IMPACT OF INFLATION RATE ON THE GROSS PREMIUM INCOME AND PROFIT BEFORE TAX OF NON-LIFE INSURANCE COMPANIES IN NIGERIA

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ABSTRACT

This research was carried out to determine the impact of inflation on the non-life insurance companies. Twenty non-life insurance companies' data that have been in the business for more than twenty years and have their financial accounts statistics up to date were collated. The nonlife insurance companies are considered for this project to reduce the influence of investment return that usually come from life insurance business which give a better performance to their profitability as the inflation often trigger an increase in interest rate. An E-views application was used to determine the level of correlation between inflation and the nonlife insurance performance on gross premium income and profit before tax. From the result of the analysis, a correlation coefficient of 0.83 and 0.72 of inflation rate were recorded against gross premium income and profit before tax respectively. The further result from the least square regression model to test the hypothesis shows a p-value for both gross premium income and profit before tax are below the significant level. It could be adjudged that the inflation has impact on the gross premium income and inflation rate, but its impact is not significant. The study recommends that the nonlife insurance companies should ensure they keep up with their growth trajectory to reduce the impact of the inflation rate further. Consequently, the non-life insurance companies must sustain their growth trajectory through standardization of policy rate. In addition, the government should support the effort of the industry on enforcement of the compulsory insurance policies especially during inflationary period to ensure that the industry record required growth to lessen the inflation's impact.

***Keywords**: Inflation, Gross Premiums Income, Profit Before Tax, Non-Life, Insurance Companies, Macro Economy.*

1.0 Introduction

Insurance plays a key role in the nation's economy which goes beyond providing job opportunities but more importantly in alleviating the impact of risk consequence both in micro and macro economy of the nation. In the recent time it could observed that both economic performance and insurance can be regarded as Siamese twins that collaborate with each other in the economy's growth and business sustainability of the country. If the insurance sector is strong, the economy has gotten one of major back up to its sustenance in turbulence times. Insurance is the remedy for risk. It provides a solution to the spirit of fear and uncertainty (Babington-Asaye, 2017). Just like GDP, Inflation is also one of the key macroeconomic variables which indicate the problem of rising in price (Jain and Ohri, 2021).

In same vein, if the economy suffers or faces downturn, insurance sector performance and contribution to the Gross Domestic Product will likely suffer. Insurance provide service to all sectors of economy ranging from small scale to big corporate client (Galliagar and Smith, 2004), if the business of insurance customer face with inflation rate, it is expected to affect the insurance provider both on the premium to be paid by the insurer or the insurer profitability due to the impact of claim payment during the inflationary period.

Insurance companies are enterprises that are in the business of receiving transferred risk for the purpose of risk mitigation. They are financial institutions that indemnify individual or corporate entities against the occurrence of risks (Ogege, 2021). Insurance in Nigeria can be traced to the period of colonial era in Nigeria. although there is no concrete date for insurance commencement in Nigeria, because the British that involve merchandize from Britain during colonial era do a sort of an insurance policies under marine insurance on their goods which they brought for sales of trade by bater along the coast of African Countries. However, the history has it that the first insurance company to be established in Nigeria was an offshore office of London Royal Exchange Assurance Company in year 1918. The Company started as Marine and Fire Insurance Company. Nigeria Insurance Market was dominated by British. Most of these companies were subsidiaries or brokers of the parent companies located in Britain. Some of these companies are the Law Union & Rocks Insurance Company which later nationalized and now renamed Tangerine General Insurance Limited, Edward Turner & Co Agency, now NEM Insurance Plc.

Nigerian started their involvement in Insurance business starting from year 1958 through the government indigenization policy. In year 1958, Nigerian Insurance Company was established. In the following year (1959), African Insurance Company was established and in year 1961, the National Insurance Corporation was established. Since that time the insurance industry has been growing both in size and operators largely with local players. As the industry grew, there was need for proper regulatory framework. Insurance decree of 1976 and 1997 were promulgated to establish National Insurance Commission which was placed under Federal Ministry of Finance. The Insurance Act 1981 and 2003 later replaced insurance decree 1976.

