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The Effect of Liquidity, Claim Expense Ratio, and Profitability on the Solvency of Life Insurance Companies in Indonesia

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Sections Info	ABSTRACT
	Objective: This study examines the effect of liquidity (Current Ratio), claim burden (Claim Expense Ratio), and profitability (Return on Assets/ROA) on the solvency level of life insurance companies in Indonesia, proxied by Risk Based Capital (RBC). Using 159 firm-year observations from annual financial statements over the 2022–2024 period. Method: The study applies pooled multiple linear regression to panel-structured data. To address differences in measurement scales and improve coefficient comparability, the independent variables are standardized using Z-scores prior to estimation. The analysis incorporates classical diagnostic tests including normality, multicollinearity, heteroskedasticity, and autocorrelation as well as panel-data diagnostics to assess potential cross-sectional dependence and ensure the robustness of the estimates. Results: The results indicate that the model is jointly significant (F = 4.256; p = 0.006). Partially, Current Ratio has a positive and significant effect on RBC (B = 0.174; p = 0.028), while Claim Expense Ratio has a negative and significant effect (B = −0.246; p = 0.002). ROA does not significantly affect RBC (B = −0.036; p = 0.642). Novelty: The model explains 7.6% of the variation in RBC (R² = 0.076; Adjusted R² = 0.058), indicating that capital adequacy is influenced by broader structural and regulatory risk factors beyond short-term financial ratios. This implies that while liquidity and claims are critical, 92.4% of life insurance solvency is driven by other operational factors such as reinsurance or investment strategy.

INTRODUCTION

Risk Based Capital (RBC) constitutes a primary indicator of capital adequacy in the insurance industry, as it measures a company's capacity to absorb risk by comparing its solvency level with the minimum risk-based capital requirement (Azizah & Perwita Sari, 2025). Regulators mandate that insurance companies maintain an RBC level of at least 120 percent as a benchmark of financial soundness (William & Colline, 2022). This regulatory threshold is designed to ensure that insurers possess sufficient capital buffers to withstand underwriting risk, market fluctuations, and operational uncertainty. Despite this standardized benchmark, considerable variation in RBC levels persists across insurance companies and observation periods, indicating heterogeneity in financial resilience and risk management practices.

Such variation suggests that solvency is influenced not only by regulatory compliance but also by firm-specific financial characteristics. Differences in asset allocation, underwriting quality, liquidity management, and earnings capacity may contribute to disparities in capital adequacy. Consequently, identifying the internal financial determinants of RBC becomes essential for understanding how managerial decisions and performance indicators shape solvency within the life insurance industry.

Liquidity represents a fundamental component of solvency management because insurers must fulfil claim obligations and short-term liabilities without destabilizing their capital structure (A. U. Anggraini & Aminah, 2023). Adequate liquidity reduces the

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likelihood of forced asset liquidation and mitigates short-term financial stress, thereby supporting capital stability (Jamiah et al., 2024). From a theoretical perspective, stronger liquidity positions enhance a firm's ability to absorb operational shocks and maintain regulatory capital buffers. Although excessive liquidity may reduce investment efficiency, its protective role as a financial buffer remains dominant in solvency theory. Therefore, liquidity is expected to positively influence RBC. Based on this reasoning, the first hypothesis is formulated as follows:

H1: Liquidity (Current Ratio) has a positive effect on Risk Based Capital (RBC).

Beyond liquidity considerations, underwriting performance plays a critical role in shaping solvency. The claim expense ratio reflects the proportion of premium income allocated to claim payments and serves as an indicator of underwriting quality and risk exposure (Khalimah, 2021). An increase in claim expenses directly reduces retained earnings and intensifies capital pressure. Within a risk-based regulatory framework, higher claim volatility may increase capital requirements, thereby weakening solvency positions (M. Anggraini et al., 2022). Consequently, firms with elevated claim burdens are theoretically more vulnerable to reductions in RBC. In light of this capital erosion mechanism, the second hypothesis is proposed as:

H2: Claim Expense Ratio has a negative effect on Risk Based Capital (RBC).

