

Analysis of the Effect of Premium Income, Underwriting Ratios, Investment Returns, and Claims on Profit Growth in Insurance Companies Listed on the IDX in The 2017-2019 Period

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Abstract

This study aims to examine the effect of premium income, underwriting ratio, investment returns, and claims on profit growth. The sampling technique used was purposive sampling, resulting in a sample of 14 insurance companies that met the criteria. The data analysis techniques employed in this study include classical assumption tests, multiple linear regression analysis, coefficient of determination, t-statistical test, and simultaneous (F) test. The results show that premium income and investment returns have a positive and significant effect on profit growth. Meanwhile, the underwriting ratio and claims do not have a significant effect on profit growth in insurance companies listed on the Indonesia Stock Exchange (IDX) for the 2017–2019 period. The limitations of this study include the presence of outlier data that had to be removed, and the findings indicate that the independent variables contribute only minimally to profit growth, as reflected in the coefficient of determination of 33.1%. This study can serve as a reference for future researchers examining premium income, underwriting ratio, investment returns, and claims in insurance companies.

Keywords: Claims, Investment Returns, Premium Income, Profit Growth, Underwriting Ratios

1. INTRODUCTION

In the current era of digital reform, various economic developments have emerged within society, accompanied by an increasing demand for services and diverse products. The same applies to financial products, both those originating from banking and non-bank financial institutions. In addition to facilitating transactions and providing protection, financial institutions also serve as an appropriate investment vehicle and offer flexibility in responding to societal needs. Based on these needs, the insurance industry has become a suitable medium for the public to obtain such protection. Insurance is an agreement between two parties, in which one party agrees to bear the risk of the other party in exchange for premium payments, and promises to provide compensation in the event of an uncertain occurrence (Dutta, 2020).

As is widely known, the insurance industry plays an important role in supporting national development by mobilizing substantial long-term funds. In addition, the insurance industry helps the public manage various risks encountered in daily life, particularly when starting and running a business. The development of the insurance industry has continued to increase each year, in line with the growing public awareness of the importance of insurance. Current trends indicate that society is beginning to understand that insurance is an essential part of risk management activities that provide guarantees and protection for both assets and lives. This growing awareness contributes to the overall industry's expansion, which is reflected in increased profit growth. Profit is a crucial factor for insurance companies in maintaining business sustainability, as it determines whether the company gains profit or incurs losses. A company's profit growth may increase or decrease from year to year and cannot be guaranteed to remain consistent (Puspitasari & Thoha, 2021). To achieve the desired level of profit, insurance companies must be able to maximize revenue while minimizing expenses (Triwidianto & Hendrawan, 2025). Additionally, profit serves as an indicator of a company's overall performance, ultimately reflecting the effectiveness of its risk management practices.

According to a report by CNBC Indonesia, during 2018–2019 several insurance companies experienced default and delays in claim payments due to declining profits, including Jiwasraya and AJB Bumiputera 1912. In its official announcement, Jiwasraya stated that it was unable to pay customer policy claims totaling Rp802 billion. The company's management also confirmed that Jiwasraya could not fulfill its obligations for JS Saving Plan policies amounting to Rp12.4 trillion, which matured between October and December 2019. Meanwhile, in January 2018, AJB Bumiputera 1912 admitted to delays in claim payments of one to two months due to low premium income. By

the first semester of 2019, Bumiputera's Risk Based Capital (RBC) ratio stood at minus 628.4%, its investment adequacy ratio at only 22.4%, and its liquidity ratio at 52.4%. To prevent similar cases from recurring, policyholders, company management, and the Financial Services Authority (OJK) must actively monitor the performance of insurance companies to ensure that their operations run properly. One way to assess company performance is by examining profit growth. Several factors that may influence profit growth in insurance companies include premium income, underwriting performance, investment returns, and the company's ability to pay claims to its policyholders

Polyakov and Polyakova (2024) revealed that the efficiency of insurance companies is statistically related to the structure of their assets. Efficiency is considered an important measure that reflects the quality of management as well as the financial stability of an organization. Their findings emphasize that financial performance indicators—such as underwriting results, premium income, and financial assets—have a nonlinear relationship with the overall efficiency level of the company. Therefore, effective financial management must be able to optimize asset structure in order to improve profitability and enhance the financial resilience of insurance companies.

Premium income refers to the amount of money paid by the insured as compensation for the protection provided by the insurer (the insurance company) in accordance with the agreement established beforehand (Omaleng, 2025). The premium income received by the company not only contributes to profit but also represents a future obligation. A portion of the premium income must be set aside as premium reserves to ensure that when claims arise in the future, the company does not face difficulties in making payments. The amount of premium income largely depends on the company's ability to attract new policyholders, the value of coverage, and the number of customers who renew their policies. Based on previous research conducted by (Sastri, Edy Sujana, Msi, & Sinarwati, 2017), premium income has a positive and significant effect on the profitability of general insurance companies in Indonesia.