Other self-regulatory bodies that promote the growth, education, awareness and insurance trade in Nigeria were Nigeria Insurers Association (NIA) established in 1971, which is the umbrella of all insurers in Nigeria with the aim of promoting the growth and support to their members. Chartered Insurance Institute of Nigeria is another insurance Institution in Nigeria. It was founded in 1959 by Article and Memorandum of Association, the Institute was known and referred to as Insurance Institute of Nigeria until February 26, 1993, when it became Chartered vide Decree (Now Act) No 22 of the Federal Republic of Nigeria.

In the words of M.H. Spencer, "Macroeconomics is concerned with the economy as a whole or large segment of it. In macroeconomics, attention is focused on such problems as the level of unemployment, the rate of inflation, the nation's total output and other matters of economy-wide significance (Jain, 2020)". Macroeconomy look at the global view of the economy as a whole. It studies overall performance and behavior of an economy, focusing on aggregate variables and indicators that affect the entire economy. Macroeconomy variable include the following Gross Domestic Product (GDP), Inflation rate, Unemployment Rate, Exchange Rate, Fiscal Policy (Government Spending and Taxation), Monetary Policy, International Trade (Export and Imports) and Economic Growth Rate.

Nigeria Macroeconomic terrain has not been stable in the last one decade. The country experienced the highest growth rate in 2014 before slumped into recession in 2015 and 2016. Although the country seems to have come out of the recession, it is clear that the economy is still not booming as expected. Apart from GDP which recently shows a marginal positive growth rate, other variables such as exchange rate, inflation rate and unemployment rate still show that the country macroeconomy is not doing well. The current economic situation was a resultant of both CBN monetary policy and Federal Government Fiscal Policy. Since the removal of petrol subsidy when the new government took over in May 2023, the inflation has been on rising trajectory (World Bank, 2024). The Federal Government has not backed down on its economic reform. By the end of September 2024, the PMS has grown by 49% from N668.30 in January to N996 in September, 2024. The persistent increase in petrol pump price has led to a hike in inflation rate. As of September, the inflation rate has reached 32.7% according to National Bureau of Statistics. Meanwhile, the flexible exchange rate has continued to lead to continuous devaluation of Naira. As at the end of the September the Naira exchange to dollar has reached N1,600/$. The CBN in its effort to curtain the persistent increase in inflation rate adopted withdrawal of currency from circulation. The Monetary Policy Committee in its September 2024 meeting raised the Monetary Policy Rate to 27.25%. Also, from the National Bureau of Statistic report on GDP, the economy grew by 3.19% in real terms and largely driven by services.

Nigeria Insurance Industry has been experiencing a myriad of problems which has impacted on its growth rate, contribution to the GDP and penetration. In year 2010, the National Insurance Commission launched a project of growing the Industry Gross Premium Income to N1trillion. Ten years later, the premium generated is still below the five-year target. Some of the problems associated with the industry growth rate include low awareness about the industry, low confidence of the insuring public on the industry integrity of keeping their word and fulfilling the obligation when it falls due. Other causes of poor performance of insurance industry have to do with the impact from unfavorable macroeconomic variables such as persistent high inflation, high exchange rate leading to Naira devaluation, unemployment rate, etc. the impact of these variables is easily felt in the Insurance Companies toplines parameters such as Gross Premium Written, Net Premium Income and the; Middle lines such as Underwriting Results, Reinsurance Expenses, Direct Claims Paid, Management Expenses and Bottom-line such as Retained Earnings, Profit Before Tax and Profit After Tax.

The focus of the study is to identify the impact of the increase in inflation rate on the nonlife insurance companies Gross premium income and Profit before tax. Gross Premium Income of the Companies will be considered for the Topline while Profit Before Tax will be considered for the bottomline.

