ISSN No:-2456-2165

# Insurance Companies and the Risk that Influence it's Stock Return

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**Abstract:- The purpose of this study was to look at the impact of Risk Based Capital, Insurance Company Health Ratio, Market Return, Inflation, and COVID-19 on the stock returns of insurance companies listed on the Indonesia Stock Exchange from 2017 to 2022. The sample used in this study consisted of ten companies listed on the Indonesia Stock Exchange from 2017Q1 to 2022Q4. To study the effects of independent variables on the dependent variable, we employed the statistical t-test. It was discovered that risk-based capital, insurance company health ratio, and covid status had no direct impact on insurance company stock return, whereas market return and inflation do. This study showed that Capital Asset Pricing Model (CAPM) was still relevant today as it was before, and Insurance company needs to look for what other factors and indicators that have impact to stock return. Last, this research shows investors should properly analyze Inflation and Market Return since they affected Stocks Return significantly.**

***Keywords:-*** *Insurance Ratio, Risk Based Capital, Inflation, Market Return, Stock Return.*

## I. INTRODUCTION

Investment in the present is something that attracts the attention of the Indonesian people. By investing, people hope to get benefits in the future and become a source of additional income. The development of investment instruments followed by the development of platforms that support investment activities makes it easier for people to invest.

The Capital Market is one of the investment instruments that is slowly starting to attract the attention of the wider community. The rapid development of information technology has greatly assisted the penetration of the capital market to a society that is increasingly financially literate, who regard the capital market as a source of additional income or savings which are expected to increase in number in the future. This is a good sign because the capital market is one of the drivers of the economy in Indonesia and become one of the indicators to determine the health of a country's economy [1].

One of the industries that has become a concern during the Covid-19 pandemic is insurance, especially life insurance where life insurance companies have taken on large claims during the pandemic. Investors in the capital market pay attention to the performance of insurance companies and their potential to create added value and profits for their shareholders. Like companies listed on the IDX in general, in assessing a company's performance there are several factors that can be considered, such as fundamental ratios such as Debt Equity Ratio (DER), Price Earnings Ratio (PER), Return on Asset (ROA), Return on Equity (ROE), and Earning per Share (EPS).

Whereas in insurance companies, there are other ratios such as Risk Based Capital, Liquidity Ratio, Investment Adequacy Ratio, Investment Returns to Premium Income Ratio, and Expenses (Claims, Operational and Commissions) to Net Premium Income Ratio. Risk Based Capital (RBC) is a measuring tool to assess or detect how healthy the financial level of the company and how the company's ability to measure the level of capital adequacy company to finance company debt. The higher the risk or company debt, the higher the capital required owned by the company to anticipate these risks. In industry insurance, knowledge of the financial condition of a company be an important factor. This is because of the company insurance that sells insurance products, namely in the form of guarantees for losses.

## II. LITERATURE REVIEW

### *A. The Signaling Theory*

Signaling is an action taken by a firm's management that provides clues to investors about how management views the firm's prospects [2]. Symmetric Information is the situation in which investors and managers have identical information about firms' prospects. Asymmetric Information is the situation in which managers have different (better) information about firms' prospects than do investors.

Signaling theory explains why corporations feel obliged to share financial statement information with other parties. Because management is more knowledgeable about the company and its future prospects than outsiders, it is required to offer information to outsiders such as investors and creditors.

Outsiders protect themselves by establishing a low price for the company since they lack information about it. By eliminating information asymmetry, businesses can increase their company value. Giving signals to outsiders is one technique to decrease information asymmetry [3].

*B. Capital Asset Pricing Model (CAPM)*

According to Gitman and Zutter (2012), the Capital Asset Pricing Model (CAPM) relates non-diversifiable risk to expected returns. Non diversifiable risk (also called systematic risk) is a market factor that affect all companies, it cannot be eliminated through diversification. Factors such as war, inflation, the overall state of the economy, international incidents, and political events account for non-diversifiable risk. Non diversifiable risk is measured by the beta coefficient. Beta coefficient is an index of the degree of movement of an asset's return in response to a change in the market return. The equation of the Capital Asset Pricing Model is as follow:

$rj = RF + [\beta j \times (rm - RF)]$
$rj$ = required return on asset j
$\beta j$ = beta coefficient or index of non-diversifiable risk for asset j
$RF$ = risk-free rate of return
$rm$ = market return

*C. Stocks Return*

Stock Return is the difference between the current and previous Stock price divided by prior stock price. The stock return determines if the current stock price has a gain or loss in contrast to the previous price [4].

