

THE EFFECT OF THE UNDERWRITING RATIO, PREMIUM GROWTH RATIO, AND RISK-BASED CAPITAL ON PROFITABILITY IN COMPANIES IN THE INSURANCE SUBSECTOR LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE PERIOD 2020–2024



Tiara Maharani Hanifah¹
Telkom University, Bandung, Indonesia
tiaramhrni@student.telkomuniversity.ac.id

Wiwin Aminah²
Telkom University, Bandung, Indonesia
wiwinaminah@telkomuniversity.ac.id

Abstract

Profitability is an important indicator that reflects an insurance company's ability to generate profits and maintain its business sustainability. The profitability of insurance sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period showed fluctuating conditions, while previous studies on the effect of the underwriting ratio, premium growth ratio, and risk based capital on profitability still produced inconsistent results, indicating the need for further research. This study aims to analyze the effect of the underwriting ratio, premium growth ratio, and risk based capital on profitability, proxied by Return on Assets (ROA). This study employed a quantitative method with a descriptive research design. The sample was selected using a purposive sampling technique, resulting in 16 insurance sub-sector companies with a total of 80 observations over a five-year period. The data were analyzed using panel data regression with the Fixed Effect Model through EViews 13 software. The results indicate that the underwriting ratio, premium growth ratio, and risk based capital simultaneously have a significant effect on profitability. Partially, the underwriting ratio has a positive and significant effect on profitability, while the premium growth ratio and risk based capital have no significant effect. The adjusted R-squared value of 0.502762 indicates that the three independent variables explain 50.3% of the variation in profitability, while the remaining 49.7% is explained by other variables outside the research model. This study implies that the effectiveness of underwriting activities is an important factor that insurance companies should consider to improve profitability.

Keywords: Insurance Companies, Premium Growth Ratio, Profitability, Risk Based Capital (RBC), Underwriting Ratio

INTRODUCTION

The insurance industry plays an important role in supporting the stability and growth of the global economy. As a financial institution that functions to manage risk and provide financial protection, this industry has become one of the main pillars supporting the smooth running of economic activities for the public and business actors. In recent years, particularly since the COVID-19 pandemic, the insurance industry has faced enormous pressure due to rising claims, financial market fluctuations, and declining investment returns. According to Swiss Re Institute (2024), although global insurance premiums continue to grow, the profitability of the global insurance industry has been under pressure as a result of increasing claim costs and volatile market conditions.

This pressure on the insurance industry directly affects the company's ability to generate profit. Profitability is one of the main indicators reflecting a company's success in increasing economic value and maintaining its business continuity. Vensca et al. (2024) state that high profitability, measured through Return on Assets (ROA), has a positive effect on company performance and stability. In line with this, Ester et al. (2022) emphasize that profitability reflects overall financial performance because it shows operational efficiency and management's ability to sustain continuous profit. In this study, ROA is chosen as the main indicator because it is able to show the effectiveness of management in utilizing all company assets to generate profit. Profitability is also closely related to firm value, since a high level of profitability becomes a positive signal that strengthens governance structure and firm value (Hapsari et al., 2025). Furthermore, profitability is one of the main determinants that, together with liquidity and firm size, shapes the overall financial condition of a company (Aminah et al., 2023).

The 2020–2024 period is interesting to examine because the Indonesian insurance industry was in a recovery phase after the COVID-19 pandemic. During the pandemic, the financial performance of insurance companies came under pressure due to rising claim ratios and declining operational efficiency (Anggraini et al., 2022). One observable phenomenon was reported by CNBC Indonesia (2024), in which PT Asuransi Bina Dana Arta Tbk (ABDA) experienced a significant decline in net profit of 49.9% in the first quarter of 2024, caused by increasing claim expenses and operational costs while premium income growth was unable to offset that pressure. A further phenomenon occurred in the life insurance industry, where Kontan.co.id (2021) reported that life insurance health claims fell by 10.2% year on year to IDR 9.88 trillion up to the fourth quarter of 2020 due to reduced public activity during social restrictions, which in turn affected underwriting strategies and premium management.

In insurance companies, profitability is strongly influenced by internal factors such as underwriting efficiency, premium growth, and risk-based capital adequacy or Risk Based Capital (RBC). Morara & Sibindi (2021) found that underwriting risk has a significant negative effect on profitability, meaning that the more efficient the underwriting activities, the greater the profit generated. In contrast, Zinyoro & Aziakpono (2024) stated that underwriting efficiency does not always have a significant effect on the profitability of non-life insurance companies due to the risk management strategies applied.

