlights how financial intermediaries mobilize, channel, and pool savings as well as increase investment levels in the economy. By increasing their efficiency and extending their functions, these intermediaries significantly contribute to the expansion of the economy.

#### **Methodology**

This study took the path of the positivist research philosophy as it adopts the deductive method of research focused on testing theory, herein financial intermediation theory. This study adopted descriptive research design, specifically ex post facto research design. The Expost facto research design explores the cause-effect relationship through the use of already existing data. Quarterly time series data covering the period 2012Q1 to 2023Q1 was used for this study. The variables of the study are pension funds and insurance funds as independent variables, while financial deepening as measured by broad money supply to GDP is the dependent variable. Data for the

study was obtained from the Central Bank of Nigeria Statistical Bulletins. Descriptive statistics was used to explain the data. A stationarity test was conducted to test for the presence of unit roots in the time series data. In addition, a Co-integration test was conducted to investigate possible correlations among the variables of this study. Since there was no long-run relationship among variables, the data was analyzed using fully modified ordinary least squares through the Eviews 10 Statistical Package. The analysis process of this study follows the following steps:

**Stationarity Check**

A variable is said to be stationary if it does not have a unit root or is integrated of order zero I(0). Similarly, a variable can be non-stationary in its level form but stationary in its first difference form. In this case, it was said to be integrated of order I(0) and I(1).

To ascertain the stationarity level of the variables, the order of integration of the variables was ascertained using the Phillips-Perron (PP) unit root test. When comparing the PP unit root test to the ADF unit root test, the popular wisdom states that the former has a higher capacity for unit root detection. Because it addresses a potential associated error by using a correction factor that represents the long-run variance of the error process, the PP test is, therefore, preferable over the Augmented Dickey Fuller (ADF).

$$\Delta y_{t-1} = \alpha_0 + \lambda y_{t-1} + \dots + \lambda y_{t-p} + \epsilon_t$$

**Cointegration**

The cointegration test determines if the integrated variables are cointegrated. Cointegration regressions measure the long-term relationship between the dependent and the independent variables. The bound test cointegration approach was preferred in the study as it allows the researcher to test for cointegration using variables that are stationary at different orders. It also helps to estimate a dynamic error correction specification, which provides estimates of both the short and the long-run dynamics. There was no long-run relationship among variables, therefore fully modified ordinary least square regression was carried out.

The model is specified as follows:

$$FINDEP = f(\text{LOGPENF}, \text{LOGINSF}) \dots\dots\dots (1)$$

The econometric form of equation (1) is represented as:

$$FINDEP_t = \alpha + \beta_1 \text{LOGPENF}_t + \beta_2 \text{LOGINSF}_t + \mu_t \dots\dots\dots (2)$$

Where: FINDEP= Financial Deepening; LOGPENF= Logarithm of Pension Funds; LOGINSF= Logarithm of Insurance Funds;  $\alpha$  =Intercept or Constant;  $\beta$  = Slope of the regression line concerning the independent variables;  $\mu$ =Error Term.



Result and Discussions

Table 1: Descriptive Statistics

	FINDEP	LOGPENF	LOGINSF
Mean	77.43382	15.47940	13.10815
Maximum	156.4532	16.33826	14.14870
Minimum	33.66965	14.46923	10.92796
Std. Dev.	42.49470	0.549759	0.862222
Observations	45	45	45

Source: Eview Version 10 Output, 2023

According to the aforementioned data, the mean value of financial deepening throughout the studied period was 77.43382, and the standard deviation, or departure from the mean, was 42.49470. The fact that the standard deviation value was less than the mean value indicates that financial deepening is normally distributed. During the study period, the highest possible financial deepening was 156.4532. This suggests that during the 51 quarters, the maximum financial deepening is not greater than 156%. The table indicates that 34 is the minimal percentage.

Additionally, Table 1 demonstrates that the mean value of the logarithm of pension funds was 15.47940, with a 0.549759 variation from the mean. This suggests that there is a normal distribution of the logarithm of pension funds. The highest value observed throughout the examined time was 16.33826, suggesting that the maximum logarithm of pension funds did not exceed 16. The lowest level of the pension funds' logarithm was indicated by the minimum value of 14, which was 14.

