

External and Internal Factors Influence to the Return on Equity and Risk Investment in Jakarta Islamic Index (JII)

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ABSTRACT

Objective – This study aims to analyze the direct influence of external factors (inflation, foreign exchange rates, interest rate of Bank Indonesia) and internal (capital structure, liquidity) on Return On Equity (ROE) in companies that went public in Jakarta Islamic Index, analyze the indirect influence of external and internal factors on the risk of investing in companies that go public in Jakarta Islamic Index, analyze the effect of ROE on the risk investment in companies that go public in Jakarta Islamic Index.

Methodology/Technique – The sample used 10 companies using purposive sampling. Analysis tools using path analysis.

Findings – Results showed inflation and exchange rates (foreign exchange rates / USD) no significant effect on ROE and Investment Risk. BI rate has no effect on ROE but significant effect on the risk of investment. Capital structure and liquidity significantly influence the ROE but had no effect on the risk of investment. ROE has no effect on the risk of investment.

Novelty – Results of research it pays advisable for investors and prospective investors pay attention to internal factors (capital structure, liquidity and other fundamental factors) companies due to internal factors will affect the profitability of Integration.

Type of Paper: Empirical

Keywords: Inflation; Exchange Rates; Interest Rates; Capital Structure; Liquidity; ROE; Investment Risk.

JEL Classification: L16, M21, M41.

1. Introduction

Investment is the placement of the funds in the hope of future gain. Virtually all investments involve risks or uncertainties. Form of investment that many of us encounter in public life is a land investment, the investments in gold, savings, deposits, investment in capital markets (stocks and bonds) and others. Investments in stocks assessed as having a greater level of risk compared to other investment alternatives such as bonds, deposits and savings. This is caused by the expected income from investment in stocks is uncertain, where the share of income consists of dividend and capital gain.

Investment in the stock market, there are two options to invest in that stock investing non-Islamic and Islamic stock investment. Islamic stocks are a means to accommodate funds from investors, especially

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investors Muslims. Investments in shares of sharia is a good alternative fund management as stocks sharia away from businesses that are categorized as haram according to Islam. Place / exchanges that trade stocks in accordance with the principle of sharia and sharia are Jakarta Islamic Index (JII). According Nasarudin and Surya (2004) the characteristics of the shares of sharia are: (1) There is no interest-based transactions, (2) No security be dubious, (3) Shares to be from a company that lawful business activities, (4) no there is a transaction that is not in accordance with ethical and immoral such as market manipulation and *insider trading*.

Investments involve risks or uncertainties, investors are expected to consider the two (2) things: the expected revenue or profit (expected return) and risk (risk). We often hear the "no pain, no gain or a high return high risk", the greater the results / return desired the greater the risk, and vice versa (Zubir, 2011). According Anaroga and Pakarti (2006) there are some risks in investing are: Financial Risk, Market Risk, Risk of Psychological. Financial risk comes from within the company (internal factors), and market risk is derived from a country's economic conditions as external factors (Bitsch et al., 2010).

External factors that affect the risk of investment in the form of inflation, interest rates on deposits and the level of the rupiah against the US dollar, while the internal factors that affect the risk of investment of capital structure, operating leverage, dividend and the company's liquidity (Sartono, 2001). Research conducted Makaryanawati and Ulum (2009) with the title Influence of Interest Rate and Liquidity Company against the risk of Investment Shares Listed on the Jakarta Islamic index, the results showed that the interest rate has a significant influence on the risk of investment being liquidity does not have an influence on investment risk. Bokpin, Aboagye and Osei (2010) showed operational risk, the risk of bankruptcy, and bankruptcy costs have a significant influence on financial policies, moderate Internal factors (asset structure, company size and profitability) do not affect the financial policies. Simamora and Wiksuana (2014) indicates that capital structure and liquidity of the company positive and significant effect on the risk of stock investments, operating leverage is not positive and significant influence against the risk of stock investments, and inflation, interest on deposits, the exchange rate against the USD and the partial financial leverage and significant negative effect on the risk of investment. In this study, the authors used external factors such as inflation, foreign exchange rates, and the interest rate of Bank Indonesia, were internal factors such as capital structure, the company to determine the company's financial condition and liquidity to determine the company's ability to repay short-term debt.