Regarding premium growth, Opoku et al. (2024) found that premium growth has a positive and significant effect on profitability. Conversely, Anita & Kusumaningtias (2024)

found that premium growth has no significant effect on profitability, because growth that is not balanced with risk control can increase claims and depress profit (Fayunada et al., 2024). For risk-based capital, Haerani & Kholis (2024) showed that RBC has a positive and significant effect on profitability, whereas Wahyuni et al. (2025) showed the opposite result, in which RBC actually has a negative effect on profitability. Nasution et al. (2019) explained that RBC describes the extent to which an insurance company's capital is able to cover various financial risks that may arise.

Based on the above description, there is still inconsistency in the results of previous research, which makes this topic relevant for further study. Therefore, this study aims to analyze the effect of the underwriting ratio, premium growth ratio, and risk based capital on profitability in insurance sub-sector companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

REVIEW OF LITERATURE

This study is grounded in Signaling Theory, first introduced by Michael Spence in 1973, which explains that signals are used by the party with more information (management) to reduce information asymmetry with the party that has less information (investors) (Ramadhan et al., 2025). Management, as the party that understands internal conditions, conveys signals through financial statements, financial ratios, and various disclosures so that investors can assess the company's condition and prospects more accurately (Amosh & Khatib, 2022). The effectiveness of a signal is determined by characteristics that are observable and costly to imitate (Bafera & Kleinert, 2023), so that a high level of profitability becomes a positive signal of good company performance. Within this framework, financial indicators such as the underwriting ratio, premium growth ratio, and risk based capital function as signals for investors in assessing the profitability and stability of an insurance company.

Profitability, proxied by Return on Assets (ROA), reflects the company's ability to generate profit and efficiently utilize its assets (Nirawati et al., 2022). A high level of profitability not only reflects company performance but also serves as a consideration for investors and supports the company's long-term sustainability (Kalbuana et al., 2022). In this context, financial statements function as a summary of a company's financial information for a given period and as a form of management accountability for the resources entrusted to it (Arum et al., 2017). The underwriting ratio measures the level of underwriting surplus or deficit by comparing underwriting results with underwriting expenses (Susanti & Muntiah, 2024), the premium growth ratio measures the percentage change in premium from one period to the next (Tarsono et al., 2020), and risk based capital, regulated under POJK No. 71/POJK.05/2016, is a solvency ratio with a minimum threshold of 120% that shows the company's ability to meet all of its obligations with the capital it holds after accounting for risk (Setiawan et al., 2019). The synthesis of these concepts forms the theoretical basis for examining how the three financial indicators jointly determine the profitability of insurance companies.

RESEARCH METHOD

This study employs a quantitative method with a descriptive research design that aims to obtain a clear picture of the characteristics of the object being studied (Sekaran & Bougie, 2020; Sinambela & Sinambela, 2021). The population of this study consists of all insurance sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period, totaling 18 companies. The sample was selected using a purposive sampling technique based on specific criteria, namely companies that were consistently listed and did not experience delisting, consistently published annual reports, and presented complete data according to the research needs (Sugiyono, 2019). Based on these criteria, 16 companies were obtained, so that with a five-year observation period the total sample amounted to 80 observations. The dependent variable is profitability proxied by Return on Assets (ROA), while the independent variables are the underwriting ratio, the premium growth ratio, and risk based capital (RBC), all of which are measured using a ratio scale through secondary data obtained from the annual financial reports published on the IDX website and the respective company websites (Ghozali, 2021).

The research procedure began with problem identification and the formulation of objectives and hypotheses, followed by the determination of the research design, data collection through documentation and literature study, and data analysis to draw conclusions (Pandiangan & Albina, 2025). The data were analyzed using descriptive statistical analysis, classical assumption tests, and panel data regression. For panel data, the classical assumption tests applied were the multicollinearity test and the heteroscedasticity test (Basuki & Prawoto, 2018). The best estimation model was selected through the Chow test and the Hausman test, which determine the most appropriate model among the Common Effect Model, Fixed Effect Model, and Random Effect Model (Basuki, 2021). Hypothesis testing was conducted through the coefficient of determination, the simultaneous test (F-test), and the partial test (t-test) at a significance level of 0.05. All statistical data processing in this study used EViews 13 software (Ghozali, 2018).

Research Hypothesis

Based on the review of the literature and previous research, the hypotheses proposed in this study are as follows:

- H1: The underwriting ratio, premium growth ratio, and risk-based capital simultaneously affect profitability.
- H2: The underwriting ratio has a positive effect on profitability.
- H3: The premium growth ratio has a positive effect on profitability.
- H4: Risk-Based Capital (RBC) has a positive effect on profitability.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

This study comprises three independent variables, namely the underwriting ratio, the premium growth ratio, and risk-based capital (RBC), and one dependent variable, namely profitability. The observation data amounted to 80, obtained from 16 insurance sub-sector companies listed on the IDX during 2020–2024. The results of the descriptive statistical analysis for the ratio-scale variables are presented below.