Ultimately, the insurance funds logarithm showed a mean value of 13.10815 and a deviation of 0.862222 from the mean. This suggests that there is a normal distribution of the logarithm of insurance funds. The highest level of logarithm of insurance funds within the examined period was 14.14870, indicating that the lowest level of logarithm of insurance funds was indicated by a minimum value of 11.

Table 2: Stationarity Check

Variables	Adj. T-Statistic	Prob. Values	Order of Integration
FINDEP	-9.625962	0.0000	I(1)
LOGPENF	-5.562028	0.0002	I(0)
LOGINSF	-10.57384	0.0000	I(1)

Source: Researcher's Computation 2023.

To examine the existence of stochastic non-stationarity in the series, the research establishes the order of integration of individual time series through the unit root tests. The test of the

stationarity of the variables adopted was the Phillips-Perron (PP) test. The variables tested are FINDEP, LOGPENF and LOGINSF with results presented in Table 2 above.

Table 2 shows that FINDEP and LOGINSF were found to be stationary at the first difference, that is, at order I(1). While it was discovered that LOGPENF was stationary at level, or at order I (0). The p-values of the PP test statistics are all below the 0.05 significant level for this investigation, and they exceed the corresponding tabular values. The long-term link between the variables was ascertained by applying the Bound test approach to co-integration since the variables were found to be stationary at the level I(0) and first order I(1).

Table 3: ARDL Bound Test

F-Bounds Test		Null Hypothesis: No levels of relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	2.707838	10%	2.63	3.35
k	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5

*Source: Extract of Eview 10 output*

The decision criteria are: if the value of the F-statistics is lower than the I(0) bound we cannot reject the null hypothesis of no cointegration, but if the F-statistics is higher than the values of the I(1) bound we reject the null hypothesis. In this study, we only obtained 2.707838 which is lower than the I(0) bound values of 3.1 (5%), 3.55 (2.5%) and 4.13 (1%) in this case we cannot reject the null hypothesis that there is no cointegration. Therefore, this means that there is no long-run relationship between financial deepening, the logarithm of pension funds and the logarithm of insurance funds.

Table 4: Fully Modified OLS Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGPENF	107.3428	24.43792	4.392469	0.0001
LOGINSF	-24.16646	15.36963	-1.572351	0.1236
C	-1266.151	201.8601	-6.272420	0.0000
R-squared	0.796143	Mean dependent var		78.38398
Adjusted R-squared	0.786199	S.D. dependent var		42.49969
S.E. of regression	19.65126	Sum squared resid		15833.06
Long-run variance	873.9952			

*Source: Eview 10 output*

The regression result shows that pension funds have a significant effect on financial deepening because the p-value was 0.0001 which was lower than the 5% significant level, indicating that an increase in pension funds will increase financial deepening to the extent of 107%. However, insurance funds had an insignificant effect on financial deepening because the p-value was 0.1236 which is higher than the 5% significant level, indicating that a decrease in insurance funds will not decrease financial deepening to the extent of 24%.

The coefficient of determination (R-square) indicates that the model fits in prediction. It showed that about 80 percent of changes in financial deepening were collectively due to pension funds and insurance funds, while 20 percent of unaccounted variations were captured by the error term.

Table 5: Post Estimation Test

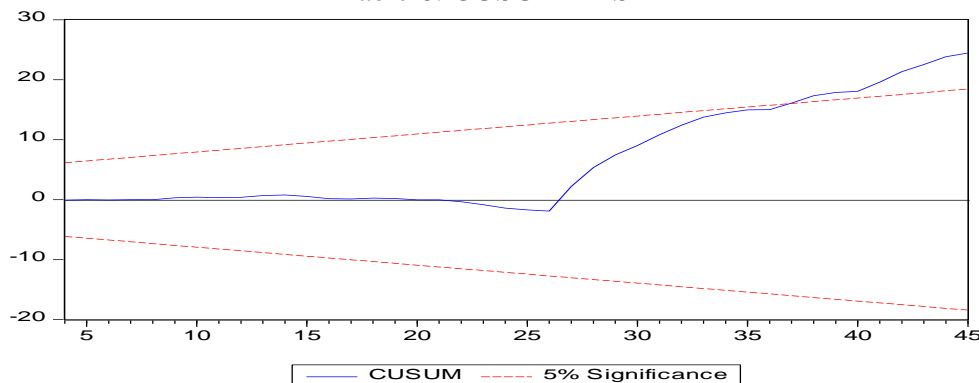
Description	Probability values
<b>Normality Test:</b>	
Jarque-Bera	0.100989
P-value:	0.950759
<b>Serial Correlation</b>	
F-statistics	0.468551
P-value	0.6295
<b>Heteroskadasticity Test</b>	
F-statistics	2.706416
P-value	0.0784

Source: *Researcher's computation, 2023*

Table 5 above indicates that the data is skewed, denoting that the data is normal. This is corroborated by the Jarque-Berra Statistic of 0.100989 and its corresponding P-value of 0.950759 which is greater than the p-value of 0.05.

