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PREMIUM GROWTH AND UNDERWRITING PERFORMANCE: EMPIRICAL EVIDENCE FROM QUOTED NON-LIFE INSURANCE COMPANIES IN NIGERIA

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ABSTRACT

There has been a dichotomous finding among researchers in area of insurance companies' underwriting performance indices and premium year in year out. This study examined the relationship between insurance premium growth and underwriting performance of quoted non-life insurance companies in Nigeria. The study adopted a panel research design using an ex-post facto approach as data were sourced from annual financial reports of ten (10) sampled general insurance companies from a population of twenty-nine (29) based on market leadership in terms of market capitalization and data availability for fifteen (15) years spanning 2010-2024. The finding of the study revealed that Premium Growth Rate (PGR) exhibited a statistically significant negative association with the Combined Ratio (CR) and a positive and statistically significant correlation between Net Premium Growth (NPG) and Underwriting Profitable Margin (UPM). Therefore, insurance companies are advised to play a strategic role in managing their premium growth by prioritising Net Premium Growth (NPG) over simply expanding Gross Premium Growth (GPG) in order to maximise profitability. Based on empirical evidence, the study showed a strong positive relationship between NPG and Underwriting Profit Margin (UPM), net premium retained pos reinsurance drives technical profitability.

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1.0 Introduction

Insurance is often seen as one of the cornerstones of the modern financial system, as it provides risk management services that protect individuals and businesses against unforeseen losses, while facilitating capital formation and economic stability for society (Pandiri, 2025). As a financial tool, insurance provides financial protection to individuals and corporations against various losses or damages that may occur (Hofmann & Sattarhoff, 2022). Underwriting, which Hodula et al., (2021) see as evaluating risks and establishing the conditions and costs of insurance contracts, forms the foundation of insurance operations and contributes to the stability, profitability and sustainability of the insurance industry. Insurance underwriters therefore, play a critical role in the insurance industry in helping insurance companies remain profitable (Choi & Eling, 2011).

However, many insurance companies are still experiencing volatile underwriting outcomes (Hofmann & Sattarhoff, 2023) despite periods of increasing premium income for insurers, underwriting performance is crucial in evaluating the company's sustainability and financial health (Akbar et al., 2024). In theory, a rise in premiums should be beneficial for underwriting as it expands the amount of revenue that can be absorbed by claims and underwriting expenses (Cummins & Weiss, 2014). Nevertheless, there is empirical evidence across global insurance markets that suggests that an increase in premiums does not always translate into an improvement in underwriting profitability (Eling, Leverty, & Schmit, 2016). In developed insurance markets, premium growth has often been associated with improved underwriting performance due to advanced actuarial models, strong regulatory oversight, and disciplined risk management frameworks (OECD, 2025). Nonetheless, even in these mature markets, underwriting performance has deteriorated in certain periods as claims inflation, catastrophic losses, and operating costs outpaced premium increases (Swiss Re Institute, 2024). This inconsistency highlights a fundamental problem: premium growth alone is insufficient to guarantee underwriting efficiency unless it is supported by sound underwriting discipline and effective claims and expense management (Eling & Schmit, 2012). The problem is more pronounced in developing and emerging insurance markets, where insurers often pursue aggressive premium growth strategies to increase market share in highly competitive environments (Shikur et al., 2022). In such contexts, rapid premium expansion may be driven by underpricing, relaxed underwriting standards, or inadequate risk assessment practices (Kajwang, 2022). Consequently, premium growth may conceal underlying underwriting weaknesses, leading to rising claims costs and deteriorating combined ratios over time (Eling, Leverty, & Schmit, 2016). This situation raises concerns about the long-term sustainability of insurers that prioritize growth objectives over underwriting quality and risk management discipline (Pang, 2025). There have been mixed results from empirical studies conducted in the Nigerian context, with some suggesting that premium growth can be beneficial to profitability, while others indicate that underwriting profit does not significantly affect financial performance overall (Oko-Osi & Aroyehun, 2024; Omoruyi-Aigbovo, 2025). There is an apparent disconnect between the increase in premiums within the Nigerian insurance market and the effective outcomes of the underwriting process (Olarinre et al., 2022), e.g. for example, the Nigerian insurance sector reported gross premium income of about ₦726.2 billion in 2022 - a 17.8% year-over-year increase—while gross claims paid came to ₦318.2 billion. This suggests that a significant portion of premium growth did not necessarily translate into better underwriting performance. Comparably, claims payments rose by 60.9% to ₦174.8 billion in the second quarter of 2022, making up 47.3% of all premiums earned, while gross premium income jumped by 64.9% to ₦369.2 billion. Additionally, the industry recorded ₦242.6 billion in claims in the third quarter of 2022 despite generating ₦532.7 billion in premiums, yielding a claims-to-premium ratio of almost 46%. As a result of these challenges, there is still a significant gap in the empirical understanding of how premium growth affects underwriting performance in Nigerian insurance companies, especially among the best-performing or most well-capitalized insurance companies (OECD, 2022). There is a distinct distinction between underwriting performance as a distinct operational outcome, and the results of existing studies have largely emphasized broad profitability indicators such as return on assets and return on equity (Olaiya, 2021). A gap this study intends to fill. Therefore, this study examines the effect growth in premium (indexed by Gross Premium Growth, Net Premium Growth and log of Premium - PGR) has on the underwriting performance (proxied by Combined ratio and Underwriting Profit Margin) of quoted non-life insurance companies in Nigeria.