The aim of the study was (1) to analyze the direct influence of external factors (inflation, foreign exchange rates, interest rate of Bank Indonesia) and internal (capital structure, liquidity) on Return On Equity (ROE) in companies that go public in the Jakarta Islamic Index. (2) to analyze the indirect influence of external and internal factors on the risk of investing in companies that go public in the Jakarta Islamic Index. (3) The ROE to analyze the effect on the risk of investing in companies that go public the in Jakarta Islamic Index.

2. Methodology

2.1. Types and Sources of Data

Based on the research objectives, this research, including research kind of explanation (explanatory research). Explanatory research is research for explanation (explanatory or confirmatory), research conducted by way of explaining the symptoms are caused by an object of research, test and provide an explanation or a causal relationship between variables through hypothesis testing. Types of research data, including quantitative data in the observation period from 2010 to 2014. The data used in this research are secondary data. obtained from Jakarta Islamic Index, Bank Indonesia (BI), and the website on the capital market. Data exogenous variables of this study, are: inflation, interest rates BI, the exchange rate (the exchange rate of foreign currency / US dollar against the rupiah), Debt Equity Ratio (DER), liquidity. Endogenous variable data is Return On Equity (ROE) and Investment Risk.

2.2. Population and Sample Research

The population used in this study are all Islamic stocks listed on the Jakarta Islamic Index (JII) during 2011 to 2015, namely 30 companies. The samples using purposive sampling with criteria: (1) Integration active in trade in JII during 2011 to 2015 (2) Companies that publish full financial statements at JII during 2010 to 2014. The research sample of 10 companies (Astra Agro Lestari Tbk, PT Astra International Tbk, Indocement Tunggal Prakarsa Tbk, Indo Tambamgraya Megah Tbk, Kalbe Farma Tbk, PP London Sumatra Indonesia Tbk, PT Semen Indonesia (Persero) Tbk, Telecommunications Indonesia (Persero) Tbk, United Tractors Tbk, and Unilever Indonesia Tbk).

2.3. Operational Definition

Inflation is inflation as measured by the development of the consumer price index (CPI) or the Consumer Price Index (CPI) Indonesia average each year is obtained from Bank Indonesia. CPI / CPI is to calculate the average price of goods and services consumed by households (household). In this study, researchers used the value of inflation issued by Bank Indonesia.

Foreign exchange rates are commonly also called the foreign exchange rate is the price of one currency expressed in another currency (according Eiteman, Stonehill, and Moffett, 2010). In this study sought the exchange rate is the exchange rate of the US dollar against the rupiah. The exchange rate used in this research is data middle rate of 1 US dollar to rupiah at the middle value of each year issued by Bank Indonesia.

The interest rate is the percentage of the principal amount to be paid by the borrower to the lender in exchange for services performed within a certain period which has been agreed by both parties. The interest rate used is the interest rate the central bank.

The capital structure is a picture of the proportion of capital owned by a company which is derived from the ratio of total debt to equity, which is a method of permanent financing of a company (Fahmi, 2006). The capital structure of the company can be found by searching for the value of the debt-to-equity ratio. Value Debt. to Equity Ratio can be calculated using the formula:

$$\text{Capital Structure} = \frac{\text{Debt}}{\text{Capital}} \quad (1)$$

Liquidity is the ability of companies to pay off debts that must be paid with current assets. This variable is measured by the Current Ratio, by the following equation:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Debt}} \quad (2)$$

Return On Equity (ROE) is the ratio between net income with their own capital. ROE is used to measure the company's ability to obtain the net income attributed to the distribution of dividends. ROE is defined as follows:

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Capital}} \quad (3)$$

Investment risk is losses that may occur as a result of the deviation expected profit rate with the actual rate of return. Or we can say the investment risk is the value derived from the difference between the difference of expected realized return and return. This variable was measured by the following formula:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{(R_{ij} - E(R_i))^2}{n-1}} \quad (4)$$

Where:

R_{ij} = rate of gain that occurs in the condition j expected return and realized return.

