**Underwriting Results, Investment Results and Risk Based Capital on Profit of General Insurance Companies in Indonesia**

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***Abstract***

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| --- |
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*An insurance business is a business that provides services in risk re-insurance. This study aims to analyze Premium Income, Underwriting Results, Investment Returns and Risk Based Capital on Profits of General Insurance Companies in Indonesia. The method used in this study is documentation techniques through OJK reports and financial reports for 8 insurance companies in Indonesia from 2016 to 2020 so that the population is 40 data. The sampling technique is saturated sampling, where the entire population is taken as a sample, so that the total sample is 40 data. The results of the study show that investment returns and risk based capital have a positive and significant effect on earnings, while premium income and underwriting results have no significant effect on profits.*

# INTRODUCTION

Over the past few years, the development of insurance in Indonesia has shown quite good progress. Insurance companies are showing a stretch of growth in the businesses they run, in which more and more customers are using insurance services in their lives. With economic and technological advances there may be risks that threaten human needs. The existence of these reasons, the greater the problems that will be faced by humans either directly or indirectly. To deal with risks that come unexpectedly, now entrepreneurs or individuals provide coverage for goods, for loans and even for their lives, which is called insurance.

Based on Law Number 40 of 2014 concerning insurance. Insurance is an agreement between two parties, namely the insurance company and the policyholder, which forms the basis for the company receiving premiums in return. The coverage agreement is a reciprocal agreement of equal value, in which both parties have an obligation to pay a premium, the amount of which has been determined by the insurer.

Every activity carried out by the company basically has the main goal of wanting to achieve profits that continue to increase from year to year. Because profit itself is a benchmark that describes the success of a company in running its business. Then profit is also the element that is of most concern to financial observers because the profit figure is expected to be sufficient to present the company's performance as a whole. The elements in the formation of profits are income, expenses or costs. Profit can be classified into several types, namely gross profit, operating profit, profit before tax, and net profit after tax. Profit measurement is not only important for determining company performance but also important as information for profit sharing and investment policy determination. Therefore, profit becomes information that is seen by many professionals such as the accounting profession, entrepreneurs, financial analysts, shareholders, economists, physicists, and so on, ( Marsanto, and Fadila, 2021)

**Figure 1. Profit growth for general insurance companies in Indonesia**

Source: Indonesia Stock Exchange (2018)

Graph 1. shows the profit growth rate of 8 (eight) general insurance companies in Indonesia. Basically general insurance companies earn quite competitive profits where in 2013 the company Asuransi Jasa Tania Tbk (ASJT) earned the lowest profit among 7 (seven) other general insurance companies namely Bina Dana Arta Tbk Insurance (ABDA), Bintang Insurance Tbk (ASBI) , Asuransi Dayin Mitra Tbk (ASDM), Asuransi Multi Artha Guna Tbk (AMAG), Asuransi Ramayana Tbk (ASRM), Lippo General Insurance Tbk (LPGI), and Asuransi Kresna Mitra Tbk (ASMI). Then the highest profit growth rate was achieved by the Insurance company Bina Dana Arta Tbk (ABDA) in 2015.

**Figure 2. Average Profit Growth for General Insurance Companies in Indonesia**

Source: Indonesia Stock Exchange, 2018

Graph 2 proves that the profit growth of general insurance companies in Indonesia has experienced increases and decreases where the maximum profit of general insurance companies during the 2013-2017 period was achieved in 2015 of 88.7 % . In this graph, general insurance companies in Indonesia experienced a decrease in profits in 2016 where profits decreased by 16.6% from the previous year. In 2017 the general insurance company's profit income decreased by 1.2 % from the previous year. Therefore it is necessary to analyze the performance of the company. A common and measurable tool for evaluating the performance of general insurance companies in Indonesia is to analyze aspects of the company's performance in its financial reports which are the estuary of all company activities, (Abd'rachim, 2021)

One of the tools to measure the soundness of the financial performance of insurance companies in Indonesia is by using the Risk Based Capital (RBC) method. Risk Based Capital (RBC) is the ratio of capital adequacy to risk borne and is one of the main indicators in assessing the health of general insurance companies, especially those related to solvency or the company's ability to fulfill all of its obligations, Sastri, et . al. (2017). Risk Based Capital (RBC) is designed to be able to provide information regarding the ability of general insurance companies to fulfill their obligations to the insured. In other words, Risk Based Capital (RBC) is directed to see the level of security that insurance companies can provide to policyholders so as to give the public high trust in insurance companies.

