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Analysis of the Return and Risk of Investment in Insurance Companies Listed on the Indonesia Stock Exchange

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ABSTRACT

The return and risk of stock investment have a high level of volatility because it depends on fundamental and technical conditions and the influence of micro and macro variables. This study aims to determine the risk and return on investment in insurance companies and analyze the effect of macroeconomic variables on the level of risk and return on investment in insurance companies. The sampling technique used was purposive sampling. Data analysis shows that for three years, Asuransi Jasa Tania Tbk has the highest level of conclusion, which is 22.3%, and Asuransi Harta Aman Pratama Tbk. has the lowest rate of -3.3%. For three years, the value of Gross Domestic Product has increased successively so that this will cause a stock return that is proportional to the level of risk that will be faced. Changes in the inflation rate up and down for three consecutive years have a different effect every year where when the inflation rate decreases, the rate of return on investment will be high. In addition, the interest rate decreased from 4.75% in 2016 to 4.25% in 2017. Then it increased to 6.00% in 2018. The Rupiah exchange rate against the dollar is getting weaker, indicating an increase in the exchange rate. Every year from 2016 to 2018. When the rupiah exchange rate weakens, people will choose to invest in foreign currencies because the value of these foreign currencies can determine the size of the risk of a business.

Introduction

Currently, investment is one of the choices for most people to allocate some of their assets. Investments are made to get profits or benefits in the future at the expense of some current assets (Mubarok, 2018; Nababan et al., 2019). Investment is a delay in current consumption to be included in productive assets for a certain period (Amelisah & Sholichah, 2021). Thus investment can be understood as a present sacrifice to get more benefits in the future. Investments are classified into two types, namely real assets and financial assets (Permana, 2017). Real asset investment is an investment of intangible assets such as buildings, land, property, apartments, houses, land, etc.

In contrast, investment in financial assets or financial assets is an investment in intangible assets but has value and is valuable due to contract claims, such as bank deposits, stocks, and bonds (Egam et al., 2017). Investments in real assets and financial assets each have advantages and disadvantages, so investors must choose and consider various things before investing. Things that must be considered are related to risk and return (Zulkarnaen, 2018). Risk and return are two things that cannot be separated in making investment decisions because investment considerations are sacrifices to gain profits or trade-offs from risk and return (Mubarok et al., 2017). That way, risk and return have a positive relationship. The greater the risk that must be borne, the greater the return received.

Return on what has been invested is the most important aspect that must be considered in investment decisions (Oussama & Lamine, 2021). Return or return is the level of profit investors enjoy on a stock investment made (Damayanti & Kuswanto, 2019). In simple terms, returns can be interpreted as the results obtained from investments. Naturally, investors want a high rate of return because the purpose of investors investing is to get money from the profits from investing (Nur et al., 2018; Tian et al., 2021). However, in addition to considering a high rate of return, investors should also consider the risks accepted by investing (Aryaningsih et al., 2018). Risk is the possible difference between the actual return received and the expected return (Harnida, 2017). Everything has risks, including investing. For this reason, a company is required to have decisions in investing. These decisions will affect the company's value through risk and return factors because the level of profit obtained by shareholders is different and uncertain, so these factors must be considered.

In addition to calculating risk, investment is also often associated with investment returns (return). This is because the investor's goal is to obtain the maximum possible return, so investors need to consider the factors that affect the return obtained, both macroeconomic and microeconomic factors (Permana, 2017; Rivero et al., 2021). Macro factors come from outside the company, for example, the economy, domestic political events, international political events, law, technology, and others. In contrast, micro factors come from within the company, such as earnings per share, debt-equity ratio, and other financial ratios (Zharikova & Cherkesenko, 2021). Many types of research on the return and risk of investing in stocks have been carried out. However, there are still differences in results. Damayanti & Kuswanto's research (2019) concludes that a stock has a fairly high return and risk volatility, in a certain period, the stock will have a high risk and high profit, and vice versa, which causes the return and risk of a stock to be positive or negative. Return volatility and risk also occur in companies, both fundamentally and technically, both the influence of micro and macroeconomic variables (Awwaliyah et al., 2019; Berry &

Jianren, 2021; Dharma, 2019; Reyna et al., 2021; Sastrodiharjo & Sutama, 2015; Sena & Suherman, 2021; Suyatna, 2021; Wang & Zhu, 2021). The purpose of this study is to analyze the level of return and investment risk in insurance companies listed on the Indonesia Stock Exchange, which are associated with macroeconomic factors.