Stock price changes are influenced by a variety of factors. These are, among others, macroeconomic and fundamental variables. Macroeconomic factors are derived from broad economic issues such as economic policy, inflation, interest rates, currency exchange rates, public income, and so on. Fundamental factors are those that originate within the company that issued the shares (the issuer). Financial statements reveal the fundamental factors. The level of financial performance of the issuer can be seen in the financial statements, both in terms of ability to generate profits (profitability), ability to pay debts (solvency), and level of efficiency and effectiveness in managing their wealth (activities) [5].

## III. METHODOLOGY

This study examines causality using a quantitative approach. A causal study examines whether one variable influences another variable. In causality studies, researchers attempt to identify one or more causes of a problem [6]. To determine causality, analyzes are performed on variables that are expected to modify other variables, and then changes in those other variables are measured.

Quantitative research uses explanatory design, where the purpose of explanatory research is to test relationships between hypothesized variables [7]. Relationships between variables can be positive or negative. A positive correlation means a relationship between two variables in which the two variables are moving in the same direction. A negative correlation is a relationship between two variables where one variable increases and the other decreases) [8].

This study will research all the insurance companies listed in Indonesian Stock Exchange with 1 dependent variables, i.e., Stock Return (SR), 8 dependent variables, i.e., Risk Based Capital (RBC), Liquidity Ratio (LR), Investment Adequacy Ratio (IAR), Investment Returns to Premium Income Ratio (IRP), Expenses (Claims, Operational and Commissions) to Net Premium Income Ratio (ENP), Market Return (MR), Inflation (IN) and Covid Status (CS).

The population were the companies listed on Indonesia Stock Exchange (BEI) for the period 2017 to 2022. The method of selecting samples is purposive sampling. Purposive sampling means a non-probability sample that is selected based on characteristics of a population and the objective of research.

The criteria of the selected sample are:

- Insurance companies listed on BEI period 2017 – 2022.
- Insurance companies which stocks are actively traded up to the end of 2022.
- Insurance companies which provide the financial reports publicly.

## IV. RESULTS

Regression analysis has been performed to fulfill the research objectives in this study, namely 1) to analyze and evaluate the impact of Risk Based Capital on stocks return; 2) to analyze and evaluate the impact of Liquidity Ratio on stocks return; 3) to analyze and evaluate the impact of Investment Adequacy ratio on stocks return; 4) to analyze and evaluate the impact of Investment Return to Premium Income ratio on stocks return; 5) to analyze and evaluate the impact of Expenses to Net Premium Income ratio on stocks return; 6) to analyze and evaluate the impact of market return on stocks return; 7) to analyze and evaluate the impact of inflation on stocks return; and 8) to analyze and evaluate the impact of Covid status on stocks return.

Dependent Variable: Y_SR
Method: Panel Least Squares
Date: 08/22/23 Time: 22:34
Sample: 2017Q1 2022Q4
Period included: 24
Cross-sections included: 10
Total panel (unbalanced) observations: 208

| Variables | coefficient | std. Error | t-Statistics | Prob. |
|---|---|---|---|---|
| C | 1.970724 | 4.521563 | 0.435850 | 0.6634 |
| LOG(X1_RBC) | -0.869094 | 3.406853 | -0.255102 | 0.7989 |
| LOG(X2_LR) | 1.472409 | 7.174470 | 0.205229 | 0.8376 |
| LOG(X3_IAR) | 2.971580 | 2.580607 | 1.151505 | 0.2509 |
| X4_IRP | -0.050298 | 0.077019 | -0.653064 | 0.5145 |
| LOG(X5_ENP) | 2.118387 | 4.708445 | 0.449912 | 0.6533 |
| X6_MR | 0.458673 | 0.208926 | 2.195385 | 0.0293 |
| X7_CS | -5.393052 | 3.907558 | -1.380159 | 0.1691 |
| X8_INFLASI | 0.172799 | 0.076185 | 2.268146 | 0.0244 |

| | | | |
|---|---|---|---|
| R-squared | 0.067538 | Mean dependent var | 1.333505 |
| Adjusted R-squared | 0.030052 | SD dependent var | 26.63978 |
| SE of regression | 26.23643 | Akaike info criterion | 9.414480 |
| Sum squared residue | 136981.7 | Schwarz criterion | 9.558893 |
| Likelihood logs | -970.1060 | Hannan-Quinn criter. | 9.472873 |
| F-statistics | 1.801701 | Durbin-Watson stat | 1.831809 |
| Prob(F-statistic) | 0.078610 | | |

