

## **EFFECT OF SAVINGS RATE ON INSURANCE DENSITY IN NIGERIA**

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### ***Abstract***

*This study evaluates the effect of savings rate on insurance density in Nigerian. Ex-post facto research design was used in the study. A hypothesis was formulated and tested. The data was subjected to a Unit root test. Afterwards, Ordinary Least Square Regression analysis technique was used to test the hypothesis. The analysis of the study was at 5% level of significance. The study revealed that Savings rate had a negative and insignificant effect on insurance density of the Nigerian insurance industry. The implication of the finding shows that saving rate cause fall in insurance density. A unit change in saving rates will facilitate fall in insurance density although, the magnitude of the fall will be small. The study conclude that that saving rate had a negative and insignificant effect on insurance density of insurance companies in Nigeria, and recommend thus; The services of similar other financial industries such as banking and pensions, good governance and consumer education are needed to enable the industry to reach its full potential.*

## 1.0 Introduction

Insurance is an important intermediary in the financial market and also plays a very vibrant role in the economy by mobilizing savings and supplying long term capital for economic growth and as an asset allocator. In a competitive insurance market, competition among the insurers increases productivity. Efficiency provides investors with diversified portfolio choice, enhances liquidity and induces better monitoring and corporate governance. A strong insurance industry promotes a developed contractual saving sector which contributes to a more resilient economy that would be less vulnerable to interest rate and demand shocks while creating a more stable business environment, including macroeconomic stability.

The growth prospect of insurer is largely undermined by high unemployment rate. It makes it more difficult for insurance companies to grow as households are more reluctant to use the limited income they earn for non-life as well as life insurance or annuities. Moreover, elevated unemployment figures make policyholders more sensitive to prices and less capable to buy new properties and goods which typically need some insurance coverage. This constrains demand for insurance. Hence, it might also negatively affect the overall profitability.

However, the insurance business is significantly influenced by the state of the economy of a country and major factors that influence it are the rate of growth of GDP, the levels of domestic savings, household financial savings and disposable income (Kartheeswari and Rajeswari, 2012). The size of the insurance market is also influenced by the rate of growth of population, social security and health care systems, changes in customs, social practices, and risks. It has been observed that societies in which the standard of living has been steadily improving experience a higher insurance penetration. Market competition exerts a very positive influence on market expansion, insurance penetration as well as insurance density. Hence there is a close relationship and interdependence between macroeconomic variables and insurance (Kartheeswari and Rajeswari, 2012).

Lots of available empirical studies on the effect (respective or joint) of macroeconomic variables on financial institutions in Nigeria show minimal interest in the insurance industry. These studies dealt largely on combination of macro-economic variables that were fundamentally unrelated in nature and effect. Also, with respect to the insurance industry, in particular its growth, most studies, focused on firm specific determinants, largely ignoring the impact of related macroeconomic variables and institutional factors which are also likely to influence growth of insurance companies. Different methodologies were employed in different studies reviewed for almost similar studies. Beck & Webb (2003) investigate three types of determinants for insurance growth using penetration ratios as dependent variables to proxy insurance demand. However, this is only a segment of life insurance business, so the actual effect of interest rates level is rather ambiguous. The objective of the study was to evaluate the effect of savings rate on insurance density of the Nigerian insurance industry. This is because saving rate is a determinant factor to whether the money is saved or uses to purchase insurance policy. In other words, as these variables operate and influence the value

of Naira in the economy. It covers Insurance industry operational in Nigeria. This involved obtaining and combining data on Life and Non-Life sectors of the insurance industry, i.e. total industry data were used. Operations of the selected variables and the insurance industry were covered from 1985 to 2016. 1985 was chosen as the base year of the study because it was a year following the beginning of the Structural Adjustment Programme in Nigeria; a period that marked the upward swing of the selected macroeconomic variables in this study from which they have not gone down till date.

## **2.0 Review of Related Literature**

### **Concept of Saving**

Beck and Webb (2003) mention that if the private savings rate were to rise, people might or might not be willing to increase their savings in life insurance policies. In other words, the relationship between life insurance and the private savings rate is ambiguous. The empirical evidence denotes that the share of life insurance in savings will decrease with a higher savings rate, but will increase with further life insurance penetration. Anoruo and Ahmad (2002) illustrate that there is a long-term relationship between economic growth and the growth rate of savings. The results from the Granger-causality tests indicate that, contrary to the conventional wisdom, economic growth *prima facie* causes the growth rate of domestic savings to increase.

