Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

Prof. Osuka, Bernard. O.[1], Aderigha Ades George[2]

[1,2]Department of Banking and Finance, Imo State University Owerri Imo State

ABSTRACT: The study examined the relationship amid Non-life insurance premiums and economic growth in Nigeria for the period 1981–2017. The study measured fire premium, Accident premiums, Motor vehicle premium, Marine premiums and miscellaneous premiums as proxies for Insurance sector premiums while Real Gross Domestic Products was used as proxy for Economic growth for the said periods under review. In the course of the study, data were obtained from the website of Central Bank Statistical bulletin and annual report of NIA digest. The Phillips Perron type was used to test for unit root. The Autoregressive distributed lag (ARDL) and Bounds test was used to estimate the short and long run relationships. This study found a positive relationship at some lag periods amid the independent variables and the dependent variable. However, the relationships were not significant both at the short run and long run. Insurance firms should leverage on fire and accident insurance policies to boost high premiums. Adequate public awareness and education should be carried out by insurance firms to enable members of the public to enter into insurance contract. Strong legal framework should be introduced to protect the insured to claim indemnity at the event of litigation arising from insurance contract disputes. Government should make legislations that would encourage individuals and business organizations to hold insurance policies with the aim of pooling insurance premiums for economic growth.

KEYWORDS: Insurance Sector, Accident Premiums, Fire Premiums, Gross Domestic Product.

1.1 BACKGROUND OF THE STUDY

Several literatures on financial intermediation for instance Ang (2008), and Thiel (2001), described the insurance sector as one of the financial sectors in an economy playing intermediation role of closing the gap amid surplus and deficit units aimed at meeting certain macro-economic goals. The insurance sector has overtime been considered as a sector that promotes economic growth in an economy. The insurance sector in Nigeria, is classified into life and non-life with different firms operating based on different contractual arrangement with obligation of premium payments and indemnification at the event of a risk occurring.

The start of modern insurance and insurance itself in Nigeria can be trace back chronologically to the arrival of British trading companies in Nigeria and the ensuing growth in trade amid close regions. This growth in commerce and trade spurred a surge in shipping and banking activities prompting most foreign companies to locally manage some of their risk (Adeyemi, 2005). As such, insurance licenses were granted to foreign companies engaged in trading by foreign insurance companies. Such licenses made it possible for such firms to issue covers and assist in claims supervision. This led to the establishment of the Royal Exchange Assurance Agency to be formed by the Africa and East trade companies in 1918 and as such became the pioneer insurance company in Nigeria (Jegede, 2005). Initially, the industry had a sluggish stride in growth, particularly from 1921 and 1949 caused by the effect of World War II which crippled trading activities amid Britain and Nigeria. Post WWII, the pace in trade surged and the Nigerian insurance sector grew remarkably (Gbede, 2003). By 1958, African Insurance Company Limited was established and thus became the first indigenous insurance firm. At independence, of the twenty five insurance firms in operation, only four were indigenously owned. Over the years, the number of indigenous insurance companies grew and by 1976, they were more indigenous insurance firms in Nigeria as compared to foreign insurance firms. The number of firms kept on increasing and by September 2005, the total number of insurance firm was 104 and 4 reinsurance firms in the country. Over the past two decade, the regulation of insurance operations has been strengthened considerably. There are risks of low level awareness, potential abuse, , low operating capital, poor market penetration and likewise low capacity for retention and acceptance of foreign risks (Ezekiel, 2005), of all which led to massive regulation of the insurance sector in Nigerian's financial

system. The biggest development in the Nigerian insurance industry includes the National Insurance commission (NAICOM) seizing control of the largest insurer –National Insurance Corporation of Nigeria (NICON). The power of NAICOM under the prevailing legislation for the industry in the country, the Insurance Act 2003, is clearly comprehensive. NAICOM shall be responsible for administration and enforcement of the provisions of the insurance Act. Criteria and standards for registration, policy provision, rates, expenses limitations, valuation of asset and liabilities, investment funds, and the qualifications of sale representatives are set by NAICOM.

1.2   Statement of the Problem

In the study of financial intermediation, the Insurance sector was recognized as one of the intermediaries that intermediates amid the surplus units and deficits units of the economy. The financial literatures further submitted that the insurance sector promotes and mobilizes financial resources through premiums for economic growth. Insurance create funds by collecting premium (Iyiola, 2007).

Some studies that were made in Nigeria were critically considered to see their contribution to existing body of knowledge. One of such studies evaluated, was Omoke (2012), in the study, he tested the relationship amid insurance sector and economic growth for the period 1970- 2008 using co-integration. He concluded in his study, that no relationship exists amid insurance and economic growth in Nigeria.