This study intends to test the null hypothesis that growth in premium (GPG, NPG and PGR) does not significantly affect the underwriting performance (CR and UPM) of quoted non-life insurance companies in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

In underwriting process, insurers ensure that the risks they accept are in line with their risk appetite as well as their financial capacity, in order to protect their solvency and long-term sustainability (Rejda & McNamara, 2017). As far as non-life insurance is concerned, underwriting extends beyond risk acceptance to include continuous risk monitoring and portfolio management that extend beyond risk acceptance. As market conditions, regulatory requirements, and emerging risks such as climate change and technological developments, insurers periodically review underwriting guidelines in order to remain current with changes in market conditions, regulatory requirements, and emerging risks (Swiss Re, 2025). Moreover, underwriting decisions may be influenced by factors such as weak data infrastructure, intense price competition, and regulatory reforms in developing insurance markets like Nigeria, which may affect the quality and consistency of underwriting decisions in these markets (Olowe, 2018).

Premium growth on the other hand indicates that an insurance company has been able to increase the amount of premiums that they write over the course of a given period of time (Skipper & Kwon, 2007; Vaughan & Vaughan, 2023).The rate of growth of an insurance company is commonly used as an indicator of the expansion of a business, the penetration of the market, and the strength of competition (Cummins & Venard, 2008). In the non-life insurance sector, premium growth may be driven by increased policy sales, diversification of product lines, or expanding into new markets in order to increase revenue (Rejda & McNamara, 2017; Vaughan & Vaughan, 2023). Conceptually, premium growth has a dual impact on the performance of the underwriting process. On the one hand, growth in premium income can increase revenue generation and provide greater risk pooling capacity, both of which can contribute to better underwriting results on the other hand, provided that risks are properly priced and managed (Rejda & McNamara, 2017).

The claims ratio (also called the loss ratio) measures the proportion of premiums earned that is paid out as claims plus related loss adjustment expenses (Opoku et al., 2024). Generally, it is acknowledged that underwriting quality is reflected in the accuracy of risk pricing and the efficiency with which claims liabilities are managed. When a claims ratio is high, it is an indication that a large share of premium income is consumed by losses, which can erode profitability, whereas when it is low, it indicates more disciplined risk selections and more effective claims handling (Ivantsova & Leverty, 2022).