Fig. 1. Panel Regression Test Result

The model selected to perform the regression was Common Effect Model, with no multicollinearity and heteroscedasticity. Based on the results of data processing and analysis that has been carried out, in the following several conclusions and suggestions will be presented regarding what has been done and achieved.

| Variable | Hypothesis | Result | Interpretation |
|---|---|---|---|
| Risk Based Capital (RBC) | H1: RBC positively affects Stock Returns (SR) | T test p value: 0.7989<br>t-Statistics: -0.255102<br>Coefficient: -0.8690<br>H1 is not supported | RBC has no effect on Stock Return. |
| Liquidity Ratio (LR) | H2: LR positively affects Stock Returns (SR) | T test p value: 0.8376<br>t-Statistics: 0.205229<br>Coefficient: 1.4724<br>H2 is not supported | LR has no effect on Stock Return. |
| Investment Adequacy Ratio (IAR) | H3: IAR positively affects Stock Returns (SR) | T test p value: 0.2509<br>t-Statistics: 1.151505<br>Coefficient: 2.9716<br>H3 is not supported | IAR has no effect on Stock Return. |
| Investment Returns to Premium Income Ratio (IRP) | H4: IRP positively affects Stock Returns (SR) | T test p value: 0.5145<br>t-Statistics: -0.653064<br>Coefficient: -0.0503<br>H4 is not supported | IRP has no effect on Stock Return. |
| Expenses (Claims, Operational, and Commissions) to Net Premium | H5: ENP negatively affects Stock Returns (SR) | T test p value: 0.6533<br>t-Statistics: 0.449912<br>Coefficient: 2.1184<br>H5 is not supported | ENP has no effect on Stock Return. |
| Market Return (MR) | H6: MR positively affects Stock Returns (SR) | T test p value: 0.0293<br>t-Statistics: 2.195385<br>Coefficient: 0.4587<br>H6 is supported | MR has positive effect on Stock Return. |
| Inflation (IN) | H7: IN negatively affects Stock Returns (SR) | T test p value: 0.0244<br>t-Statistics: 2.268146<br>Coefficient: 0.1728<br>H7 is supported | IN has negative effect on Stock Return. |
| Covid Status (CS) | H8: CS negatively affects Stock Returns (SR) | T test p value: 0.1691<br>t-Statistics: -1.380159<br>Coefficient: -5.3931<br>H8 is not supported | CS has no effect on Stock Return. |

Fig. 2. Research Summary

The Conclusion from the results of this model, it can be seen that the financial indicators used have no effect on stock returns. This shows that signaling theory does not apply to the financial indicators used in this research. Meanwhile, market returns, and inflation have positive and negative effects on stock returns, while Covid status has no effect.

This study has some implications on theoretical, practical, and policy level. The implications are as follows:

*A. Theoretical Implications*

- This study does not support the signaling theory, which holds that financial disclosure causes changes in stock returns.
- This study supports the Capital Asset Pricing Model because market returns positively effect stock returns, whereas inflation negatively affects stock returns.

*B. Practical implications*

- Managers should look for what factors most influence the stock return of the insurance company.
- Investors should properly analyze Inflation and Market Return since they affected Stocks Return significantly.

*C. Policy implications*

- The government should manage inflation properly, as higher inflation can reduce investor profits.
- The government should also take more measures to prevent another pandemic infection like Covid in the future as it has potential to affect stock return.

## ACKNOWLEDGMENT

I would like to express my gratitude to all those who have contributed to the completion of this journal. First and foremost, I extend my sincere appreciation to my Director of Academic and Student Affairs, Prof. Dr. Ir. M. Syamsul Maarif, M. Eng, Dipl. Ing, DEA and my advisor Mrs. Ir. Yulita F. Susanti, MSc., Ph.D. Also to my family, my colleagues at Marein and IPMI for their support throughout my studies.

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