In another study, Madukwe and Anyanwaokoro (2014) argued differently, in their position, they discovered a positive and significant causal relationship amid insurance and economic growth using Pearson's Product Moment Correlation Co-efficient for the period 2000-2011 for Nigeria.

The divergent views of the above studies prompted this current study aimed at determining the relationship that exist amid insurance sector premiums and economic growth in Nigeria for the period 1981 to 2017.

1.3 Objectives of the Study

The objective of this study is to determine the extent of relationship amid insurance sector premiums and economic growth in Nigeria. Specifically, the study is to:

  I.   Determine whether there is any relationship amid Fire premiums and Real Gross Domestic Product in Nigeria.
  II.   Ascertain the existence of any relationship amid the Accident premiums and Real Gross Domestic Product in Nigeria
  III.   Whether a relationship exists amid Motor Vehicle premiums and Real Gross Domestic Product in Nigeria.
  IV.   Establish the relationship amid Marine premiums and Real Gross Domestic Product in Nigeria.
  V.   Ascertain the relationship amid Miscellaneous Premiums and Real Gross Domestic Products in Nigeria.

1.4 Research Questions

The following research questions are formulated to find out the link amid the dependent and independent variables.

  I.   To what extent does Fire premiums influence Real Gross Domestic Product in Nigeria?
  II.   What is the degree of relationship existing amid Accident premiums and Real Gross Domestic Product in Nigeria?
  III.   What pattern of   relationship exists amid the Motor Vehicle premiums and Real Gross Domestic Product in Nigeria?
  IV.   What relationship exists amid Marine premiums and Real Gross Domestic Product in Nigeria?
  V.   What relationship exists amid Miscellaneous Premiums and Real Gross Domestic Products in Nigeria?

1.5 Hypothesis

From the study questions, the following hypothesis is hereafter formulated in their null forms;

  I.   There is   no significant relationship amid Fire premiums and Real Gross Domestic Product in Nigeria.
  II.   No relationship exists amid Accident premiums and Real Gross Domestic Product in Nigeria.
  III.   There is no relationship amid Motor Vehicle premiums and Real Gross Domestic Product in Nigeria.
  IV.   No significant relationship exists amid Marine premiums and Real Gross Domestic Product in Nigeria.
  V.   There is no significant relationship amid Miscellaneous Premiums and Real Gross Domestic Products in Nigeria.

1.6 Scope of the Study

The scope of the study covers annual data on fire Premiums, Accident Premiums, Motor Vehicle Premiums, Marine Premiums and Miscellaneous Premiums which are the independent variables for Insurance sector premiums and Real Gross Domestic product as dependent variable for economic growth for the period 1981-2017 in Nigeria.

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

2. REVIEW OF RELATED LITERATURE

Preview

This section treated the review of related literatures in their Conceptual, theoretical and empirical frameworks. In the Conceptual frameworks, the study will consider some concepts in the insurance industry, number of insurance firms in Nigeria, recapitalization of the industry, notable insurance acts etc.

2.1 Conceptual Review

Insurance

Insurance is an agreement amid the insurer and insured in which the insurer consent to pay the insured a stipulated fee, in exchange for a fixed sum (premium), when a certain event occurs (like at a stipulated age or on death), or compensate the actual loss when it takes place, due to the risk insured. Simply speaking, insurance is a way in which risks to loss or damage can be shifted to another party (the insurers) on payment of a charge known as premium. The party whose risk is shifted to the insurer is known as the insured.

Insurance Premium

Financial fee of receiving an insurance cover, paid in full or in installments over the period of the policy. A failure to pay premium when due automatically cancels the insurance policy, which upon payment of the outstanding amount within a certain period may be restored (www.businessdictionary.org)

Types of Insurance

The old.nios.ac.in/secbuscource/18 website gave the following tutorials on insurance as a course;

(i)   Life Insurance

A contract of life insurance (also known as 'life assurance') is an agreement drawn up by the insurer to pay a specific amount either when the insured is dies or on the specified date of expiration of the contract. Consequently, a premium fee is paid by the insured agrees either in a singular amount or through installments, i.e. per annum or quarterly. Basically, there are two forms of life assurance policies (a) Whole-life policy, and (b) Endowment Policy. A whole life policy runs throughout the lifespan of the insured and premium is payable all along. Upon death of the insured, the heir(s) are paid the amount assured under the contract by the insurer. An endowment policy then again, is only applicable for a short period or up to a specified age of the insured. Upon expiration of the specified date or death is it occurs earlier, the amount agreed is paid.

Non-Life (General Insurance)

(i)   **Fire Insurance:** A contract of fire insurance is an agreement drafted by the insurer for compensation upon loss through fire incidents under stipulated conditions owing to premium paid by the insured. It is an indemnity contract, that is, only the exact worth of property damaged or lost through fire or the amount of policy, whichever is lower can be claimed by the insured.