2.2 Empirical review

A study conducted by Olaiya (2025), employed a quantitative research design using panel data regression models (including fixed and random effects determined by the Hausman test) in order to evaluate the impact of underwriting and financial ratios on the profitability of insurance firms. Twenty (20) publicly listed Nigerian insurance companies were included in the sample, and secondary data was sourced from financial statements and regulatory reports spanning the years 2011 to 2022. The study revealed that Total Premium Earned (TPE) is significantly and positively correlated to Return on Assets (ROA) as well as Return on Equity (ROE), demonstrating the importance of revenue generation to the financial performance of an organization. Alternatively, the Claims Ratio (CR) and Expense Ratio (ER) were found to significantly affect profitability in the short term, which highlights the need for efficient claims management and cost control to maintain the company's profitability in the long run. A further observation was that leverage

(LEV) inhibited profitability, indicating that excessive reliance on debt financing can have a negative effect on the financial performance of a company.

Also, in a study conducted by Fayunada, Basrowi, Pandriyani, Atoillah, Lisa, Masitoh, Fadyla, Rulan, Damara, Xuan, and Dustein (2024) examined the influence of insurance company health (RBC), premium growth ratios, claims burden and underwriting on Indonesian insurance companies' profitability (return on assets/ROA). Using a quantitative methodology which was combined with a panel data regression analysis using the Ordinary Least Squares (OLS) approach, the study utilised secondary annual financial reports for a purposive sample of nine insurance companies listed on the Indonesia Stock Exchange (IDX) for the period 2019 to 2023. There was no significant impact of the individual independent variables on profitability (ROA) during the 2019-2023 period. These independent variables included Risk-Based Capital (RBC), Premium Growth, Claim Burden and Underwriting. The study revealed that RBC, premium growth, claim burden, and underwriting have significant impact on insurance company profitability.

It is noteworthy that in the study by Oko-osi and Aroyehun (2024) titled "Underwriting practices and financial performance of Nigerian insurance companies", a cross-sectional analysis was used along with an expo-facto research design to examine how the underwriting practices (underwriting profit, underwriting expenses, net premium, and net claim) affected the dependent variable Profit Before Tax (PBT) in the period 2013 to 2022. Secondary data were collected from the audited annual reports of ten insurance companies registered with NAICOM in a convenience sample. The results revealed that underwriting practices collectively have a 66.33% influence on financial performance using simple and multiple regression analysis. The specific findings indicated that Net Premiums play a significant role in predicting profitability (66.93%, p-value 0.0001), making them one of the most significant determinants of profitability. The study also found that underwriting expenses (47.45%) and Net Claim (61.50%) significantly affect profitability (with a negative relationship between expenses and claims), whereas Underwriting Profit (2.29%, p-value 0.5321) does not significantly affect profitability (with a positive relationship between expenses and claims). The study concluded that underwriting practices have a significant impact on financial performance.

Furthermore, a study conducted by Horvey and Odei-Mensah (2024), offers a detailed examination of the factors influencing underwriting performance in the South African insurance industry. The study focused on both the life and non-life insurance sectors from 2013 to 2019. Using a robust research methodology, the authors employed a panel data approach as well as the generalized method of moments (GMM) to address endogeneity concerns as well as control for dynamic effects. The study explored 62 life insurers and 71 non-life insurers. The study revealed that insurance size, market share, and investment income all exert significant positive impacts on underwriting performance, while premium growth has a surprising negative effect, indicating that rapid increases in premiums may adversely affect underwriting efficiency. Additionally, the study also showed that there is a synergistic effect between market share and return on assets (ROA), indicating that large, profitable insurers are more successful at underwriting, especially when these variables are intertwined. Taking into account these findings, the authors concluded that size, profitability, and solvency are critical for underwriting success.

Therefore, none of these studies has incorporated the independent variables of the study as a whole in their measurement and time lag remains a lacuna which this study intends to fill

2.3 Theoretical Review

This study is anchored on the Risk-Return Trade-off Theory. It is a foundational concept in finance that posits a positive relationship between risk and expected returns, where higher risk results in higher returns, while lower risk results in lower returns (Sharpe, 1964). As originally developed by Harry Markowitz through his mean-variance framework, the theory has since been applied to financial and corporate decision-making environments (Markowitz, 1952). Essentially, the theory emphasizes the balance between risk exposure and performance objectives, implying that rational decision-makers will accept additional risk if it is sufficiently compensated by higher expected profits or returns (Fama & French, 2004). In the insurance industry, empirical applications have been used to test this trade-off by linking the financial risk profiles of firms with performance indicators such as return on equity and long-term sustainability in order to assess their performance (Wahua & Mapfeka, 2025).

