

## **The Effect of Risk-Based Capital, Assets, Inflation Rate, and Interest Rate on Sustainable Growth Rate Mediated by Financial Performance in General Insurance Companies in Indonesia**

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### **Abstract**

*This study aims to examine the impact of risk-based capital, total assets, inflation rate, and benchmark interest rate on sustainable growth, with financial performance serving as a mediating variable, in the context of general insurance companies in Indonesia. The analytical method employed is panel data regression, utilizing the E-Views 12 software. The research sample comprises 59 general insurance firms registered with the Financial Services Authority (OJK) over the period 2018 to 2023, resulting in a total of 318 observations. The findings reveal that risk-based capital exerts a significant negative influence on sustainable growth, while it has a significant positive effect on financial performance. Total assets do not have a direct impact on sustainable growth but positively contribute to enhancing financial performance. Inflation is found to positively affect sustainable growth but negatively influence financial performance. Conversely, the benchmark interest rate has a negative effect on sustainable growth but demonstrates a positive association with financial performance. Furthermore, financial performance significantly and positively affects sustainable growth and serves as a mediating factor in the relationship between risk-based capital, total assets, inflation, and interest rates with sustainable growth.*

**Keywords:** Risk-Based Capital, Asset, Inflation Rate, Interest Rate, Financial Performance, Sustainability Growth Rate.

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## **INTRODUCTION**

The insurance industry in Indonesia is facing great challenges in maintaining its business sustainability amidst increasingly fierce competition and complex economic dynamics. Not all companies are able to withstand the pressure, as shown by the number of business license revocations by the Financial Services Authority (OJK) due to failure to meet minimum solvency and equity ratios (Theresia & Triwacananingrum, 2022). This phenomenon is a reflection of weak financial planning and lack of effective growth strategies in the face of market fluctuations and evolving regulations.

As a strategic sector in the national financial system, the insurance industry has a crucial role in providing risk protection, channeling investment funds, and supporting economic development (Malambo, 2023; Malya & George, 2024). In addition to the protection function, insurance companies also act as financial intermediaries, where they collect funds from policyholders' premiums and allocate them to various investment instruments. When the company's financial management is not optimal, the impact is not only felt by policyholders, but can also threaten national financial stability.

One important concept used to assess a company's ability to maintain sustainability is the sustainability growth rate. The sustainable growth rate reflects the company's ability to grow without relying on external funding, while maintaining a healthy financial structure (Indriati et al., 2021; Priyanto et al., 2020). In the insurance industry, this concept is increasingly relevant because companies must balance business expansion with compliance with solvency regulations

and operational efficiency. Improperly managed growth rates can lead to a liquidity crisis and trigger business failure.

The determinants of sustainable growth rates are generally categorized into two primary groups: internal and external factors. Internal factors encompass elements such as Risk-Based Capital (RBC) and total assets. RBC, as stipulated in POJK No. 71/POJK.05/2016, is used to measure the company's capital adequacy in facing risks, with a minimum threshold of 120% (Wiguna & Susilawati, 2020). Company assets are also an important pillar in supporting investment and operational capacity, and can strengthen the company's resilience in the face of external pressures (Quraniyah et al., 2023).

In addition to internal factors, macroeconomic dynamics such as inflation rates and benchmark interest rates also affect the sustainability of company growth. High inflation has an impact on increasing claim costs and decreasing people's purchasing power, which then suppresses premium income and profitability of insurance companies (Sasidharan et al., 2023). Meanwhile, changes in the benchmark interest rate affect investment decisions and the rate of return on financial assets managed by the company (Murjiani et al., 2023). The imbalance between costs and revenues due to these factors can disrupt the company's financial stability in the long run.

Several recent studies indicate that empirical findings on the influence of Risk-Based Capital (RBC), total assets, inflation, and interest rates on the sustainable growth rate remain inconsistent. While some research has demonstrated significant relationships, others have found weak or inconclusive associations (Hidayat & Yusniar, 2021; Sasidharan et al., 2023). For example, Sasidharan et al. (2023) found varying effects of macroeconomic factors on insurance firm performance depending on market conditions and firm-specific characteristics. Similarly, Murjiani et al. (2023) observed that while inflation and interest rates may impact company valuation, their influence on sustainable growth is often indirect and mediated by internal financial resilience.