In addition to liquidity and underwriting risk, profitability represents another dimension of financial performance that may influence capital adequacy. Return on Assets (ROA) measures a firm's ability to generate earnings from its asset base. From a capital accumulation perspective, higher profitability strengthens retained earnings and enhances internal capital formation, which should improve solvency (Albastiah & Isnaen, 2021; Gaganis et al., 2015). However, in life insurance companies, profits are frequently allocated to technical reserves, long-term investment commitments, and claim obligations. As a result, short-term profitability does not always translate directly into immediate improvements in RBC. Despite this complexity, financial theory generally predicts a positive association between profitability and capital strength. Accordingly, the third hypothesis is formulated as follows:

H3: Profitability (Return on Assets) has a positive effect on Risk Based Capital (RBC).

Although prior studies have examined the determinants of insurance solvency, empirical findings remain inconclusive. Some studies report a positive relationship between liquidity and solvency, while others find insignificant or context-dependent effects (Afiqah & Laila, 2021). Similarly, evidence regarding the impact of claim burden and profitability on RBC varies across countries, regulatory environments, and observation periods. Moreover, limited research simultaneously examines liquidity, underwriting risk, and profitability within a unified framework focusing specifically on Indonesian life insurance companies during the post-pandemic recovery period. This gap is particularly relevant given the structural adjustments in asset allocation, claim volatility, and capital management observed after 2020. By integrating these three financial dimensions into a single empirical model, this study contributes to the literature by providing updated evidence on the internal determinants of RBC within a developing insurance market context.

RESEARCH METHOD

This study employs a quantitative explanatory research design to examine the effect of liquidity ratio, claim expense ratio, and profitability on the solvency level of life insurance companies in Indonesia. A quantitative approach is appropriate because the objective is to test causal relationships among measurable financial variables derived from published financial statements. The study is designed to ensure clarity in variable operationalization and analytical procedures, thereby enhancing transparency and replicability.
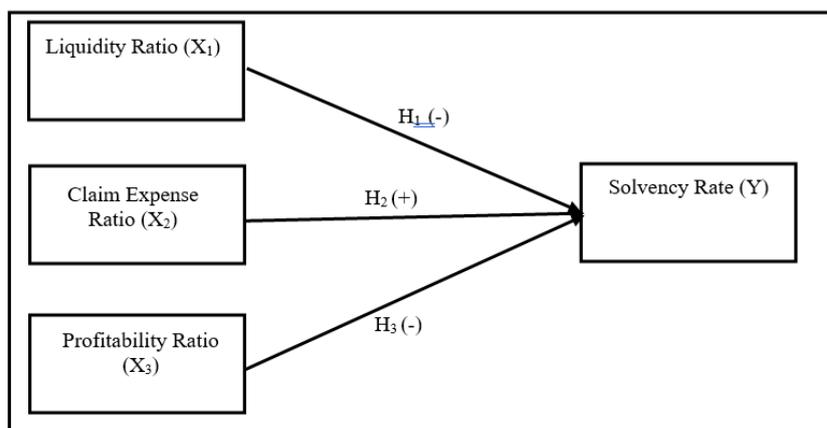

Figure 1. Conceptual Framework

The population consists of all life insurance companies operating in Indonesia and registered with the Indonesia Life Insurance Association during the 2022–2024 period. The sample is selected using purposive sampling based on data completeness and reporting consistency. Companies included in the sample must (1) publish audited annual financial statements for three consecutive years (2022–2024), (2) disclose Risk Based Capital (RBC) figures, and (3) provide complete data required to compute all research variables. Firms with incomplete or inconsistent disclosures are excluded. The final sample consists of 53 life insurance companies observed over three years, resulting in 159 firm-year observations. The dataset therefore forms a balanced panel structure.

