EFFECT OF EXCHANGE RATE ON TOTAL PREMIUM OF NIGERIAN INSURANCE INDUSTRY: A MANAGERIAL PERSPECTIVE

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Abstract
The study investigated the effect of exchange rate on insurance premium of Nigerian insurance industry. Ex-post facto research design was used in the study. A hypothesis was formulated and tested. The data were subjected to a Unit root test to test for stationarity. Afterwards Ordinary Least Square Regression analysis technique was used to test the hypothesis. The test of significance of result of the study was at 5 percent level of significance. It was found that exchange rate had a negative but non-significant effect on insurance premium of the Nigerian insurance industry. The following respective implication of the finding shows that exchange rate had a decreasing effect on total premium. The study based on the aforementioned finding we concluded that the insurance business premium was not significantly and positively influenced by themacro-economic variables (exchange rate). The study recommendedthat investments of the insurance industry should not be limited to the Nigerian economy;financial instruments in more advanced economies with possibility of high returns should be invested in by the industry as itwould help to offset the effect of the devaluation of Naira on their local investments.
Keywords: Exchange rate, Total premium, Nigerian, Insurance industry, Managerial perspective

1.1 Introduction

The decision of an insured to purchase insurance product backed up by payment of premium could affect the growth of insurance companies positively or negatively. The state of the economy in which the insurance industry operates also counts. Economic environments have a profound effect on the growth of the insurance industry. Such environment is largely shaped by macroeconomic variables. A common denominator of performance is usually the parameter for measuring growth. For the insurance industry a successful business year would reflect in an increase in total premium income, deepening insurance penetration, higher annual profit, increase in investment in the capital market, enlarged capacity to pay off short term obligations, asset growth, increase in number of branches, higher insurance density and lots more. Hagstrom (1981) observes that common bases for measuring growth in the insurance industry include premium income in force, life insurance in force, assets held, and growth in earnings per share according to Generally Accepted Accounting Principles (GAAP)

Demir (2013), found that exchange rate volatility has a significant growth reducing effect on manufacturing firms. On contrary, the result differed with those of Onyango (2014), who found that exchange rate volatility positively impacts on economic growth but is not significant in affecting the growth rate. Mwanza (2014), revealed that foreign exchange rate have an insignificant relationship, such that it does not have a significant effect on the performance of firms.Bartov&Bodnar (1994), suggest that there is a lagged relation between changes in

exchange rates and firm values due to mispricing. High exchange rate volatility has implications for business and policy decisions. Standards of sound business practices on foreign exchange risk management define foreign exchange risk as the exposure of an institution to the potential impact of movements in foreign exchange rates. The risk is that adverse volatility in exchange rates may result in a loss to an institution. Li (2003) describes financial risk as a risk that emanates from the uncertainty of such factors as interest rates, exchange rates and stock price volatility and volatility in commodity prices. In the worst case, even for a mild scenario, foreign exchange losses could cause huge burdens on companies' liquidity.

Empirical analysis of Christophersen and Jakubik (2014) reveals a strong link between insurance companies' premiums, on one side, and economic growth and unemployment on the other. Nissim (2010) also argues that the overall economic activity affects insurance carriers' growth, because the demand for their products is affected by the available income. Further, he underlines that the investment income is highly sensitive to interest rates, both on the short and on the long run.

Most studies Poontirakul (2012) andMurungi (2014), 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. Again, most of the related literatures are works done outside Nigeria. Empirical works revealed different methodologies for almost similar studies and a wide gap in arguments and results on the effect of these various macroeconomic variables on insurance industry growth.

Foreign exchange rate effect could be positive or negative on firms' premium. It impacts negatively to firms when it leads to low purchase of insurance policies which therefore affect the total premium and positively when it leads to foreign exchange gain which leads to gains that increase the insurance growth locally and internationally.Exchange rate determines the relative prices of domestic and foreign goods, as well as the strength of external sector participation in the international trade. Appreciation of exchange rate results in increased imports and reduced export while depreciation would expand export and discourage import. Also, depreciation of exchange rate tends to cause a shift from foreign goods to domestic goods. Hence, it leads to diversion of income from importing countries to countries exporting through a shift in terms of trade, and this tends to have impact on the exporting and importing country's economic growth.The study therefore set out to investigate the effect of exchange rate on total premium of Nigerian insurance industry.