Underwriting is the process of assessing the eligibility of insurance participants carried out by insurance companies as a basis for determining whether a prospective policyholder can be accepted or not. The underwriting process aims to identify potential risks that may occur, enabling the company to estimate the level of risk it is capable of assuming. Underwriting results are one of the variables that determine net profit, which ultimately affects the company's profit growth. This study introduces the underwriting ratio as a novelty variable in the analysis of profit growth in insurance companies, as this variable is rarely used comparatively to measure its contribution to profit growth alongside other financial factors such as investment returns, premium income, and claims.

Meanwhile, investment returns in insurance companies refer to the gains or losses earned from the investment portfolios they manage. The funds received by insurance companies from policyholders in the form of premium payments are invested to generate additional income and enhance the company's value. These investments may take various forms, such as stocks, bonds, property, or other investment instruments. Claim payments represent expenses related to the disbursement of funds to policyholders, including approved claims, claims still in the settlement process, and claims that have occurred but have not yet been reported. Insurance companies have obligations or liabilities that must be fulfilled when risks occur to the insured party. Therefore, insurance companies must always be prepared to handle potential claims from policyholders. Research conducted by Marwansyah and Utami (2017) shows a negative relationship between claim expenses and profit, indicating that an increase in claim expenses will lead to a decrease in profit. Meanwhile, a study by Karyati, Mulyati, and Ichi (2019) indicates that claim expenses partially affect the company's profit.

2. LITERATURE REVIEW

2.1 Signalling Theory

Spence (1973) introduced signalling theory, which explains that the information sender or owner provides signals in the form of information that reflects the condition of the company and can benefit investors. According to Brigham and Houston (2011), signalling theory describes how management views the company's future growth prospects, which will ultimately influence potential investors' reactions toward the company. The theory emphasizes that companies should provide signals to users of financial statements. Financial statements function as information signals regarding a company's



condition to external stakeholders (Rahmawati, 2024).

According to signalling theory, management undertakes actions known as signals—actions that show investors how management perceives the company’s business prospects. These actions aim to demonstrate to investors that they can distinguish between high-value companies and low-value companies (Brigham & Houston, 2013:31). Signalling theory encourages companies to disclose financial statements to external parties. The theory is based on the notion that the information published by the company is not always the same as the information received by other parties or users of financial statements. This discrepancy arises from information asymmetry between internal and external parties of the company. Such information can influence investors’ investment decisions. Financial statements can be evaluated from various aspects, such as timeliness, relevance, accuracy, and completeness.

According to Komara, Ghozali, and Januarti (2020), profitability and growth indicators, including profit growth, are important signals that influence investor assessments of company performance. Similarly, Ismiyatun, Aryani, and Ispriyahadi (2021) found that high profitability levels in insurance companies provide positive signals to shareholders, reflecting sound management and efficient risk control. Houcine (2017) found that transparent financial reporting can improve investment efficiency by reducing information asymmetry between management and external stakeholders. In the insurance sector, Chmielowiec-Lewczuk, Lament, Bauer, and Spigarska (2023) emphasized that comparability and transparency in financial statements enhance investor trust and strengthen corporate reputation. Thus, transparency in financial reporting not only serves as a corporate governance mechanism but also acts as an important signal that reflects accountability, stability, and long-term growth potential in the eyes of investors. In the context of this study, signalling theory is relevant to explain how insurance companies communicate their performance to the market. High premium income, optimal investment returns, and controlled claim ratios are perceived as positive signals indicating strong managerial capabilities and effective risk management. Consequently, these signals influence investor confidence, which can further affect profit growth and the company’s market value.

2.2 Previous Studies

No	Study	Research Findings
1	Sastri et al. (2017)	Premium income has a significant positive effect on insurance profits. Underwriting has a positive effect on insurance profit, while investment returns and risk-based capital also positively influence insurance profit
2	Firdaus Budhy Saputro (2018)	Simultaneous testing shows that risk-based capital and claim expenses affect profit
3	Neneng Karyati, Sri Mulyati, Dan Ichi (2019)	In Islamic insurance companies, investment returns and premiums do not affect profit growth. In conventional insurance companies, premiums do not affect profit, while investment returns significantly influence profit
4	Nurul Hidayat Nasution dan Satria Tri Nanda (2020)	Premium income, underwriting results, and risk-based capital have a significant effect on the net profit of Islamic insurance companies
5	Nur Maisanatul Aflachiyah, Abdul Kodir Djaelani dan Fahrurrozi Rahman (2020)	Premium income significantly affects profit. Underwriting results significantly affect profit. Operating expenses do not significantly influence profit. Investment returns significantly affect profit
6	Insani and Sholikha (2023)	Premiums have a significant positive effect on insurance company profit. Claims have a significant negative effect, while investment returns do not significantly affect the profit of Islamic insurance companies
7	Nuris Rasisqa dan Darmawati Muchtar (2022)	Premium income has a significant positive effect on profit growth. Underwriting results have a negative and



		insignificant effect on profit growth. RBC has a significant positive effect on profit growth
8	Marwansyah and Utami (2017)	Simultaneously, investment returns, premium income, and claim expenses have a significant relationship with profit
9	Agustiranda, Yuliani, and Bakar (2019)	Premium income and risk-based capital significantly influence profit growth, while claim payments do not significantly affect profit growth
10	Mutmainnah (2015)	Premium income, claim expenses, underwriting results, technical reserves, and risk-based capital simultaneously have a significant effect on profit.
11	Riwayatati and Natalia (2022)	Premium income, underwriting ratio, and ROI affect profit. However, ROE does not affect the profit of insurance companies