Secondary data are obtained from audited annual financial statements published through official company disclosures and regulatory sources. Solvency is measured using Risk Based Capital (RBC). Liquidity is proxied by the Current Ratio, claim risk is measured by the Claim Expense Ratio, and profitability is measured by Return on Assets (ROA). To address differe3nces in measurement scales and improve coefficient comparability, all independent variables are transformed into Z-scores prior to estimation. As a result, the regression coefficients represent standardized beta coefficients, indicating the change in RBC (in standard deviation units) associated with a one standard deviation change in each independent variable. The empirical model is specified as follows:

$$RBC_{it} = \beta_0 + \beta_1 ZCR_{it} + \beta_2 ZCER_{it} + \beta_3 ZROA_{it} + \varepsilon_{it}$$

Where i denotes the firm and t denotes the year.

Data analysis is conducted using pooled multiple linear regression (common effect model) applied to the balanced panel dataset. Descriptive statistical analysis is first performed to describe the characteristics of the data. Prior to hypothesis testing, classical assumption tests are conducted to ensure model validity. Normality of residuals is assessed using the Kolmogorov–Smirnov test. Multicollinearity is examined using Variance Inflation Factor (VIF) and tolerance values. Heteroscedasticity is tested using the scatterplot visual test. Autocorrelation is examined using the Durbin–Watson statistic.

Hypothesis testing is conducted at a 5 percent significance level using partial significance tests (t-tests) and simultaneous significance tests (F-tests). The coefficient of determination (R^2 and Adjusted R^2) is used to evaluate the explanatory power of the model. The results are interpreted by integrating statistical findings with theoretical arguments and prior empirical evidence to explain the determinants of solvency in Indonesian life insurance companies.

RESULTS AND DISCUSSION
Results
Classical Assumption Tests
Before estimating the regression model, classical assumption tests were conducted to ensure the validity of the pooled ordinary least squares estimation.

Table 1. Summary of Classical Assumption Tests (Z-Score)

Variable	Indicator	Result	Interpretation
Normality	Kolmogorov–Smirnov Sig.	0.000	Not normally distributed
	Shapiro-Wilk Sig	0.000	Not normally distributed
	VIF – Current Ratio	1.029	No multicollinearity
Multicollinearity	VIF – Claim Expense Ratio	1.039	No multicollinearity
	VIF - ROA	1.015	No multicollinearity
Heteroscedasticity	Scatterplot Inspection	No Clear Pattern	Homoscedasticity acceptable
Autocorrelation	Durbin-Watson	1.258	Mild positive autocorrelation

The Kolmogorov–Smirnov and Shapiro–Wilk tests indicate significance values of 0.000 ($p < 0.05$), suggesting that the residuals are not perfectly normally distributed. However, given the relatively large sample size (n = 159), the deviation from normality is considered acceptable under the Central Limit Theorem. Multicollinearity diagnostics show that all Variance Inflation Factor (VIF) values are close to 1 and well below the threshold of 10, indicating no multicollinearity problem among the independent variables. The scatterplot of standardized residuals does not show a clear systematic pattern, suggesting no strong evidence of heteroscedasticity. The Durbin–Watson statistic of 1.258 indicates mild positive autocorrelation. Considering the short time dimension (three years) and pooled regression specification, this issue is not expected to substantially bias the coefficient estimates.

Regression Analysis

The regression was estimated using pooled multiple linear regression on a balanced panel dataset consisting of 53 life insurance companies observed over three years (2022–2024), resulting in 159 firm-year observations.

Table 2. Summary of Regression Result (Z-Score)

Variable	Unstandardized B	Standardized B	t	Sig.	VIF
Constant	3.918E-16		0.000	1.000	
Z(Current Ratio)	0.174	0.174	2.223	0.028	1.029
Z(Claim Expense Ratio)	-0.246	−0.246	-3.120	0.002	1.039
Z(ROA)	-0.036	−0.036	-0.465	0.642	1.015

Because both dependent and independent variables were standardized using Z-scores prior to estimation, the coefficients represent standardized beta values. As expected in a fully standardized model, the intercept is approximately zero.