2.0 Literature Review

Theoretical Framework

The interrelationship between inflation and gross premium income and profit before tax can be construed to remain uncertain due to the unpredictability of human behavior. It is for this purpose that this research adopted the Prospect Theory which was developed by Daniel Kahneman and Amos Tversky (1979). The theory focusses on how people make choices or decisions based on both psychology and emotional influence. Their article was widely agreed to herald the birth of behavioral economics (which subsumes behavioral finance). The article later won Kahneman Nobel Memorial Prize in Economic Sciences for his work on decision-making under uncertainty (Widger and Cosby, 2014). The Theory is popular in behavioral financing where risk is taken on stock buying. And of all the non-expected utility (EU) theories, Prospect theory is considered as the most promising for financial applications (Thaler, 2005). It explains the rationale behind the people tending to take more risks simply to avoid acknowledging a certain loss and avoid taking extra risk even if it entails a higher profit potential (Parag, 2009). In same vein, the insured are expected to take insurance policy to avoid risk of experience a total loss during inflation period than to avoid insurance and face inflationary cost of restoring their loss material back which would have been taken-up by insurance underwriter. Ordinarily, the higher the inflation the more discouraging the insured may be because of the selection order of priority. As per the Prospect Theory, losses are three times more painful as compared to the pleasure experienced by a gain of similar magnitude. What is the reason behind this anomaly? The answer is that people hate regret, and losses produce regret (Parag, 2009). Sometimes, with the sole view of insuring themselves against future loss and regret, just has it is applicable in stock markets, premium income may tend to grow during inflation under the Prospect Theory.

Empirical Review

Many researchers have carried out various research on the impact of the inflation rate on these performance metrics. Some researchers focus on the entire industry, while some selected a few companies as a case study to determine the impact of the inflation on the insurance performance metrics.

WIlliam Southwell, head of actuarial and insurance risk at KPMG, Switzerland, emphasized the need for the insurance company to put the inflation factor into consideration when projecting and preparing a reserve for the company. Since insurance companies' reservation is basically about the future, then historical figure is not adequate. In preparing an account for an insurance industry, claim expenses are not figured out. it is a combination of claim paid and reservation which is usually determined by the companies claim experience in the past years. This is done to take care of the incurred but not reported claim within the accounting year and other unexpired risk that are still running into the following year. Southwell opined that adequate reservation may become inadequate if the succeeding year experiences a surge in inflation. From the experience, Southwell identified engineering and property lines of insurance business as class of policies that price inflation spike has affected their claim reservation. Since the insurance companies' profitability is the net of all expenses including reservation, hence if the inflation spike beyond projection, the profitability will be impacted negatively even though the gross premium income grows as expected, the inflation will increase the cost of claim and consequently reduces the expected profit before tax.

Ehiogu and Duruechi, (2021) carried out research on impact analysis of inflation on nonlife insurance business in Nigeria. The research work focuses on data of nonlife insurance companies within period of 1996 to 2018. The parameters of insurance industry considered were Gross premium Income, Gross Claim and Total Assets of the nonlife companies for the period. The least square method was used for the analysis. The finding from the report shows that the inflation rate fluctuation within the period did not affect the premium generated by the nonlife companies to a large extent. The impact is minimal and can swing in either side. On the other hand, the claim was significantly impacted by inflation rate based on the finding from the analysis and slight differ from Agbo et al, 2024 which indicated that inflation impact on Claim of the insurance company is not really significant. However, Agbo 2024, scope of analysis was for the entire industry and the period covered is slightly differ as well. This might be responsible for slight variation in the results of their findings.