Savings rate is the amount a person or organization places in a savings account or similar vehicle as a percentage of total disposable income. The savings rate may be calculated at microeconomic level for personal finances or may be aggregated at the national level to gauge financial health. A low or negative savings rate usually indicates excessive borrowing, spending, or both. On the other hand, a high savings rate may result in slower economic growth as persons and companies are saving instead of purchasing goods and services (Farlex Financial Dictionary, 2012). The Federal Reserve (2016) cited in investopedia.com defines disposable income as all sources of income minus the tax you pay on that income. Savings is disposable income minus expenditures, such as credit card payments and utility bills.

The Nigerian economy, like any other, comprises of the public and private sectors, with both engaging in investment expenditures. Both sectors have to save and/or borrow in order to meet their investment requirements. The immediate source of funds is own savings. The government, which represents the public sector, collects revenue from both tax and non-tax sources. After meeting its expenditure requirements on purchases of goods and services, the government uses whatever surplus there is to increase its stock of capital i.e. investment. This is also true of economic agents in the private sector. When investment expenditure exceeds the level of savings, the private and the public sectors mainly borrow from financial institutions. The financial institutions that actually engage in providing funds or credits for investment in Nigeria include deposit money banks, mortgage institutions and development finance institutions.

### **Concept of Insurance Density**

Insurance density is calculated as the ratio of premium (in Naira) to total population. Insurance Density is the product's number of customers by geographic area (country, state etc). It is usually expressed as a ratio of premium to population. The measure of insurance density reflects the level of development of the sector. Insurance Density compares insurance sales volume of a customer group to another. In 2015, average per capita spending on insurance in advanced markets was USD 3,440, down almost 6% from the previous year due primarily to exchange rate movements, says Swiss Re's latest sigma report. Per capita spending on life insurance was USD 1,954 and in non-life it was USD 1,486. Penetration and density remained at the same level since it is unaffected by exchange rate movements. Average per capita spending on insurance in emerging markets remained little changed at USD 135 in 2015, of which USD 71 went to life insurance and USD 64 to non-life. The average insurance penetration in emerging markets increased to 2.9% last year from 2.7% in 2014.

Omolade (2015) observes that there's no dispute that Nigeria is well placed for growth in a majority of its sectors due to its growing population; currently estimated to be 182 million and an emerging middle class driving economic activities. However, the Nigerian insurance sector is relatively small compared to its banking and formal pension savings industries, which are currently gaining significant traction.

The phenomenon of low insurance density and penetration is not unique to Nigeria as it is also prevalent in the rest of Africa excluding South Africa. Africa's insurance industry is still in its developmental stage and RisCura's Bright Africa 2015 report estimates that the AUM totals approximately US\$273bn, with the vast majority of these assets coming from South African insurance companies (85%). Across the world, 65% of insurance premiums written are contributed by the G7 economies, which only constitute 10% of the world's population. The average premium spends in G7 countries in 2012 were US\$3.910 compared to US\$120 for emerging markets including Africa. In 2012, Africa's contribution to all global premiums written was 1.55%, well below its portion of global GDP, and reflective of the under-penetration of insurance in Africa. In isolation, Nigeria's insurance penetration rate remains very low. The country recorded an insurance penetration rate of 0.4% in 2013 and the premiums per capita were only US\$10.8 in 2012, making it one of the lowest in the world; and consequently leaving the country with significant untapped potential for coverage within the life and non-life segments of the market.

Amidst this, the sector has recorded growth over the past seven years with asset values doubling to US\$3.57bn in 2014 from US\$1.74bn in 2007. According to Fola Daniels of the National Insurance Commission (NAICOM), Nigeria currently has the second largest insurance industry in Africa following South Africa. The industry is expected to continue to gain further growth and the rate of insurance penetration is projected to also increase. An example of how this growth will be achieved is the insurance of motor vehicles. Even though there are over seven million vehicles in the country, less than 14% of these are insured. The

Regulator, NAICOM is hoping to attain coverage of 25% in the near future. This would represent growth of 11% for this particular segment of the industry.

Doreen (2014) citing Cheechee and Herbeman (2002), explain that economic environments have a profound effect on the growth of the insurance companies. Oliver (2000), states that macro-economic variables are such factors that are pertinent to a broad economy at the regional or national level and affect a large population rather than few selected individuals. It is often argued that financial performance is determined by some fundamental macro-economic variables such as the interest rate, Gross Domestic Product (GDP), exchange rate, inflation unemployment, money supply, stock market and FDI which are closely monitored by the government, businesses and consumers (Mwangi, 2013).

Evidence from the financial press indicates that investors generally believe that monetary policy and macroeconomic events have a large influence on the volatility of financial performance (Muchiri, 2012). The major macroeconomic factors are the income level (per capita and disposable income), inflation and price level, price of insurance, comparative return on investments of insurance and demographic factors act as determinants of insurance growth are the fundamental macroeconomic factors and form the linkage between the economy and insurance market.