2.3 Premium Income

Premiums are mandatory payments that must be paid by policyholders to the insurance company on a regular basis according to the terms agreed upon in the contract. The amount of premiums paid depends on the sum insured and the level of risk borne. For policyholders, premium payments generally serve several purposes: determining the amount of savings, obtaining protection or claim funds for events that generate claims, and increasing investment value in the future (Lestari, Patria, & Saputra, 2025). On the other hand, for insurance companies, premiums function as a source of funds to enhance investment and support the business operations they manage. Since premiums are the main source of revenue for insurance companies, the amount received must be sufficient to cover three major types of costs: risk-bearing costs, acquisition costs, and operating expenses. In other words, premium income must be adequate to support the increase in company profits.

2.4 Underwriting Ratio

The underwriting ratio indicates the level of underwriting results obtained and is used to measure the profitability of general insurance operations (Santoso & Husaini, 2025). A negative ratio may indicate that the premium rates charged are too low to cover risks and expenses. Conversely, a negative underwriting ratio may also signal that the premium rates set are too high, making the insurance product less competitive. Within certain limits, the underwriting ratio can determine the position of the operational profit of an insurance company. This ratio is highly useful for demonstrating underwriting performance and serves as an important indicator in measuring the profitability level of general insurance businesses.

2.5 Investment Returns

Investment refers to the activity of placing or allocating assets—either in the form of property or funds—into instruments expected to generate income or experience an increase in value in the future. In the Islamic insurance (takaful) system, participants’ funds are not only collected but also managed and invested in accordance with Sharia principles (Idris & Paulus, 2020). Company growth is an important factor expected by investors, as it determines the company’s ability to provide returns that meet investor expectations. Sustainable company growth and increasing asset value are expected to enhance investor confidence, as they signal the potential to achieve the desired rate of return. Investment returns in insurance companies refer to the profits or losses obtained from the investment portfolios they manage. The funds collected from policyholders through premium payments are invested to generate additional income and increase the company’s value. According to Cakranegara (2021), investment is a present sacrifice carried out to obtain profits or benefits in the future. Such investments may take the form of various financial instruments, including stocks, bonds, property, and other investment instruments..

2.6 Claims

A claim is the process through which the insured party submits a request to the insurer (insurance company) to obtain their rights as compensation for losses based on the agreement or contract

previously established. In other words, a claim is the mechanism by which the insured seeks to receive coverage funds after fulfilling all obligations to the insurer, namely the payment of premiums as agreed. Insurance companies have the responsibility to settle claims in a timely, accurate, and efficient manner in accordance with the mandate provided. Although the claim process can reduce the company's assets, smooth and effective claim handling enhances the company's reputation and customer trust, which ultimately has a positive impact on premium payments and profit growth. Claims represent a major cash outflow and directly affect a company's underwriting performance. According to Adeel, Habib, and Mehboob (2022), excessive claim payments can increase a company's loss ratio, which in turn reduces profitability. Therefore, efficient claim settlement and prudent risk management are essential to maintaining the company's long-term profitability..

2.7 Hypothesis Development

2.7.1 The Influence of Premium Income on Profit Growth

For insurance participants, premium payments generally serve several purposes: determining the amount of savings, obtaining claim funds for events that trigger claims, and increasing future investment value. Meanwhile, for insurance companies, premiums function to strengthen investments in the business they manage. The premiums collected from participants must be sufficient to cover at least three key components: the risks borne, acquisition costs, and operational management expenses. Premium income is the most essential element for insurance companies because it determines the direction of the company's development. High premium income will encourage increases in the company's profit growth. One factor influencing the magnitude of premium income is the offering of attractive insurance products that align with public needs. Research conducted by Harahap and Nst (2021) For insurance participants, premium payments generally serve several purposes: determining the amount of savings, obtaining claim funds for events that trigger claims, and increasing future investment value. Meanwhile, for insurance companies, premiums function to strengthen investments in the business they manage. The premiums collected from participants must be sufficient to cover at least three key components: the risks borne, acquisition costs, and operational management expenses. Premium income is the most essential element for insurance companies because it determines the direction of the company's development. High premium income will encourage increases in the company's profit growth. One factor influencing the magnitude of premium income is the offering of attractive insurance products that align with public needs. Research conducted by Sastri et al. (2017) also shows a positive and significant relationship between premium income and insurance company profits.

H₁: Premium income has a positive and significant effect on profit growth.