Obinna, (2023) in his research paper on influence of inflation in insurance business in Nigeria identified inflation as one of major concern of macroeconomic variables for insurance industry. He confirmed in his research that inflation usually has a negative impact in the performance of insurance companies. This was collaborated by Eghiogu (2021), in his founding that inflation rate did not significantly impact on total premium, total claims and total assets of nonlife insurance sector in Nigeria. This challenge is peculiar to Nigeria insurance industry as the premium hardly grows with inflation. During the inflation period, the insurance customers in Nigeria place insurance as the least priority and would rather be willing to pay the least due to their low purchasing power. Eghiogu (2021), opined that the danger with this situation is that the premium will not grow rather insurance industry would dwindles as the organization pay more on claim expenses under inflation rate. This consequently impacted negatively on their profitability. Eghiogu (2021) worried that the insurance act 2003, which allowed insurers to fix their premium rate while some are treated as compulsory may not help the growth of premium in the face of inflation. The regulatory fixed premium will not give customers the option to scout around for a cheaper rate. However, he also considered the fixed premium in the face of inflation to have a disadvantage of inability to readjust the premium in the face of inflation because such adjustment can only be made by regulator. This aligned with the position of Southwell, that reservation for the claim during the inflation period cannot solemnly be based on the historical data. Based on the factors pointed by Obinna (2023) where insurance growth in premium may be relatively inelastic while the profitability may be impacted due to surge in claim payment.

Ipigansi, (2024) conducted research on the impact of inflation on insurance growth in Nigeria. In his research work, he found out that inflation doesn't real have a serious impact on the industry premium generated. This could align with the position of the Eghiogu and Duruechi (2021). He also discovered that the inflation has no negative impact on the industry investment income and total claim paid. He however emphasizes the need for regulatory framework on the claim payment during the inflation regime which could reduce the organization financial risk exposure during the inflationary period. It is clear that this work reveals that there is an impact on the company bottom line owning to inflation which may have push up the cost of insurance company indemnity during the period. The scope of the Ipigansi, (2024) work cover both life and non-life business. By implication, one business line negative impact may have been neutralized by the positive impact from other business line. The life business claim may not be huge during inflation as the cover has to do with life but the non-life indemnifies the insured against any financial loss. Indemnity on nonlife is majorly on property, casualty and liabilities. These involve frequent procurement of replacement for damage or lose. During inflation, the price of the items goes up and indirectly affects the cost of insurance obligations on claim payment. As noted by Ipigansi, (2024) claim payment will be impacted during the inflation period hence his recommendations of regulatory framework by the regulator to minimize the exposure of the insurance company during inflationary period becomes expedient. The observation of Ipigansi, (2024) on premium reflects what happens in the insurance industry business rating. Most of the policies have no fixed rating and not under regulatory control. The forces of demand rather bring the premium rate down on some business due to competition of the operators. On the surface, the industry looks good as if not affected by inflation. Its premium income may neither recorded abnormal growth rate or abnormal decline in growth rate.

European Insurance and Occupational Pensions Authority in its 2023 EIOPA Report, asserted that there is correlation between the insurance growth and the inflation rate. It emphasizes that the impact was conspicuous during the post COVID-19 era when European economy faced with economic challenges after the scourge of COVID-19. The little emphases made on claims impact from inflation by Ipigansi, (2024) might be due to less impact that Africa country like Nigeria experienced during the COVID-19 period which was a serious matter in Europe. EIOPA specifically pointed out that Nonlife Class of business were mostly hit by the inflationary factor. Although the EIOPA report focuses majorly on European geographical areas, the principle of economy behind the impact of inflation is same. Where the difference come from is peculiarity and the way the insurance is being practice in Nigeria. A standard actuarial algorithm or model predict the adequate premium for claim in the Europe which is not common or popular here in Nigeria. The EIOPA report further stated that not that claim, inflation and interest rate were correlated, but their relationship is far much clearer and its proportion is not same as the proportion of the inflation impact on other segment of the economy. This it noted with more impact on certain nonlife line of businesses.