**Endogenous growth theory** states that economic growth is generated internally and not by external forces as the neo-classical model suggests. The Endogenous growth theory model shows three channels from financial development to economic growth: the marginal Productivity of capital, the proportion of saving funneled to investment, and the savings rate. Since the insurance company's act as financial intermediaries, the proportion of savings funneled to investment channels connect their functions with economic growth. According to Oke (2012), among financial intermediaries, the insurance companies play important role, they are the main risk management tool for companies and individuals. Through issuing insurance policies, they collect funds (raising a pool of fund) and transfer them to deficit economic units for financing real investment. Due to the long term nature of their liabilities, sizeable reserves, and predictable premiums, life insurance providers can serve an important function as institutional investors providing capital to infrastructure and other long term investments as well as professional oversight to these investments. Of course, these benefits are fully realized only in markets where insurance providers invest a substantial portion of their portfolios domestically. Endogenous growth models predict that an increase in savings rate increases economic growth through its positive impact on investment and capital accumulation. It is believed that increase in savings rate boosts steady-state output by more than its direct impact on investment because the induced rise in income raises saving, leading to a further rise in investment. The higher investment, through the multiplier effect drives higher aggregate demand, which in turn accelerates economic growth.

Lim and Haberman (2003) examined the demand for life insurance in Malaysia from a macroeconomic perspective. More formally, work is carried out in order to study the interaction between macroeconomic and demographic variables (i.e. financial development, income, inflation, interest rate, price, stock market return, birth rate, death rate, fertility rate and life expectancy) and the demand for life insurance (by sums insured) in order to seek evidence of their relationship in the context of Malaysia. An *ex-post facto* research design was employed. Multiple regressions were used to analyze the data. The major findings of this study indicate that the savings deposits rate and price change in insurance are two important macroeconomic variables associated with the demand for life insurance in Malaysia. However, the finding on the savings deposits rate fails to show the expected negative sign. Further research is needed in this respect in order to confirm the relationship between these two variables. A change in the price of insurance has a significant negative relationship with the demand for life insurance. This finding has an important implication on policy formulation for the policy makers of the central bank and the marketing directors of life insurance companies. This finding may be helpful to them in developing pricing strategies to achieve a specific sales target for life business.

Napier (2015) aimed to understand whether macroeconomic indicators could be used to explain and predict insurance sales, cancellations and overall underwriting profitability in South Africa, and whether the drivers for insurance demand and profitability differed based on individual wealth. The significance of answering these questions was directly related to managing and running an insurance business in terms of which products to sell, and which consumer segments to target based on prevailing macroeconomic conditions. Descriptive research design was employed and regression analyses using Ordinary Least Squares were completed on both low income and high income consumer groups. Predictive models for sales (low income and high income groups) and profitability (low income group) were derived; however no model sufficiently explained cancellations in either income group. The explanatory variables for sales in the low and high income groups differed, suggesting that macroeconomic factors differentially influence buying behaviors in these groups. Sales and profitability in the low income group were explained by the same macroeconomic factors.

Doreen & Pendo (2015) explored the macroeconomic and demographic determinants of life insurance demand in South Africa, Nigeria and Kenya. They employed *Ex-post facto* research design and ordinary least squares (OLS) regression analysis of time series data covering the period between 1981 and 2013 in the case of Kenya, and 1981-2012 in the case of Nigeria and South Africa. The findings clearly show that both macro-economic as well as demographic factors influence the demand of life insurance for the three countries under investigation. However, some indicators, such as, GDP per capita, level of education and life expectancy reveal unexpected signs that suggest further research. Moreover, due to variations observed, we cannot draw a unique conclusion on factors influencing the demand of life insurance among the three countries under investigation.

### 3.0 METHODOLOGY

#### Research Design

Research design refers to all methods/techniques that are used for conduction of research (Kothari, 2004). The research design adopted in the study was *ex-post facto* design. This is a quasi-experimental study examining how an independent variable, present prior to the study in the participants, affects a dependent variable (Egbulonu, 2007). *Ex-post facto* design is considered appropriate when a study deals with data that had already taken place (Onwumere, 2009). However, we use *ex-post facto* design when we do not have control over the independent variables. The study relied on historical data from 1985 to 2014. Secondary data is data that has already been collected by and readily available from other sources (Egbulonu, 2007). Secondary data was obtained from the Central Bank of Nigeria Statistical Bulletin of 2014, as well as World Bank data website.