Given these inconsistencies, a more integrative and robust analytical approach is needed to capture the complexity of these relationships. One such approach involves incorporating financial performance as a mediating variable, which can better explain the mechanisms through which both internal (RBC, assets) and external (inflation, interest rate) factors affect sustainability.

Financial performance, typically measured by profitability indicators such as Return on Assets (ROA) and Return on Equity (ROE), serves as a key indicator of a company's operational efficiency and strategic resource utilization (Vuković et al., 2022; Tamara & Khairani, 2023). High financial performance not only strengthens a firm's ability to withstand external shocks but also provides the internal funding necessary to sustain business growth without overreliance on external capital (Peace & Onyenania, 2025; Lamichhane & Dhungel, 2024). In other words, financial performance acts as a transmission channel through which capital adequacy and macroeconomic pressures influence long-term corporate sustainability.

Addressing this research gap, the present study investigates the effects of Risk-Based Capital, total assets, inflation rate, and interest rate on the sustainable growth rate, with financial performance serving as a mediating variable. The focus on general insurance companies in Indonesia is particularly relevant due to their dominant role in the national insurance landscape and their systemic importance in maintaining financial sector stability (Malya & George, 2024). This study is expected to provide strategic insights for industry practitioners and policymakers in designing adaptive management practices and regulatory frameworks that foster the sustainable growth of insurance firms.

## RESEARCH METHODS

This study adopts a quantitative research approach, which is appropriate for testing hypotheses and examining the relationships between measurable variables using statistical techniques. According to Creswell and Creswell (2022), a quantitative method allows researchers to objectively test theories by examining the relationships among variables that can be measured and analyzed using numerical data. This approach is suitable for the present study, which aims to evaluate the direct and indirect effects of Risk-Based Capital, total assets, inflation rate, and interest rate on sustainable growth, with financial performance as a mediating variable. The data used is secondary data obtained from the annual financial statements of general insurance companies in Indonesia during the period 2018-2023. Data sources include the company's official website, the Financial Services Authority (OJK), the Central Statistics Agency (BPS) for inflation data, and Bank Indonesia for benchmark interest rate data. The population in this study includes all general insurance companies registered with OJK in the observation period. The sample was selected using purposive sampling technique, with certain criteria set by the researcher, so that 59 companies were obtained as eligible samples. Data collection is also supported by literature studies through scientific literature, journals, and official documents such as audited financial statements and annual reports that contain information related to research variables. Data analysis was conducted using panel data regression method using E-Views software version 12. To test the mediating role of financial performance, Sobel test was used. All analytical techniques were selected to ensure that the research model can explain the relationship between variables comprehensively.

## RESULT AND DISCUSSION

The hypothesis testing in this study includes examinations of both direct and indirect effects. Based on the results, out of the 13 proposed hypotheses, 12 were supported, while one was not. In the assessment of the nine direct effect hypotheses, eight were supported and one was not. Meanwhile, all four mediation (indirect effect) hypotheses were confirmed to be supported. The detailed discussion of the hypothesis testing results in this study is outlined as follows:

**Table 1. Hypothesis Test Results**

Hypothesis	Coefficient	P-Value	Result
<i>Direct Effect</i>			
H1: Risk-Based Capital has an effect on Sustainability Growth Rate	-0.006507	0.0000	Supported
H2: Assets have an effect on Sustainability Growth Rate	-0.000253	0.9184	Not Supported
H3: Inflation Rate has an effect on Sustainability Growth Rate	0.371828	0.0039	Supported
H4: Interest Rate has an effect on Sustainability Growth Rate	-0.366147	0.0271	Supported
H5: Financial Performance has an effect on Sustainability Growth Rate	1.657406	0.0000	Supported
H6: Risk-Based Capital has an effect on Financial Performance	0.008121	0.0000	Supported
H7: Assets have an effect on Financial Performance	0.006617	0.0051	Supported

Hypothesis	Coefficient	P-Value	Result
H8: Inflation Rate has an effect on Financial Performance	-0.392811	0.0009	Supported
H9: Interest Rate has an effect on Financial Performance	0.322907	0.0347	Supported
<i>Indirect Eiffect</i>			
H10: Risk-Based Capital has an effect on Sustainability Growth Rate mediated by Financial Performance.	8.4614	0.00000	Supported
H11: Assets have an effect on Sustainability Growth Rate mediated by Financial Performance.	2.8969	0.00376	Supported
H12: Inflation Rate has an effect on Sustainability Growth Rate mediated by Financial Performance.	-3.3400	0.00083	Supported
H13: Interest Rate has an effect on Sustainability Growth Rate mediated by Financial Performance.	2.1153	0.03440	Supported