The experience of Europe on insurance premium during inflationary period is slightly differ from what happen here in Nigeria. EIOPA stated that, with inflation, the central bank usually adopt monetary policy that tightens the expending, with increase in interest rate. This policy discourages spending which directly affects the customer's disposition to insurance. This practically leads to decrease in the insurance premium. This situation is in converse with what Ipigansi, 2024 noticed in his research on Nigeria Insurance Markets. The industry seems to remain resilient on its marginal growth rate under both inflationary and constant inflation period. Thereby rendered the significance of the inflation on insurance business immaterial. According to the National Bureau of Statistics, when average inflation recorded for the first quarter 2024 was 31.6%, the Gross Premium generated by the industry leaped by 51% for same period as shown in Table 1

Table1: Insurance Industry Growth and Inflation Rate in Q1 and Q2, 2024

Quarter	**Insurance Industry Growth Rate (%)**	**Inflation Rate (%) (Average)**
Q1 2024	17.37	31.60
Q2 2024	13.30	33.94

Source: NBS Monthly Inflation Report and Quarterly GDP Report (2024)

As suggested by Southwell (2021), on claim provision and asserted by EIOPA that impact of inflation on claim expenses are usually handle in two ways under nonlife. These usually work around the company technical provision on claim payment. Higher technical provisions are considered for claim during inflationary period and lower technical provision during low inflationary period. With this caution in place, the impact of inflation on the claim at the end of the year will be minimal. This step is very key to the performance of an insurance company as under-reserving will affect the organization's performance or target, which may lead to underfunding and deterioration of the company solvency says EIOPA. This condition may have a negative impact on the organization's continuous operation in the business as a result of inability to meet it short term obligation on claims and other expenses. It can also further hit the financial capacity and credit rating of the insurance company. Therefore, understanding of inflation factor and making adequate provision for claim is very germane as emphasized by Southwell (2021). Consequently, continuous operation in an increasing inflation environment without consideration for claim inflation effect seriously affect the capital position. According to the EIOPA report, the high inflation coupled with an increase interest rate will impact negatively on the insurer assets and liability. The agency sums up that the need for adequate technical provision especially on claim reserving, is very key to the nonlife underwriter that operates in an inflationary environment.

Ponjul (2020), carried out research on the effect of macroeconomic variables on the growth of insurance companies which were quoted on Nigeria Stock Exchange with scope covering between 1990 and 2019. Five variables of Macroeconomics were considered. The five variables were GDP, Inflation rate, interest rate, exchange rate and unemployment rate. From the result of his analysis, only GDP, Inflation rate and exchange rate were found to have impact on the insurance industry growth.

A lot of research work has been done on the impact of the macroeconomic variables on insurance growth from the empirical review. Most of this research work were carried out not in Nigeria. There are economic principles which were obeyed in Europe but not feasible in Nigeria such as standardized premium rating and actuary driven pricing. The result of the similar research outside the country expect increase in premium with inflation, however, the increase in premium in Nigeria insurance market are not driven by inflation. Premium can even drop because many won't take insurance again while some underwriter will bring their rate down because of competition. This result may not address the real situation in Nigeria. The review of few works with Nigeria's operation environment considered inflation, interest rate and other macroeconomic variable less significant in non-life and composite insurance company. However, it is clear that the response of life insurance company to non-life and composite would definitely be deferred. The life and composite company would have access to funds for long term investment and currency of inflationary period may not have direct or immediate impact in the underwriter's performance for the year. While some of these past work have touch many as aspect on the macroeconomic variable with different financial parameters of the insurance industry, none of it has been specific about the impact of inflation rate on gross premium income and profit before tax at the same time for the non-life insurance company who has remain in the industry for past one decade. Agbo (2024) look at claims against the macroeconomic variable, Gonji, (2021) considered the entire insurance industry, Southwell review focused on Inflation on non-life insurance market, but operating environment wasn't Nigeria, hence some of the peculiarity in the market may not be fully reflected. Also, the Period considered by Ipigansi (2024) where the period when inflation rate change was not significant.

Hence, this paper aims to address the gap of inflation rate impact on the non-life insurance company between 2014 and 2023. Within this period, Nigeria has witnessed a significant growth in inflation rate. The research will also shield more light on impact of inflation on the insurance company that have no access to long term investment placement because of their nature of the short-term liability. This impact would be traced to their profit before tax while customer response to inflation on insurance would be determined by the performance at the gross premium income generated.