#### Model Specification

The basis for modeling in this study was taken from Munir and Khan (2013) whose model is shown below:

$$\ln D = \beta_0 + \beta_1 FD_t + \beta_2 IPC_t + \beta_3 GS_t + \beta_4 P_t + \mu \dots\dots\dots (1)$$

Where,

*LnD* shows the Natural Logarithm of *Demand of Life Insurance* as the Dependent Variable in the study.

*FD* shows the *Financial Development* at period *t* measured as  $M_2$ .

*IPC* shows the *Income Per Capita* at period *t*.

*GS* shows the *Gross Savings* at period *t*

*P* shows the *Price of Insurance* at period *t*.

$\mu$  Is the *Error Term* at period *t*.

Munir and Khan (2013) empirically verified the link between macroeconomic and demographic variables (i.e. financial development, income, savings, price of insurance, old age dependency ratio, birth rate, death rate and urbanization) with the demand for life insurance (by sums insured) in the context of Pakistan using annual time-series data from 1973 to 2010 of State Life Insurance Corporation of Pakistan. The basic objective of the study was to examine the following hypotheses i.e.; that financial development, gross savings, income level are directly linked while, price of insurance are inversely linked with life insurance demand and the demographic variables of crude birth rate, crude death rate, old age dependency ratio, urbanization are positively related with life insurance demand for Pakistan. For this purpose, Ordinary Least Squares (OLS) was used and the evidence showed the significant implications on policy establishment and the managing and marketing directors of Insurance Corporation.

However, with respect to this study the equation was made. This was because the specific focus of both studies was not the same. Primarily, variables were changed. As against five variables per equation the present study was reduced to three variables (the dependent,

independent and control variables only). In relation to the hypothesis of the study the model is developed:

The model in their functional form is shown below:

$$IDEN = f(SAV, GDP) \dots\dots\dots (2)$$

Where:

IDEN = Insurance Density

SAVR = Savings rate

GDP = Gross Domestic Product

$\mu$  = Error term

### 3.5 Units of Measurement Problem

This study includes variables that are measured in different units (Naira and Percentages). This means that the units of measurement for the estimated regression coefficients will also be different and therefore lack comparability. Regression equation requires that the units of the term ( $Y$ ) on the left side of the equation be the same as those of the total right side of the equation. You can't equate apples with oranges (Giles, 2013). For this reason, the estimated equations are modeled using the natural logarithm of the variables to ensure like terms and comparability of the coefficients. Thus, from the above functional relationship of the model, the econometric equation estimated is presented below:

Where:

$B_0, B_1, B_2, B_3, \text{ and } B_4$  are parameters to be estimated. IDEN, SAVR, GDP and  $\epsilon$  are as explained above.

### Apriori Expectation

Apriori Expectation on the research is that savings rate will have a negative effect on insurance density.

## 4.0 Empirical Results

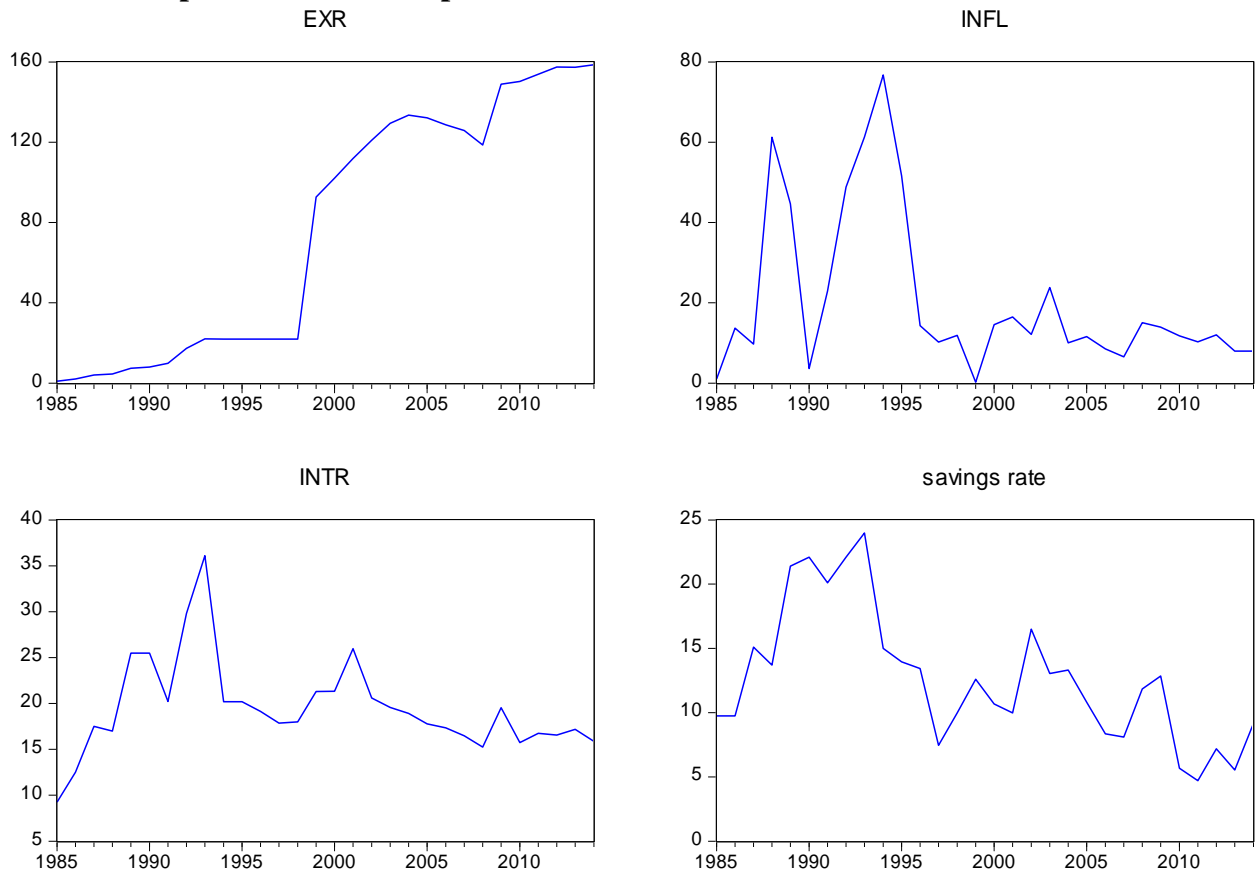
**Table 4.1: Summary of Unit Root Test Results**