1.2 Statement of the Problem

The Nigerian insurance industry deals primarily with transferred risk evidenced in the form of premiums paid by insured to insurers. Given the uncertainty in the time of occurrence of risks, it proves very risky for insurers not to have money of sufficient value to match the loss incurred at any time by the insured. This sort of risk facing the insurance industry is influenced by macroeconomic factors. Exchange rate stability is very important for Nigeria in maintaining the

value of the naira and reduces the impact of international capital shocks. The consequence of foreign exchange rates may ultimately be reflected in the stock insurance prices and insurance premium across the economic spectrum. Exchange rate plays an increasingly significant role in Nigeria firms as it directly affects domestic selling price level, profitability, allocation of resources and investment decisions.

The challenge of suitable exchange rate policy in the developing countries has become a controversial issue in recent times. Scholars internationally and locally have been empirically investigating the exchange rates exposures of companies and have come up with divergent conclusions. Some find significant effects and others no effects of exchange rate on firms' financial health. The study investigated the actual effect of foreign exchange rate on the premium in insurance industry of Nigeria.

Objective of the study
The objective of the study was to investigate the effect of exchange rate on total premium of Nigerian insurance industry.

1.3 Research question
The research question for the study was to what extent did exchange rate affect total premium of Nigerian insurance industry?

1.5 Research Hypothesis
The alternate hypothesis for the study was that exchange rate had positive effect on total premium of Nigerian insurance industry.

1.4 Scope of the Study
The study investigated theeffect of exchange rate on the total premium of insurance industry. In other words, as thisvariable operates and influences the value of Naira in the economy it is not known whether there will there be an increasing or decreasing effect on the growth of total premium in the insurance industry.The study adopted an industry wide coverage.   It coveredinsurance industries operating in Nigeria. It involved obtaining and combining data on Life and Non-Life sectors of the insurance industry, that is. total industry data were used. Operations of the selected variables and the insurance industry were covered from 1985 to 2014. The wide number of years was selected to ensure that the study used a minimally acceptable number of observations for a large sample size. 1985 was chosen as the base year of the study because it was a following the beginning of the Structural Adjustment Programme in Nigeria; a period that marked the upward swing of the selected macroeconomic variables in the study from which they had not gone down. The studyexamined the effects of inflation on the insurance penetration in the Insurance Industry in Nigerian between 1985- 2014. The focus was on insurance industry operational in Nigeria.

2.1 Conceptual framework

2.1.1 Exchange Rate

Riley (2016) defines an exchange rate as the price of one currency in terms of another – in other words, the purchasing power of one currency against another. The exchange rate is the price of a unit of foreign currency in terms of the domestic currency. Currencies are traded in foreign exchange markets and the volume of money bought and sold is huge. Exchange rates are an important instrument of monetary policy – a growing number of countries are intervening in currency markets as part of their economic strategies.Exchange rate and inflation are basically dependent of quantity of money in circulation and in terms of effect influence the price at which goods and services can be bought. They collectively fundamentally influence liquidity in an economy or organization. Further look at their effect show that when increased, exchange rate increase foreign investors' confidence when it is against the host country. Inflation rate skyrockets the price of goods and services when it climbs.

Exchange rate stability according to Onyango (2014) is one of the main factors that promote total investment, price stability and stable economic growth. Exchange rate is the value of one currency in relation to another. Exchange rate is a macroeconomic element of major focus in Nigeria as it has a direct significant effect on the cost of production / business hence affecting domestic selling price level (premium,) profitability, allocation of resources, investment decisions, export sales and the overall competitiveness in the industries. The movement fluctuation of exchange rate can become a source of risk for insurance companies. These fluctuations pose a threat to companies especially those which trade their shares on the money market and those engaging in international business as they are naturally exposed to currency risks. The risk is that adverse changes volatility in exchange rates may result in a loss to an institution. Foreign exchange risk is the exposure of an institution to the potential impact of movements in foreign exchange rates. According to Mbogo (2015), the management of companies thereforeshould incorporate a wider array of the hedging tools available and should not only rely on forward and spot contracts, but look into other intricate methods like swaps and options and this should help mitigate against the adverse effects in currency movements. According to Mulwa (2013), the exposure to foreign exchange rate fluctuations usually manifests itself as an impact on first the value of net monetary assets with fixed nominal payoffs' and secondly the value of real assets held by the firm.