Model Summary and Hypothesis Testing

The overall adequacy of the regression model is assessed through model summary statistics, which evaluate both explanatory power and statistical significance. The coefficient of determination reflects the proportion of variation in RBC explained by the independent variables, while the F-statistic tests whether the model is jointly significant. Additionally, the Durbin–Watson statistic is reported to detect potential autocorrelation in the residuals.

Table 3. Model Summary

Statistic	Value
N	159 (53 firms × 3 years)
R	0.276
R^2	0.076
Adjusted R^2	0.058
F-statistic	4.256
Sig. (F)	0.006
Durbin–Watson	1.258

The model yields an R^2 value of 0.076 and an Adjusted R^2 of 0.058, indicating that liquidity, claim burden, and profitability collectively explain 7.6% of the variation in RBC. Although the explanatory power is relatively limited, the F-statistic of 4.256 with a significance level of 0.006 ($p < 0.05$) confirms that the independent variables jointly have a statistically significant effect on RBC.

The Durbin–Watson statistic of 1.258 suggests mild positive autocorrelation. However, given the short time dimension (three years) and the pooled regression specification, this issue is not expected to substantially distort the coefficient estimates.

The partial effects of each independent variable were examined using t-tests to evaluate H1, H2, and H3. Liquidity (Current Ratio) has a positive and significant effect on RBC (β = 0.174; t = 2.223; p = 0.028), supporting H1. The Claim Expense Ratio has a negative and significant effect on RBC (β = −0.246; t = −3.120; p = 0.002), supporting H2. This variable shows the strongest standardized effect among the predictors. Return on Assets (ROA) does not have a significant effect on RBC (β = −0.036; t = −0.465; p = 0.642); therefore, H3 is not supported. Overall, solvency appears to be more sensitive to liquidity management and underwriting risk than to short-term profitability.

Discussion

The regression results indicate that liquidity has a positive and significant effect on the solvency level of life insurance companies. This finding suggests that stronger liquidity positions are associated with higher Risk Based Capital (RBC) levels. In the context of life insurance operations, adequate liquidity enhances a firm's ability to meet short-term obligations and claim payments without disrupting capital buffers (Jamiah et al., 2024; Simbolon & Siagian, 2021). The positive linear relationship identified in this study supports the view that liquidity functions as a financial safeguard that contributes to capital stability (Albastiah & Isnaen, 2021; Rahmawati, 2018).

The Claim Expense Ratio is found to have a negative and significant effect on RBC. This result indicates that higher claim burdens reduce solvency levels, reflecting the direct impact of underwriting risk on capital adequacy. As claim expenses increase relative to premium income, retained earnings decline and capital pressure intensifies (Azzahra, 2020; Pada et al., 2015). The magnitude of this effect, which is stronger than that of liquidity in the standardized model, highlights the central role of underwriting discipline and claim risk management in maintaining regulatory capital compliance (Insani, 2016; N & Nofrianto, 2021).

Profitability, measured by Return on Assets (ROA), does not have a statistically significant effect on RBC. This finding suggests that short-term accounting performance does not directly translate into improvements in capital adequacy within the life insurance industry(Aniseh et al., 2019; William & Colline, 2022). RBC appears to be more sensitive to risk exposure and capital requirements than to earnings performance alone (Haerani & Kholis, 2024).

Overall, the results demonstrate that solvency in life insurance companies is more strongly influenced by liquidity management and underwriting risk control than by profitability (Aniseh et al., 2019; Jamiah et al., 2024). These findings align with the risk-based capital framework, where capital adequacy is primarily determined by exposure to risk rather than by accounting returns.