(ii) **Marine Insurance:** Marine insurance is a drafted contract in which the insurer (underwriter) reaches an agreement to cover the owner of a ship or cargo (insured) against risks incidental to marine voyages. It likewise encompasses risk of loss of freight due on the cargo being covered by the contract.

(iii) **Motor vehicles insurance:** Insurance covering all types of vehicles- private cars, commercial vehicles, vans, scooters, motor cycles, etc., it covers risk like accidents or loss through theft, and likewise liability risk owing to injury or demise of third party involved in an accident. Under the Motor Vehicles Act, Third party risk insurance is compulsory.

Principles of Insurance

There are certain principles that may apply to the contracts of insurance amid insurer and insured, which are as follows.

i.   **Utmost Good Faith:** Insurance contracts are the contract of mutual trust and confidence. Both parties to the contract i.e., the insurer and the insured must disclose all relevant information to each other. I.e., when agreeing to a life insurance contract, the medical status of the insured needs to be stated to inform the insuring firm of any life threatening issues.

ii.   **Insurable Interest:** This is the financial or pecuniary interest in the subject matter of insurance. A person has insurable interest in the property or life insured if he stands to gain from its existence or loose financially from its damage or destruction. In case of life insurance, a person taking the policy must have insurable interest at the time of taking the policy. I.e., a man can take life insurance policy on the name of his wife and if later they get divorced this will not affect the insurance contract because the man had insurable interest in the life of his wife at the time of entering into the contract. In case of marine insurance insurable interest must exist at the time of loss or damage to the property. In

contract of fire insurance, it must exist both at the time of taking the policy as well as at the time of loss or damage to the property.

iii. **Indemnity:** The word indemnity means to restore someone to the same position that he/she was in before the event concerned took place. This principle is applicable to the fire and marine insurance. It is not applicable to life insurance, because the loss of life cannot be restored. The purpose of this principle is that the insured is not allowed to make any profit from the insurance contract on the happening of the event that is insured against. Compensation is paid on the basis of amount of actual loss or the sum insured, whichever is less.

iv. **Contribution:** The same subject matter may be insured with more than one insurer. In such a case, the insurance claim to be paid to the insured must be shared or contributed by all insurers.

v. **Subrogation:** In the contract of insurance subrogation means that after the insurer has compensated the insured, the insurer gets all the rights of the insured with regard to the subject matter of the insurance. I.e., suppose goods worth N20, 000- are partially destroyed by fire and the insurance company pays the compensation to the insured, then the insurance company can take even these partially destroyed goods and sell them in the market.

vi. **Mitigation:** In case of a mishap the insured must take all possible steps to reduce or mitigate the loss or damage to the subject matter of insurance. This principle ensures that the insured does not become negligent about the safety of the subject matter after taking an insurance policy. The insured is expected to act in a manner as if the subject matter has not been insured.

vii. **Causa-Proxima (Nearest Cause):** According to this principle the insured can claim compensation for a loss only if it is caused by the risk insured against. The risk insured should be nearest cause (not a remote cause) for the loss. Then only the insurance company is liable to pay the compensation. I.e. a ship carrying orange was insured against losses arising from accident. The ship reached the port safely and there was a delay in unloading the oranges from the ship. As a result the oranges got spoilt. The insurer did not pay any compensation for the loss because the proximate cause of loss was delay in unloading and not any accident during voyage.(http://old.nios.ac.in)

Role of Insurance Companies in an Economy

Insurance has evolved as a process of safeguarding the interest of people from loss and uncertainty. It may be described as a social device to reduce or eliminate risk of loss to life and property (Tennyson 2016).

1. **Provide safety and security:** Insurance provides financial support and reduces uncertainties in business and human life. It provides safety and security against particular event. There is always a fear of sudden loss. Insurance provides a cover against any sudden loss.

2. **Generates financial resources:** Insurance generate funds by collecting premium. These funds are invested in government securities and stock. These funds are gainfully employed in industrial development of a country for generating more funds and utilized for the economic development of the country. Employment opportunities are increased by big investments leading to capital formation.

3. **Life insurance encourages savings:** Insurance does not only protect against risks and uncertainties, but also provides an investment channel too. Life insurance enables systematic savings due to payment of regular premium. Life insurance provides a mode of investment. It develops a habit of saving money by paying premium. The insured get the lump sum amount at the maturity of the contract. Thus, life insurance encourages savings.

4. **Promotes economic growth:** Insurance generates significant impact on the economy by mobilizing domestic savings. Insurance turn accumulated capital into productive investments. Insurance enables to mitigate loss, financial stability and promotes trade and commerce activities those results into economic growth and development. Thus, insurance plays a crucial role in sustainable growth of an economy.

5. **Spreading of risk:** Insurance facilitates encourages spreading of risk from the insured to the insurer. The basic principle of insurance is to spread risk among a large number of people. A large number of persons get insurance policies and pay premium to the insurer.