Table 1.
Descriptive Statistical Analysis

Description	Profitability (Y)	Underwriting Ratio (X1)	Premium Growth Ratio (X2)	Risk-Based Capital (X3)
Mean	0.015228	0.316341	0.127081	4.756466
Maximum	0.063000	0.856624	1.314512	25.2775
Minimum	-0.089300	-0.276842	-0.845357	1.390149
Std. Dev.	0.024644	0.252692	0.305996	4.388837
Observations	80	80	80	80

Source: Data processed by the author (2026)

Table 1 shows that profitability (ROA) has a minimum value of -0.089300 (PT Asuransi Maximus Graha Persada Tbk/ASMI, 2020) and a maximum of 0.063000 (PT Asuransi Bina Dana Arta Tbk/ABDA, 2021), with a mean of 0.015228 and a standard deviation of 0.024644. The underwriting ratio ranges from -0.276842 (PT Bhakti Multi Artha Tbk/BHAT, 2021) to 0.856624 (PT Asuransi Dayin Mitra Tbk/ASDM, 2021), with a mean of 0.316341. The premium growth ratio ranges from -0.845357 (PT Victoria Insurance Tbk/VINS, 2020) to 1.314512 (ASMI, 2021), with a mean of 0.127081, while risk based capital ranges from 1.390149 (PT Asuransi Bintang Tbk/ASBI, 2020) to 25.2775 (PT Asuransi Jiwa Sinarmas MSIG Tbk/LIFE, 2022), with a mean of 4.756466. Overall, all variables have a mean greater than their standard deviation, indicating that the data are relatively homogeneous.

Table 2.
Descriptive Statistics of Profitability (2020–2024)

Description	2020	2021	2022	2023	2024
Mean	0.0135	0.015544	0.010313	0.017925	0.018856
Maximum	0.0558	0.063	0.05	0.0518	0.0426
Minimum	-0.0893	-0.0731	-0.0812	0.0031	0.0005
Std. Dev.	0.032294	0.029049	0.029583	0.015730	0.011760

Source: Data processed by the author (2026)

Table 2 shows that during 2020–2022 the mean profitability was smaller than the standard deviation, so the data were relatively heterogeneous, whereas in 2023 and 2024 the mean exceeded the standard deviation, indicating more homogeneous data. The lowest minimum value of -0.0893 was recorded by ASMI in 2020, while the highest maximum of 0.063 was achieved by ABDA in 2021, reflecting the gradual recovery of insurance profitability after the COVID-19 pandemic.

Table 3.
Descriptive Statistics of the Underwriting Ratio (2020–2024)

Description	2020	2021	2022	2023	2024
Mean	0.335397	0.299573	0.320654	0.297723	0.328359
Maximum	0.816447	0.856624	0.794857	0.804571	0.758793

Description	2020	2021	2022	2023	2024
Minimum	0.009164	-0.276842	-0.056608	-0.119182	-0.094940
Std. Dev.	0.242094	0.313579	0.249729	0.246367	0.234647

Source: Data processed by the author (2026)

Table 3 shows that, except in 2021, the mean underwriting ratio was greater than the standard deviation, indicating that the underwriting performance of companies tended to be grouped and not highly varied. The highest maximum of 0.856624 was recorded by ASDM in 2021, while the lowest minimum of -0.276842 was recorded by BHAT in the same year, reflecting a negative underwriting result for that company.

Table 4.
Descriptive Statistics of the Premium Growth Ratio (2020–2024)

Description	2020	2021	2022	2023	2024
Mean	-0.041254	0.168128	0.240720	0.097972	0.169837
Maximum	0.496754	1.314512	0.949521	0.578338	1.023840
Minimum	-0.845357	-0.054019	-0.284561	-0.176250	-0.225780
Std. Dev.	0.293721	0.330389	0.345266	0.169551	0.317963

Source: Data processed by the author (2026)

Table 4 shows that throughout 2020–2024 the mean premium growth ratio was consistently smaller than the standard deviation, indicating that the data were highly varied and not grouped. The highest maximum of 1.314512 was recorded by ASMI in 2021, while the lowest minimum of -0.845357 was recorded by VINS in 2020, reflecting a substantial contraction in premium income during the early pandemic period.