Literature Review

Investment in Capital Market

The capital market is a market for various long-term financial instruments that can be traded, both equities (stocks), mutual funds, debt securities (bonds), derivative instruments, and other instruments (Mubarok, 2019). The capital market is a means for companies to increase their long-term funding needs by selling shares or issuing bonds. According to the Capital Market Law No. 8 of 1995 concerning the Capital Market, the capital market is defined as activities related to public offerings and securities trading, public companies related to the securities they issue, and institutions and professions related to securities. Thus, it can be concluded that the capital market is a market for trading securities for long-term investments by bringing together those who need funding and those who have more funds. Investment is investing or placing assets in the form of assets or funds in something expected to generate income or increase in value in the future (Hayati, 2016). Investment is a delay in current consumption to be included in productive assets for a certain period. Thus, investment can be interpreted as sacrificing current assets to get benefits or valuable results in the future (Zhang, 2021).

Financial instruments or products traded in the Indonesian capital market include Stocks, Bonds, Mutual Funds, Exchange Traded Funds, and Derivatives instruments (Al-mutairi et al., 2021; Babayeva, 2021). Shares are a sign of a person or party (business entity) in a company or limited liability company. Bonds are transferable medium-long term debt securities, which contain a promise from the issuing party to pay interest in the form of interest in a certain period and pay off the principal at a predetermined time to the bond buyer. Mutual funds are a forum used to collect public funds for further investment in securities portfolios by investment managers. Exchange-Traded Fund (ETF) is a mutual fund in a collective investment contract whose participation units are traded on the stock exchange. ETF combines mutual funds for its management, while the mechanism is buying and selling shares. Derivatives are financial contracts between two or more parties to fulfill promises to buy or sell assets or commodities traded as objects at a time and price mutually agreed between the seller and the buyer.

A company, when it needs funds, can sell its ownership rights in the form of shares. Stocks are one of the most popular instruments for investors. Shares are a sign of a person or party (business entity) in a company or limited liability company (Hutapea et al., 2017). According to Tandelilin, shares are proof of ownership of the company's assets that issued the securities. Shares are divided into two different types, namely common stock and preferred stock. The difference between these two stocks is that preferred stock has a higher position than common stockholders, namely having a claim on the company's assets and distributing dividends first. Preferred stock is more difficult to trade than common stock because the number of preferred stock is small. The advantage of investing in stocks is getting in the form of dividends and capital gains. Dividends are profit-sharing by the company that comes from the profits generated by the company. Meanwhile, Capital gain is the difference between the purchase price and the selling price formed due to stock trading activities in the secondary market.

Investment Risk

Investment risk is the possibility of results that deviate from expectations. In portfolio theory, the risk is the deviation of expected returns (Bacinello et al., 2020; Rustamunadi & Amaliah, 2020). According to Tandelilin, the risk is the possible difference between the actual and expected returns (Damayanti & Kuswanto, 2019; Oudat & Ali, 2021). Stock investment risk is divided into systematic risk and unsystematic risk. Systematic risk arises due to macroeconomic factors that affect all securities, which cannot be eliminated by diversification (Markonah, 2021; Upreti et al., 2021).