6. **Source of collecting funds:** Large funds are collected by the way of premium. These funds are utilized in the industrial development of a country, which accelerates economic growth. Employment opportunities are increased by such big investments.

7. **Risk Transfer:** The major functionality of the insurance on the client side is risk transfer. Usually the insured pays a premium and is secured against a specific uncertainty. Measured in terms of insurance premiums paid relative to GDP, the importance of insurance-based risk transfer grew by about 1/3 amid 1992 and 2002 in Europe.

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

List of Insurance Companies in Nigeria

Table 1: Below are the lists of insurance companies in Nigeria as at July 2019

(1) Allianz Nigeria	(14) FBN Insurance	(27) Guinea Insurance Plc	(40) NICON Insurance Plc
(2) Consolidated Hallmark Insurance Plc	(15) Great Nigeria Insurance Plc	(28) Industrial & General Insurance Plc	(41) Law Union & Rock Insurance Plc
(3) Mutual Benefits Assurance Plc	(16) Niger Insurance Plc	(29) Nigerian Insurers Association	(42) Regency Alliance Insurance Plc
(4) Sovereign Trust Insurance Plc	(17) Sterling Assurance Nigeria Ltd	(30) WAPIC Insurance Plc	(43) Zenith General Insurance
(5) Guardian Express Assurance Co. Ltd	(18) Cornerstone Insurance Plc	(31) Staco Assurance Plc	(44) Lead way Assurance Co. Ltd
(6) Guaranty Trust assurance Plc	(19) Yankari Insurance	(32) Oceanic Insurance Co.Ltd	(45) Lasaco Assurance
(7) ADIC Insurance Co. Ltd	(20) Prestige Assurance Plc	(33) International Energy Insurance	(46) Royal Exchange Assurance Co. Plc
(8) UNIC Insurance Plc	(21) Alliance and General Insurance Plc	(34) Custodian and Allied Insurance Plc	(47) Law Union and Rock Insurance Plc
(9) Crusader Insurance Plc	(22) Standard Insurance Plc	(35) Standard Life Assurance Plc	(48) Anchor Insurance Co. Ltd
(10) Gold link Insurance Plc	(23) Great Nigeria Insurance Plc	(36) Heirs Life Assurance (Now Metropolitan Life)	(49) OASIS Insurance
(11) Sovereign Trust Insurance	(24) Kapital Insurance Co Ltd	(37) Capital Express Insurance Co. Ltd	(50) Linkage Assurance Plc
(12) Consolidated Hallmark Plc	(25) Unitrust Insurance Co. Ltd	(38) Universal Insurance Co Ltd	(51) AIICO Insurance Plc
(13) Continental Reinsurance Co. Plc	(26) NEM Insurance Plc	(39) African Alliance Insurance Co. Ltd	(52) Nigerian Agricultural Insurance Corporation

(Source: insurancecetoplists.com)

New Capitalization of Insurance Business in Nigeria
New Minimum Capital requirement for Insurance Firms in Nigeria
Change in Minimum Paid-Up Share Capital Policy
On 20th May 2019, the National Insurance Commission (NAICOM) issued Circular Number NAICOM/DPR/CIR/25/2019 titled "Minimum Paid-up Share Capital for Insurance and Reinsurance Companies in Nigeria" (the Circular). The revised paid-up share capital is based on class of insurance business being carried on by a company as indicated below:

S/N	Class of Business	Existing minimum paid-up share capital (from February 2007)	Reviewed minimum paid-up share capital (from May 2019)
1	Life Insurance Business	2 Billion Naira	8 Billion Naira
2	General Insurance Business	3 Billion Naira	10 Billion Naira
3	Composite Business	5 Billion Naira	18 Billion Naira
4	Reinsurance Business	10 Billion Naira	20 Billion Naira

(Source: https://www.jacksonettiandedu.com/wp-content/uploads/2019/05/NAICOM-Issues-Circular-on-Increase-in-Paid-Up-Share-Capital-for-Insurance-Companies-revised)

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

2.2 Theoretical Review

This section discusses selected theories that link banks and other financial institution to economic growth.

Demand Leading Theory

Demand-Leading theory can likewise be referred to as "growth-led finance" hypothesis. It states that "the growth of the economy generates additional and new demand for financial services, which brings about a supply response in the growth of the financial system" (Patrick, 1966). This theory suggests a demand – following connection amid fiscal and economic developments. In the real economy, high economic growth stimulates investors and savers to demand for modern financial institutions; their services, their assets and liabilities and arrangements. In turn responds, a response is created by the financial market to such demands. The level of demand for financial services hinges on growth of real output, and commercialization and monetization of agriculture and other traditional substance sectors (Patrick, 1996; Meier, 1984).