3.0 Research Methods

The study employed a panel research design using an ex post facto approach. To grasp firm-specific characteristics and temporal dynamics that influence underwriting outcomes, this study leveraged longitudinal firm-level financial data to capture market cycles, regulatory reforms, and macroeconomic conditions (Arellano & Bonhomme, 2012). The population consisted of quoted insurance companies that have continuously maintained relevant financial and operational data between the years of 2010 and 2024. This study adopted a purposive sampling method in order to select a representative sample of 10 quoted non-life insurance companies since the datasets collected from the specifically selected companies are complete and information-rich enough to suit the goal of the study.

Variable Measurement Table

Variable Type	Variable	Symbol	Measurement/Proxy	Formula	Expected Sign
Dependent Variables Underwriting Performance	Combined Ratio	CR	Ratio of underwriting expenses and claims incurred to net earned premium	(Claims Incurred + Underwriting Expenses) ÷ Net Earned Premium	Negative
	Underwriting Profit Margin	UPM	Underwriting profit relative to net earned premium	Underwriting Profit ÷ Net Earned Premium	Positive
	Underwriting Profit	UP	Surplus of premium after claims and underwriting expenses	Net Earned Premium – (Claims Incurred + Underwriting Expenses)	Positive
Independent Variables Premium Growth	Gross Premium Growth Rate	GPG	Annual percentage change in gross written premium	(GWPt – GWPt-1) ÷ GWPt-1 × 100	Positive
	Net Premium Growth Rate	NPG	Annual percentage change in net earned premium	(NEPt – NEPt-1) ÷ NEPt-1 × 100	Positive
	Premium Growth Ratio (Adjusted Premium Size)	PGR	Natural logarithm of gross written premium	ln (Gross Written Premium)	Positive

Variable Type	Variable	Symbol	Measurement/Proxy	Formula	Expected Sign
Control Variables	Firm Size	FSIZE	Natural logarithm of total assets	ln (Total Assets)	Positive
	Firm Age	FAGE	Number of years since incorporation	Current Year – Year of Incorporation	Positive
	Profitability	ROA	Return on Assets	Profit After Tax ÷ Total Assets	Positive
	Leverage	LEV	Debt ratio	Total Liabilities ÷ Total Assets	Negative

Source: Researcher's compilation, 2026

3.1 Model Specification

$$UnderwritingPerformance_{it} = \beta_0 + \beta_1\, PremiumGrowth_{it} + \beta_2\, ControlVariables_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

$$UPM_{it} = \beta_0 + \beta_1(GPG, NPG, PGR)_{it} + \beta_2 \sum_{j=1}^{n=4} ControlVariables_{it} + CompanyFE_i + Year_t + \varepsilon_{it} \quad (1)$$

$$CR_{it} = \beta_0 + \beta_1(GPG, NPG, PGR)_{it} + \beta_2 \sum_{j=1}^{n=4} ControlVariables_{it} + CompanyFE_i + Year_t + \varepsilon_{it} \quad (2)$$

$$UnderwritingPerformance_{it} = \beta_0 + \beta_1(GPG, NPG, PGR)_{it} + \beta_2 \sum_{j=1}^{n=4} ControlVariables_{it} + CompanyFE_i + Year_t + \varepsilon_{it} \quad (3)$$

Multicollinearity test

Variable	VIF	Interpretation
GPG	1.52	Very low collinearity
NPG	1.23	Very low collinearity
PGR	6.68	Moderate, acceptable
Firm Size	6.46	Moderate, acceptable
Leverage	1.32	Very low
Rein_dep	1.40	Very low
Firm age	1.54	Very low
Mean VIF		**2.45**

Multicollinearity is not a major concern in the model, as evidenced by the Mean VIF of 2.45, which is significantly below the benchmark value of 10 and even below the more conservative threshold of 5. As a result, the independent variables are sufficiently different from each other, and there is no substantial bias resulting from intercorrelations between the explanatory variables when estimating the regression coefficients.