Foreign Exchange Rate Volatility

Exchange rate can be a conversion factor, a multiplier or a ratio, depending on the direction of conversion. It is the price of one currency in relation to another which expresses the national currency's quotation in respect to foreign currencies. Volatility on the other hand is a measure of risk, usually simply referred to as "instability, fickleness or uncertainty". According to Mulwa (2013) affirms that volatility of exchange rates describes uncertainty in international transactions both in goods and in financial assets. Foreign exchanges rates help fill the domestic revenue-generation gap in a developing economy (Cote, 2005).

It is the function ofnation'scentral banks in an economy to determine the exchange rate by fixing it such that international transactions were never subjected to exchange rate fluctuations risk. This arrangement was known as the fixed exchange rate system of Bretton. However, in 1971 the system was replaced by a foreign rates system in which the price of currencies was and continues to be determined by the market forces of supply and demand. According to Hales (2005), exchange rate movements are transmitted to domestic prices through three channels. One is through prices of imported consumption goods whereby exchange rate fluctuations affect domestic prices directly. Second is through prices of imported intermediate goods whereby exchange rate movement affects production cost of domestically produced goods. Lastly, is through prices of domestic goods priced in foreign currency.

2.1.2 Total Premium
Ojukwu (2006) informs that insurance operates by a combination of a large number of individuals and organizations agreeing to contribute adequately (premium) to a common fund and each contributor agrees that if any contributor suffers a loss of the kind insured against, such a contributor would be compensated from the common fund. Nwite (2004) defines, premium as the monetary consideration passing from the insured to the insurer for their undertaking to pay the sum insured in the event of the risk insured against happening; it is a necessary element for insurance contract. The insurer fixes the premium which is agreed by the proposed insured before there can be a valid contract of insurance. Premium is strictly due at the inception of the contract, but sometimes policies are issued before payment. Going by legal requirement payment of premium is a condition to the basic agreement between the parties.

Premium is the specified amount of payment required periodically by an insurer to provide coverage under a given insurance plan for a defined period of time. The premium compensates the insurer for bearing the risk of a payout should an event occur that triggers coverage. The most common types of coverage are motor, theft and life insurance.In an insurance contract, the risk is transferred from the insured to the insurer. For taking this risk, the insurer charges an amount called the premium. Premium is an amount paid periodically to the insurer by the insured for covering his risk.

Policyholders are often given a number of options when it comes to paying an insurance premium. Some insurers allow the policyholder to pay the insurance premium in installments, for example monthly or semi-annual payments, or may require the policyholder to pay the total amount before coverage starts.Insurance premiums may increase after the policy period ends. The insurer may increase the premium if bad claims experience were made during the previous period, if the risk associated with offering a particular type of insurance increases, or if the cost of providing coverage increasesetc.The premium is a function of a number of variables like age, type of employment, medical conditions, experience,etc. The actuaries are entrusted with the responsibility of ascertaining the correct premium of an insured. The premium paying frequency can be different. It can be paid in monthly, quarterly, semiannually, annually or in a single premium. (*Investopedia, 2017).*

Insurance Premium covers

The total premium is all premium generated by the insurance industry in a given business year. An insurance premium is the amount of money that an individual or business must pay for an insurance policy. The insurance premium is considered income by the insurance company once it is earned, and also represents a liability in that the insurer must provide coverage for claims being made against the policy.The amount of insurance premium that is required for insurance coverage depends on a variety of factors. Insurance companies examine the type of coverage, the likelihood of a claim being made, the area where the policyholder lives or operates a business, the behaviour of the person or business being covered, and the amount of competition that the insurer faces.The insurance premium is considered income by the insurance company once it is earned; and also represents a liability in that the insurer must provide coverage for claims being made against the policy; it covers catastrophic risk, administrative expenses, profit and reserve.

Actuaries employed by an insurance company can determine, for example, the likelihood of a claim being made against a teenage driver living in an urban area compared to one in a suburban area. In general, the greater the risk associated with a policy the more expensive the insurance policy will be.Policyholders are often given a number of options when it comes to paying an insurance premium. Some insurers allow the policyholder to pay the insurance premium in installments, for example monthly or semi-annual payments, or may require the policyholder to pay the total amount before coverage starts.