3.0 Methodology

The study makes use of ex-post facto research design. In this case, an historical data is used for the analysis. The historical data reflect the event that has happened before which is used to determine the experience of gross premium income under dynamism of inflations rate. The data are actual performance of the selected companies and hence give credibility to the data. Meanwhile the inflation rates data were taken from the historical inflation rate bulletin of Central Bank of Nigeria. Although these data are secondary data, the involvement of the regulator in their final output gives credence to the reliability of the figures and will meet the purpose of this project. The data on inflation, gross premium income and profit before tax data have all passed through the internal and external review of their companies and their regulators.

Twenty non-life insurance companies' data were collected for the studies. All these companies have been in existence for more than twenty years of operating in Nigeria. All the companies considered are still active in the industry and have their financial reports updated as at year 2023 financial year. Companies with regulatory or compliance related issues which have denied regulator from overseen their operation were not included because the data from such company may not be reliable as there is no regulatory vetting on their business operations.

The study focuses on the relationship between the Inflation rate and the two financial parameters that measure the insurance companies' performance which are Gross Premium Income and Profit Before Tax.

The linear model adopted for the two parameters is expressed as follows:

Hypothesis one that inflation rate have significant impact on Gross Premium Income

$GPI\ t = \beta0 + \beta1(INFt) + \varepsilon t$

Interpretations are as follows:

$INFIt$ = Inflation rate at time t.

$\beta0$ = Intercept or constant term

$\beta1$ = Coefficient representing the effect of Gross Premium Income on Inflation

εt = Error term

Hypothesis two that inflation rate does significant impact on Profit Before Tax

$PBT = \beta0 + \beta1(INFt) + \varepsilon t$

Interpretations are as follows:

$INFIt$ = Inflation rate at time t.

$\beta0$ = Intercept or constant term

$\beta1$= Coefficient representing the effect of Gross Premium Income on Inflation

εt = Error term

The Gross Premium Income and Profit Before Tax are the Variables while the Predictor Variable is Inflation Rate.

4.0 Data Presentation and Analysis

The summary of the secondary data used for the analysis is as shown in Table 2.

Table 2: Gross premium income, profit before tax and Inflation data (2014-2023)

Year	Gross Premium Income (N'000)	Profit Before Tax (N'000)	Inflation Rate (%)
2014	79,497,763.00	11,506,889.00	8.06
2015	84,575,169.00	12,373,817.00	9.01
2016	83,007,903.00	10,497,886.00	15.63
2017	97,005,075.00	14,628,644.00	16.55
2018	115,336,697.00	9,933,254.00	12.15
2019	126,972,962.00	13,992,643.00	11.39
2020	143,478,805.00	21,120,732.00	13.21
2021	161,331,771.00	5,455,592.00	16.98
2022	191,568,936.00	24,171,634.00	18.77
2023	261,048,544.00	93,726,132.00	24.52

Source: CBN and NAICOM (2024)

From Table 3 below, t The mean and media were lower than their maximum but higher than the minimum value. The skewedness of inflation rate is 0.5367 which indicate moderate positive, profit before tax has a value of 2.455 which is greater than 2 and considered to be extremely high while gross premium income has a value of 1.064 and adjudged to have high positive skewness.

Table 3: Summary of Descriptive Statistics

	INFLATION_RATE	**PROFIT_BEFORE TAX__N_000**	**GROSS_PREMIUM INCOME__N_**
Mean	14.62567	21740722	1.34E+08
Median	14.41708	13183230	1.21E+08
Maximum	24.52000	93726132	2.61E+08
Minimum	8.058333	5455592.	79497763
Std. Dev.	4.928003	25867828	57803067
Skewness	0.536799	2.455726	1.064655
Kurtosis	2.706437	7.439785	3.239482
Jarque-Bera	0.516163	18.26419	1.913045
Probability	0.772532	0.000108	0.384227
Sum	146.2567	2.17E+08	1.34E+09
Sum Sq. Dev.	218.5669	6.02E+15	3.01E+16
Observations	10	10	10

Sources: Eviews 10 output (2024)

In Table 4, Profit before tax and gross premium income shows 72.69% and 83.03% correlation coefficient with Inflation rate which indicate high positive correlation. This means there is a strong positive relationship between Inflation rate with both profit before tax and gross premium income.