2.7.2 The Influence of Underwriting Ratio on Profit Growth

The underwriting ratio indicates the level of underwriting results obtained and is used to measure the profitability of general insurance operations. If this ratio is negative, it suggests that the premium rates charged are either too high or too low, making them misaligned with the risks borne by the company. The underwriting ratio is one of the main factors that determine the operating profit position of an insurance company. Increasing profit is the primary goal of insurance companies; therefore, an effective underwriting process becomes crucial. Underwriting serves to detect potential risks and helps the company estimate the extent to which these risks can be managed. Underwriting results are one of the variables that determine net profit and directly influence profit growth. Underwriting itself is the process of grouping and determining the risks to be borne by the company. In essence, the better the underwriting management applied within an insurance company, the greater the potential profit that can be gained from optimal risk distribution. Research conducted by Sastri et al. (2017) shows that underwriting has a positive effect on insurance company profits. In addition, Riwayati and Natalia (2022) also state that the underwriting ratio has an influence on company profits.

H₂: The underwriting ratio has a positive and significant effect on profit growth.

2.7.3 The Influence of Investment Returns on Profit Growth

Investment returns in insurance companies refer to the gains or losses earned from the

investment portfolios they manage. Funds received by insurance companies from policyholders as premium payments are invested to generate additional income and enhance the company's value. These investments may take the form of various financial instruments such as stocks, bonds, property, or other investment vehicles. Investment expenditures provide a positive signal regarding the company's potential future growth, which in turn may increase the stock price as an indicator of firm value. The investment activities undertaken by a company serve as a signal to investors and creditors that the company possesses promising growth prospects. In making investment decisions, managers naturally consider the expected rate of return and will choose the option that yields the greatest benefit for the company (Harahap & Nst, 2021). Research conducted by Sastri et al. (2017) indicates that investment returns positively affect company profits. Furthermore, Ahmar (2021) also shows that investment returns have a significant influence on the profits of insurance companies.

H₃: Investment returns have a positive and significant effect on profit growth

2.7.4 The Influence of Claims on Profit Growth

Claims represent the rights that must be granted by an insurance company to the insured party based on the agreement established at the time the contract was made (Soemitra, 2008). Insurance companies disburse a certain amount of funds for claim payments, which can directly affect the company's profit level. Research conducted by Saputro (2018) indicates that claims partially influence the profits of life insurance companies in Indonesia. Similar findings were reported by Marwansyah and Utami (2017) who demonstrated a significant relationship between claims and company profits. In addition, a study conducted by Insani and Sholikha (2023) shows that claims have a negative and significant effect on the profits of insurance companies.

H₄: Claims have a positive and significant effect on profit growth.

3. RESEARCH METHODS

This research uses quantitative methods. The data used in this study are secondary. This study analyzed 14 insurance companies listed on the Indonesia Stock Exchange from 2017 to 2019, a sample of which met the criteria. This study used purposive sampling to obtain the sample, and the following criteria must be met:

1. Insurance companies listed on the Indonesia Stock Exchange from 2017 to 2019.
2. Insurance companies that did not publish financial reports during the 2017-2019 period.
3. Insurance companies that did not generate profits during the 2017-2019 period.

4. RESULTS AND DISCUSSION

4.1 Research Findings

4.1.1 Descriptive Statistics

Table 1. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Profit Growth	25	-.55	4.52	.1648	.93741
Premium Income	25	-.20	.36	.0668	.13335
Underwriting Ratio	25	.03	.49	.2684	.13095
Investment Returns	25	-6.81	13.70	.9664	5.17000
Claims Payment	25	.18	.95	.5916	.20623
Valid N (listwise)	25				

Source: Processed by Researcher using SPSS 25, 2025

Based on the descriptive statistical output presented in Table 1, the following explanations can be made:

1. This study consists of 25 observations ($N = 25$). The profit growth variable is calculated by subtracting the current year's net income from the previous year's net income, then dividing the result by the previous year's net income and multiplying it by 100 percent. The minimum value of -0.55 was recorded by Victoria Insurance Tbk (VINS) in 2018, while the maximum value of 4.52 was recorded by the same company in 2019. The average profit growth is 0.1648 with a standard deviation of 0.93741 . The standard deviation, which is larger than the mean, indicates a high degree of data variability. The negative mean value, which is lower than the standard deviation, suggests that the companies' profits generally experienced a decline and fluctuated considerably, indicating financial risk and unstable performance.

The high fluctuation in profit growth indicates that the financial stability of the companies has not been consistently maintained. From a macroeconomic perspective, this condition may reflect strong dependence on external factors such as investment climate, consumer purchasing power, and volatility in financial markets. Negative profit growth may also signal significant economic pressure or inefficiencies in resource management. From a managerial standpoint, substantial variation in profit growth serves as a warning for financial management to strengthen cost control and diversify revenue sources. Management needs to reassess accounting policies, pricing strategies, and operational efficiency to maintain profit stability and minimize the risk of declining profitability in the future.

2. The premium income variable is calculated by subtracting the previous year's gross premium from the current year's gross premium, then dividing the result by the previous year's gross premium. The minimum value of -0.20 occurred at Victoria Insurance Tbk (VINS) in 2017, while the maximum value of 0.36 was recorded by the same company in 2019. The average premium income is 0.0668 with a standard deviation of 0.13335 . A standard deviation greater than the mean indicates highly varied data. The high standard deviation in premium income suggests instability in premium receipts from policyholders, which may signal the need to evaluate the company's sales strategy, marketing efforts, or risk management practices.