CONCLUSION

Fundamental Finding: This study demonstrates that the Current Ratio and the Claim Expense Ratio are significant determinants of Risk-Based Capital (RBC) in life insurance companies in Indonesia during the 2022–2024 period. The Current Ratio has a positive and significant effect on RBC, while the Claim Expense Ratio has a negative and significant effect. Return on Assets (ROA) does not significantly influence RBC, indicating that short-term profitability is not a direct determinant of capital adequacy within the observed period. **Limitation:** The study is subject to several limitations. The

relatively low R² value indicates that variations in RBC are influenced by additional factors beyond the variables included in the model. Moreover, the analysis employs a static panel regression approach, which does not account for potential dynamic effects or endogeneity issues. In practice, capital adequacy in the current period is likely influenced by prior-period RBC levels due to regulatory capital adjustment mechanisms and internal capital planning. **Future Research:** Therefore, future research is encouraged to apply Dynamic Panel Data Models, such as the Generalized Method of Moments (GMM), to address potential endogeneity and capture the persistence effect of solvency over time. Incorporating lagged dependent variables would provide a more robust understanding of the dynamic behaviour of RBC in the insurance industry.

REFERENCES

Acharya, V. V., & Skeie, D. (2011). A Model Of Liquidity Hoarding And Term Premia In Inter-Bank Markets. *Journal Of Monetary Economics*, *58*(5), 436–447. Https://Doi.Org/10.1016/J.Jmoneco.2011.05.006

Adams, M., & Buckle, M. (2003). The Determinants Of Corporate Financial Performance In The Bermuda Insurance Market. *Applied Financial Economics*, *13*(2), 133–143. Https://Doi.Org/10.1080/09603100210105030

Akpan, S. S., Mahat, F., Bany-Ariffin, N., & Nassir, A. (2021). Performance Effect Of Risk-Based Capital Policy On Insurers: Longitudinal Microdata Evidence. *Journal Of African Business*, *22*(1), 85–105. Https://Doi.Org/10.1080/15228916.2019.1695181

Albastiah, F. A., & Isnaen, F. (2021). *Analisa Pengaruh Struktur Modal, Premi Netto Dan Profitabilitas Terhadap Solvabilitas Perusaaan Asuransi Di Indonesia*. Http://Ejournal.Radenintan.Ac.Id/Index.Php/Al-Mal/Index

Ambarwati, S., & Hasib, F. F. (2018). *Pengaruh Ukuran Perusahaan, Hasil Investasi, Dan Profitabilitas Terhadap Solvabilitas Asuransi Syariah Di Indonesia Periode 2012-2016*.

Amin, N. F., Garancang, S., & Abunawa, K. (2023). Konsep Umum Populasi Dan Sampel Dalam Penelitian. *Buku Ajar Statistikajurnal Kajian Islam Kontemporer Dasar*, *14*(1), 15–31. Https://Doi.Org/10.21070/2017/978-979-3401-73-7

Anggraina Zen, N., & Suria Manda, G. (2021). *Pengaruh Premi, Klaim Dan Hasil Investasi Terhadap Laba Pada Perusahaan Asuransi Jiwa Syariah Di Indonesia Tahun 2014-2019 Koresponding*. *26*(1), 1–9. Https://Ojs.Unud.Ac.Id/Index.Php/Bse/

Anggraini, A. U., & Aminah, I. (2023). *Pengaruh Profitabilitas, Likuiditas, Dan Beban Klaim Terhadap Rbc Perusahaan Asuransi Yang Terdaftar Di Bei Periode 2018-2022*.

Anggraini, M., Wulandari, Maranata, B. H., Febe, & Dewi, T. S. (2022). *Pengaruh Rasio Pertumbuhan Premi Dan Rasio Beban Klaim Terhadap Tingkat Kesehatan Perusahaan Asuransi Di Masa Pandemi Covid-19*.

Aniseh, N., Malavia Mardani, R., & Salim, A. (2019). *Pengaruh Roa, Resiko Underwriting, Dan Reasuransi Terhadap Solvabilitas Perusahaan Asuransi*. Www.Fe.Unisma.Ac.Id

Azizah, N., & Perwita Sari, R. (2025). The Effect Of Risk-Based Capital And Claim Ratio On The Financial Performance Of Insurance Companies. In *Indonesian Interdisciplinary Journal Of Sharia Economics (Iijse)* (Vol. 8, Issue 2). Www.Idx.Co.Id

Azzahra, Y. (2020). *Pengaruh Rasio Beban Klaim, Profitabilitas, Underwriting Dan Rasio Retensi Sendiri Terhadap Solvabilitas Dana Perusahaan Asuransi*. 1–175.