In general insurance companies, the factors used to see whether they have a significant effect on profit include underwriting results, investment returns, risk based capital, and premium income. General insurance premium income decreased by 6.1 % in the second quarter of 2020. (AAUI, 2020). This is to find out which components of the financial statements have an effect on profits so that the company can further review its performance in order to obtain optimal profits. One of the tools to measure the soundness of the financial performance of general insurance companies in Indonesia is by using the Risk Based Capital (RBC) method. Risk Based Capital (RBC) is the ratio of capital adequacy to borne risks and is one of the main indicators in assessing the health of an insurance company, especially those related to solvency or the company's ability to fulfill all of its obligations, (Markonah, 2021) . Risk Based Capital (RBC) is designed to be able to provide information regarding the ability of insurance companies to fulfill obligations to the insured. In other words, Risk Based Capital (RBC) is directed to see the level of security that insurance companies can provide to policyholders so as to give the public high trust in insurance companies.

According to Sastri et al. (2017) premium income is the amount of money paid by insurance participants in return for services from the protection provided to deal with risks based on previously agreed agreements. The premium income received is not only the company's income, but will also become the company's obligations in the future. Part of the fund is reserved for the company's liabilities when participants experience losses. There is difference results Which showed by study earlier. Sastri, et . al. (2017) put forward that Results underwriting , Results Investment, And Risk Based Capital influential positive on insurance company profits while the results of research by Pratiwi, et.al. (2018) Results Underwriting No influential significant, And Mutmainnah, et . al. (2019) states that investment returns have no effect. Based on the business phenomenon and the research gap , the research entitled Effect of Premium Income, Underwriting Results, Investment Returns, and Risk Based Capital on Profits of General Insurance Companies in Indonesia.

Therefore, This study aims to analyze the influence of factors such as premium income, guarantee returns, investment returns, Risk Based Capital (RBC) on the profits of general insurance companies in Indonesia.

**LITERATURE REVIEW**

### **Definition of Insurance**

Based on the Law of the Republic of Indonesia Number 40 of 2014 concerning insurance , namely insurance or coverage is an agreement between two or more parties, by which the insurer binds himself to the insured, by receiving insurance premiums, providing reimbursement to the insured due to loss, damage or loss of profits incurred expected, or legal liability to third parties that may be suffered by the insured, arising from an uncertain event, or providing a payment based on the death or life of an insured person.

Based on this definition, insurance contains four elements, namely: (1). Insured who promises to pay premiums to the insurer at once or in stages; (2). insurer who promised to pay a sum of money (replacement) to the insured at once or in stages. If something happens that contains an unspecified element; (3). Unspecified Accident (not known in advance); (4). Interest that may suffer losses due to unspecified events.

**Insurance Company Financial Management**

According to Agus and Irfani (2020) Insurance management is a way of managing an insurance company so that its operations run well and can be expected to generate positive returns for the company and the staff who work in it. Efforts made by insurance agencies in the financial sector are such that the amount of funds collected can finance all insurance agency programs that are held.

Insurance financial management has specialties or characteristics that are different from the others. This is because the insurance company must be able to maintain its financial condition in such a way as to give high trust to the public. This trust is important because insurance companies are risk managers from other parties. For general insurance companies, some of the characteristics they have are:

1. Insurance company liability.
2. Determination of indirect expenses.
3. The income statement is heavily influenced by estimates.
4. Insurance companies must meet the solvency level requirements.

**Insurance Company Profits**

A company must have a goal in running its business. Profit is the main goal for the establishment of a company that has a sensitive nature for various interested parties such as company owners, investors, government , employees and the general public (Markonah, 2021). Profit is the result of the company's operational activities in one period. Companies that have growing profits show that the company has good operational capabilities. Good operational ability can be seen from the company's ability to maintain company activities based on a certain level of activity, for example in maintaining the amount of sales generated, or maintaining the capacity used ( Abd'rachim. 2021 ).