Variables	ADF stat.*	t-Statistic 5%	t-Statistic 10%	I(d)
Insurance Density	-8.551677	-2.971853	-2.625121	I(1)
Savings rate	-5.869603	-2.971853	-2.625121	I(1)
GDP	-5.706749	-2.971853	-2.625121	I(2)

Source: E-views 9.2

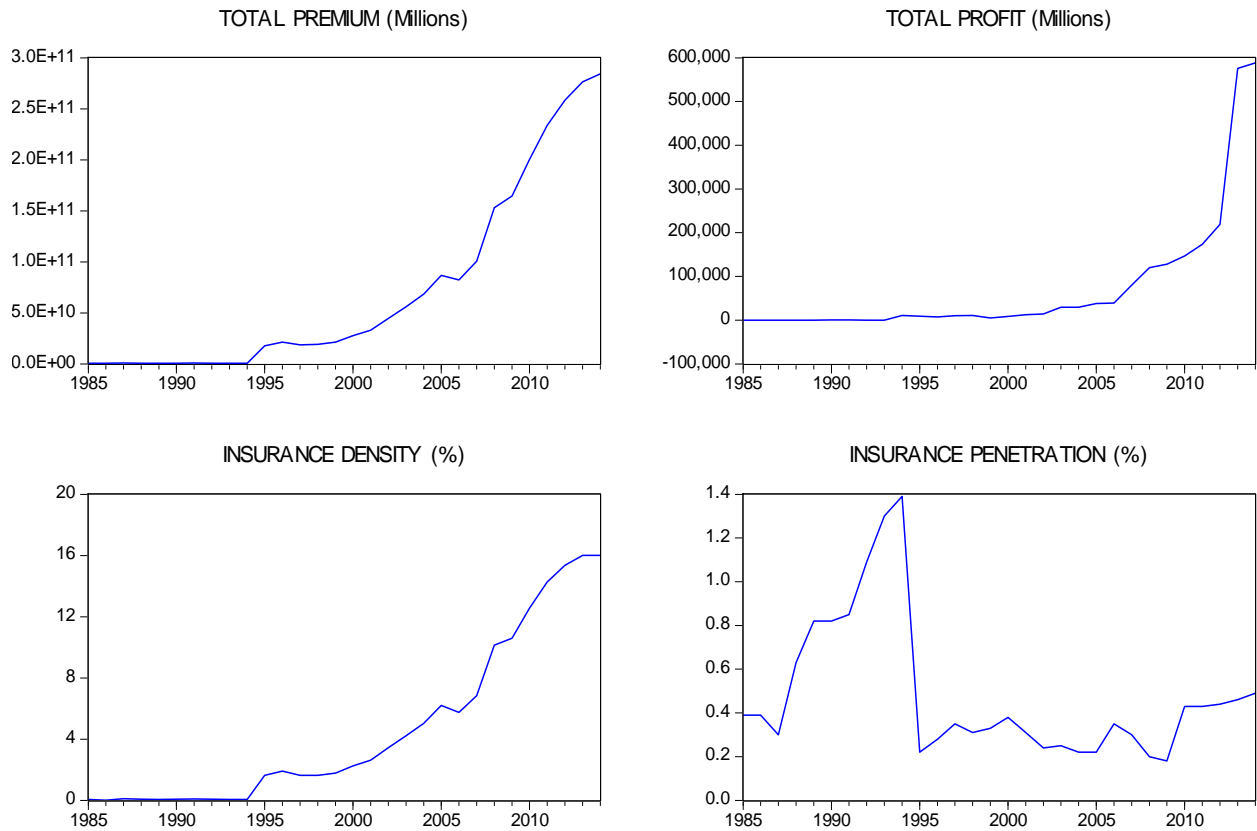


### 4.1.2: Descriptive Statistics Graph



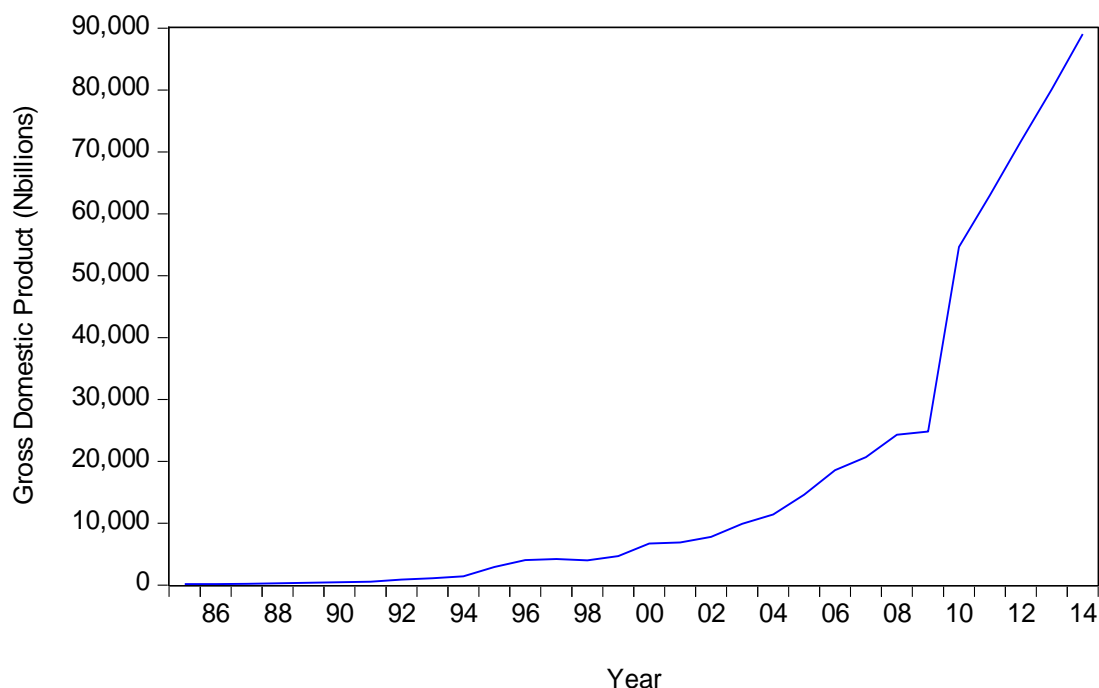
**Figure 1: Trend analyses of independent variables (Interest rate, Exchange rate, Inflation rate and Savings rate)**

The above graphs represent trend analysis of independent variables over a given period. Savings rate recorded same trend of rise and fall during the entire period.



**Figure 2: Trend analyses of dependent variables (Total Premium, Profit, Insurance Penetration and Density)**

The above table represents trend analysis of dependent variables over a given period. Insurance density showed a progressive trend while total profit showed a zero trend from 1985 to 2005 and made a progressive trend from 2006.



**Figure 3: Trend analyses of control variable (Gross Domestic Product GDP)**

The above figure represents trend analysis of control variable (Gross Domestic Product GDP) over a given period. It showed a zero trend from 1985 -1992 and sluggishly rise from 1993 but progressed throughout the period.