Insurance premiums may increase after the policy period ends. The insurer may increase the premium if claims were made during the previous period, if the risk associated with offering a particular type of insurance increases, or if the cost of providing coverage increases.Insurers use the insurance premium to cover the liabilities associated with the policies that they underwrite, as well as to invest the premium in order to generate higher returns. Insurers will invest the premiums in assets with varying levels of liquidity and return, with the amount of liquid assets often set by state insurance regulators. Regulators want to make sure that policyholders will be able to have their claims paid for, and thus require insurers to retain adequate reserves.

2.2 Theoretical Framework

2.2.1 Arbitrage Pricing Theory

Arbitrage Pricing Theory (APT) was proposed by Stephen Ross in 1976. It is an asset pricing theory that states that the expected return of an investment or a financial asset can be modeled as a linear relationship of various macroeconomic variables or where degree of correlation to changes in each variable is represented by a beta coefficient. The model derived rate of return will then be used to obtain the price or value of the asset correctly. The asset value should equal

the expected end of period asset value or future cash flows discounted at the rate implied by the model. If the asset value changes, arbitrage should bring it back to line.

Ross' (1976a) heuristic argument for the theory is based on the preclusion of arbitrage. Ross' formal proof shows that the linear pricing relation is a necessary condition for equilibrium in a market where agents maximize certain types of utility. There is the assumption of the preclusion of arbitrage or the equilibrium of utility-maximization. A linear relationship between the expected returns and the betas is tantamount to an identification of the stochastic discount factor (SDF).

APT agrees that though many different specific forces can influence the return of any individual stock, these particular effects tend to cancel out in large and well diversified portfolio. This is the principle of diversification and it has an influence in the field of insurance. An insurance company has no way of knowing whether any particular individual will become sick or will be involved in an accident, but the company is able to accurately predict its losses on a large pool of such risk. However, an insurance company is not entirely free of risk simply because it insures a large number of individuals. Natural disaster or changes in health care can have major influences on insurance losses by simultaneously affecting many claimants.

Cummins (1987) states that insurance companies are corporations and insurance policies can be interpreted as specific types of financial instrument or contingent claim thus it is natural to apply financial models to insurance pricing. The models are designed to estimate the insurance prices that would pertain in a competitive market. Charging a price at least as high as the competitive price (reservation price) increases the market value of the company. Charging a lower price would reduce the company's market value. Thus, financial models and financial prices are among the key items of information that insurers should have at their disposal when making financial decisions.

2.3 Empirical Review

Poontirakul (2012) studied the impact of macroeconomic factors on the increasing non-life insurance consumption in Thailand. Twenty independent variables were gathered from eightmacroeconomic indices, which were published by the Bureau of Trade and Economic Indices, i.e.: Consumer Price Index, Business Cycle Index, Inflation Cycle Index, Export Business Situation Index, Consumer Confidence Index, Producer Price Index, Construction Material Price Index, and Export and Import Price Index. They were selected to be statistically examined for their potential impacts on non-life insurance consumption, which was represented by the amount of all directly earned premium of total non-life insurance consumption by all insurance companies in Thailand, published on the website of the Office of Insurance Commission (OIC). The research data were collected on a monthly basis for a 10- year period from 2002 to 2011.

Ex-post facto research design was adopted since.Multiple regression analysis was used for analysis. The result suggested that four macroeconomic indices, i.e.: Coincident Index (from Business Cycle Index), Employment Rate (from Export Business Situation Index), Consumer Confidence Index, and Export Price Index, were found to have an impact on total nonlife

insurance consumption in Thailand of around 84 percent. From this analysis, it can be concluded that some macroeconomic factors have an impact on non-life insurance consumption in Thailand.