According to Maharani and Ferli, 2020 Profit is the excess of income over costs from the production of goods or services for one year. period accountant. If expenses are greater than revenues, the difference is called a loss. The calculation of profit can be formulated as follows:

**Profit = Underwriting Result + Investment Return - Operating Expenses**

### **Premium Income**

According to Agustin, (2018). put forward the insurance premium as a payment from the insured to the insurer, in return for services for transferring the risk of the insurer. Thus the insurance premium will constitute: (1). Service compensation for guarantees provided by the insurer to the insured to compensate for losses that may be suffered by the insured (in loss insurance); (2). Service compensation for guaranteed protection provided by the insurer to the insured by providing a sum of money (benefit) against the risk of old age or death (in life insurance). Calculation of premium income can be formulated as follows:

**Premium Income= Gross Premium-Reinsurance Premium-Unearned premium increase/decrease**

### **Underwriting Results**

According to Caren , & Mwangi (2017) underwriting is determinant tree from position company profit . Underwriting results are the difference between premium income and claims expenses and commission expenses and other underwriting expenses. The components of underwriting results include underwriting income and underwriting expenses. Underwriting income is income derived from the main activities of insurance companies, the components of underwriting income (self-paid premiums) consist of gross premiums, reduced by reinsurance premiums and reduced or added by increases or decreases in unearned premiums.Underwriting results can be measured by the formula:

### **Investment Returns**

Marwansyah, And Utami (2017) Investment is investing or placing assets, either in the form of assets or funds that are expected to generate income or increase value in the future. When added to company funds , the amount will be very large if left unused without being invested. It is the responsibility of the finance department to manage it in the investment sector. Because most of these funds are invested for the purpose of making reserves to pay future claims, the insurance company's investment objectives must be safe. The following is an equation or formula for Return on Investment (ROI) or return on investment:

### **Risk Based Capital (RBC)**

Agustin, (2018) Risk Based Capital is a method of measuring the Solvency Level Limit required by law in measuring the level of financial health of an insurance company to ensure the fulfillment of insurance and reinsurance obligations by knowing the size of the company's capital requirements according to the level of risk faced company in managing its assets and liabilities. Insurance companies in Indonesia are required to periodically report their solvency ratios to the Government such as the Service Authority Finance No. 71/POJK.05/2016 about health Finance Company Insurance and Reinsurance Companies in the theoretical study of Health finance Chapter 2 and 3 that: (1) Company must every time fulfil condition level health finance. Among other things, it also contains a risk-based minimum capital (MMBR). This is also contained in Minister of Finance Regulation No. 53/PMK.010/2012

**Solvency Level**

The solvency level is the reduction between permitted assets and liabilities. Liabilities calculated in the calculation of the Solvency Level shall include all of the Company's Liabilities, including technical reserves.

**Risk Based Capital (RBC) Ratio**

The ratio of Risk Based Capital (RBC) is the percentage between the level of solvency and the amount of Minimum Risk-Based Capital (MRBC/MMBR). Risk Based Capital (RBC) is a ratio that informs the level of financial security or soundness of a company. The bigger the RBC,

The healthier the company's financial condition. RBC calculation can be formulated as follows:

## **Previous Research**

Sastri, et . al. (2017) stated that income premium, results underwriting, investment return and risk based capital has a significant positive effect to profit insurance company, Wulandari (2018) states that investment returns have a significant effect, while underwriting results and claims expenses do not affect profit. Pratiwi, et.al. (2018) states that Risk Based Capital has a significant positive effect on Laba \_ and Price Shares , while Revenue Premium, Expense Claim, Results Underwriting, has no effect on profit and Price Shares . Mutmainnah and Utami (2017) state that income premium and yield underwriting has a significant positive effect on profit company insurance general in indonesian . caren And Mwangi ( 2017) states that underwriting has a significant positive effect on profits at insurance companies in Africa. According to Nasution, et . al. (2019) that RBC has an effect on company profits, while investment returns have no effect on profits of sharia insurance companies in Indonesia.

## **Research Framework**

**Figure 3. Research Framework**

**Underwriting Result**

**Investment Returns**

**Risk Based Capital (RBC)**

**Profits**

fssfsfikReturn on Ad=sset

**Premium Income**

Premi

**H1**

**H2**

**H3**

**H4**

## **Research Hypothesis**

### **Effect of Premium Income on Profit**

According to Agustin, (2018). put forward the insurance premium as a payment from the insured to the insurer, in return for services for transferring the risk of the insurer. Sastri, et . al. (2017) stated that income premium, results underwriting, investment return and risk based capital has a significant positive effect to profit insurance company.