Meanwhile, unsystematic risk is the risk that arises due to unique factors in security and can be eliminated by diversification (Möhlmann, 2021). Unique factors include capital structure, asset structure, company size, level of liquidity, and conditions and environment (Bacinello et al., 2020; Thuku, 2021). Meanwhile, according to macro factors, among others, the condition of the economy, namely the current condition of economic activity or not. A situation in which the economy is experiencing development, recession, or stability can be called an economic condition (Arintoko et al., 2021). For example, in a recession, people's purchasing power decreases so that companies have difficulty marketing their products. This will cause investors to be reluctant to buy shares so that the stock price will decrease and the risk will be high. Second, inflation is a measure of the increase in product prices. Investors cannot afford to buy stocks when inflation is high, so that stock prices will decrease and risk will increase. Third, the interest rate is when the deposit rate decreases, investors will choose to invest in the capital market. Fourth, the foreign exchange rate compares the value of one country's currency with another. When the foreign exchange rate declines, investors will invest in foreign currency, resulting in a decrease in stock prices and a high stock investment risk.

Return on Investment

Return or return on investment is the main goal of investors in investing. Return is the reward obtained from investing. Returns are divided into two types: realized returns and expected returns (Ariani & Zulhawati, 2021; Geriadi & Wiksuana, 2017). The realized return has occurred and is calculated using historical data (Worotikan et al., 2021). The measurement of realized returns that are widely used is total returns, relative returns, cumulative returns, and adjusted returns (Marsanto et al., 2021).

Meanwhile, the expected return is a return that is expected to be obtained by investors in the future. Several measuring the expected return methods are based on the expected future value, the historical return value, and the existing expected return model. Investment return consists of two components, namely capital gain (loss) and yield (Leviany & Sukiati, 2014). Capital gain (loss) increases or decreases the price of securities that provide profits or losses to investors (Dhiab, 2021). While yield is a return that describes the cash flow or income obtained periodically from investment (Zulkarnaen, 2018).

Research Method

The population in this study shares in insurance companies listed on the Indonesia Stock Exchange from 2016 to 2018. Sampling uses a purposive sampling method, taking samples determined according to research needs, namely insurance sub-sector companies listed on the Indonesia Stock Exchange that report their company's financial statements. From 2016 to 2018. The sample is ten insurance companies as follows:

Table 1.
Companies and Types of Research Sample Companies

No.	Company	Type	Code
1	Asuransi Harta Aman Pratama Tbk	Finance, Insurance	AHAP
2	Lippo General Insurance Tbk	Finance, Insurance	LPGI
3	Asuransi Ramayana Tbk	Finance, Insurance	ASRM
4	Asuransi Bina Dana Arta Tbk	Finance, Insurance	ABDA
5	Asuransi Dayin Mitra Tbk	Finance, Insurance	ASDM
6	Maskapai Reasuransi Indonesia Tbk	Finance, Insurance	MREI
7	Asuransi Jasa Tania Tbk	Finance, Insurance	ASJT
8	Asuransi Multi Artha Guna Tbk	Finance, Insurance	AMAG
9	Asuransi Kresna Mitra Tbk	Finance, Insurance	ASMI
10	Victoria Insurance Tbk	Finance, Insurance	VINS

Source: Economic and Business Data Center

In this study, the type of data used is secondary data with collection methods in the form of library research, research results, websites, and other relevant sources related to the needs of the data to be studied. 1) List of names of financial sector companies in the insurance sub-sector listed on the Indonesia Stock Exchange for the period 2016 to 2018, presented on the Economic and Business Data Center website, Faculty of Economics, University of Indonesia. 2) Insurance sub-sector company reports are presented in full to the public on the Indonesia Stock Exchange (IDX) website. The company report contains all company data, such as stock closing prices, cash dividends, ROA, ROE, and other relevant data.3) Data on inflation and economic growth in Indonesia for the period 2016 to 2018 are presented on the website of the Central Statistics Agency. 4) Data on interest rates and the Rupiah exchange rate against the Dollar for the period 2016 to 2018 are presented on the Bank Indonesia website.