Table 5.
Descriptive Statistics of Risk-Based Capital (RBC) (2020–2024)

Description	2020	2021	2022	2023	2024
Mean	4.767835	4.510458	5.089896	5.125992	4.288150
Maximum	14.2531	14.5821	25.2775	20.1151	18.2519
Minimum	1.390149	1.457813	1.452062	1.419811	1.505808
Std. Dev.	3.945199	3.327881	5.689777	4.969428	4.144264

Source: Data processed by the author (2026)

Table 5 shows that the mean RBC fluctuated, declining in 2021, rising in 2022 and 2023, and decreasing again in 2024. Except in 2022, the mean exceeded the standard deviation, indicating relatively grouped data. The highest maximum of 25.2775 was recorded by LIFE in 2022, while the lowest minimum of 1.390149 was recorded by ASBI in 2020, indicating relatively low capital adequacy for that company.

Relationship between the Underwriting Ratio and Profitability

Table 6.

Relationship between the Underwriting Ratio and Profitability

Underwriting Ratio	Profitability above mean (>0.015228)	%	Profitability below mean (<0.015228)	%	Total	%
Underwriting Ratio above mean (>0.316341)	23	28.8%	18	22.5%	41	51.3%
Underwriting Ratio below mean (<0.316341)	20	25%	19	23.8%	39	48.8%
Total	43	53.8%	37	46.3%	80	100%

Source: Data processed by the author (2026)

Table 6 shows that companies with an above-average underwriting ratio were dominated by above-average profitability, namely 23 observations or 28.8%, while companies with a below-average underwriting ratio were dominated by above-average profitability, namely 20 observations or 25%. Descriptively, this indicates a positive relationship between the underwriting ratio and profitability in insurance sub-sector companies listed on the IDX during 2020–2024.

Relationship between the Premium Growth Ratio and Profitability

Table 7.

Relationship between the Premium Growth Ratio and Profitability

Premium Growth Ratio	Profitability above mean (>0.015228)	%	Profitability below mean (<0.015228)	%	Total	%
Premium Growth Ratio above mean (>0.127081)	14	17.5%	17	21.3%	31	38.8%
Premium Growth Ratio below mean (<0.127081)	29	36.3%	20	25%	49	61.3%
Total	43	53.8%	37	46.3%	80	100%

Source: Data processed by the author (2026)

Table 7 shows that companies with an above-average premium growth ratio were dominated by below-average profitability, namely 17 observations or 21.3%, while companies with a below-average premium growth ratio were dominated by above-average profitability, namely 29 observations or 36.3%. Descriptively, this indicates that the premium growth ratio has not yet shown a positive relationship with profitability and tends to be negative, because an increase in premium growth is not always followed by an increase in company profitability.

Relationship between Risk Based Capital (RBC) and Profitability

Table 8.

Relationship between Risk-Based Capital (RBC) and Profitability

Risk Based Capital	Profitability above mean (>0.015228)	%	Profitability below mean (<0.015228)	%	Total	%
Risk-Based Capital above mean (>4.756466)	16	20%	10	12.5%	26	32.5%
Risk-based capital below mean (<4.756466)	27	33.8%	27	33.8%	54	67.5%
Total	43	53.8%	37	46.3%	80	100%

Source: Data processed by the author (2026)

Table 8 shows that companies with above-average RBC were dominated by above-average profitability, namely 16 observations or 20%, while companies with below-average RBC had an equal number of above-average and below-average profitability, namely 27 observations or 33.8% each. Descriptively, RBC tends to have a positive relationship with profitability, although the relationship is not yet strong because many companies with below-average RBC still recorded above-average profitability.

Classical Assumption Tests

The classical assumption tests aim to ensure that the data analyzed are free from assumption violations, particularly multicollinearity and heteroscedasticity. A good regression model should not contain correlation among the independent variables (Ghozali, 2018).

Table 9.

Multicollinearity Test Results

	RU	RPP	RBC
RU	1.000000	-0.143642	-0.191622
RPP	-0.143642	1.000000	-0.191058
RBC	-0.191622	-0.191058	1.000000

Source: EViews 13 output (2026)

Table 9 shows that the correlation coefficients among the underwriting ratio (RU), the premium growth ratio (RPP), and risk based capital (RBC) are all below 0.80, namely -0.143642 between RU and RPP, -0.191622 between RU and RBC, and -0.191058 between RBC and RPP. Since all correlation values are below 0.80, the regression model does not contain multicollinearity, so the classical assumption regarding multicollinearity is fulfilled.

Table 10.