**Table 4.2: Descriptive Statistics**

	<b>INSURANCE DENSITY</b>	<b>SAVINGS RATE</b>	<b>GDP Nb</b>
<b>Mean</b>	<b>4.685400</b>	<b>12.60435</b>	<b>17646.12</b>
<b>Median</b>	<b>2.084000</b>	<b>12.21695</b>	5696.39
<b>Maximum</b>	<b>16.01300</b>	<b>23.99000</b>	89043.62
<b>Minimum</b>	<b>0.008000</b>	<b>4.704871</b>	134.59
<b>Std. Dev.</b>	<b>5.466164</b>	<b>5.183985</b>	26096.98
<b>Skewness</b>	<b>1.015952</b>	<b>0.655143</b>	<b>1.662918</b>
<b>Kurtosis</b>	<b>2.608334</b>	<b>2.663191</b>	<b>4.376818</b>
<b>Jarque-Bera</b>	<b>5.352545</b>	<b>2.287863</b>	16.19602
<b>Probability</b>	<b>0.068819</b>	<b>0.318564</b>	0.000304
<b>Sum</b>	<b>140.5620</b>	<b>378.1304</b>	529383.7
<b>Sum Sq. Dev.</b>	<b>866.4896</b>	<b>779.3372</b>	1.98E+10
<b>Observations</b>	<b>30</b>	<b>30</b>	30

The figures highlighted in blue shows the average mean values of the independent and dependent variable over the given period of study.

## Results of Hypotheses Tests

**Decision rule:** In determining individual effect we will accept the null hypothesis where t-calculated is less than t-tabulated. Where the result is otherwise, the alternative hypothesis will be accepted. This is at 5% level of significance.

### Restatement of Hypothesis

H<sub>0</sub>: Savings rate has no positive and significant effect on insurance density of insurance companies in Nigeria.

H<sub>1</sub>: Savings rate has positive and significant effect on insurance density of insurance companies in Nigeria.

**Table 4.3 Analysis of Hypothesis**

Variable	Coefficient	Std.Error	t-statistic	Prob.
C	-8.215161	1.565378	-5.248035	0.0000
Saving rate	-0.219380	0.408060	-0.537618	0.5952
GDP	2.438495	0.197322	12.35797	0.0000

Lastly, the hypothesis had t-calculated statistic for savings rate as -0.537618. T-tabulated derived as  $t_{\alpha/2}(n-k)$ ,  $t(0.05/2)(30-3)$  was 2.052. It is seen that savings rate had a negative and insignificant effect on insurance density of insurance companies in Nigerian. The Durbin Watson value of 1.505291 shows a positive autocorrelation between the independent variables.

### Implication of Findings

The result shows that saving rate cause fall in insurance density {t-calculated statistic for savings rate as -0.537618. T-tabulated derived as  $t_{\alpha/2}(n-k)$ ,  $t(0.05/2)(30-3)$  was 2.052}. A unit change in saving rates will facilitate fall in insurance density although, the magnitude of the fall will be small. All the same, savings rate serves as a disincentive to buying more insurance policies as the general public would prefer to save than insure. Growth models emphasizing capital accumulation (Solow and AK models), tell us that higher savings rates should foster growth because higher savings imply higher capital investment. But these are closed economy models, and extending them to the case of small open economies with international capital markets would eliminate the effect of local saving on growth (Aghion and Howitt, 2005). The Nigerian public engages in savings at an increasing rate accumulating a sizeable capital. To be utilized in purchase of insurance policies seem not to go down well with the owners of the fund or its custodians.

## 5.1 Summary of findings, Conclusion and Recommendations

### Summary of findings

The findings emanating from this study shows that;

- a. Savings rate had a negative and insignificant effect on insurance density of the Nigerian insurance industry.
- b. Adjustments of Monetary Policy stimulates the effects of saving rate on insurance density

### **Conclusion and Recommendations**

The insurance business is significantly influenced by the state of the economy of a country. Economic environments have a profound effect on the growth of the insurance industry. Such environment is largely shaped by macroeconomic variables. Macroeconomic variables are factors that are pertinent to a broad economy at the regional or national level and affect a larger population rather than a few select individuals.

The study based on the aforementioned findings we conclude that saving rate had a negative and insignificant effect on insurance density of insurance companies in Nigerian and recommend thus; .

1. The insurance industry cannot overcome some its challenges in isolation. They services of similar other financial industries such as banking and pensions, good governance and consumer education is needed to enable the industry to reach its full potential.
2. A special investigation should be conducted to assess the means and extent through which adjustments of Monetary Policy stimulates the effects of these Macroeconomic variables on the Insurance industry.
3. The magnitude of insurance awareness and penetration in Nigeria needs drastic attention in order to bridge the gap between the general publics' tendency to see insurance as a secondary need and just been aware of the risk in our business environment. Instead to emphasise on the benefit of insurance and encourage the public into taking further steps to appreciating risk management options like insurance in managing our risks.