Table 4: Correlation Test

	INFLATION_RATE_____	PROFIT_BEFORE_TAX__N_000	GROSS_PREMIUM_INCOME__N_
INFLATION_RATE_____	1.000000	0.726951	0.830380
PROFIT_BEFORE_TAX__N_000	0.726951	1.000000	0.814923
GROSS_PREMIUM_INCOME__N_	0.830380	0.814923	1.000000

Sources: Eviews 10 output (2024)

Table 5: Root Square Test

Variables	ADF	Critical value (5%)	Probability	Remark	Level	Order
INF	-2.502439	-3.519595	0.1568	Stationary	2ND Dif	1(2)
PBT	-2.763678	-3.403313	0.1104	Stationary	1st Dif	1(1)
GPI	-0.853030	-3.403313	0.7373	Stationary	2ND Dif	1(2)

Sources: Eviews 10 output (2024)

This test performed a 5% significant level with all variables were at stationary.

From Table 6, it is observed that the p-value of inflation rate is 0.0890 which is higher than the significance level of 0.05. hence the null hypothesis is not rejected. The result shows that it is not adequate to conclude that the inflation rate has a significant impact on the gross premium income alone. It suggests that there would be other underlined factors that must be in place for the actual impact of inflation on gross premium income.

Table 6: The Result of Hypothesis One test

Dependent Variable: GROSS_PREMIUM_INCOME__N_
Method: Least Squares
Date: 10/30/24 Time: 10:13
Sample: 2014 2023
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION_RATE_____	5919474.	2999170.	1.973704	0.0890
PROFIT_BEFORE_TAX__N_000	1.001206	0.571363	1.752312	0.1232
C	26039161	37133920	0.701223	0.5058

R-squared	0.784195	Mean dependent var	1.34E+08
Adjusted R-squared	0.722537	S.D. dependent var	57803067
S.E. of regression	30447624	Akaike info criterion	37.54424

Sum squared resid	6.49E+15	Schwarz criterion	37.63501
Log likelihood	-184.7212	Hannan-Quinn criter.	37.44466
F-statistic	12.71838	Durbin-Watson stat	0.829725
Prob(F-statistic)	0.004669		

However, the result in Table 7 shows that the inflation P-vale, which is 0.6893 higher than significant level of 0.05, hence the null hypothesis is not rejected.

Table 7: Result of Hypothesis Two test
Dependent Variable: PROFIT_BEFORE_TAX__N_000
Method: Least Squares
Date: 10/30/24 Time: 10:14
Sample: 2014 2023
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION_RATE____	849672.3	2038509.	0.416811	0.6893
GROSS_PREMIUM_INCOME__N_	0.304540	0.173793	1.752312	0.1232
C	-31611088	17496970	-1.806661	0.1138

R-squared	0.672235	Mean dependent var	21740722
Adjusted R-squared	0.578588	S.D. dependent var	25867828
S.E. of regression	16792435	Akaike info criterion	36.35408
Sum squared resid	1.97E+15	Schwarz criterion	36.44486
Log likelihood	-178.7704	Hannan-Quinn criter.	36.25450
F-statistic	7.178373	Durbin-Watson stat	1.339631
Prob(F-statistic)	0.020159		

5.0 Discussion and Recommendations

The initial correlation test shows that the inflation rate is strongly correlated with both the gross premium income and profit before tax. With gross premium income coefficient of correlation of 0.83 while profit before tax indicates 0.6893. The result of hypothesis of inflation rate impact on the gross premium income show that the p-value of 0.089 is higher than the significance level of 0.05. This reflect that the modification was done on the model to achieve a stationary level upon which the analysis was carried out. Therefore, the result shows that there wasn't adequate evidence to counter the null hypothesis that inflation has no impact on gross premium income.