H 1 = There is a significant positive effect between premium income and profits in general insurance companies in Indonesia.

**Effect of Undewriting Results on Profit**

According to Caren , & Mwangi (2017) underwriting is determinant tree from position company profit . Underwriting results are the difference between premium income and claims expenses and commission expenses and other underwriting expenses. Mutmainnah and Utami (2017) state that income premium and yield underwriting has a significant positive effect on profit company insurance general in indonesian . caren And Mwangi ( 2017) states that underwriting has a significant positive effect on profits at insurance companies in Africa.

H 2 = There is a positive influence between underwriting and profits in general insurance companies in Indonesia.

### **Effect of Investment Returns on Profit**

Marwansyah, And Utami (2017) Investment is investing or placing assets, either in the form of assets or funds that are expected to generate income or increase value in the future. Wulandari (2018) states that investment returns have a significant effect on profit company insurance general in indonesian

H 3 = Investment returns have a significant positive effect on general insurance company profits in Indonesia.

**Effect of Risk Based Capital (RBC) to Profit**

Agustin, (2018) Risk Based Capital is a method of measuring the Solvency Level Limit required by law in measuring the level of financial health of an insurance company According to Nasution, et . al. (2019) that RBC has an effect on company profits, and Pratiwi, et.al. (2018) states that Risk Based Capital has a significant positive effect on profit and Price Shares

H 4 = Risk Based Capital (RBC) positive effect on general insurance profits in Indonesia.

# RESEARCH METHODS

## **Research design**

## The research method used is associative research method with a quantitative approach. (Sugiyono , 2019). The dependent variable in this study is earnings of general insurance companies in Indonesia . The independent variables t in this study are Premium Income, Underwriting Results, Investment Returns and Risk Based Capital. And the unit of analysis in this study is a general insurance company in Indonesia which is listed on the Indonesia Stock Exchange and has complete financial reports during the study period from 2016 to 2020 . The type of data used is secondary data and uses panel data which is a combination of cross section data and time series data.

## **Operational Variables**

**Table 1 . Operational Variables**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Variable Definitions** | **Size** | **Scale** |
| Profit (Y) | The excess of income over expenses in connection with business activities | Profit = Underwriting Result + Investment Return - Operating Expenses | Ratio |
| Premium Income (X 1 ) | Premium income payment of an amount of money made by the insured if there is a risk of the company's replacement liability | Premium Income = Gross Premium -Reinsurance Premium -Increase/decrease in unearned premiums | Ratio |
| Underwriting Results (X 2 ) | Comparison between underwriting results and premium income |  | Ratio |
| Investment Return (X 3 ) | Investment returns are the results of the company placing assets in the form of assets or funds, which are expected to increase their value in the future |  | Ratio |
| RBCs (X 4 ) | The ratio that informs the level of financial security or health of a company |  | Ratio |

## 

## **Population and Sample**

### **Population**

According to Sugiono, (201 9 ) that "Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics that are applied by researchers to be studied and then drawn the conclusion". The population in this study are insurance companies listed on the Indonesia Stock Exchange (2020), which consistently publish audited reports for 2016-2020 for 8 general insurance companies consisting of Bina Dana Arta Tbk Insurance (ABDA), Bintang Insurance Tbk (ASBI), Asuransi Dayin Mitra Tbk (ASDM), Asuransi Jasa Tania Tbk (ASJT), Asuransi Multi Artha Guna Tbk (AMAG), Asuransi Ramayana Tbk (ASRM), Lippo General Insurance Tbk (LPGI), and Asuransi Kresna Mitra Tbk (ASMI) so that in get the amount of data as much as 40 data

### **Sample**

The sample according to Sugiyono , (2019 ) is part of the number and characteristics possessed by that population. The type of sampling used is saturated sampling, which is a sampling technique when all members of the population are used as samples, this is because the population is relatively small. The sample used in this study was 8 (eight) general insurance companies in Indonesia that are listed on the IDX Index for 2016 – 2020, so that a total of 40 (forty) data are obtained.