Source: SmartPLS Processed Data (2024)

### **The Effect of Risk-Based Capital on Sustainability Growth Rate**

Based on the hypothesis testing results, risk-based capital was found to have a negative and significant effect on the sustainability growth rate. This finding indicates that the higher the level of risk-based capital (RBC) held by a company, the lower its sustainability growth rate tends to be. This result is supported by the study of Nursalamah et al., (2021) which revealed that the negative impact of RBC on sustainability growth may stem from the fact that a higher RBC requires companies to allocate more capital to meet regulatory minimum requirements. Consequently, this reduces the firm's capacity to allocate funds for business expansion, investment in productive assets, and the development of new products and services.

### **The Effect of Assets on Sustainability Growth Rate**

Based on the hypothesis testing results, assets were found to have no significant effect on the sustainability growth rate. This finding indicates that the size of a company's assets does not necessarily enhance its sustainability growth. One possible explanation is that asset management has not been optimally directed toward strategic initiatives that support sustainability. This result aligns with the findings of Ariyasa et al., (2019) and Bartoloni et al., (2020) which emphasize that the magnitude of assets whether large or small does not determine the level of long-term growth that an insurance company can achieve.

### **The Effect of Inflation Rate on Sustainability Growth Rate**

Based on the results of hypothesis testing, the inflation rate was found to have a positive and significant effect on the sustainability growth rate. This finding suggests that an increase in the inflation rate can stimulate higher sustainability growth, particularly within Indonesia's general insurance sector. In other words, when inflation rises, general insurance companies may benefit through increased revenues and more stable, long-term business growth.

### **The Effect of Interest Rate on Sustainability Growth Rate**

The results of hypothesis testing reveal that the interest rate has a negative and significant effect on the sustainability growth rate. This finding indicates that increases in the benchmark interest rate tend to constrain a company's ability to promote sustainable growth. In other words, rising interest rates may hinder insurance companies from maintaining their desired level of sustainability growth. Furthermore, this result is consistent with the findings reported by Mwenda et al., (2023) and Yamani et al., (2022).

**The Effect of Financial Performance on Sustainability Growth Rate**

The hypothesis testing results indicate that financial performance has a positive and significant effect on the sustainability growth rate. This suggests that the higher the financial performance of an insurance company, the greater its capacity to enhance sustainability growth. Strong financial performance reflects high profitability, which enables companies to continuously innovate and expand their business scope, thereby promoting long-term sustainable growth. These findings are consistent with those of Aswad & Haryono, (2023) and Syam et al., (2021). In other words, the better a company's financial performance, the stronger its ability to sustain and increase its level of sustainability growth.

**The Effect of Risk-Based Capital on Financial Performance**

The results of hypothesis testing reveal that risk-based capital has a positive and significant effect on the financial performance. This finding suggests that the higher the level of risk-based capital (RBC) held by a company, the stronger its financial condition in managing risks and fulfilling financial obligations, as reflected by improved financial performance. This result is consistent with the findings of Lamichhane & Dhungel (2024) and Peace & Onyenania (2025), which indicate that a high level of risk-based capital contributes positively to financial performance growth, particularly in Indonesia's general insurance sector.

**The Effect of Assets on Financial Performance**

The hypothesis testing results indicate that assets have a positive and significant effect on the financial performance. This finding implies that the greater the total assets owned by a general insurance company, the stronger its capacity to support business operations, which in turn positively impacts financial performance. This result is supported by the study of Tamara & Khairani (2023) which revealed that asset ownership has a positive influence on financial performance as measured by Return on Assets (ROA). A strong asset base enhances an insurance company's ability to manage risk more effectively.

**The Effect of Inflation Rate on Financial Performance**

The results of hypothesis testing indicate that the inflation rate has a negative and significant effect on the financial performance. This finding suggests that higher inflation increases the financial pressures faced by companies in maintaining financial stability, thereby weakening their financial performance. Rising inflation contributes to the deterioration of insurers' performance due to several key factors, including increased operational costs driven by higher prices for goods and services required in daily operations. Additionally, elevated inflation reduces consumers' purchasing power, leading to decreased demand for insurance products, which in turn results in declining premium income and an overall drop in financial performance. These findings are supported by the studies of Okofo-Dartey (2024) and Yousef & Fseifes (2022).