The Breusch-Godfrey Serial Correlation LM Test indicates that there is no autocorrelation. This is given by the F-statistic of 0.468551 and its corresponding P-value of 0.6295. The Breusch Pegan Test of Heteroskedasticity given the F-statistics 2.706416 and its corresponding P-value of 0.0784 indicates that there is no problem of heteroskedasticity.

Table 6: CUSUM TEST



Source: *Eview Version 10 Output, 2023*

The stability of the model was checked using the CUSUM test and it shows that the model is stable as it is within the 5% boundary. Except for the period around quarter 28 which was the end of 2019 to 2020, the stability went out of the 5% boundary indicating the effect of the Covid-19 lockdown on the financial sector in Nigeria.

### **Conclusion and Recommendations**

This study examined the effect of pension and insurance funds on financial deepening in Nigeria for the period 2012Q1 to 2023Q1. Based on the findings of the study, it can be concluded that there is no existence of a long-run equilibrium relationship between pension funds, insurance funds and financial deepening in Nigeria. The study concludes that pension funds have a significant effect on financial deepening, which is in line with the findings of Shouji and Jiye (2014). This means that pension funds in Nigeria stimulate the depth of the financial sector in Nigeria. The study also found that insurance funds do not have a significant effect on financial deepening, which is not in tandem with the findings of Baruti (2020). This implies that the increase or decrease in insurance funds will not affect the depth of the financial sector.

Based on the findings of this study, it was recommended that to increase the financial depth of the Nigerian economy, there should be a critical upward review (by the National Pension Commission and the Central Bank of Nigeria) of the investment outlet available to pension funds administrator, as a pool of funds might be chasing few investment outlets granted to them. On the other hand, the Central Bank of Nigeria in collaboration with the National Insurance Commission can take advantage of opportunities in the insurance industry. Especially by enforcing all the mandatory insurance policies given by law such as employer's liability/workmen's compensation insurance (domiciled with Nigerian Social Insurance Trust Fund), group life assurance, insurance of buildings under construction, insurance of public buildings, motor third party insurance and so on.

### **References**

- Adams, R.A. (2005). *Public Sector Accounting and Finance*. Lagos Corporate Publisher Venture.
- Adebayo, Y. K. (2016). *Essentials of human resource management*. Benin City: Weliscops services.
- Akinlo, T. (2015). Causal relation between insurance and economic growth in selected Sub Saharan Africa: A heterogeneous panel causality approach, *Canadian Open Economics Journal*, 2(1), 1-22
- Alrabadi, D. W. H. & Kharabsheh, B. A. (2016). Financial deepening and economic growth: The Case of Jordan. *Journal of Accounting and Finance*, 16(6)
- Andabai, P.W. & Igbodika, M. N. (2015). A causality analysis of financial deepening and performance of Nigerian economy (1990-2013). *African Research Review: An International Multidisciplinary Journal*, 9(4): 249-263
- Baruti, B. H. (2020). Insurance Sector Development and its Effect on the Financial Markets in Developing Countries: The Case of Kosovo. *European Journal of Business and Management Research*, 5(2).