4 Results and Discussion

Descriptive statistics

Table 1: *Descriptive statistics*

Variables	Mean	Median	Std. Dev.	Min	Max	Obs
Expense ratio ER	.373	.316	0.199	.043	1.639	150
Loss ratio LR	.34	.27	0.338	.036	3.727	150
Combine ratio CR	.712	.635	0.388	.167	4.349	150
UPM	.246	.229	0.161	0	.936	150
GPG	.214	.151	0.381	-.432	2.834	150
NPG	.391	.169	2.243	-.956	27.04	150
PGR	6.85	6.849	0.493	5.939	8.03	150
Firm Size	7.262	7.198	0.439	6.03	8.552	150
Leverage	.511	.45	0.489	.076	5.979	150
Rein dep	.33	.327	0.156	.023	.713	150
Firm age	39.1	39.5	11.279	19	66	150

According to the findings, the Expense Ratio (ER) has a mean value of 0.373 (37.3%), meaning that for every ₦1 of premium earned, insurers typically spend 37.3 kobo on underwriting and administrative costs. The greatest score of 1.639 (163.9%) indicates that there were times when underwriting costs were higher than premium income for certain organisations, indicating operational inefficiencies. The average Firm Size is 7.262, defined by the natural logarithm of total assets. This demonstrates that the tested insurers are generally medium-to-large-sized organisations, while the range from 6.03 to 8.552 indicates variances in asset holdings across companies. Slightly more than half of the enterprises' assets are financed by liabilities, according to the mean Leverage Ratio of 0.511 (51.1%). The greatest score of 5.979 implies that some corporations depended extensively on debt financing during particular periods, hence raising their financial risk exposure. The Reinsurance Dependence Ratio (REIN_DEP) recorded an average value of 0.330 (33.0%), meaning that about one-third of underwriting risks were shifted to reinsurers. This highlights the importance of reinsurance as a risk management technique within the Nigerian insurance market. The Underwriting Profit Margin (UPM) had an average value of 0.246 (24.6%), suggesting that insurers retained around 24.6% of premium income as underwriting profit after resolving claims and underwriting expenses. This reflects a relatively profitable underwriting operation among the studied enterprises. Regarding premium growth characteristics, the Gross Premium Growth Rate (GPG) recorded a mean of 0.214 (21.4%), suggesting that insurers raised their gross premium income by an average of 21.4% annually. The minimum figure of −43.2% depicts periods of decline in business volume, while the maximum growth rate of 283.4% indicates episodes of tremendous market expansion.

The average Loss Ratio (LR) was 0.340 (34.0%), meaning that almost 34 kobo of every ₦1 of premium earned was paid out in claims. The high maximum value of 3.727 (372.7%) suggests that certain insurers had to deal with extraordinarily large claims expenses, which might have been brought on by catastrophic losses, bad risk selection, or insufficient pricing. The typical value of the Combined Ratio (CR), which gauges overall underwriting performance, is 0.712 (71.2%). The sampled insurers were generally able to produce underwriting profits during the study period since the average ratio is lower than the industry standard of 1.0 (100%). The highest value of 4.349 (434.9%), however, indicates that some companies had significant underwriting losses in specific years. Lastly, the Firm Age ranges from 19 to 66 years old, with an average of roughly 39. This suggests that the majority of the sampled companies are comparatively established organisations with significant industry experience, which could improve underwriting

proficiency, market standing, and operational stability.