Stock investment is an activity to invest in shares. The level of risk is the possible deviation between the profit earned and the expected profit and is measured using the standard deviation. The rate of return is the Return on Investment activities obtained by investors and is measured by return expectations. Investments are valued based on the rate of return and standard deviation (calculation of risk). The formula obtains the rate of return:

$$\boldsymbol{Ri} = \frac{\boldsymbol{Pi} - \boldsymbol{po}}{\boldsymbol{po}}$$

Description:

Ri: Rate of return to i
Pi: Stock price in the current period
Po: Stock price in the previous period

The formula obtains the expected rate of return:

$$\boldsymbol{E(R)} = \sum_{n=1}^{n} \left(\frac{\boldsymbol{Ri}}{\boldsymbol{n}} \right)$$

Description:

Ri: Rate of Return
E(R): Expected Return
N: Number of data

Risk can be obtained through the standard deviation with the formula:

$$\boldsymbol{\sigma} = \sqrt{\sum_{n=1}^{n} \frac{(\mathbf{Ri} - \mathbf{R})^{2}}{\mathbf{n} - \mathbf{1}}}$$

Description:

σ : Risk of stock investment
Ri : Stock return in period i
R : Average stock return
N : Number of data

Meanwhile, national economic growth is measured by the growth of Gross Domestic Product (GDP). Inflation is the rate of inflation as measured by the growth of the consumer price index. The interest rate is the interest rate for Bank Indonesia certificates. The Foreign Exchange Rate is the Rupiah exchange rate against the US Dollar, which is calculated at the average exchange rate.

Result and Discussion

Based on the calculations that have been made, the level of risk and return on insurance companies listed on the Indonesia Stock Exchange for a period of 3 years, 2016 to 2018, resulted in the conclusion that in 2016, the Ramayana Insurance company Tbk had the highest rate of return of 5.4% with a risk level of 5.4%. By 30.3%, and the company Victoria Insurance Tbk has the lowest rate of return of -1.5%, with a risk level of 8.8%. In 2017, the Asuransi Jasa Tania Tbk had the highest rate of return of 22.3%, with a risk level of 53.8%, and the Insurance company Ramayana Tbk had the lowest rate of return of -1.3% with a risk level of 3.4 %. In the last year of the study, 2018, the Indonesian Reinsurance Company Tbk had the highest rate of return of 2.5% with a risk level of 9.7%, and the Pratama Harta Aman Insurance company had the lowest rate of return of -3.3% with a risk rate of -3.3%. Risk of 22.2%. For three consecutive years from 2016 to 2018, Asuransi Jasa Tania Tbk has the highest rate of return of 22.3%, with a risk level of 53.8%, and Asuransi Harta Aman Pratama Tbk has the lowest rate of return of -3 .3% with a risk level of 22.2%. The following is a table related to each company's level of risk and return for three years.

Table 2.
Level of Risk and Return in 2016 – 2018

Corporate/Company	2016		2017		2018	
	Return expectations (%)	Risk (%)	Return expectations (%)	Risk (%)	Return expectations (%)	Risk (%)
Asuransi Harta Aman Pratama Tbk	-0,6	8,8	0,9	13,0	-3,3	22,2
Lippo General Insurance Tbk	1,2	13,8	-0,8	2,7	-0,6	9,2
Asuransi Ramayana Tbk	5,4	30,3	-1,3	3,4	0,3	2,4
Asuransi Bina Dana Arta Tbk	-1	6,8	0,6	6,5	-0,3	2,4
Asuransi Dayin Mitra Tbk	-1	7,0	0,5	7,1	1,3	5,2
Maskapai Reasuransi Indonesia Tbk	-1,2	16,9	0,4	14,3	2,5	9,7
Asuransi Jasa Tania Tbk	2,4	15,0	22,3	53,8	-2,8	16,6
Asuransi Multi Artha Guna Tbk	0,2	8,7	0,5	9,1	-1,1	5,5
Asuransi Kresna Mitra Tbk	-0,3	25,0	5,4	9,3	-1,9	4,7
Victoria Insurance Tbk	-1,5	8,8	14,6	52,9	-2,3	15,9

Analysis of Macroeconomic Variables on the Level of Risk and Return on Investment