Doreen (2014) studied the relationship between macroeconomic variables and financial performance of Insurance Companies in Kenya. The financial performance measures of companies in Insurance industry used was the Return on Assets (ROA) which was regressed against the macroeconomic variables including real exchange rate (USD/Ksh), GDP growth rate, the change in money supply (M_3), average annual lending interest rates as computed by CBK and inflation rate measured by annual percentage changes in the consumer price index (CPI) and other determinants of financial performance of Insurance companies included claim ratio, expense ratio and size of insurance companies as presented in published financial reports by Association of Kenya Insurers (AKI). The study used descriptive correlation research design. The data was analyzed using descriptive analysis, correlation analysis and multiple regression analysis using SPSS. The study found that Interest rate (0.027<0.05) Gross Domestic Product (0.031<0.05), Claim ratio (0.000<0.05) and Expense ratio (0.01<0.05) are statistically significant while Inflation rate (0.151>0.05), Exchange rate (0.169>0.05), Money Supply (0.696>0.05) and Size of the assets (0.412>0.05) with significance of more than 5% are not statistically significant. This revealed that interest rate, GDP, Claim ratio and expense ratio are suitable predictors of insurance company's financial performance.

2.4 Literature Gap

The studies reviewed above gave lots of attention to a wide number of macroeconomic variables without close attention to exchange rate in relation to premium. Most of the 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. Again, most of the related literature covered works done outside Nigeria. Empirical works revealed different methodologies for almost similar studies and a wide gap in arguments and results on the effect of these various macroeconomic variables on insurance industry growth.

3 Methodology

3.1 Research Design

Research design refers to all methods/techniques that are used for conducting 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). E*x-post facto* design is considered appropriate when a study deals with data that had already taken place (Onwumere, 2009). However, we used*ex-post facto* design because we did have not control over the independent variables. Secondary data are data that had already been collected by and readily available from other sources (Egbulonu, 2007). Secondary data wereused and were obtained from the Central Bank of Nigeria Statistical Bulletin of 2014, as well as World Bank data website.

The study relied on historical data from 1985 to 2014

3.2 Model Specification

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

$LnD = \beta_0 + \beta_1 FD_t + \beta_2 IPC_t + \beta_3 GS_t + \beta_4 P_t + \mu$ ………………….. (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*.

μ 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 the 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 the study the equation was made. It 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 was developed:

The model in their functional form is shown below.

$TIP = f(EXC, GDP)$ ………………. (2)

Where:

TIP = Total Insurance Premium

EXR = Exchange rate

GDP = Gross Domestic Product

μ = Error term

3.3 Units of Measurement Problem

The study included variables that are measured in different units (Naira and Percentages). That meant that the units of measurement for the estimated regression coefficients were different and therefore lacked 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 that reason, the estimated equations were modelled using the natural logarithm of the variables to ensure like terms and comparability of the coefficients. Thus, from the above functional relationships of the four models, the econometric equations estimated are presented below:

$$InTIP_t = B_0 + B_1 InEXCt + B_2 InGDP_t + + \mu_t \ldots \ldots \ldots \ldots 8$$

Where:

$B_0, \ B_{1,} B_2, B_3 and B_4,$ areparameters to be estimated.   TIP, EXC, GDP and μ are as explained above.

3.4 Data Analytical Procedures

Unit root tests can be used to determine if trending data should be first differenced or regressed on deterministic functions of time to render the data stationary. So a unit root test was run on the data. The Augmented Dicker Fuller (ADF) unit root test was employed to determine the order of integration of the variables in an attempt to establish stationarity level of the variables. This is a method for estimating the unknown parameters in a linear regression model, with the goal of minimizing the sum of the squares of the differences between the observed responses (values of the variable being predicted) in the given data set and those predicted by a linear function of a set of explanatory variables. The p-value ($p > 0.05$) was used to measure statistical significance. In analyzing data, the appropriateness of the model was measured using the results of the following:

- Coefficient of Determination (R^2) which value represented the percentage of variation was explained by the regression equation.

- Adjusted Coefficient of Determination (AR^2) which value indicated how well terms fit a curve or line, but adjusts for the number of terms in a model.

- Durbin Watson statistic whose values represent tests for autocorrelation in the residuals from a statistical regression analysis.

3.5 Ã priori Expectation. Thestudy expected the interaction between the independent variable and the dependent variable as thus: Exchange rate was expected to have a negative effect on total premium.

4DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

The data gathered in the process of the study are presented and analyzed to provide answer to the question as well as establish the validity or otherwise of the stated hypothesis using the techniques described already. In the study the yearly data for the years 1985 through 2014 below were collected on the variables of interest. The data were set in log form to stream the data and ensure global equilibrium.