## BIBLIOGRAPHY

- Acha I. & Acha C. (2011). Interest Rates in Nigeria: An Analytical Perspective. *Research Journal of Finance and Accounting*, IISTE, 2(3), 11-19
- Ajakaiye, D. (2002). *Short-Run Macroeconomic Effects of Bank Lending Rates in Nigeria, 1987 – 91: A Computable General Equilibrium Analysis*, Research Paper 34.
- Akinbobola, T. (2011). Descriptive Analysis of Savings and Growth in Nigeria Economy, *Journal of Economics and Sustainable Development*, 2(7)
- Anoruo E., Ahmad Y. (2002). Causal Relationship between Domestic Savings and Economic Growth: Evidence from Seven African Countries First published: 16 December 2002. <https://doi.org/10.1111/1467-8268.00038>
- Beck, T. and Webb, I. Economic, demographic, and institutional determinants of life insurance consumption across countries. *World Bank Economic Review*, 17, 2003, p. 51–88.
- Doreen, L. & Pendo, K. (2015) Macroeconomic and Demographic Determinants of Demand of Life Insurance: A case of Kenya, Nigeria, and South Africa. *Chronicle of the Neville Wadia Institute of Management Studies & Research*. 221-233
- Family Economics & Financial Education (2010). *Get Ready to Take Charge of Your Finances – The Secrets of Saving* – Funded by a grant from Take Charge America, Inc. to the Norton School of Family and Consumer Sciences Take Charge America Institute at The University of Arizona
- Farlex Financial Dictionary (2012) Meaning of Savings Rate. Farlex Inc.
- Goldstein, M. & Khan M. (1985). “Income and Price Effects in Foreign Trade,” in R. W. Jones and P. B. Kenen (eds.) *Handbook of International Economics* (Vol.II), New York: Elsevier Science Publications, 1041-1105.
- Houthakker, H. & Magee S. (1969). “Income and Price Elasticities in World Trade,” *Review of Economics and Statistics*, 5(1) 11-25
- Igbatayo S. and Agbada A. (2012). Inflation, Savings and Output in Nigeria: A Var Approach. *Journal of Emerging Trends in Economics and Management Sciences* (JETEMS) 3(5) 447-453

- Lim, C.& Haberman (2002). *Macroeconomic Variables and the Demand for Life Insurance in Malaysia*, Faculty of Actuarial Science and Statistics, CASS Business School, City University (London)
- Murungi, D. (2014). *Relationship between Macroeconomic Variables And Financial Performance Of Insurance Companies In Kenya*, Masters Thesis submitted to University of Nairobi.
- Napier, H. (2015). *An Empirical Analysis of Macroeconomic Factors And The Effects on Insurance Demand and Profitability*, Wits Business School, University of the Witwatersrand Johannesburg, South Africa.
- Nwachukwu, T. & Odigie, P. (2009). *What Drives Private Saving in Nigeria*. A Paper Presented at the Centre for the Study of African Economies (CSAE) Conference, University of Oxford,
- Obamuyi, T. (2009). An investigation of the relationship between interest rates and economic growth in Nigeria, 1970 – 2006, *Journal of Economics and International Finance*. 1(4), 093-098
- Ojima, D. & Emerenini, F. (2015). Impact of Interest Rate on Investment in Nigeria, *Developing Country Studies*, 5(3) 103-110
- Onwumere, J. (2009). *Business and Economic Research Methods*, Lagos, Don-Vitton Ltd
- Orji, A. (2012). Bank Savings and Bank Credits in Nigeria: Determinants and Impact on Economic Growth, *International Journal of Economics and Financial Issues* 2(3), 357 – 372
- Pagano, M. (1993) Financial markets and growth: An overview, *European Economic Review* 37 (2), 617-622
- Poontirakul, P. (2012). *The impact of macroeconomic factors on non-life insurance consumption in Thailand*. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science (Insurance, Actuarial Science, and Risk Management) School of Applied Statistics National Institute of Development Administration
- Swiss Re: Insurance penetration and density almost unchanged globally year over year; emerging markets gained an increasing share in the global insurance premiums production 2016-07-07 [Re/Insurance groups](http://swissre.com/sigma/) <http://swissre.com/sigma/>

Udayanthi Tennakoon T. M. (2012) Price and Income Elasticities of Disaggregated Import Demand in Sri Lanka, Price and Income Elasticities of Disaggregated Import Demand in Sri Lanka, Central Bank of Sri Lanka, *Staff Studies* 40(1 & 2), 59-77

Umoh, O.J. (2003) “An empirical investigation of the Determinants of Aggregate National savings in Nigeria”. *Journal of Monetary and Economic Integration*, 3(2), 113–132.

Uremadu, S.O. (2006) “The impact of real interest rate on savings Mobilization in Nigeria”  
An unpublished Thesis submitted to the Department of Banking and Finance,  
UNN, Enugu.