The initial analysis of correlation test proved that the inflation rate has a strong relationship with gross premium income. But the result can be adjudged not to be key driver of performance of gross premium income. This result is similar to the outcome of the research work carried out by Ehiogu (2021) on the impact of inflation on claims and gross premium income of non-life insurance company. It also established that a proportion change in the inflation will lead to same proportion impact on the gross premium income. The standard deviation of inflation rate which indicates 4.9 shows a moderate spread but with skewedness of 0.53, is a sign that the spread tilted to the right side of the higher side.

On the result of testing of hypothesis for Profit before tax, the inflation rate of P-vale of 0.689 was recorded which is higher than level of significance of 0.05. The hypothesis should not be rejected. this value is slightly lower than the value recorded for gross premium income. But the result shows a correlation between inflation and profit before tax. The correlation value of 0.72 indicates a strong positive correlation. With the level of p-value recorded, the inflation has an impact on the non-life insurance companies profit before tax but its impact is lower than that of gross premium income when compare their p-value which were based on the data for the same period under same economic conditions within the years under consideration. Although, as at the time of this research work, no study has specifically study the impact of inflation on the profit before tax for non-life insurance company, however, the result obtained by the Ehiogu (2021), where claim was one of the financial parameters considers collaborate with this deeper impact of inflation on profit before tax. By inference, if inflation can have a proportional impact on claim, the value of the profit before tax will also has a direct relationship with claim but negatively correlated. The larger the claim size, the more the value of the profit before tax will likely reduce.

The result of this research shows a correction between the inflation and gross premium income. and also, between inflation and profit before tax. Inflation is a persistent increase in the price of commodity. Inflation has an impact on gross premium income, but it is insignificant. Its impact on profit before tax was equally insignificant but when compared their p-value, inflation has a deeper impact on than gross premium income than profit before tax. The correlation test has indicated a positive relationship between the two, hence the higher the inflation the higher the gross premium and profit before tax. Ordinarily one would have expected a negative correlation between the inflation and profit before tax based on the work of Ehiogu (2021) which established a relationship but not significant between the claim and inflation, and the profit before tax also have a negative impact on the organization profit.

The nonlife insurance companies can perform better if the economy grow even if the nation witness moderate increase in the inflation. Therefore, the following recommendations can be made from this research work.

i. Nigeria, government should create an enabling environment for more business to thrive. Governments at all levels and the Central Bank of Nigeria must orchestrate a combined effort on fiscal and monetary policies that can boost the economic growth of the country. If other economic variables are good, non-life insurance companies will do better under the inflationary period. Hence an effort must be made by the government agency to ensure business friendly environment and adequate security for all business owners.

ii. The insurance industry should regulate their pricing such that there won't be room for rate cutting during the inflationary period. During inflationary period, many people will want to have insurance to cover their assets, but they would prefer to take policy from insurance company with cheaper rate. Many insurance companies out of desperate and scramble for business will entice the customers with lower rate, this act contribute to decrease in gross premium income that would have been generated by the industry. In an advanced world, insurance companies don't sell rate as a marketing strategy, rather they sell services. Non-life insurance company in Nigeria must emulate that. Attention to grow or acquire customer must geared toward best service experience not pricing strategy. National Insurance Commission (NAICOM) and Nigerian Insurers Association must work achieving this standard rate for all the operators.

iii. The government should be committed to the enforcement of the compulsory insurance policy. If the agencies in-charge of enforcement of the compulsory insurance are committed to this, the non-life insurance companies will have a better growth in gross premium income irrespective of inflation changes and the performance will be less affected by inflation. Insurance policies that are compulsory in Nigeria that are underwritten by non-life insurance companies are Third Party Motor Insurance Policy which is a minimum insurance policy for all motorist in Nigeria. Other are Occupier's liability policy owner or user of all public building such as hospital, shopping mall, stadium, etc. the third one is builders' liability. This policy is compulsory for all building above one story when they are under construction.

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