Premium income is a key indicator of economic activity in the insurance sector. When variations in premium income are high, this may indicate changes in consumer behavior toward insurance products or economic fluctuations that affect policyholders' ability to pay. A decline in premiums may also reflect weakening market confidence in the performance of the insurance industry. From a managerial perspective, this condition requires companies to reassess the effectiveness of their marketing strategies and market segmentation. Management needs to strengthen product innovation, expand the customer base, and improve customer retention. Evaluating premium pricing strategies and underwriting risk management is also necessary to prevent long-term financial losses.

3. The underwriting ratio variable is calculated by dividing underwriting income by premium income and then multiplying by 100% . The minimum value of 0.03 was recorded by Paninvest Tbk (PNIN) in 2017, while the maximum value of 0.49 occurred at Asuransi Maximus Graha Persada Tbk (ASMP) in 2018. The average underwriting ratio is 0.2684 with a standard deviation of 0.13095 . The fact that the mean is higher than the standard deviation indicates that underwriting efficiency among insurance companies is relatively stable with low levels of fluctuation. This serves as a positive signal for the financial performance of insurance firms.

A relatively stable and efficient underwriting ratio indicates a healthy insurance market and the ability of companies to maintain a balance between premium income and claim costs. Economically, this stability reflects a positive contribution to the growth of the financial services sector and strengthens investor confidence. From a managerial perspective, a good underwriting ratio suggests that risk selection processes and pricing policies are operating effectively. Management should maintain this efficiency by strengthening internal control systems, improving oversight of the claims process, and utilizing digital technologies to support more accurate risk analysis and portfolio planning.

4. The investment return variable is calculated by dividing investment income by the total average investment. The minimum value of -6.81 occurred at Asuransi Maximus Graha Persada Tbk (ASMP) in 2018, while the maximum value of 13.70 was recorded by Victoria Insurance Tbk (VINS) in 2019. The average investment return is 0.9664 with a standard deviation of 5.17000 .

The significantly higher standard deviation indicates substantial data variation. This high deviation reflects that investment activities carry high risks and tend to be volatile, which may lead to potential losses even though the average return is positive.

The considerable variation in investment returns demonstrates the high volatility of financial markets and the investment risks faced by insurance companies. From a macroeconomic perspective, this condition may reflect fluctuations in interest rates, exchange rates, or instability in capital market performance. Although the average investment return is positive, the substantial level of risk can reduce investor confidence and disrupt the company’s financial stability. Managerially, this requires the company to implement more cautious and diversified investment strategies. Management must balance high-risk investment instruments with more conservative options to maintain liquidity and ensure long-term profitability. Additionally, stronger risk management functions and regular monitoring of the investment portfolio are necessary to anticipate market changes.

5. The claim variable is calculated by dividing net claim expenses by net premium income. The minimum value of 0.18 was recorded by Paninvest Tbk (PNIN) in 2018, while the maximum value of 0.95 was recorded by Asuransi Multi Artha Guna Tbk (AMAG) in 2018. The average claim payment is 0.5916 with a standard deviation of 0.20623. The fact that the mean is higher than the standard deviation indicates relatively low data variation. The high average value of claim payments shows that, in general, companies bear substantial claim costs. This condition may signal increased insurance risk and thus must be balanced with premium management strategies, risk selection, and appropriate claim reserve allocation.

A high claim ratio indicates pressure on the cost structure and the potential for declining profitability. In an industrial economic context, this may reflect rising external risks such as natural disasters, mass accidents, or public health crises, all of which directly impact claim burdens. If this trend continues, it may affect the competitiveness of the insurance industry as a whole. From a managerial perspective, high claim payments necessitate a review of underwriting policies and more accurate claim reserve formation. Management must strengthen risk assessment mechanisms and enhance monitoring of claim validity to prevent fraud. Effective communication strategies with policyholders and the development of risk-mitigation-based products (such as microinsurance or bundled products) can serve as solutions to maintain balance between claims and premiums.

4.1.2 Classical Assumption Test

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test

		<i>Unstandardized Residual</i>
<i>N</i>		25
<i>Normal Parameters^{a,b}</i>	<i>Mean</i>	.0000000
	<i>Std. Deviation</i>	.69966613
<i>Most Extreme Differences</i>	<i>Absolute</i>	.162
	<i>Positive</i>	.162
	<i>Negative</i>	-.067
<i>Test Statistic</i>		.162
<i>Asymp. Sig. (2-tailed)</i>		.089 ^c

Source: Processed by Researcher using SPSS 25, 2025

Table 2 shows that the results of the normality test using the One-Sample Kolmogorov–Smirnov Test indicate a significance value of 0.089, which is greater than 0.05. This demonstrates that the research

data are normally distributed. Therefore, the data can be used for further analysis in this study.