- Chartered Financial Analysts Institute (2021). *Pension Funds*.  
<https://www.cfainstitute.org/en/advocacy/issues/pension-funds#:~:text=A%20pension%20fund%2C%20also%20known,%20or%20members'%20retirement%20benefits>.
- Chepkinyang, N. J. (2017). The effect of financial deepening on the financial performance of financial institutions in Kenya. *Studies in Economics and Finance*, 25(2).
- Cosmas, O. O. & Okeke, C. (2016). The contributory pension scheme and the financial system development in Nigeria. *Innovative Marketing (hybrid)*, 12(2)
- Eche, P. (2017). *An Overview of the Various Pension Schemes in Nigeria and the Social Impacts on the Beneficiaries*. [www.pencom.ng](http://www.pencom.ng)
- Etale, L. M. & Edoumiekumo, A. R. (2020). Financial sector policies and economic growth: Evidence from insurance sector in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 10(9): 155-169.
- Etale, L. M. (2019). Insurance sector development and economic growth in Nigeria: An empirical analysis. *International Journal of Development and Economic Sustainability*, 7(4): 34-48
- Fadun, O. S. & Shoyemi, O. S. (2018) Insurance investment funds and economic growth in Nigeria: An empirical analysis (2000-2015). *International Journal of Development and Management Review*, 13(1): 73-88
- Fapohunda, T.M. (2013). Pension System and Retirement Planning in Nigeria. *Mediterranean Journal of Social Sciences* 4(2).
- Gunu, U. & Tsado, E. (2012). Contributory Pension System as a Tool for Economic Growth in Nigeria, *International Journal of Business and Behavioural Sciences*, 2(8):6 -13.
- Haruna, M., Makama, L. L., & Daniel, D. (2015). Effects of Contributory Pension Scheme on Economic Development of Nigeria. *International Journal of Innovative Research and Creative Technology*, 2(2).
- Jacob, Z., Nwala, N. M. & Suberu, A. A. (2023). Effect of the formal financial sector on financial deepening in Nigeria. *International Journal of Economics, Business and Management Research*, 7(7): Pp. 70-90.
- Komal, H. (2023). *Broad money*. Cleartax. <https://cleartax.in/glossary/broad-money/>
- Leland, H. E. & Pyle, D. H. (1977). Informational Asymmetries, Financial Structure, and Financial Intermediation. *The Journal of Finance*, 32(2): 371-87
- Ndege, F. (2012). The impact of financial sector deepening on economic growth in Kenya. *Journal of Applied Finance & Banking*, 4(1).
- Nnanna, O. J. & Dogo, M. (2018). Structural Reform, Monetary Policy and Financial Deepening: The Nigerian Experience. *Economic and Financial Review*, 36(2): 1-29.
- 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, September, 2015.
- Nyong, B.C. & Duze, C.O. (2017). The Pension Reform Act 2004 and Retirement Planning in Nigeria, *Journal of Economics and International Finance*, 3(2): 109-115.

- Ochanda, M. M. (2019). Effect of financial deepening on growth of small and medium-sized enterprises in Kenya: A case of Nairobi County. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 191-208.
- Odhiambo, N. M. (2015). Interest Rate Reforms, Financial Deepening and Economic Growth in Kenya: An Empirical Investigation. *The Journal of Developing Areas*, 43(1): 295-313.
- Oyedotun, T. M. & Adesina, B. D. (2015) Nexus between economic growth and insurance business in Nigeria, *Research Journal of Finance and Accounting*, 6(9): 142-149
- Ozor, E. (2016). *Review of Factors that Slowdown the Processing of Retirement Benefits*. A paper Presented at the Workshop Organized by the Institute of Chartered Secretaries and Administration of Nigeria, 14th -16th May, 2016.
- Patrick, G. (2019). How Do Insurance Companies Invest Money? <https://finance.zacks.com/insurance-companies-invest-money-11120.html>
- Robelo, M. F. (2012). *Comparative regulation of private pension plans*. [frabelo@fgvsp.br](mailto:frabelo@fgvsp.br)
- Scholtens, B. & Wensveen, D. V. (2003). The Theory of Financial Intermediation: An Essay on What it Does (Not) Explain. *SUERF - The European Money and Finance Forum*,4(6).
- Shouji, S. & Jiye, H. (2014). The impact of pension systems on financial development: an empirical study. *Risk governance & control: financial markets & institutions*, 4(3).
- Stiglitz, J.E. & Greenwald, M. (2011). *Capital Market Liberalization, Economic Growth and Instability*. The World Bank. DC. United States of America
- Ugwu, D.S. (2016). *Contributory Pension, A New Approach to Funding Pension Scheme in Nigeria*. A Paper Presented at a Seminar Organized by Mokasha.
- World Bank (2023). *DataBank: Metadata Glossary*. <https://databank.worldbank.org/metadataglossary/world-development-indicators/series/FM.LBL.BMNY.GD.ZS>
- Yunusa, A.A. (2019). An evaluation of public perception on the new pension scheme in Nigeria: A study of the perception of the academic staff of Ahmadu Bello University, Zaria. *Kogi Journal of Management*, 3(1).