**RESULTS AND DISCUSSION**

### **Panel Data Regression Estimation**

To estimate model parameters with panel data, there are threetechnique (model) approach consisting of Common Effects , Fixed Effects , andRandom Effects .For selecting the best type of panel data estimation model usedin the analysis carried out the Chow test and Hausman test .

1. **Chow test**

The Chow test is used to decide whether to use the common effect or the fixed effect . The hypothesis in testing the chow test is as follows:

**Table 8. Chow test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| Effect Test | | Statistics | df | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section F | | 1.908464 | (7,28) | 0.1059 |
| Chi-square cross-sections | | 15.603661 | 7 | **0.0290** |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Data processed with eviews 12 (2022)

Based on the results of data processing on the Chow test above, the Chi Square probability value is 0.0290 less than α = 0.05, so the model estimation approach follows the fixed effect model. In other words, the fixed effect model is more appropriate for estimating panel data than the common effect model.

1. **Hausman test**

**Table 9. Hausman test**

|  |  |  |  |
| --- | --- | --- | --- |
| Test Summary | Chi-Sq. Statistics | Chi-Sq. df | Prob |
| Random cross-sections | 12.016710 | 4 | 0.0172 |

Source: Data processed with Eviews 12 (2022)

Based on the results of data processing on the Hausman Test above, the Chi Square probability value is 0.0172 less than α = 0.05, so it can be concluded that H 0 is rejected and H 1 is accepted which states that the model estimation approach follows the fixed effect model. In other words, the fixed effect model is more appropriate for estimating panel data than the random effect model.

### Based on the results of the two tests that have been carried out in this study, the results are the same from these two tests. These results can be seen through the following table:

**Table 10. Panel Data Regression Model Selection Results**

|  |  |  |
| --- | --- | --- |
| **Method** | **Testing** | **Results** |
| ChowTest | Common Effects vs Fixed Effects | Fixed Effects |
| Hausman test | Fixed Effects vs Random Effects | Fixed Effects |

Source: Data processed with eviews 12 (2022)

Based on the two tests that have been carried out and it is concluded in table 10, the same results are obtained, namely the Chow Test obtained the results of a Fixed Effect and the Hausman Test obtained the results of a Fixed Effect as well. Thus the exact model used in this study is the Fixed Effect.

### **Classic assumption test**

**Normality test**

The normality test functions to determine the normality level of the data population using graphical analysis with the aim of testing whether in the regression model, the confounding or residual variables have a normal distribution. In this test, the Jarque-Bera test (JB–test) was used.

**Figure 4. Normality Test**



Source: Data processed with eviews 12 (2022)

Based on the Jarque-Bera test (JB-test) above, a probability value of 0.603001 is obtained which is greater than α = 0.05. This shows that the data is normally distributed.

**Autocorrelation Test**

**Table 11. Autocorrelation Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.906032 | Mean dependent var | | 10.81925 |
| Adjusted R-squared | 0.869116 | SD dependent var | | 0.957985 |
| SE of regression | 0.346578 | Akaike info criterion | | 0.961910 |
| Sum squared residue | 3.363265 | Schwarz criterion | | 1.468574 |
| Likelihood logs | -7.238195 | Hannan-Quinn criter. | | 1.145103 |
| F-statistics | 24.54313 | **Durbin-Watson stat** | | **2.188439** |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Data processed with Eviews 12, 2022

Based on the results of the Autocorrelation Test in Table 11, it shows that the DW value is 2.188439, then compare it with the table value using a significance value of 5%, the number of samples (n) is 40 and the number of independent variables (k) is 4, then in the Durbin Watson table a value (dl) of 1.2848 and (du) of 1.7209 will be obtained. From these values, the value of 4-du (4 - 1 .7209 ) = 2.188439. The DW value (2 .188439 ) is greater than the upper limit (du) 1.7323 and lower than the value (4-du) 2.2677, which means that there is no autocorrelation.