4.2 Correlation matrix for the research variables

Table 2: *Correlation's matrix*

Variables	ER	LR	CR	UPM	GPG	NPG	PGR	Firm Size	Lev	ReinDe	Firmage
ER	1.0000										
LR	-0.0236	1.0000									
	(0.7746)										
CR	0.4928*****	0.8583*****	1.0000								
	(0.0000)	(0.0000)									
UPM	-0.0438	-0.1191	-0.1261	1.0000							
	(0.5947)	(0.1496)	(0.1240)								
GPG	0.0004	-0.0660	-0.0576	-0.0691	1.0000						
	(0.9960)	(0.4226)	(0.4837)	(0.4008)							
NPG	-0.1286	-0.0740	-0.1304	0.2031*****	0.3009*****	1.0000					
	(0.1169)	(0.3681)	(0.1117)	(0.0127)	(0.0002)						
PGR	-0.2143*****	0.2382	0.0973	-0.4430*****	0.2711*****	-0.0268	1.0000				
	(0.0084)	(0.0033)	(0.2363)	(0.0000)	(0.0008)	(0.7446)					
Firm Size	-0.1272	0.2898	0.1869*****	-0.4280*****	0.1864*****	0.0028	0.8863*****	1.0000			
	(0.1208)	(0.0003)	(0.0220)	(0.0000)	(0.0224)	(0.9727)	(0.0000)				
Leverage	-0.1454*****	0.1324	0.0406	-0.0077	0.0337	-0.0502	0.1713*****	-0.0066	1.0000		
	(0.0758)	(0.1064)	(0.6221)	(0.9254)	(0.6824)	(0.5420)	(0.0361)	(0.9362)			
Reins_dep	0.2573*****	-0.1699	-0.0159	-0.5011*****	-0.0196	-0.1257	0.1630*****	0.0901	0.0021	1.0000	
	(0.0015)	(0.0376)	(0.8471)	(0.0000)	(0.8120)	(0.1255)	(0.0462)	(0.2727)	(0.980)		

The majority of the explanatory variables show weak to moderate correlations, according to the correlation matrix results, indicating the lack of severe multicollinearity. Premium Growth Ratio (PGR) and Firm Size have the largest positive association ($r = 0.8863$, $p < 0.01$), suggesting that larger insurers typically produce higher premium volumes. NPG ($r = 0.2031$, $p < 0.05$) and Firm Age ($r = 0.1622$, $p < 0.10$) are positively correlated with underwriting performance as evaluated by UPM, indicating that increases in retained premiums and organisational experience improve underwriting profitability. On the other hand, UPM has a negative relationship with both PGR ($r = -0.4430$, $p < 0.01$) and Reinsurance Dependency ($r = -0.5011$, $p < 0.01$), suggesting that underwriting profit margins may be lowered by excessive premium increase and reinsurance dependence. Additionally, there is a high and positive correlation between Combined Ratio (CR) and Loss Ratio (LR) ($r = 0.8583$, $p < 0.01$) and Expense Ratio (ER) ($r = 0.4928$, $p < 0.01$), indicating that underwriting expenses and claims costs are important factors that determine total underwriting performance. Overall, the results show that multicollinearity is unlikely to be a significant issue in the regression analysis because none of the pairwise correlations surpass the critical threshold of 0.90.

Table 3: *Baseline panel regression results*

Premium growth and underwriting performance

Dependent variable: Underwriting performance				
Independent Variables	Model (1)	Model (2)	Model (3)	Model (4)
	CR	CR + Controls	UPM	UPM + Controls
Gross Premium Growth (GPG)	0.085*	-0.095	-0.048	-0.047*
	(0.039)	(0.055)	(0.033)	(0.028)
Net Premium Growth (NPG)	-0.025	-0.022	0.013***	0.012***
	(0.017)	(0.012)	(0.002)	(0.002)
Premium Growth Rate	-0.583**	-0.613*	-0.138***	-0.093*
	(0.255)	(0.298)	(0.046)	(0.106)
Firm Size		-0.050		-0.006
		(0.523)		(0.106)
Leverage		-0.025		0.016
		(0.091)		(0.012)
Reinsurance Dependence		0.389**		-0.314***
		(0.166)		(0.095)
Firm Age		0.038		0.003
		(0.023)		(0.002)
Constant	4.546**	3.796	1.365***	1.095***
	(1.708)	(2.297)	(0.326)	(0.249)
Within R-squared	0.1435	0.1435	0.4501	0.4501
Year Dummies	Yes	Yes	Yes	Yes
Firms Dummies	Yes	Yes	Yes	Yes
Observations	150	150	150	150