Supply Leading Theory

Supply leading theory can be described as the finance-lead hypothesis. It postulates that "the existence of developed financial institutions, the supply of their financial assets, liabilities and related financial services leads to economic growth which would provide efficient allocation of resources from surplus units to deficit units, thereby leading the other economic sectors in their growth process" (Patrick, 1996). The supply – leading financial intermediation can be likened to the term "innovation financing" (Schumpeter, 1912).

2.3 Empirical Review

The connexion amid economic growth through insurance has been studied broadly by scholars for more than a decade. Various aspect of insurance has been utilized to determine this relationship. Some of the outcomes from various empirical studies are reviewed in this section. Firstly, Oke (2012) studied "the relationship amid the insurance sector and economic growth in Nigeria" and establish that there exists a positively strong connexion amid relevant variables. The outcome from cointegration test indicated that a long-run relationship amid economic growth and developments in the insurance sector. The study settled that development within the insurance sector to stimulate economic growth in Nigeria. Likewise, Olayungbo (2015) by utilizing Autoregressive Distributed Lag (ARDL) Method, examined "the effect of life and non-life insurance on economic growth in Nigeria". Consequently, the study determined that life and non-life insurance positively complement one another and likewise has a sway on economic growth. Similarly, Yinusa and Akinlo (2013) in their empirical study, found a long-run relationship amid economic growth and premium. They settled that insurance development is cointegrated with economic growth. In Iyiola and Rechard (2004), the empirical study adopted Ordinary Least Squares. The study's outcome revealed that GDP explains for over 53% of the changes in insurance income with the value of the adjusted R^2 of 0.53, the study concluded however, that insurance did not significantly contribute to Nigeria's Real GDP amid 1996-2012. Sambo (2016) examined the effect of portfolio investment of insurance on the GDP in Nigeria. A strong relationship was established amid relevant variables in the study. Earlier study like Beenstock, Dickinson, and Khajuria (1986) revealed that nonlife insurance demand is linked with GDP per capita in a sample of 12 industrialized countries amid 1970 and 1981. Eze and Okoye (2013) by using cointegration test and error correction model in examining "the impact of insurance practice on the growth of Nigerian economy". Insurance premium capital, total insurance investment and insurance sector development are used as measures of insurance development. By using co-integration over a period of 1970 -2008, Omoke (2012) resolved that no connection exists amid insurance premiums and economic growth in Nigeria.

3. METHODOLOGY

This section dwelt on the research methods used for the study. It contains how the data was collected, designed, model specified, and preliminary tests conducted.

3.1 Data Collection

The data for this study was collected from the website of the Central Bank of Nigeria (CBN) statistical bulletin and website of Nigeria Insurance Association Digest Annual Reports for the period 1981 to 2017.

3.2 Research Design

The design of this study is quantitative as it is meant to collect and analyze given data on the relationship amid two variables; Insurance sector Premiums and economic growth. The study identified five proxies for insurance premiums; fire Premiums, Accident Premiums, Motor Vehicle Premiums, Marine Premiums and Miscellaneous Premium while Real GDPs as proxy for economic growth in Nigeria

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

3.3 Model Specification Model specification is a mathematical expression used to measure the economic relationship amid variables (dependent and independent variables). In this case we specify a functional and econometric models for the dependent and independent variables of the study.

RGDP= f (FP, AP, MVP, MP, MCP)………….. (1)

Assuming a linear relationship amongst the variables, the econometric relationship of the functional form is written as follows;

RGDP= β_0 + β_1FP + β_2AP + β_3MVP + β_4MP + β_5MCP+U……. (2)

Where:

RGDP= Real Gross Domestic Product

FP= Fire Premium

AP= Accident Premium

MVP= Motor Vehicle Premium

MP= Marine Premium

MCP= Miscellaneous premium

U= stochastic error term

B0, = constant

b1, b2, b3, b4, b5 = coefficients and are the parameters to be estimated

3.4 Pre-Test

The following pre-test was conducted to ascertain the validity and global acceptability of the variables used as candidates for the selected model.

3.4.1 Test for Stationarity (Unit Root test)

The test for stationarity of the data is one of the assumptions of an econometric model. It would reveal whether the data is stationary at level, first difference or whether it's a mixed order of integration. This result gave direction of the statistical tool to use to estimate the parameters.

The short-run tests, Long-run test, autocorrelation test and the granger causality tests were conducted.

These tests revealed whether there exists a long run relationship amid two or more co-integrating variables in the estimated equation.

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

The data collected on Real GDP, fire premiums, accident premiums, motor vehicle premiums, marine premiums and miscellaneous premium from the various sources are presented, analyzed and interpreted in this section.