**Multicollinearity Test**

**Table 12. Multicollinearity Test**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **PROFIT** | **PREMIUM** | **UW RESULTS** | **INV RESULTS** | **RBC** |
| **PROFIT** | 1.00000 | 0.63920 | 0.75070 | 0.73728 | 0.65311 |
| **PREMIUM INCOME** | 0.63920 | 1.00000 | 0.65619 | 0.32268 | 0.27819 |
| **UNDERWRITING RESULTS** | 0.75070 | 0.65619 | 1.00000 | 0.53508 | 0.24055 |
| **INVESTMENT RESULTS** | 0.73728 | 0.32268 | 0.53508 | 1.00000 | 0.49725 |
| **RBC** | 0.65311 | 0.27819 | 0.24055 | 0.49725 | 1.00000 |

Source: Data processed with Eviews 12 (2022)

From the processed results of the authors of the data above, it can be concluded that there is no multicollinearity between the research variables because all the coefficients obtained, all correlation coefficients, none are greater than 0.85 .

**Heteroscedasticity Test**

In this study using the Breusch-Food method with the Breusch-Food method , the existence of heteroscedasticity can be seen from the chi-square probability value if the chi-square value is > α 5%, meaning that there is no heteroscedasticity according to Widarjono, (2016) .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 13. Heteroskedasticity Test: Breusch-Pagan-Godfrey** | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
| F-statistics | 2.342550 | Prob. F(4,35) | | 0.0739 |
| Obs\*R-squared | 8.447292 | **Prob. Chi-Square(4)** | | **0.0765** |
| Scaled explained SS | 8.460678 | Prob. Chi-Square(4) | | 0.0761 |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Data processed with Eviews 12 (2022)

Based on the heteroscedasticity test above using the Breusch-Food method, Prob. chi-square on Obs\*R-squared (0.0765) > 0.05; then there is no heteroscedasticity.

### 

### **Hypothesis Test**

**F Test (Model Feasibility Test)**

**Table 14. F test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.906032 | Mean dependent var | | 10.81925 |
| Adjusted R-squared | 0.869116 | SD dependent var | | 0.957985 |
| SE of regression | 0.346578 | Akaike info criterion | | 0.961910 |
| Sum squared residue | 3.363265 | Schwarz criterion | | 1.468574 |
| Likelihood logs | -7.238195 | Hannan-Quinn criter. | | 1.145103 |
| F-statistics | 24.54313 | Durbin-Watson stat | | 2.188439 |
| **Prob(F-statistic)** | **0.000000** |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Data processed with Eviews 12 (2022)

Based on the F test, the probability (F-statistic) is 0.000000, which is less than the significance level of 0.05, so it can be concluded that the estimated regression model is feasible to use to explain the effect of premium income. Underwriting Results , Investment Results and Risk Based Capital (RBC) on Profits of General Insurance Companies in Indonesia.

**T test**

**Table 15. T test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| Variables | coefficient | std. Error | t-Statistics | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| REVENUE\_PREMI | 0.044508 | 0.107311 | 0.414758 | 0.6815 |
| RESULT\_UNDERWRITING | 0.278130 | 0.247550 | 1.123527 | 0.2708 |
| RESULTS\_INVESTMENT | 0.261138 | 0.121164 | 2.155243 | 0.0399 |
| RBC | 0.661980 | 0.277064 | 2.389270 | 0.0239 |
| C | 0.548809 | 2.995431 | 0.183215 | 0.8559 |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Data processed with Eviews 12 (2022)

The results of the t test show that premium income and underwriting results do not have a positive effect on general insurance company profits in Indonesia, while investment returns and risk based capital (RBC) have a significant positive effect on general insurance company profits in Indonesia. And the multiple regression equation model as follows:

Y = 0.548809 + 0.044508 + 0.278130 + 0.261138 + 0.661980

**Determination Coefficient Test (R 2 )**

The coefficient of determination test is used to see the percentage of independent variable influence on the dependent. The results of the test for the coefficient of determination can be seen in the table below:

**Table 4. 15 Determination Coefficient Test (R 2 )**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| R-squared | 0.906032 | Mean dependent var | | 10.81925 |
| **Adjusted R-squared** | **0.869116** | SD dependent var | | 0.957985 |
| SE of regression | 0.346578 | Akaike info criterion | | 0.961910 |
| Sum squared residue | 3.363265 | Schwarz criterion | | 1.468574 |
| Likelihood logs | -7.238195 | Hannan-Quinn criter. | | 1.145103 |
| F-statistics | 24.54313 | Durbin-Watson stat | | 2.188439 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |

Source: Data processed with Eviews 12 (2022)

Based on the test of the coefficient of determination, it was found that the variable Premium Income, Underwriting Results, Investment Returns and Risk Based Capital (RBC) on the profit of general insurance companies in Indonesia, it has an influence on profits of 86.91%, while the remaining 13.09% is influenced by other factors outside this research model.