Table 1: Summary of Unit Root Test Results

Variables	ADF stat.*	t-Statistic 5%	t-Statistic 10%	I(d)
Total Insurance Premium	-5.208978	-2.971853	-2.625121	I(1)
Exchange rate	-3.455535	-2.967767	-2.622989	I(0)
GDP	-5.706749	-2.971853	-2.625121	I(2)

Source: E-views 9.2
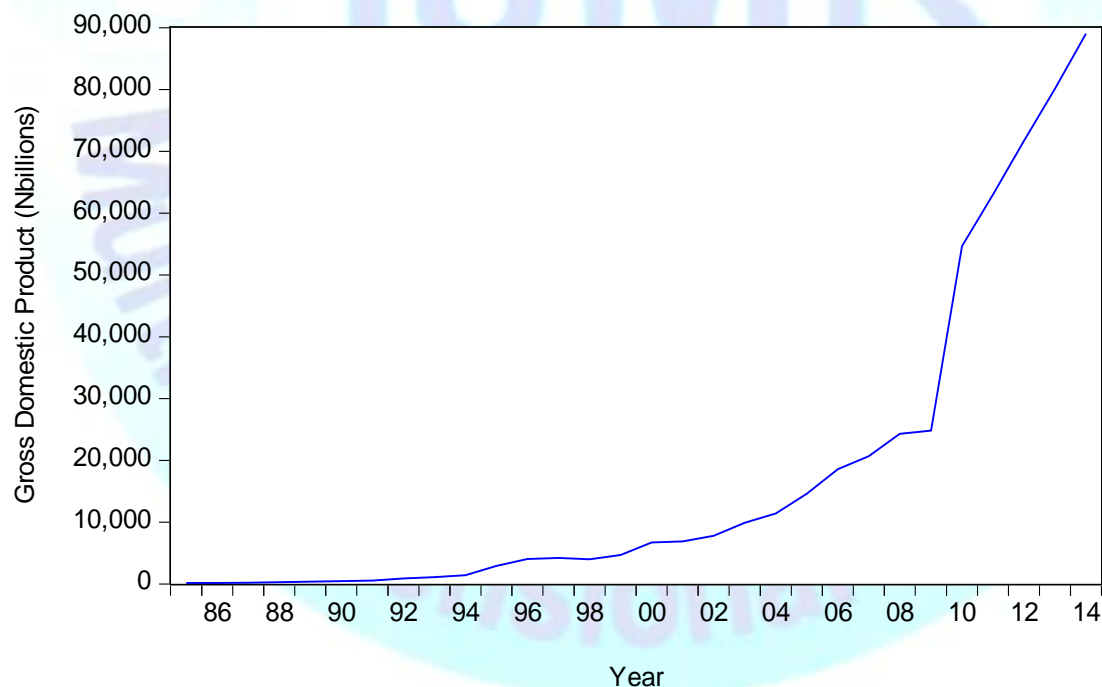
Figure 1: Trend analyses of control variable (Gross Domestic Product GDP)

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

Table 2: Descriptive Statistics

	TOTAL PREMIUM MILLIONS	EXR	GDP Nb
Mean	7.25E+10	76.92528	17646.12
Median	2.45E+10	97.39928	5696.39
Maximum	2.84E+11	158.5526	89043.62
Minimum	5.47E+08	0.893750	134.59
Std. Dev.	9.28E+10	62.60958	26096.98
Skewness	1.203216	-0.003250	1.662918
Kurtosis	3.036396	1.212071	4.376818
Jarque-Bera	7.240297	3.995916	16.19602
Probability	0.026779	0.135612	0.000304
Sum	2.18E+12	2307.759	529383.7
Sum Sq. Dev.	2.50E+23	113678.8	1.98E+10
Observations	30	30	30

The figures highlighted in blue show the average mean values of the independent and dependent variables over the given period of study. Exchange rate skewed negatively with (-0.003250).

4.2   ANALYSIS OF DATA

4.2.1   Test of Models Adequacy

In hypothesis test, the coefficient of determination (R^2) was derived as 0.792485 and adjusted R^2 was 0.785074. It shows that only 74.5074% of the total variation in total premium could be explained by the model. Therefore, Exchange rate can be held responsible for 74.5074% variation in total premium of the Nigerian insurance industry.