Table 3. Multicollinearity Test

Model	<i>Collinearity Statistics</i>	
	<i>Tolerance</i>	<i>VIF</i>
1 (Constant)		
Premium Income	.838	1.194
Underwriting Ratio	.735	1.361
Investment Returns	.881	1.135
Claims Payment	.737	1.358

Source: Processed by Researcher using SPSS 25, 2025

The results in Table 3 indicate that all independent variables have tolerance values greater than 0.10 and VIF values less than 10. This signifies that the regression model used does not exhibit any multicollinearity issues.

Table 4. Heteroskedasticity Test: Glejser

Coefficients^a

Model	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	t	Sig.
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	1.260	.670		1.880	.093
Premium Income	.507	1.109	.138	.457	.658
Underwriting Ratio	.533	1.190	.136	.448	.665
Investment Returns	.003	.026	.039	.134	.897
Claims Payment	-1.106	.712	-.481	-1.553	.155

Source: Processed by Researcher using SPSS 25, 2025

Table 4 shows that the variables of premium income, underwriting ratio, investment returns, and claim payments have significance values greater than 0.05. Therefore, the results of the heteroskedasticity test indicate that there is no heteroskedasticity present in this study

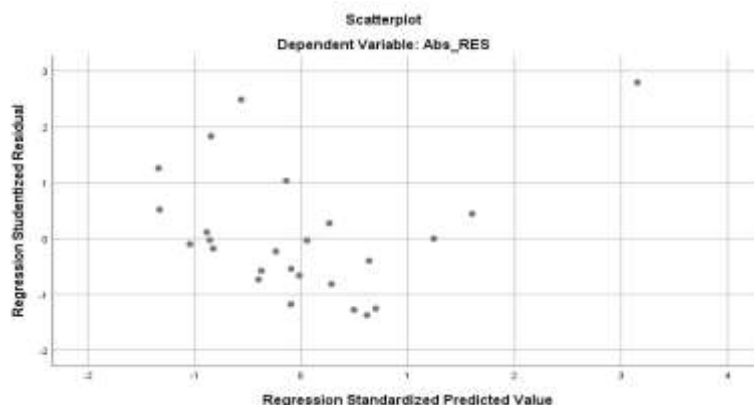


Figure 1: Heteroskedasticity Test Results
 Source: Processed by Researcher using SPSS 25, 2025

Figure 1 shows that the points are scattered both below and above the 0 axis and do not form any specific or regular pattern. Thus, the results of the heteroskedasticity test in this study indicate that there is no indication of heteroskedasticity.

Table 5. Autocorrelation Test

<i>Runs Test</i>	
Unstandardized Residual	
Test Value ^a	-.15868
Cases < Test Value	12
Cases >= Test Value	13
Total Cases	25
Number of Runs	12
Z	-.401
Asymp. Sig. (2-tailed)	.688

Source: Processed by Researcher using SPSS 25, 2025

Based on the results of the Runs Test in the table, the significance value is 0.688, which is much greater than 0.05. This indicates that the regression model in this study does not experience autocorrelation.

4.1.3 Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Analysis

Model	<i>Coefficients^a</i>		Standardized Coefficients	t	Sig.
	Unstandardized Coefficients	Std. Error			
	B		Beta		
1 (Constant)	-1.667	.824		-2.023	.057
Premium Income	3.663	1.282	.521	2.857	.010
Underwriting Ratio	1.713	1.394	.239	1.229	.233
Investment Returns	.084	.032	.464	2.608	.017
Claims Payment	1.769	.884	.389	2.001	.059

Source: Processed by Researcher using SPSS 25, 2025

$$Y = -1,667 + 3,663X_1 + 1,713X_2 - 0,084X_3 + 1,769X_4 + \epsilon$$

Based on these results, the explanation is as follows:

1. The profit growth constant (Y) of -1.667 indicates that if the variables Premium Income (X₁), Underwriting Ratio (X₂), Investment Returns (X₃), and Claims Payment (X₄) are all zero, the company's profit growth value would be -1.667.
2. The premium income coefficient (X₁) of 3.663 means that every 1% increase in premium income will increase profit by 3.663 (36.63%), assuming other variables remain constant. Conversely,

every 1% decrease in premium income will reduce profit by 3.663 (36.63%), with other variables held constant.

3. The underwriting ratio coefficient (X_2) of 1.713 indicates that every 1% increase in the underwriting ratio will increase profit by 1.713 (17.13%), assuming other variables remain constant. Conversely, every 1% decrease in the underwriting ratio will reduce profit by 1.713 (17.13%), with other variables held constant.
4. The investment return coefficient (X_3) of -0.084 shows that every 1% increase in investment returns will actually decrease profit by 0.084 (8.4%), assuming other variables remain constant. Conversely, every 1% decrease in investment returns will increase profit by 0.084 (8.4%), with other variables held constant.
5. The claims payment coefficient (X_4) of 1.769 indicates that every 1% increase in claims payment will increase profit by 1.769 (17.69%), assuming the other variables remain constant. Conversely, every 1% decrease in claims payment will reduce profit by 1.769 (17.69%), with other variables held constant.