## **DISCUSSION AND RESULTS**

### **Effect of Premium Income on Profit**

Based on the results of the study that premium income has no effect on profits. This is because the customer has unilaterally decided to pay the premium before the payment period is over. So the premium paid by the customer is not in full, while the premium payment paid by the customer at the beginning is automatically deducted for fee payments and administration in the general insurance company, so that the premium income is not as expected. This is the result that premium income does not affect the profits of general insurance companies in Indonesia.

Premium growth is calculated from the increase and decrease in net premium income compared to the previous year's premium income. This variable is not significant because the size of the increase in premium income between insurance companies has a very varied range and depends on the size of the company. Companies that have a large size, will have a large premium income tendency, even though the growth rate is small. And conversely a company that has a small size, even though it has a large premium growth, the amount of premium income is still lower than that of a large company. This means that the size factor is more influential than the growth rate. The results of this study are in line with Pratiwi, et.al. (2018) which states that Income Premium, has no effect on profit and Price Shares .

### **Effect of Undewriting Results on Profit**

The research results show that the results of underwritingNoeffect on profits. This is because the premium income earned by general insurance companies in Indonesia is smaller than expected, while the claims expense borne by general insurance companies in Indonesia at the start of premium payments and when the income or underwriting results at an insurance company are unable to cover all underwriting expenses . then there is no excess funds that will affect profits. This is what results in underwriting resultsNoeffect on profits. The results of this study are in line with Wulandari (2018) and Pratiwi, et.al. (2018) which states that underwriting results have no effect on profits.

### **Effect of Investment Returns on Profit**

The results of the research show that investment returns have an effect on profits. The results of testing the regression equation have indicated that if investment returns increase, profits increase. This shows that the return on investmentpartially useful in predicting the profit of general insurance companies in Indonesia. The high return on investment will increase the income component in the income statement of the insurance company, which in turn can increase the amount of profit in general insurance companies in Indonesia. The results of this study are also in line with Sastri, et . al. (2017) stated that investment return significant positive effect to profit company A insurance

**Effect of Risk Based Capital (RBC) to Profit**

The research results show that risk based capital has a positive and significant effect on earnings. The results of testing the regression equation have indicated that if risk based capital increases, profits will also increase. This shows that risk based capital is partially useful in predicting insurance company profits.

Several factors affect risk based capital is the level of solvency and Minimum Risk-Based Capital (MRBC/MMBR) as in the Financial Services Authority. (2017) . The solvency level is the reduction between permitted assets and liabilities. Allowed assets are assets in the form of investments and non-investments. Meanwhile, Minimum Risk-Based Capital (MRBC/MMBR) is needed to anticipate the risk of losses that may arise. MMBR consists of credit risk, liquidity risk, market risk, underwriting risk , operational risk. So that the greater the level of solvency and the smaller the MMBR, the higher the risk based capital. The greater the risk based capitalan insurance company, it can be said that the insurance company is getting better and healthier. So that if the insurance company is getting better and healthier, the public's trust will also be higher which will result in people being interested in buying the policy which is a unit link in which there is investment so that it will increase investment returns which will ultimately increase the profits of general insurance companies in Indonesia. The results of this study are in line with Sastri, et . al. (2017) and Pratiwi, et.al. (2018) which states that risk based capital has a significant positive effect to profit company A insurance .

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# CONCLUSION AND RECOMMENDATIONS

## **Conclusion**

Investment returns and Risk Based Capital (RBC) have a significant positive effect on the profits of general insurance companies in Indonesia. This means that the increase in investment returns and RBC is able to increase the profits of general insurance companies in Indonesia. Meanwhile, premium income and underwriting results have no significant effect on the profits of general insurance companies in Indonesia. This means that premium income and underwriting results are not able to drive profit increases at general insurance companies in Indonesia.

## **Recommendation**

In order to increase insurance company profits, it is necessary to increase investment and RBC, for further research to be applied to life insurance companies in Indonesia.

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