4.1 Data Presentation

The data presented shows the real GDP as dependent variable and Fire premium, Accident premium, Motor vehicle premium, Marine premium and miscellaneous premium for the period 1981 to 2016. In 1981, the RGDP was 15,258.00, while FP, AP, MVP, MV, MCP was N22.11, N27.91, N116.42, N42.11 and N15.55 respectively was premium received in 1981. In 1990 while the RGDP increased to N19, 305.63, the FP, AP, MVP, MV, and MCP also increased to N194.44, N124.17, N343.86, N188.58 and N150.94 respectively. In 2000, while the RGDP increased again to N23, 688.28 the FP, AP, MVP, MV, and MCP increased to N3449.78, N2872.57, N7403.98, N3103.37 and N5441.08 respectively for the year.

This pattern continued in 2010, while the RGDP increased to N54,612.26 the FP, AP, MVP, MV, and MCP increased to N24,249.95,N27,816.16,N43,925.65, N21,264.62 and N8133.66 respectively for the year.

The pattern changed in 2017, as RGDP increased to N68, 490.98 billion the FP, AP, MVP, MV, increased to N35, 375.58, N29, 740.02, N39, 295.06, N22, 102.09 while MCP decreased to N3783.94 billion. Respectively for the year. The movement of the variables over the years shows that they are not normally distributed. This leads us to test for the unit root of the variables.

4.2 Test for Stationarity (Unit Root Test)

The Phillips Perron test type was used to test for the stationarity of the data. The following results were obtained using e-views.

Table 2: Showing Mixed Order of Stationarity-Unit Root Test

Variables	Phillips Perron Test Statistic at		Critical values	Order of Integration
	LEVEL	1ST DIFF		
RGDP	-5.620073		-2.632688 -1.950687 -1.611059	1 (0)

FP		-5.283251	-3..639407	1 (1)
			-2.951125	
			-2.614300	
AP		3.915302	-3.915302	1 (1)
			-3.639407	
			-2.614300	
MVP		-3.816072	-3.639407	1(1)
			-2.951125	
			-2.614300	
MP		-5.035545	-3.639407	1(1)
			-2.951125	
			-2.614300	
MCP		-6.298073	-3.639407	1 (1)
			-2.951125	
			-2.614300	

Significance at 10%, Significance at 5%, Significance at 1%.

The test result above shows the order of stationarity (unit root) of the dependent and independent variables. While RGDP is stationary at level 1(0), FP, AP, MVP, MP and MCP are stationary at first difference 1(1). This implies that the regression equation that would be estimated would be tested using Auto Regressive Distributed Lag (ARDL), because of the mixed order of integration.

4.3 Interpretation of Result

4.3.1 Auto Regressive Distributed Lag (ARDL) Test Result

The table below shows the test result obtained from the e-views 10 software indicating the short run relationship amid the dependent variable and the independent variables.

Table 3: showing ARDL result

Dependent Variable: RGDP				
Method: ARDL				
Date: 02/25/21 Time: 02:51				
Sample (adjusted): 1985 2017				
Included observations: 33 after adjustments				
Maximum dependent lags: 4 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (4 lags, automatic): FP AP MVP MP MCP				
Fixed regressors: C				
Number of models evaluated: 12500				
Selected Model: ARDL(1, 4, 4, 4, 2, 0)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.***
RGDP(-1)	0.922683	0.094935	9.719059	0.0000
FP	0.005198	0.107088	0.048544	0.9621
FP(-1)	-0.595688	0.202088	-2.947663	0.0122
FP(-2)	-0.414761	0.248842	-1.666763	0.1214
FP(-3)	0.451836	0.334215	1.351930	0.2013
FP(-4)	0.977940	0.270654	3.613253	0.0036
AP	-0.263684	0.247676	-1.064632	0.3080
AP(-1)	0.945946	0.445287	2.124351	0.0551
AP(-2)	0.502497	0.461751	1.088241	0.2979
AP(-3)	-1.738110	0.613648	-2.832422	0.0151

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

AP(-4)	-0.372601	0.388107	-0.960046	0.3560
MVP	0.150146	0.136697	1.098387	0.2936
MVP(-1)	-0.302989	0.182511	-1.660110	0.1228
MVP(-2)	0.316817	0.166788	1.899522	0.0818
MVP(-3)	0.799712	0.275606	2.901648	0.0133
MVP(-4)	-0.462940	0.224073	-2.066023	0.0611
MP	-0.055131	0.059011	-0.934251	0.3686
MP(-1)	-0.040774	0.066617	-0.612058	0.5519
MP(-2)	-0.057300	0.059720	-0.959493	0.3562
MCP	0.038474	0.071345	0.539268	0.5996
C	1981.196	1559.431	1.270461	0.2280
R-squared	0.999681	Mean dependent var		34965.94
Adjusted R-squared	0.999149	S.D. dependent var		18828.30
S.E. of regression	549.1446	Akaike info criterion		15.71573
Sum squared reside	3618718.	Schwarz criterion		16.66805
Log likelihood	-238.3095	Hannan-Quinn criter.		16.03615
F-statistic	1880.313	Durbin-Watson stat		2.122579
Probe(F-statistic)	0.000000			
*Note: p-values and any subsequent tests do not account for model				
Selection.				