* p<0.10, ** p<0.05, *** p<0.01

This table provides fixed-effects panel regression results that analyse the relationships between premium growth and underwriting performance using fixed-effects panel regression. Underwriting performance is measured using CR and UPM in alternative ways as alternative measures/metrics. All models include fixed effects for firms and years. At the firm level, standard errors are reported as clustered values in parentheses, where *, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

Robustness Test

Table 4: *Lagged Fixed-Effects Regression Results*

Variables	Model (1) UPM	Model (2) UPM
Lagged GPG	-0.005	-0.731*
	(0.014)	(0.360)
Lagged NPG	0.011***	0.012***
	(0.001)	(0.002)
Lagged PGR	-0.258*	-0.093*
	(0.127)	(0.106)
Constant	3.796	1.095***
	(2.297)	(0.249)
Observations	140	140
Within R-squared	0.1435	0.4501

* p<0.10, ** p<0.05, *** p<0.01

In table 4, we report the results of fixed-effects regression using one-year lag values for the key explanatory variables used in this study to resolve concerns about reverse causality. All models are firm and year fixed effects. Standard errors clustered at the firm level are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

5. Discussion of Findings

Evidence suggests that better underwriting results are not always correlated with increases in premium volume. In particular, there is a poor correlation between underwriting performance and gross premium growth (GPG). Even if some criteria show marginal significance, the effect disappears when firm-specific variables are taken into account. This connotes that improving underwriting efficiency might require more than just raising premium income. This result is in line with the Risk-Return Theory, which states that if growth is pursued without sufficient risk assessment, price discipline, and claims management, larger business volume may be accompanied by increased risk exposure.(Deari & Trinh, 2022)**.** Therefore, a premium increase by itself might not produce better underwriting outcomes unless it is combined with efficient risk selection procedures. When premium growth is calculated using the premium growth ratio (PGR), a more complex picture becomes apparent. PGR and the combination ratio (CR) have a consistently negative correlation, indicating that companies with greater premium expansion typically have lower combined ratios and, thus, superior underwriting efficiency. This could be the result of increased operational efficiency, better risk diversification, and economies of scale among insurers that can grow their premium base. On the other hand, rapid expansion may simultaneously put pressure on underwriting profits, as evidenced by the negative correlation between PGR and underwriting profit margin (UPM). According

to this research, aggressive premium acquisition techniques may involve price rivalry, underpricing of risks, or higher acquisition costs that ultimately compress profitability, even while expansion may boost cost efficiency and lower combined ratios. Retained business is more important than gross premium expansion, as seen by the positive and extremely significant link between net premium growth (NPG) and underwriting profit margin, aligning with the findings of (Fayunada et al., 2024). Unlike gross premium increase, net premium growth shows the share of premiums retained after reinsurance arrangements. The findings suggest that insurers are in a better position to make underwriting profits if they are able to successfully retain profitable risks. This result supports the claim that both business expansion and the calibre of risks kept in the insurer's portfolio are necessary for sustainable underwriting performance. This outcome emphasises the significance of careful risk retention techniques and disciplined underwriting in the Nigerian insurance market, where competition for market share is still fierce. Reinsurance dependency has a particularly significant impact.

This implies that by raising reinsurance costs and restricting the profitability of retained business, excessive risk transfer may lower underwriting efficiency. The results suggest that over-reliance may limit insurers' capacity to optimise underwriting returns, even though reinsurance is still a crucial risk management tool. This finding is particularly pertinent to the insurance sector in Nigeria, where businesses regularly use reinsurance to boost capacity and control significant risks. Instead of depending too much on reinsurance agreements, the research suggests that insurers should aim for the best possible balance between risk transfer and retention. Further evidence that underwriting performance is more influenced by underwriting and risk management choices than by structural business characteristics comes from the insignificance of firm size, leverage, and firm age in the majority of regression models. Even though older organisations could have more expertise and industry knowledge, this does not always translate into better underwriting results. Similarly, when growth is not accompanied by efficient risk selection and claims management procedures, larger asset bases do not ensure increased underwriting profitability. From a policy standpoint, the results indicate that industry practitioners and regulators should concentrate on the sustainability and quality of growth in addition to premium growth targets. Underwriting flaws may go unnoticed if regulations place too much emphasis on premium growth as a sign of industry success. The findings underscore the necessity for insurers to prioritise profitable development, enhance risk pricing mechanisms, fortify underwriting standards, and maximise reinsurance utilisation. In Nigeria's developing insurance sector, where long-term profitability depends on striking a balance between business expansion and prudent risk management techniques, such measures are especially crucial and consistent with the findings of Olaiya (2025).