**The Effect of Interest Rate on Financial Performance**

The results of hypothesis testing reveal that the interest rate has a positive and significant effect on the financial performance. This finding indicates that a higher benchmark interest rate increases the potential for general insurance companies to improve their financial performance. Elevated interest rates can enhance insurers' investment income, as insurance companies generally allocate premium funds to various financial instruments such as bonds and equities. Increases in the benchmark interest rate tend to raise investment returns from these instruments, thereby contributing to improved profitability. This finding is consistent with the study conducted by Kahihu et al., (2021).

**The Mediating Role of Financial Performance in the Relationship Between Risk-Based Capital and Sustainability Growth Rate**

Based on the results of hypothesis testing, risk-based capital was found to influence the sustainability growth rate through financial performance. The mediation identified in this relationship is partial, indicating that although financial performance plays a mediating role, risk-

based capital still has a direct effect on sustainability growth, regardless of the presence of financial performance as a mediator. This finding suggests that while an increase in RBC directly reduces sustainability growth, the negative effect can be mitigated through improvements in financial performance. In this context, financial performance functions as a positive transmission mechanism capable of offsetting the indirect adverse impact of RBC on corporate sustainability.

### **The Mediating Role of Financial Performance in the Relationship Between Assets and Sustainability Growth Rate**

Based on the results of hypothesis testing, assets were found to influence the sustainability growth rate through financial performance. The type of mediation identified in this relationship is full mediation, indicating that assets do not exert a direct influence on sustainability growth without the role of financial performance as a mediator. This finding reinforces the notion that corporate assets can only contribute to sustainability growth if they are managed productively and efficiently, resulting in strong financial performance. Without optimizing asset utilization through sound financial management, their contribution to sustainability growth remains insignificant.

### **The Mediating Role of Financial Performance in the Relationship Between Inflation Rate and Sustainability Growth Rate**

Based on the results of hypothesis testing, the inflation rate was found to influence the sustainability growth rate through financial performance. The mediation identified in this relationship is partial, indicating that inflation continues to exert a direct effect on sustainability growth, while also having an indirect effect through financial performance as a mediating variable. In other words, although inflation may directly stimulate sustainability growth, its indirect impact—transmitted through a decline in financial performance—may in fact hinder the company's ability to sustain long-term growth.

### **The Mediating Role of Financial Performance in the Relationship Between Interest Rate and Sustainability Growth Rate**

Based on the results of hypothesis testing, the interest rate was found to affect the sustainability growth rate through financial performance. The mediation identified in this relationship is partial, meaning that although financial performance serves as a mediator, the benchmark interest rate still has a direct effect on sustainability growth regardless of the presence of financial performance as a mediating variable. Mediation testing further revealed that financial performance mediates this relationship with a positive coefficient direction. In other words, the negative impact of the benchmark interest rate on sustainability growth can be mitigated or offset by improvements in the company's financial performance.

## **CONCLUSION**

This study concludes that both internal and external factors significantly influence the sustainable growth rate of general insurance companies in Indonesia. Specifically, Risk-Based Capital (RBC) and the benchmark interest rate exert a negative impact on sustainable growth, while the inflation rate demonstrates a positive influence. Conversely, total assets do not have a direct effect on sustainable growth, but contribute indirectly through improved financial performance.

The findings also confirm that financial performance serves as a critical mediating variable, transmitting and moderating the effects of RBC, assets, inflation, and interest rate on sustainable growth. Partial mediation is observed in the relationships involving RBC, inflation, and interest rate, while full mediation occurs in the case of assets—highlighting that asset effectiveness depends on how well it is managed to enhance financial outcomes.

Theoretically, these results reinforce the Resource-Based View (RBV) by emphasizing the role of internal resource optimization, and align with the PESTEL framework, which recognizes the influence of macroeconomic dynamics on business performance. Hence, sustainable growth is not solely determined by internal financial strength, but also by the organization's strategic adaptability to external economic conditions.

These conclusions underscore the importance for insurance company management to strike a balance between regulatory compliance, effective asset utilization, and adaptive financial strategies in response to macroeconomic changes such as inflation and interest rate fluctuations, in order to achieve long-term sustainable growth.

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