Baranoff, E. G., & Sager, T. W. (2002). The Relations Among Asset Risk, Product Risk, And Capital In The Life Insurance Industry. In *Journal Of Banking & Finance* (Vol. 26). Www.Elsevier.Com/Locate/Econbase

Brockett, P., Golden, L., Wei, P., & Yang, C. (2023). Medicare Advantage, Medical Loss Ratio, Service Efficiency, And Efficiently Positive Health Outcomes. *North American Actuarial Journal*, *27*(3), 493–507. Https://Doi.Org/10.1080/10920277.2022.2099425

Chen, H. Y., Gupta, M. C., Lee, A. C., & Lee, C. F. (2013). Sustainable Growth Rate, Optimal Growth Rate, And Optimal Payout Ratio: A Joint Optimization Approach. *Journal Of Banking And Finance*, *37*(4), 1205–1222. Https://Doi.Org/10.1016/J.Jbankfin.2012.11.019

Cummins, J. D., Harrington, S. E., & Klein, R. (1995). Insolvency Experience, Risk-Based Capital, And Prompt Corrective Action In Property-Liability Insurance. In *Finance Journal Of Banking & Finance* (Vol. 19).

Cummins, J. D., & Sommer, D. W. (1996). Capital And Risk In Property-Liability Insurance Markets. In *Journalof Banking & E~Evier Finance Journal Of Banking & Finance* (Vol. 20).

Dreksler, S., Allen, C., Akoh-Arrey, A., Courchene, J. A., Junaid, B., Kirk, J., Lowe, W., O'dea, S., Piper, J., Shah, M., Shaw, G., Storman, D., Thaper, S., Thomas, L., Wheatley, M., & Wilson, M. (2015). Solvency Ii Technical Provisions For General Insurers. *British Actuarial Journal*, *20*(1), 7–129. Https://Doi.Org/10.1017/S1357321714000099

Eling, M., & Schnell, W. (2020). Capital Requirements For Cyber Risk And Cyber Risk Insurance: An Analysis Of Solvency Ii, The U.S. Risk-Based Capital Standards, And The Swiss Solvency Test. *North American Actuarial Journal*, *24*(3), 370–392. Https://Doi.Org/10.1080/10920277.2019.1641416

Gaganis, C., Liu, L., & Pasiouras, F. (2015). Regulations, Profitability, And Risk-Adjusted Returns Of European Insurers: An Empirical Investigation. *Journal Of Financial Stability*, *18*, 55–77. Https://Doi.Org/10.1016/J.Jfs.2015.03.001

Haberkorn, J. (2010). *Medical Loss Ratios*. Https://Doi.Org/10.1377/Hpb2010.22

Haerani, S. A., & Kholis, N. (2024). Effect Of Investment Returns, Risk-Based Capital, And Underwriting Results On The Profit Of Islamic Life Insurance Company: A Case Study Of Pt. Takaful Keluarga 2017-2024. *Journal Of Islamic Economics Lariba*, *10*(2), 1115–1142. Https://Doi.Org/10.20885/Jielariba.Vol10.Iss2.Art25

Hariyanto, E., & Toyyibah. (2015). *Implementasi Manajemen Resiko Pada Sistem Asuransi Jiwa Syariah Di Pt. Prudential Life Assurance Cabang Madura.*

Haryanto, B., & Syarif, A. D. (2024). *Studies Management And Finance Economics, Of Journal The Effect Of Financial Performance On The Profitability Of General Insurance Companies Listed On The Indonesia Stock Exchange (Idx) For The Period 2016-2022.* Https://Doi.Org/10.47191/Jefms/V7