(Source: e-views 10 ARDL result)

INTERPRETATION OF RESULTS

From table three, the result shows R-square at 0.999681% while the adjusted R-squared shows a percentage of 0.999149%. This implies that the predictor or independent variables selected are good variables that can predict the movement of the dependent variable. Thus FP, AP, MVP, MP and MCP are best fits to predict or influence the direction of Real GDPs in Nigeria.

At lag 1, the result shows that the fire premiums has a negative relationship with real GDP with -0.595688%, thus a 1% increase in fire premium will lead to -0.595688% decrease in real GDP. The probability value of 0.0122% which is lower than the critical value of 5% shows that fire premium in Nigeria significantly predict the movement of Real GDP. Thus the null hypothesis is rejected.

At lag 3 and 4, the result shows that the fire premiums has a positive relationship with real GDP with 0.451836% and 0.977940, thus a 1% increase in fire premium will lead to 0.451836% and 0.977940% increase in Real GDP.

The probability values of 0.0036% at lag 4 is lower than the critical value of 5%. This shows that fire premium in Nigeria significantly predict the movement of Real GDP. Thus, the null hypothesis is rejected.

At lag 1 and 2, the result shows that the Accident premiums has a positive relationship with real GDP with 0.945946% and 0.502497%, thus a 1% increase in accident premiums will lead to 0.945946% and 0.502497% increase in Real GDPs.

Their probability values of 0.0551% and 0.0151% at lags 1 and 3 shows that a significant relationship exist amid AP and RGDP. Thus the null hypothesis is rejected.

Motor vehicle premiums at their lags 1 and 4, shows that a negative relationship with Real GDP with -0.302989% and -0.462940 respectively. Thus a 1% increase in motor vehicle premiums will lead to -0.302989% and -0.462940% decrease in Real GDP, respectively. Their probability values of 0.1228% and 0.0611% which is greater than the critical value of 5% is an indication that motor vehicle premium in Nigeria do not significantly predict the direction of Real GDP. Thus the null hypothesis is accepted.

Marine Premium at lags 1 and 2 shows a negative relationship at -0.040774% and -0.057300% with RGDP. The probability values also show that there is no significant relationship amid MP and RGDP.

MCP shows a positive relationship at 0.038474% but no significant relationship.

Non-Life Insurance Sector Premiums and Economic Growth: The Nigerian Experience

4.3.2 Long Run Bounds Test Result
Table 4:

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	11.94996	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15
Actual Sample Size	33		Finite Sample: n=35	
		10%	2.331	3.417
		5%	2.804	4.013
		1%	3.9	5.419

The bounds test result as shown in table 4 revealed an F –statistic value of 11.94996% which is greater than the upper bound of 3.38% at 5% level of significance. The null hypothesis is rejected at 5% level, and we conclude that there is a long run relationship amid all the independent variables Fire premium, Accident premium, Motor vehicle premium, marine premium and miscellaneous premium and real GDP in Nigeria for the period studied.

4.3.3 Autocorrelation-Durbin Watson
The result of the Durbin Watson shows a 2.122579%, this means that there is no presence of autocorrelation in the data. Thus, meeting the global criteria for the test of the presence of autocorrelation as one of the regression assumptions.

4.3.4 Granger Causality Test Result
Table 5:

Pairwise Granger Causality Tests			
Date: 01/23/20 Time: 14:30			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
FP does not Granger Cause RGDP	34	2.25142	0.1233
RGDP does not Granger Cause FP		3.79456	0.0344
AP does not Granger Cause RGDP	34	2.02014	0.1509
RGDP does not Granger Cause AP		4.29067	0.0233
MVP does not Granger Cause RGDP	34	3.46919	0.0446
RGDP does not Granger Cause MVP		1.87371	0.1717
MP does not Granger Cause RGDP	34	2.37935	0.1105
RGDP does not Granger Cause MP		3.88454	0.0320
MCP does not Granger Cause RGDP	34	3.79554	0.0343
RGDP does not Granger Cause MCP		0.79445	0.4614
AP does not Granger Cause FP	34	1.22166	0.3095