Heteroscedasticity Test Results

Heteroskedasticity Test: Harvey	Value	Probability
F-statistic	1.229496	Prob. F(3,76) = 0.3049

Heteroskedasticity Test: Harvey	Value	Probability
Obs*R-squared	3.702906	Prob. Chi-Square(3) = 0.2954
Scaled explained SS	3.715479	Prob. Chi-Square(3) = 0.2939

Source: EViews 13 output (2026)

Table 10 shows that the Chi-square probability value of ObsR-squared* is 0.2954, which is greater than 0.05. Therefore, the research model does not experience heteroscedasticity problems, so the classical assumption regarding heteroscedasticity is fulfilled.

Panel Data Regression Model Selection

The selection of the panel data regression model was carried out through the Chow test and the Hausman test to determine the most appropriate model among the Common Effect Model, Fixed Effect Model, and Random Effect Model.

Table 11.
Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.407070	(15,61)	0.0000
Cross-section Chi-square	67.655980	15	0.0000

Source: EViews 13 output (2026)

Table 11 shows that the Cross-section F probability value is 0.0000, which is smaller than the 0.05 significance level ($0.0000 < 0.05$), so H_0 is rejected and H_1 is accepted. Thus, the more appropriate model is the Fixed Effect Model (FEM), and the analysis continued with the Hausman test.

Table 12.
Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.935932	3	0.0302

Source: EViews 13 output (2026)

Table 12 shows that the cross-section random probability value is 0.0302, which is smaller than the 0.05 significance level ($0.0302 < 0.05$), so the most appropriate model for this study is the Fixed Effect Model (FEM). Because the Chow test and the Hausman test yielded the same result, the Lagrange Multiplier test was no longer necessary.

Panel Data Regression Analysis

Table 13.
Fixed Effect Model Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.021490	0.010355	-2.075443	0.0422
RU	0.096912	0.025214	3.843616	0.0003
RPP	0.010245	0.007781	1.316632	0.1929
RBC	0.001000	0.001167	0.857414	0.3946

Source: EViews 13 output (2026)

Based on Table 13, the panel data regression equation obtained is: $ROA = -0.021490 + 0.096912 RU + 0.010245 RPP + 0.001000 RBC + e$. The constant of -0.021490 indicates that if all independent variables are zero, profitability (ROA) is -0.021490. The coefficient of the underwriting ratio (0.096912), the premium growth ratio (0.010245), and risk based capital (0.001000) each indicate that a one-unit increase in the respective variable raises ROA by that coefficient value, so all three variables have a positive direction of relationship with profitability.

Hypothesis Testing

Table 14.
Coefficient of Determination Test Results

Indicator	Value
R-squared	0.616057
Adjusted R-squared	0.502762
S.E. of regression	0.017378
Prob(F-statistic)	0.000000

Source: EViews 13 output (2026)

Table 14 shows that the adjusted R-squared value is 0.502762, or equivalent to 50.3%. This indicates that the underwriting ratio, the premium growth ratio, and risk based capital are able to explain 50.3% of the variation in profitability, while the remaining 49.7% is explained by other variables outside this research model.

Table 15.
Simultaneous Test (F-Test) Results

Indicator	Value
F-statistic	5.437649
Prob(F-statistic)	0.000000

Source: EViews 13 output (2026)

Table 15 shows that the F-statistic probability value is 0.000000, which is smaller than 0.05, so H_0 is rejected and H_1 is accepted. Thus, the underwriting ratio, the premium growth ratio, and risk based capital simultaneously have a significant effect on profitability.

Table 16.
Partial Test (t-Test) Results

Variable	Coefficient	t-Statistic	Prob.	Conclusion
RU	0.096912	3.843616	0.0003	Significant
RPP	0.010245	1.316632	0.1929	Not significant
RBC	0.001000	0.857414	0.3946	Not significant

Source: EViews 13 output (2026)

Table 16 shows that the underwriting ratio has a probability of 0.0003 (< 0.05) with a coefficient of 0.096912, so it has a positive and significant partial effect on profitability. The premium growth ratio has a probability of 0.1929 (> 0.05) with a coefficient of 0.010245, so it has no significant partial effect, and risk based capital has a probability of 0.3946 (> 0.05) with a coefficient of 0.001000, so it also has no significant partial effect on profitability.

The Simultaneous Effect of the Underwriting Ratio, Premium Growth Ratio, and Risk-Based Capital on Profitability

Based on the simultaneous test (F-test), the F-statistic probability value of 0.0000 (< 0.05) indicates that the underwriting ratio, the premium growth ratio, and risk based capital jointly have a significant effect on profitability in insurance sub-sector companies listed on the IDX during 2020–2024. This finding indicates that the profitability of insurance companies is determined not by a single factor but by a combination of operational performance, the ability to increase premium income, and the company's financial soundness.