$E(R_i)$ = The level of profit expected

N = the number of conditions

Stock profit rate, calculated with the following equation:

$$E(R_i) = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (5)$$

Where:

P_t = stock price in year t

P_{t-1} = The share price in year $t-1$

2.4. Analysis Methods

This study illustrates the pattern of relationships which reveal the influence of a set of variables against another, either directly, or through other variables as an intervening variable. Path analysis by using SPSS software is the analysis used in this study (Ghozali, 2005)

Diagram path or the path coefficients are as follows:

$$Z = \beta_1 ZX_1 + \beta_2 ZX_2 + \beta_3 ZX_3 + \beta_4 ZX_4 + \beta_5 ZX_5 + \varepsilon_1 \quad (6)$$

$$Y = \beta_6 YX_1 + \beta_7 YX_2 + \beta_8 YX_3 + \beta_9 YX_4 + \beta_{10} YX_5 + \beta_{11} YZ + \varepsilon_1 \quad (7)$$

Where:

Z = ROE,

Y = Risk Investment,

X_1 = Inflation,

X_2 = Exchange,

$\varepsilon_{1,2}$ = Variable Residues

X_3 = Interest rate,

X_4 = Capital Structure,

X_5 = Liquidity,

$\beta_{1,...,11}$ = Coefficient of Variables

3. Results

Test results obtained by path analysis R square value of structural 1 and 2. Structural R square value is used to measure how far the ability of the model in explaining the dependent variable. The greater the R-square an independent variable, the most dominant influence on the dependent variable.

Table 1. Results of R square

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	.883 ^A	.779	.754	.1403638
2	.366 ^A	.134	.013	.05535387

Source: Data processed, 2016

Where:

Structural 1: The influence of independent variables on ROE

Structural 2: The influence of independent variables on the risk of investment

The above table shows that the first model shows the R-square of 77.9%, shows the influence of the independent variable on the dependent variable classified as strong (77.9%) means that the dependent variable (ROE) can be explained by using the independent variables (inflation, exchange rates, interest rates, DER, liquidity) of 77.9%, while 22.1% is explained by other variables that are not included in this model. The second model, the R-square showed 13.4% means that the influence of the independent variable on the dependent variable is very weak, showed that 13.4% of the dependent variable (investment risk), which can be explained by the independent variables (inflation, exchange rate, interest rate, DER, liquidity and ROE) was 86.6%, the rest explained by other variables that are not included in this model.

Table 2. Results of path coefficient partial regression

Analysis	t	Significant	Beta	Description
Sub-Structural 1 (dependent ROE)				
Inflation	- 1.092	0.281	-0.140	Not significant
Exchange rate	- 0.756	0.454	-0.100	Not significant
Interest rate	0.799	0.429	0.145	Not significant
DER	11.456	0.000	0.995	Significant
Liquidity	2.676	0.010	0.233	Significant
Sub-Structural 2 (dependent Investment Risk)				
Inflation	1.231	0,225	0.320	Not significant
Exchange rate	0.871	0.389	0.232	Not significant
Interest rate	-2.038	0.048	0.745	Significant
DER	0.415	0.680	0.144	Not significant
Liquidity	0.367	0.715	0.069	Not significant
ROE	-0.636	0.528	-0.192	Not significant

Source: data processed, 2016

The above table illustrates that not all independent variables significantly influence the dependent variable. Macro variables (inflation, exchange rate, and interest rate) do not significantly affect ROE, where micro variables (DER and Liquidity) significantly influence, with the level of $\alpha = 5\%$ (0.05). Variable inflation, exchange rate, DER, liquidity and ROE do not significantly affect the investment risk variable, being the variable interest rate has a significant influence on investment risk variables. The relationship between the macro and micro variables on ROE and investment risk can be described as follows:

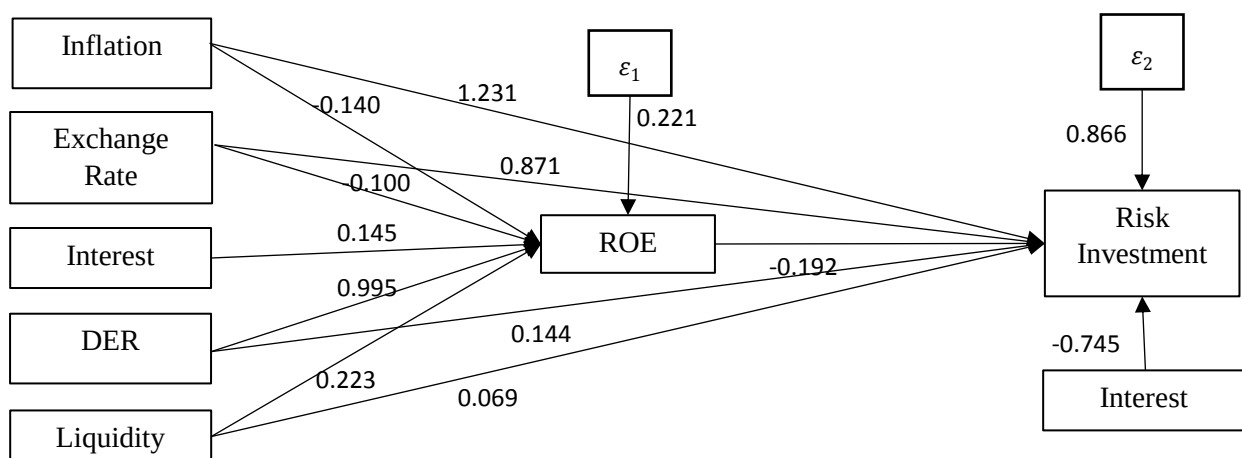


Figure 1. The relationship between the macro and micro variables on ROE and investment risk