Herawati, A., & Haikal, M. (2024). *The Influence Of Premiums, Claims And Profits On Risk Based Capital In Insurance Subsector Companies On The Indonesian Stock Exchange Period 2022-2023.* Https://Doi.Org/10.38035/Dijefa.V5i3

Holmström, B., & Tirole, J. (1998). Private And Public Supply Of Liquidity. *Journal Of Political Economy*, *106*(1), 1–40. Https://Doi.Org/10.1086/250001

International Association Of Insurance Supervisors. (2011). *Insurance And Financial Stability.*

Jamiah, Fakhruddin, I., & Ilham, M. (2024). *Pengaruh Rasio Likuiditas Dan Rasio Beban Klaim Terhadap Tingkat Solvabilitas Perusahaan Asuransi Jiwa Syariah Pada Unit Usaha Syariah Di Indonesia Periode 2017-2021.*

Jindrová, P., & Pacáková, V. (2019). *Natural Catastrophe Models For Insurance Risk Management.* Http://Www.Upce.Cz

Kartikaningrum, S. (2024). *Analysis Of Liquidity Ratio And Solvability Ratio On The Financial Performance Of Sepakat Sejahtera Syariah Cooperative.* Www.Idx.Co.Id

Kaya, E. Ö. (2015). The Effects Of Firm-Specific Factors On The Profitability Of Non-Life Insurance Companies In Turkey. *International Journal Of Financial Studies*, *3*(4), 510–529. Https://Doi.Org/10.3390/Ijfs3040510

Keynes, J. (1937). *Alternative Theories Of The Rate Of Interest.*The Economic Journal. https://doi.org/10.2307/2225525

Khalimah, S. (2021). *Pengaruh Rasio Likuiditas, Rasio Beban Klaim, Dan Rasio Retensi Sendiri Terhadap Kinerja Keuangan Pada Perusahaan Asuransi Yang Terdaftar Di Bursa Efek Indonesia Periode 2015-2019.* Www.Cnbcindonesia.Com:2019

Kie, R. C., & Wong, A. (2004). The Determinants Of Financial Health Of Asian Insurance Companies. In *The Journal Of Risk And Insurance* (Vol. 71, Issue 3).

Killins, R. N. (2020). Firm-Specific, Industry-Specific And Macroeconomic Factors Of Life Insurers' Profitability: Evidence From Canada. *North American Journal Of Economics And Finance*, *51*. Https://Doi.Org/10.1016/J.Najef.2019.101068

Kozak, S. (2011). *Determinants Of Profitability Of Non-Life Insurance 1 Companies In Poland During Integration With The European Financial System*. Http://Www.Ejpau.Media.Pl

Kusuma, R. P. (2013). *Analisis Pengaruh Profitabilitas, Risiko Underwriting, Dan Ukuran Perusahaan Terhadap Tingkat Solvabilitas Perusahaan Asuransi Di Indonesia*. https://doi.org/10.2308/2275323

Lisma Sari, J., Alfiyah, N., Evelini Handayani Siregar, V., Mardani, N., & Korespondensi Juliani Lisma Sari, P. (2024). Analisis Pengaruh Net Premium Growth Ratio, Solvency Margin Ratio, Underwriting Ratio, Dan Investment Yield Ratio Terhadap Return On Equity. *Jurnal Ekonomi Dan Bisnis*, *13*(2). Https://Bisnis.Tempo.Co

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*(12). Https://Doi.Org/10.3390/Jrfm14120566

Myers, S. C. (1984). The Capital Structure Puzzle. *The Journal Of Finance*, *39*(3), 574–592. Https://Doi.Org/10.1111/J.1540-6261.1984.Tb03646.X

Nyoman, I., Martana, 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*.