The Effect of the Underwriting Ratio on Profitability

The partial test shows that the underwriting ratio has a positive and significant effect on profitability, with a significance value of 0.0003 (< 0.05) and a coefficient of 0.096912, consistent with the proposed hypothesis. The underwriting ratio is used to assess the effectiveness of an insurance company's core business in generating profit from premiums received compared with underwriting expenses (Susanti & Muntiah, 2024). A higher underwriting ratio reflects an underwriting surplus, in which the premiums received are able to cover all underwriting expenses, so the higher the underwriting ratio, the higher the profitability achieved. This result also supports Signaling Theory, in which a high underwriting ratio becomes a positive signal of effective operational management. The finding is in line with previous research by Nuhin & Suprayogi (2022), which states that the underwriting ratio has a positive and significant effect on profitability.

The Effect of the Premium Growth Ratio on Profitability

The partial test shows that the premium growth ratio has no significant effect on profitability, with a significance value of 0.1929 (> 0.05) and a coefficient of 0.010245, although the direction of the relationship is positive; this result does not support the hypothesis. The premium growth ratio reflects the level of public trust in an insurance company (Tarsono et al., 2020), yet an increase in premiums does not necessarily improve profitability significantly, because additional premiums received may be accompanied by higher claim expenses, operational costs, and acquisition costs. Based on Signaling Theory, premium growth can be a positive signal of increasing public trust, but this signal has not been able to explain changes in profitability significantly. This finding is in line with previous research by Anita & Kusumaningtias (2024); Haryanto & Syarif (2024); Martana & Karim (2024); and Stephanie & Ruslim (2021), which states that the premium growth ratio has no effect on profitability.

The Effect of Risk Based Capital (RBC) on Profitability

The partial test shows that risk based capital (RBC) has no significant effect on profitability, with a significance value of 0.3946 (> 0.05) and a coefficient of 0.001000, although the direction of the relationship is positive; this result does not support the hypothesis. RBC is essentially used as an indicator of a company's solvency in meeting its obligations to policyholders, and an RBC value above the minimum threshold reflects a sound financial condition. However, a high level of solvency does not directly generate higher profit, because profitability is also influenced by other factors such as premium income, investment returns, operational efficiency, and claim expenses. In the insurance industry, RBC functions more as a tool for risk control and regulatory compliance than as an instrument to increase profit. This finding is in line with previous research by Hidayat et al.

(2021); Wahyono et al. (2021); and Nusantara & Priantinah (2021), which states that RBC has no effect on profitability.

CONCLUSION

Based on the results of the panel data regression analysis on 16 insurance sub-sector companies listed on the Indonesia Stock Exchange during the 2020–2024 period, with a total of 80 balanced panel observations, it can be concluded that the underwriting ratio, the premium growth ratio, and risk based capital simultaneously have a significant effect on profitability, with an adjusted R-squared of 50.3%; partially, the underwriting ratio has a positive and significant effect on profitability, while the premium growth ratio and risk based capital have no significant effect. These findings imply that the effectiveness of underwriting activities is the key factor that insurance companies should improve to enhance profitability, while still maintaining premium growth and RBC to support financial stability; for investors, the underwriting ratio can serve as an important consideration in assessing the performance and profitability of insurance companies. Future researchers are encouraged to extend the research period or add other variables, given that only one of the three independent variables had a significant effect.

REFERENCES

- Aminah, W., Fahlevi, A. R., & Zalfadiva, D. S. (2023). Determinan Nilai Perusahaan: Likuiditas, Profitabilitas, dan Ukuran Perusahaan. *Jurnal E-Bis: Ekonomi-Bisnis*, 7(2), 693–704. <https://doi.org/10.37339/e-bis.v7i2.1342>
- Amosh, H. Al, & Khatib, S. F. A. (2022). Theories of Corporate Disclosure: A Literature Review. *Corporate Governance and Sustainability Review*, 6(1), 46–59. <https://doi.org/10.22495/cgsrv6i1p5>
- Anggraini, M., Wulandari, Maranata, B. H., & Dewi, F. T. S. (2022). Pengaruh Rasio Pertumbuhan Premi dan Rasio Beban Klaim terhadap Tingkat Kesehatan Perusahaan Asuransi di Masa Pandemi Covid-19. *Jurnal Applied Research in Management and Business*, 2(1), 1–8. <https://doi.org/10.53416/arimbi.v2i1.76>
- Anita, & Kusumaningtias, R. (2024). Pengaruh Risk Based Capital, Premium Growth Ratio, dan Beban Klaim terhadap Profitabilitas pada Asuransi Jiwa Syariah. *Edunomika*, 8(2), 1–11.
- Arum, H. N., Nazar, M. R., & Aminah, W. (2017). Profitabilitas, Ukuran Perusahaan, dan Nilai Perusahaan terhadap Praktik Perataan Laba. *Jurnal Riset Akuntansi*, 9(2), 71–78. <https://doi.org/10.23969/jrak.v9i2.581>
- Bafera, J., & Kleinert, S. (2023). Signaling Theory in Entrepreneurship Research: A Systematic Review and Research Agenda. *Entrepreneurship Theory and Practice*, 47(6), 2419–2464. <https://doi.org/10.1177/10422587221138489>
- Basuki, A. T. (2021). *Analisis Data Panel dalam Penelitian Ekonomi dan Bisnis: Dilengkapi dengan Penggunaan EViews* (1st ed.). Danisa Media.
- Basuki, A. T., & Prawoto, N. (2018). *Analisis Regresi dalam Penelitian Ekonomi dan Bisnis* (1st ed.). Rajawali Pers.
- CNBC Indonesia. (2024). *Makin Anjlok, Laba Asuransi Oona & ABDA Merosot Nyaris 50% Awal 2024*. <https://www.cnbcindonesia.com/market/20240607134623-17-544756/>