This study uses four types of macroeconomic variables mentioned in the literature review: economic conditions as measured by the growth of Gross Domestic Product (GDP), inflation, interest rates, and foreign exchange rates. The GDP value had increased from 12,406.8 trillion in 2016 to 13,588.8 trillion in 2017, then increased in 2018 to 14,837.4 trillion. Thus, it can be concluded that the value of GDP tends to increase for three consecutive years. This is related to the rate of return on the stock that is proportional to the level of risk. From 2016 to 2018, the inflation rate changed from an increase in 2017 from 3.02% in 2016 to 3.61% in 2017. With rising inflation, the stock returns in 2016 tended to decrease. In 2018, the inflation rate decreased from 3.61% 2017 to 3.13% 2018. With a decrease in inflation, the stock returns in 2017 tended to increase.

In the period 2016 to 2018, interest rates and the Rupiah exchange rate against the Dollar also experienced changes. The interest rate decreased from 4.75% in 2016 to 4.25% in 2017. Then it increased to 6.00% in 2018. Meanwhile, the Rupiah exchange rate against the Dollar is shown in the table getting weaker, indicated by an increasing number of exchange rates every year from 2016 to 2018. Changes in macroeconomic variables for three years from 2016 to 2018 can be seen in the following table:

Table 3.
Changes in Macroeconomic Variables During 2016 – 2018

Macroeconomic Variables	2016	2017	2018
GDP (Rp)	12.406,8 Trillion	13.588,8 Trillion	14.837,4 Trillion
Inflation (%)	3.02	3.61	3,13
Interest Rate (%)	4.75	4.25	6.00
Exchange rate (Rp)	13.503,00	13.568,00	13.746,00

Source: data processed from Bank Indonesia and the Central Statistics Agency

The increase in Gross Domestic Product is a good sign for investment because it causes banking conditions to decline. Investors prefer to invest their funds in the capital market. On the other hand, when the Gross Domestic Product decreases, investors prefer to invest their funds in banking products. Inflation affects stock prices in the long term, ie the effect will occur when inflation has an impact on company sectors related to economic activities in Indonesia. In this case, when inflation increases, it will impact the increase in the price of raw materials for the company, so that production costs will increase and there will be an increase in the price of goods in the market. Thus, inflation causes income to decrease. Investors will usually face rising inflation because investing will reduce the circulation of money and turn it into an investment instrument. High interest rates are bad for investing because they can cause investors to shift their funds from stock investments to savings or time deposits products. In addition to interest rates, the last macroeconomic factor that affects investment is the foreign exchange rate. The strengthening of foreign exchange rates is beneficial when the economy is inflationary. When the rupiah exchange rate weakens, people will choose to invest in foreign currencies because the value of this foreign currency can determine the size of the risk of a business.

Conclusion

Berdasarkan analisis dan pembahasan, selama 3 tahun yaitu 2016-2018, Asuransi Jasa Tania Tbk memiliki tingkat tertinggi sebesar 22,3% dengan tingkat risiko sebesar 53,8%. On the other hand, Asuransi Harta Aman Pratama Tbk has the lowest rate of return of -3.3%, with a risk level of 22.2%. For three years, the value of GDP has increased from 2016 of 12,406.8 Trillion to 13,588.8 Trillion in 2017, then increased in 2018 to 14,837.4 Trillion, so that this will lead to a stock return that is proportional to the level of risk involved. Will be faced. Changes in the inflation rate affect the rate of return on investment. The higher the inflation rate, the lower the rate of return on investment. In addition, the interest rate decreased from 4.75% in 2016 to 4.25% in 2017. Then it increased to 6.00% in 2018. Meanwhile, the exchange rate increased every year from 2016 to 2018. When the rupiah exchange rate weakens, people will choose to invest in foreign currencies because the value of this foreign currency can determine the size of the risk of a business.

Recommendation

Based on the conclusion of this article, the return and risk of insurance companies have characteristics like other company sectors, plus insurance companies have a positive trend, especially in several companies, so that this is a potential for investors. Therefore, for the next researcher, the recommendation is to expand the research area, especially regarding the year and the variables related to this research.

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