Pada, S., Asuransi, P., Terdaftar Di Bursa, Y., Indonesia, E., Primasandi, A., Tarigan, K., & Mahfud, M. K. (2015). Analisis Pengaruh Kemampuan Membayar Klaim, Profitabilitas, Risiko Underwriting, Dan Reasuransi Terhadap Solvabilitas Perusahaan Asuransi). *Diponegoro Journal Of Management*, *4*, 1–13. Http://Ejournal-S1.Undip.Ac.Id/Index.Php/Dbr

Pigou, Ohlin, M., & Hawtrey. (1937). *The " Ex-Ante " Theory Of The Rate Of Interest After*. The Economic Journal. https://doi.org/10.2307/2225323

Pjanić, M., Mitrašević, M., & Luković, S. (2023). Profitability Determinants Of Life Insurance Companies In The Republic Of Serbia. *Strategic Management*, *00*, 41–41. Https://Doi.Org/10.5937/Straman2300041p

Prokopjeva, E., Tankov, E., Shibaeva, T., & Perekhozheva, E. (2021). Behavioral Models In Insurance Risk Management. *Investment Management And Financial Innovations*, *18*(4), 80–94. Https://Doi.Org/10.21511/Imfi.18(4).2021.08

Rahmawati, T. (2018). *Analisis Pengaruh Premi, Dana Tabarru', Klaim Dan Likuiditas Terhadap Solvabilitas Dana Perusahaan Asuransi Jiwa Syariah Di Indonesia (Periode 2014-2016)*. Https://Dspace.Uii.Ac.Id/Handle/123456789/10297

Shiu, Y. (2004). Determinants Of United Kingdom General Insurance Company Performance. *British Actuarial Journal*, *10*(5), 1079–1110. Https://Doi.Org/10.1017/S1357321700002968

Simbolon, Y. O., & Siagian, H. L. (2021). Analisis Pengaruh Rasio Keuangan Early Warning Sebagai System Terhadap Tingkat Solvabilitas. In *Jurnal Penelitian Akuntansi* (Vol. 2, Issue 2).

Siopi, E., & Poufinas, T. (2023). Impact Of Internal And External Factors On The Profitability And Financial Strength Of Insurance Groups. *International Advances In Economic Research*, *29*(3), 129–149. Https://Doi.Org/10.1007/S11294-023-09873-Y

Sollish, F., & Semanik, J. (2012). Commonly Used Financial Ratios. In *The Procurement And Supply Manager's Desk Reference* (Pp. 1–2). Wiley. Https://Doi.Org/10.1002/9781119205098.App5

Sutanto, S., Lesmana, S.Kom, Mm, I., & Sitardja, M. (2024). The Impact Of Claim Expenses, Underwriting Risk, Profitability, Company Size And Retention Ratio On Solvency Of Insurance Industry. *Indonesian Journal Of Accounting And Governance*, *7*(2), 84–96. Https://Doi.Org/10.36766/Ijag.V7i2.401

Ulfan, K., Sutriswanto, & Gaguk, A. (2018). *Analisis Pengaruh Rasio Early Warning System Terhadap Financial Solvency Pada Perusahaan Asuransi Jiwa Syariah Di Indonesia*.

William, W., & Colline, F. (2022). Analisis Rasio Pertumbuhan Premi Dan Risk Based Capital Terhadap Return On Assets Yang Dimediasi Oleh Rasio Beban Klaim Pada Perusahaan Asuransi. *Jurnal Administrasi Bisnis*, *18*(1), 89–102. Https://Doi.Org/10.26593/Jab.V18i1.5756.89-102

Yanase, N., & Limpaphayom, P. (2017). Organization Structure And Corporate Demand For Reinsurance: The Case Of The Japanese Keiretsu. *Journal Of Risk And Insurance*, *84*(2), 599–629. Https://Doi.Org/10.1111/Jori.12092

Yosa, E. F., Rahayu, S., Andri, S., Triastuti, H., & Ningsih, K. (2022). Pengaruh Rasio Keuangan Early Warning System Terhadap Tingkat Solvabilitas Pada Perusahaan Asuransi Yang Terdaftar Di Bursa Efek Indonesia Tahun 2017-2020. *Jurnal Riset Akuntansi Multiparadigma*, *9*(1), 82–91. Https://Jurnal.Uisu.Ac.Id/Index.Php/Jram

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