6. Conclusion

According to the findings, in tandem with that of Horvey and Odei-Mensah (2025) the overall Premium Growth Rate (PGR) exhibits a statistically significant negative association with the Combined Ratio (CR), resulting in a nuanced relationship. This indicates that, contrary to what might be expected, a higher rate of premium expansion tends to be associated with better underwriting performance (lower CR), which is much in line with some global trends that have been documented by organisations such as the OECD. There is, however, some concern that the positive relationship between premium metrics is not universally observed across all premium metrics; for example, the Gross Premium Growth (GPG) variable in certain models did

not show a significant correlation with CR or Underwriting Profit Margin (UPM), suggesting that simply increasing gross revenue without ensuring proper control does not guarantee underwriting efficiency.

In addition, the study highlighted the specific impact that gross premium expansion has on net premium expansion. Statistically, our study found a positive and statistically significant correlation between Net Premium Growth (NPG) and Underwriting Profitable Margin (UPM), which suggests that growth in retained premiums (after reinsurance) has a greater impact on strengthening underwriting profits than growth in retained premiums (before reinsurance) aligning with the findings of Olaiya (2025). It is therefore imperative to have a disciplined retention strategy in place as well as a risk selection approach that is effective. As an alternative, the analysis showed that there were a number of factors that moderated the effect of firm characteristics. Specifically, it was found that higher reliance on reinsurance dependency was positively and significantly associated with a lower CR, as well as a negative correlation with UPM, indicating that increasing one's dependence on third parties to take care of risk can result in higher operating costs and lower technical profitability. A significant weakness that can be identified in the internal risk assessment process or in the strategic use of reinsurance is highlighted here. Other control variables also played an important role in influencing the overall conclusion of the study. Despite the fact that firm size is positively correlated with CR and PGR (larger firms have higher growth rates and possibly higher costs), size does not automatically translate into better underwriting results as it has a negative correlation with Underwriting Performance Index. Additionally, descriptive statistics revealed that a rapid premium growth rate (PGR) had a negative correlation with Ultimate Profit Margin (UPM). These data suggest that aggressive expansion could lead to lower profit margins as a result of potential underpricing or adverse selection pressures. It is clear from these results that one of the fundamental problems identified in the literature has been confirmed: premium growth alone is not sufficient to guarantee underwriting efficiency unless it is supported by good underwriting discipline and effective claims and expense management confirming the findings of (Ipigansi & Biewari, 2025).

7. Recommendations

Insurance companies play a strategic role in managing their premium growth by prioritising Net Premium Growth (NPG) over simply expanding Gross Premium Growth (GPG) in order to maximise profitability. Based on empirical evidence, it is evident that there is a strong positive relationship between NPG and Underwriting Profit Margin (UPM), indicating that increasing the premiums retained after reinsurance is a key factor driving technical profitability. As a result, managers are advised to enhance internal risk assessment and pricing models to assist them in retaining higher-quality risks and reducing excessive reinsurance dependence, which has been associated with higher Combined Ratios (CR) and lower Underwriting Profit Margin (UPM). Also, regulators, such as NAICOM, use the study's findings to enhance the frameworks for monitoring solvency and the risk-based approach to supervision of financial institutions. A policy should be designed to discourage aggressive premium increases that are driven by underpricing or relaxed underwriting standards, particularly given the volatility of the Nigerian market and its unique challenges.

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