- Ester, Toni, N., Teng, S. H., & Hutagalung, G. (2022). The Effect of Profitability on Financial Performance. *International Journal of Social Science Research and Review*, 5(9), 242–255. <https://doi.org/10.47814/ijssrr.v5i9.436>
- Fayunada, Y., Basrowi, Pandriyani, Y. K., Atoillah, Lisa, Masitoh, I., ... Dustein, S. C. (2024). The Influence of Insurance Company Health, Premium Growth, Claim Burden, and Underwriting on Profitability of Insurance Companies in Indonesia. *Southeast Asian Journal of Science and Technology*, 9(1), 172–176.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 26*. Universitas Diponegoro.
- Haerani, S. A., & Kholis, N. (2024). Effect of Investment Returns, Risk-Based Capital, and Underwriting Results on the Profit of Islamic Life Insurance Company. *Journal of Islamic Economics Lariba*, 10(2), 1115–1142.
- Haryanto, B., & Syarif, A. D. (2024). The Effect of Financial Performance on the Profitability of General Insurance Companies Listed on the Indonesia Stock Exchange (IDX) for the Period 2016-2022. *Journal of Economics, Finance and Management Studies*, 7(8), 4829–4833. <https://doi.org/10.47191/jefms/v7-i8-05>
- Hassan, S., Budiono, A. R., & Harini, N. D. P. (2025). Legal Protection for Land Grant Beneficiaries Against Revocation Efforts by Donors in Indonesian Religious Courts. *Danadyaksa: Post Modern Economy Journal*, 3(1), 1–15. <https://doi.org/10.69965/danadyaksa.v3i1.152>
- Hapsari, D. W., Budiharjo, R., Pratomo, D., & Yazid, H. (2025). Profitability in Linking Governance Structure and Firm Value. *Jurnal Akuntansi*, 29(2), 206–224. <https://doi.org/10.24912/ja.v29i2.2421>
- Hidayat, N. I. A., Susanti, S., & Zulaihari, S. (2021). Pengaruh Premi, Hasil Investasi dan Risk Based Capital terhadap Laba Perusahaan Asuransi Syariah Indonesia 2019. *Jurnal Akuntansi, Keuangan, dan Manajemen*, 2(4), 327–344.
- Kalbuana, N., Kusiya, K., Supriatiningsih, S., Budiharjo, R., Budyastuti, T., & Rusdiyanto, R. (2022). Effect of Profitability, Audit Committee, Company Size, Activity, and Board of Directors on Sustainability. *Cogent Business & Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2129354>
- Martana, I. N. A., & Karim, N. K. (2024). Pengaruh Underwriting Ratio, Premium Stability Ratio dan Risk Based Capital terhadap Kinerja Keuangan Pada Perusahaan Asuransi Yang Terdaftar di BEI Periode 2018-2022. *Jurnal Riset Mahasiswa Akuntansi*, 4(1), 144–158. <https://doi.org/10.29303/risma.v4i1.1017>
- Morara, K., & Sibindi, A. B. (2021). Determinants of Financial Performance of Insurance Companies: Empirical Evidence Using Kenyan Data. *Journal of Risk and Financial Management*, 14(566), 1–13. <https://doi.org/10.3390/jrfm14120566>
- Nasution, Z., Adiba, E. M., & Abdulrahim, M. O. (2019). Comparison Analysis of Risk-Based Capital (RBC) Performance and Its Effect on Islamic Insurance Profitability in Indonesia and Malaysia. *Journal of Islamic Economics*, 3(2), 149–160. <https://doi.org/10.26740/al-uqud.v3n2.p149-160>