FP does not Granger Cause AP		1.57094	0.2250
MVP does not Granger Cause FP	34	5.01519	0.0135
FP does not Granger Cause MVP		1.68091	0.2038
MP does not Granger Cause FP	34	0.12765	0.8807
FP does not Granger Cause MP		3.82935	0.0334
MCP does not Granger Cause FP	34	9.12560	0.0008
FP does not Granger Cause MCP		2.45987	0.1031
MVP does not Granger Cause AP	34	1.74102	0.1932
AP does not Granger Cause MVP		1.15165	0.3302
MP does not Granger Cause AP	34	0.29773	0.7447
AP does not Granger Cause MP		3.78200	0.0347
MCP does not Granger Cause AP	34	9.15169	0.0008
AP does not Granger Cause MCP		0.99358	0.3825
MP does not Granger Cause MVP	34	0.00169	0.9983
MVP does not Granger Cause MP		4.03908	0.0284
MCP does not Granger Cause MVP	34	13.2852	8.E-05
MVP does not Granger Cause MCP		0.24488	0.7844
MCP does not Granger Cause MP	34	3.99087	0.0294
MP does not Granger Cause MCP		0.29077	0.7498

The granger causality results above show that Real GDP at 0.034% probability level, which is less than 5% level of significance, has a unidirectional causality with Fire premium. Thus, it implies that the null hypothesis is rejected and the alternative accepted that there is a causal relationship amid Real GDP and fire premium. By this we conclude that economic growth proxied by real GDP causes the movement of fire premium and not the other way round.

The RGDP is also seen to have a unidirectional causality with Accident premium at 0.0233% probability, which is lower than the 5% critical level. This position aligns with the argument that economic growth causes financial sector development (insurance sector in this case). Hence a well-developed economy will cause growth in the premiums from Accident insurance.

Motor vehicle premiums granger causes fire premium at 0.0135% which is lower than the 5% critical value. This implies that motor vehicle premium causes growth in fire premium in Nigeria. The premium paid at the risk of motor vehicle being burnt causes high premium for fire insurance.

4.4 Discussion of Findings

The findings above has shown that at the short run negative and positive relationship exists amid Fire premiums, accident premiums, motor vehicle premiums, marine premiums and miscellaneous premiums and Real GDPs at different lag periods in Nigeria.

The short run results has so far shown that fire premiums (FP), accident premiums (AP), motor vehicle premiums significantly influence Real GDP. Marine premiums and miscellaneous premiums do not significantly predict the direction of Real GDPs in Nigeria as the probability values of the independent variables are all less than 5%.

The bounds test result also show that there is no long run relationship amid the variables examined with f- statistic less than the upper bound critical value of 5%.

These results aligns with the demand-following theory which states that the growth of the economy generates additional and new demand for financial services, "which brings about a supply response in the growth of the financial system" (Patrick, 1966). This theory suggests a demand – following relationship amid financial and economic development. High economic growth

creates the demand for modern financial institutions; their services, their assets, liabilities and arrangements, by investors and savers in the real economy.

The results also revealed, the extent to which insurance sector premiums are significant at some periods and are insignificant at other periods in the determination of the growth in Real GDP in Nigeria for the period studied.

The granger causality results also show that RGDP has a unidirectional causality with Fire and Accident premiums.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS
SUMMARY/CONCLUSION

This study on insurance sector premium and economic growth has shown that insurance sector premiums have positive and negative relationship with economic growth at some lag periods of the study. It also revealed that long run relationship does not exist amid the variables that predict economic growth in Nigeria.

It reaffirms the extent to which insurance sector can contribute to the financial sector and by extension its effect on the economy through funds mobilization, through premiums collection, risk mitigation, risk transfer and management, prudent investment of premiums, efficient allocation of funds and adequate capitalization. These factors are drivers for efficient delivery of insurance services to individuals and businesses in the country. The results robustly have policy implications. It presents a wake-up call for the development of the insurance sector in Nigeria which hitherto has been undermined considering the lesser attention given to it.

RECOMMENDATIONS

Based on the findings of this study we recommend as follows;

1. Insurance firms should leverage on fire and accident insurance policies to boost high premiums.
2. Government should formulate and implement economic policies capable of stimulating insurance industry activity.
3. The National Insurance Commission (NAICOM) should endeavor to further reduce the number of underwriting firms in Nigeria to a figure which existing insurance business opportunity can cope with, thus paving the way for emergence of mega insurance companies.
4. Chartered Insurance Institute of Nigeria (CIIN) and Nigeria Insurance Association (NIA) should jointly and individually improve the insurance image laundering and market awareness activity by promoting systematic educational campaign in the media to the general public.
5. The government should provide enabling business environment for efficient and sound insurance practices.
6. Monetary authorities should formulate policies that will enable the insurance sector develop.
7. Strong legal framework should be introduced to protect the insured on claim for indemnity in the event of litigation arising from dispute over insurance contract.
8. Adequate public awareness and education should be carried out by insurance firms to enable members of the public enter into insurance contract.
9. Finally, government should ensure that insurance becomes compulsory for individuals and business organizations. This will ensure more pooling of insurance premiums which could potentially increase investments and lead to economic growth.

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