4.1.4 Hypothesis Testing

Table 7. Coefficient of Determination (Adjusted R²)

<i>Model Summary</i>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.666 ^a	.443	.331	.76645	

Source: Processed by Researcher using SPSS 25, 2025

The table shows that the Adjusted R-Squared value is 0.331 or 33.1%. This result indicates that the ability of the independent variables (premium income, underwriting ratio, investment returns, and claims payment) to explain the dependent variable, profit growth, is 33.1%. Meanwhile, the remaining 66.9% is explained by other factors outside the variables used in this study.

Table 8. t-Statistic Test

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	-1.667	.824		-2.023	.057
Premium Income	3.663	1.282	.521	2.857	.010
Underwriting Ratio	1.713	1.394	.239	1.229	.233
Investment Returns	.084	.032	.464	2.608	.017
Claims Payment	1.769	.884	.389	2.001	.059

Source: Processed by Researcher using SPSS 25, 2025

Based on the results of the t-statistic test in Table 8, it can be concluded that:

1. The Premium Income variable (X_1) has a coefficient value of 3.663, a significance value of 0.010, a t-calculated value of 2.857, and a t-table value of 2.086. Since the significance value is smaller than 0.05 and the t-calculated value is greater than the t-table value, it can be concluded that premium income has a positive and significant effect on profit growth. Thus, H_1 , which states that premium income has a positive effect on profit growth, is accepted.
2. The Underwriting Ratio variable (X_2) has a coefficient value of 1.713, a significance value of 0.233, a t-calculated value of 1.229, and a t-table value of 2.086. Since the significance value is

greater than 0.05 and the t-calculated value is smaller than the t-table value, it can be concluded that the underwriting ratio does not have a significant effect on profit growth. Thus, H₂, which states that the underwriting ratio has a positive effect on profit growth, is rejected.

3. The Investment Return variable (X₃) has a coefficient value of 0.084, a significance value of 0.017, a t-calculated value of 2.608, and a t-table value of 2.086. Since the significance value is smaller than 0.05 and the t-calculated value is greater than the t-table value, it can be concluded that investment returns have a positive and significant effect on profit growth. Thus, H₃, which states that investment returns have a positive effect on profit growth, is accepted.
4. The Claims Payment variable (X₄) has a coefficient value of 1.769, a significance value of 0.059, a t-calculated value of 2.001, and a t-table value of 2.086. Since the significance value is greater than 0.05 and the t-calculated value is smaller than the t-table value, it can be concluded that claims payment does not have a significant effect on profit growth. Thus, H₄, which states that claims payment has a positive effect on profit growth, is rejected.

Table 9. F-Test

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	9.341	4	2.335	3.975	.016 ^b
Residual	11.749	20	.587		
Total	21.090	24			

Source: Processed by Researcher using SPSS 25, 2025

Based on the results of the ANOVA or F-test, the significance value obtained is 0.016. This value is smaller than 0.05, which indicates that all independent variables in this study jointly have a significant effect on the dependent variable. Therefore, the research hypothesis stating that premium income, underwriting ratio, investment return, and claims payment have a significant effect on the profit of insurance companies is accepted.

4.2 Discussion

4.2.1 The Influence of Premium Income on Profit Growth

Premiums are obligations that must be paid by policyholders to the company on a regular basis in accordance with the agreement previously established. The amount of the premium is influenced by the sum insured and the level of risk. The payment period is determined based on the initial agreement or contract. A premium is a sum of money that must be paid by the insured as compensation to the insurer for the risks borne (Soemitra, 2008). Based on the hypothesis testing results, the premium income variable shows a significance value of 0.010, which is smaller than 0.05, with a t-value of 2.857. This means that H₁ is accepted, or it can be concluded that premium income has a positive and significant effect on the profit of insurance companies listed on the Indonesia Stock Exchange for the 2017–2019 period. This result is reasonable because premium income is the main source of revenue for insurance companies. Any increase or decrease in premium income will directly affect profit. The higher the premium income, the greater the profit earned by the company. Conversely, the lower the premium income, the lower the company's profit.

An increase in premium income is expected to help insurance companies cover their obligations, including claim payments and commission expenses, thereby preventing default and maximizing profit. According to Ahmar (2021), companies with higher premium income experience significant increases in profit. The findings of this study align with those of Sastri et al. (2017) who stated that premium income has a significant effect on profit growth. Similarly, studies by Mirza, Emi, and Asmanita (2019) as well as Hidayat, Susanti, and Zulaihati (2021) show that premium income has a positive and significant effect on the profit of insurance companies. In addition Nasution and Nanda (2020) concluded that premium income has a significant effect on the net profit of Islamic insurance companies in Indonesia.

4.2.2 The Influence of the Underwriting Ratio on Profit Growth

The underwriting ratio is one of the key factors determining the operational profit position of insurance companies. Increasing profit is the primary objective for insurance companies. Although theoretically the underwriting ratio reflects operational efficiency in the core activities of insurance companies—namely premium collection and claim payment—the results of this study indicate that this variable is not statistically significant in influencing profit growth. Economically, this may be due to the characteristics of the Indonesian insurance industry, which still heavily relies on non-underwriting income, particularly investment returns. Fluctuations in capital market conditions and interest rates often have a more dominant influence on total profit compared to underwriting performance. Additionally, cross-subsidization practices among insurance products may cause profit contributions from underwriting activities to not accurately reflect the company's real profitability.