- Nirawati, L., Samsudin, A., Stifanie, A., Setianingrum, M. D., Syahputra, M. R., Khrisnawati, N. N., & Saputri, Y. A. (2022). Profitabilitas dalam Perusahaan. *Journal Manajemen dan Bisnis*, 5(1), 60–68.
- Nuhin, M. A. F., & Suprayogi, N. (2022). The Effect of Management Performance, Efficiency, Underwriting Performance and Liquidity on the Profitability of Sharia Insurance Companies in Indonesia for 2015-2019. *Jurnal Ekonomi Syariah Teori dan Terapan*, 9(5), 628–642. <https://doi.org/10.20473/vol9iss20225pp628-642>
- Nusantara, A., & Priantinah, D. (2021). The Effect of Premium Growth, Leverage, and Risk-Based Capital on the Profitability of Insurance Companies. *Kajian Ilmu Akuntansi*, 9(3).
- Opoku, E. K., Marfo-Yiadom, E., Gubareva, M., & Mendes, J. Z. (2024). Unveiling Dynamics: Financial Performance Determinants in the Ghanaian Insurance Industry. *Quarterly Review of Economics and Finance*, 98, 1–11. <https://doi.org/10.1016/j.qref.2024.101935>
- Pandiangan, D. F., & Albina, M. (2025). Model dan Tahapan Penelitian Kuantitatif: Pendekatan Teoretis dan Praktis dalam Kajian Pendidikan. *Jurnal Pendidikan Islam*, 3, 724–730. <https://doi.org/10.61104/ihsan.v3i3.1494>
- Ramadhan, M. F., Widyaningsih, A., & Rozali, R. D. Y. (2025). Dampak Sustainability Reporting terhadap Kinerja Perusahaan: A Systematic Literature Review. *Jurnal Riset Akuntansi Politala*, 8(2), 342–357.
- Sekaran, U., & Bougie, R. (2020). *Research Methods for Business: A Skill-Building Approach* (8th ed.). Wiley.
- Setiawan, A., Irawan, T., & Sasongko, H. (2019). Karakteristik Kesehatan Perusahaan di Industri Asuransi Umum Indonesia. *Jurnal Ilmiah Manajemen Fakultas Ekonomi*, 5(2), 135–150.
- Sinambela, L. P., & Sinambela, S. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Rajawali Pers.
- Stephanie, F. G., & Ruslim, H. (2021). Pengaruh Rasio Keuangan terhadap Kinerja Keuangan Perusahaan Asuransi. *Jurnal Kontemporer Akuntansi*, 1(2), 68–77.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (2nd ed.). Alfabeta.
- Susanti, A., & Muntiah, N. S. (2024). Analisis Kinerja Keuangan Menggunakan Rasio Early Warning System pada Perusahaan Sub Sektor Asuransi. *Jurnal Ekonomi, Manajemen dan Akuntansi*, 8(2), 142–156.
- Swiss Re Institute. (2024). *World Insurance: Strengthening Global Resilience with a New Lease of Life (Sigma 3/2024)*. <https://www.swissre.com/institute/research/sigma-research/>
- Tarsono, O., Ardhetta, P. A., & Amriyani, R. (2020). The Influence of Net Premium Growth, Claim Ratio and Risk-Based Capital on the Financial Performance of Life Insurance Companies. *Advances in Economics, Business and Management Research*, 127, 65–68.
- Vensca, S. N., Mas'adah, N., & Astuti, S. Y. (2024). Can Financial Ratios Affect Profit Growth in Food and Beverage Companies? *Journal Ilmu Akuntansi dan Bisnis Syariah*, 6(2), 270–289.
- Wahyono, Nurochim, & Palupi, I. D. (2021). The Effect of Premium Income, Claim Payment, Risk-Based Capital, Investment Return, and Underwriting Result on the

- Profits of Insurance Companies Listed on the Indonesia Stock Exchange for the 2015-2018 Period. *Jurnal Riset Akuntansi dan Keuangan Indonesia*, 6(2).
- Wahyuni, Y., Ilham, R. N., Muttaqien, & Ristati. (2025). The Effect of Risk Based Capital, Claims Expense, and Premium Income on the Profit of Conventional Insurance Companies Listed on the Indonesia Stock Exchange in 2019–2023. *Journal of Accounting Research, Utility Finance and Digital Assets*, 1(1), 83–90.
- Zinyoro, T., & Aziakpono, M. J. (2024). Performance Determinants of Non-Life Insurance Firms: A Systematic Review of the Literature. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2345045>