4.2.2   Result of Hypotheses test

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

Restatement of Hypothesis

H_0: Exchange rate has no positive and significant effect on total premium of Nigerian insurance industry.

H_1: Exchange rate has positive and significant effect on total premium of Nigerian insurance industry.

Table 3: Analysis of Hypothesis

Variable	Coefficient	Std.Error	t-statistic	Prob.
C	13.68492	0.789311	17.33782	0.0000
Exchange rate	-0.120590	0.244999	-0.492205	0.6266
GDP	2.796321	0.426129	6.562151	0.0000

It was observed that t-calculated for the independent variable (exchange rate) was -0.492205, t-tabulated was derived as t∞/2(n-k), t (0.05/2) (30-3) = 2.052. It is seen that exchange rate had a negative and non-significant effect on total premium of the Nigerian insurance industry. The Durbin Watson value of 0.818494 shows a positive autocorrelation between the variables. That is to say each can be linearly predicted from the others with a substantial degree of accuracy.

4.3   Implication and Discussion of Findings

In view of the objective, from the results of the findings, exchange rate had adecreasing effect on total premium (exchange rate) was -0.492205; t-tabulated was derived as t∞/2(n-k), t (0.05/2) (30-3) = 2.052.} A unit change in exchange rate was likely to push downwards the likely returns an industry stands to receive from investment of its fund. A change in Naira value in relation to any other currency would not serve as an incentive or strengthen the need to demand or obtain insurance cover against sudden impact of the volatility of exchange values of Naira. That would cause the general public not to buy more policies thereby decreasing total premium. The import dependent nature of the Nigerian economy allows the exchange rate to exert a widespread pressure on nearly every business and other related activities. Therefore no part of the economy could avoid the effect of exchange rate. In other to sustain their operations, businesses and other organizations transfer their direct risks to insurers. As they do so the pressure from Exchange rates are transferred to the insurer. Whenever the exchange rate changes in an upward direction (unfavourable to the Naira) it causes panic buying, as no one wants to be caught in its web. Such drastic changes in a country's business environment present a mix of both opportunities and loss. A decline in the exchange rate in the face of capital outflows would hurt the solvency of firms and individuals with net foreign currency liabilities. Widespread defaults would ensue. The banking system, possibly subject to runs, would no longer finance borrowers as before. These financial consequences would also have real effects via the "credit channel", as the decline in

asset prices and credit quality makes it difficult for firms to borrow and invest. It is in the decline in asset worth that exchange rate adversely affects insurance industry as the financial cost of the erosion in value limits insurers' ability to pay claims. The findings of the study on exchange rate do not align with Oladapo and Olayede (2014) who found exchange rate, import and inflation to be statistically non – significant.

5.1   Summary of Findings

The finding emanating from the study wasthat exchange rate had a negative and non-significant effect on total premium of the Nigerian insurance industry.

5.2   Conclusion

The insurance business premium is not significantly and positively influenced by all macro-economic variables.Based on the aforementioned finding, we concluded that exchange rate had a negative and non-significant effect on insurance business growth (premium) in Nigeria.

5.3 Recommendations

i.Investments of the insurance industry should not be limited to the Nigerian economy. Financial instruments in more advanced economies with possibility of high returns should be invested in by the industry. That would help to offset the effect of the devaluation of Naira on their local investments.

ii.The insurance industry regulatory authorities should at the highest level fight against any anti-insurance industry policies and encourage the revitalisation of the key players by the injection of fresh ideas and best practices by the foreign players.

Contribution to Knowledge

The study would contribute to the body of knowledge by serving as a reference point for literature review on research with emphasis on related macroeconomic variables and the growth of insurance industry in Nigeria.The modification of model in the study was one of the major contributions to the body of knowledge. The earlier studies reviewed in the work contributeda great lot to the body of knowledge. Another key contribution of the study lies on the main empirical finding that exchange rate had negative and non-significant effect on insurance business growth in Nigeria. The result of the study clearly states how far exchange rate affected insurance premium and thus assisted immensely the insurance industry by assessing the means and extent through which adjustments of monetary policy stimulated the effect of the macroeconomic variable on the insurance industry.

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