From a managerial perspective, this insignificance can be explained by the fact that many insurance companies have yet to consistently optimize underwriting risk management. Risk selection and premium pricing are often not fully actuarial-based but instead influenced by marketing policies or competitive pressure to attract new policyholders. As a result, although the underwriting ratio appears efficient, profit increases do not automatically occur because profit margins may be eroded by unpredictable claims expenses and fluctuating operational costs.

Furthermore, administrative inefficiencies and limitations in historical risk data may hinder management's ability to accurately project underwriting performance. Thus, these results show that the underwriting ratio has not yet become a primary determinant of profit growth; rather, it functions as a supporting indicator that will become significant only when accompanied by effective investment management strategies, controlled claim practices, and measurable premium tariff policies. This finding aligns with studies by Markonah and Selliamaik (2023), Wahyono, Nurochim, and Palupi (2021), as well as Fitrianty, Hadiani, Setiawan, and Kusno (2022) which state that underwriting does not have a positive influence on profit growth.

4.2.3 The Influence of Investment Returns on Profit Growth

Investment returns in insurance companies refer to the gains or losses obtained from the investment portfolio they manage. Funds received from policyholders in the form of premium payments are invested to generate additional income and enhance the company's value. The third hypothesis proposed—that investment returns have a positive effect on profit growth—is supported, as the hypothesis testing results indicate a statistically significant influence. Although the standard deviation of investment returns is lower than the mean value, the difference is not substantial, indicating relatively stable data.

Further observation shows that the sample company with the lowest investment return was Asuransi Maximus Graha Persada Tbk (ASMP) in 2018, with an investment return of -6.81, while its profit growth in the same year was 0.325. In contrast, the company with the highest investment return was Victoria Insurance Tbk (VINS) in 2019, with an investment return of 13.70 and a profit growth rate of 4.52. This demonstrates that companies with higher investment returns tend to experience greater profit growth, while lower investment returns lead to a decline in profit growth. Based on this analysis, it can be concluded that investment returns have a significant impact on the profit growth of insurance companies. In other words, the higher the investment returns, the greater the profit obtained by the company. Conversely, the lower the investment returns, the lower the profit growth. These findings are consistent with the results of studies conducted by Sastri et al. (2017) and Ahmar (2021) which state that investment returns positively influence profit growth.

4.2.4 The Influence of Claims on Profit Growth

The fourth hypothesis, which proposed a positive effect of claim payments on profit growth, is not supported. Based on the research findings, the claim payment variable does not have a positive and significant effect on company profit. This is evidenced by a significance value of $0.059 > 0.05$ and a t-statistic of $2.001 < t\text{-table } 2.086$. Thus, it can be concluded that an increase in the number of claims does not affect the company's profit growth. In the context of the insurance industry, claims that do not affect profit typically refer to claims that are rejected or do not meet policy requirements, and therefore do not result in financial consequences for the company. In other words, the company

does not incur expenses for such claims, allowing profit to remain unaffected. Based on this analysis, the findings of this study align with those of Saputro (2018) who found that claims partially do not influence the profit of life insurance companies in Indonesia. Similar results were reported by Agustiranda et al. (2019) showing that the claim variable has a negative and significant effect on profit.

5. CONCLUSION

5.1 Conclusion

This study was conducted to determine the effect of the independent variables—premium income, underwriting ratio, investment returns, and claim payments—on profit growth in insurance companies listed on the Indonesia Stock Exchange for the 2017–2019 period. The conclusions of this research are as follows:

1. Premium income has a positive effect on profit growth. This indicates that the amount of premium received by a company influences its profit growth. Thus, the first hypothesis in this study is supported.
2. The underwriting ratio has no significant effect on profit growth. This result shows that underwriting performance does not have a meaningful impact on company profits. Therefore, the second hypothesis in this study is not supported.
3. Investment returns have a positive effect on profit growth. This finding indicates that income generated from investment activities contributes to increased profit growth. Thus, the third hypothesis in this study is supported.
4. Claim payments have no significant effect on profit growth. This indicates that the amount of claims paid by the company does not statistically affect profit growth. Therefore, the fourth hypothesis in this study is not supported.

5.2 Limitations

To improve the quality of future research, several limitations in this study need to be considered:

1. The presence of outliers in the data required the deletion of 17 observational data points.
2. The analysis results show that the independent variables in this study only contributed relatively little to profit growth, namely 33.1%.

5.3 Suggestions

Based on the conclusions and limitations of this research, several suggestions can be proposed:

1. Future researchers are advised to extend the sample period to provide a more comprehensive overview of the phenomenon studied.
2. Future studies may use data analysis techniques that are more resistant to outliers, such as robust regression methods, so that valuable data can still be utilized without deletion.
3. Future research is expected to include more diverse variables to better reflect other factors that may influence earnings management, such as audit quality and ownership structure.

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