The regression equation as follows:

$$Z = -0.140X_1 + 0.100X_2 + 0.145X_3 + 0.233X_4 + 0.995X_5 + \varepsilon_1 \quad (8)$$

$$Y = 1.231X_1 + 0.871X_2 + \beta_8 YX_3 + 0.144X_4 + 0.069X_5 + 0.192Z + \varepsilon_1 \quad (9)$$

The regression equation above can be described that inflation (X1) and exchange rate (X2) have a negative impact and no significant effect on ROE (Z) of -0.140 and -0.100, interest rates (X3) have a positive and significant influence amounted to 0,145 on ROE (Z), DER (X4) and Liquidity (X5) has a positive and significant influence amounted to 0.995 and 0.233 of the ROE (Z).

Inflation (X1) and exchange rate (X2) has positive and significant influence amounted to 1.231 and 0.871 of the investment risk (Y), interest rates (X3) has a negative and significant effect of -0.745 Risk Investment (Y), DER (X4) and liquidity (X5) has a positive and significant influence amounted to 0.144 and 0.069 of the Risk Investment (Y), ROE has a negative and significant effect of -0.192 Risk Investment (Y).

Inflation's indirect influence on the risk of investments through ROE amounted to 0.027, and the total effect of -0.332. The exchange rate has an indirect influence on the risk of investments through ROE amounted to 0.019, and the total effect of -0.292. Interest rates have no direct influence on the risk of investments through ROE of -0.028, and the total effect of -0.047. DER indirect influence on the risk of investments through ROE of -0.191, and the total effect of 0.803. Liquidity has an indirect influence on the risk of investments through ROE of -0.045, and the total effect of 0.041.

4. Discussion

4.1. Inflation influence on ROE and Investment Risk

The effects of inflation on ROE and no significant negative effect of -0.140. Inflation theory states that inflation could theoretically provide a positive and negative effect on revenues. The increase in inflation will cause a rise in the price of goods so that the decreased purchasing power. The reduced purchasing power resulting decline in the level of sales so that profits / revenues company declined. This is consistent with previous researches that inflation has a negative ROE. High inflation led to high investment risk, so in accordance with the results of the study that inflation has a positive influence. The results of the study that inflation does not have a significant effect on ROE and investment risk because the study sample mostly produce goods that do not have price flexibility. The resulting product is not a company that produces most of the daily needs that are not too influential.

4.2. Effect of Exchange Rate (US \$) for ROE and Investment Risk.

Transaction company purchases ingredients (not cash) to use the US \$, the change in the exchange rate against the US \$ will affect costs. The cost is too high will lead to reduced income, so that profitability will decline, so that the investment risk will rise. The results showed that the exchange rate has a negative influence on ROE according to research Suardani (2009) and have a positive effect on the risk of investment according to research conducted by Manggalih (2011). The exchange rate does not have a significant impact on ROI as well as on the risk of investment. sample mostly produce goods that do not have price flexibility. The resulting product is not a company that produces most of the daily needs that are not too influential.

4.3. The influence of interest rates on ROE and Investment Risk

The interest rate rise will revenues / profitability of the company will decrease due to increased interest costs, thus the level of investment risk will increase. The results showed that the interest rate has no effect on

ROE and significant effect on the risk of investment. Investors perceive that the greater the interest rate, the greater the risk.

4.4. DER influence on ROE and Investment Risk

The use of debt leverage will produce profitable because using debt well to then generate revenue greater than the effective rate to be paid. DER so the higher the profitability will be higher and the risk will also be higher. The results showed that the DER has a positive and significant impact on ROE and no significant effect on the risk of investment. It is also consistent with studies conducted by Nor Isnaini (2013) that the DER has a positive and significant impact srta not have a significant effect on the risk of investment. We know that there are provisions for companies listed on Islamic securities company's total debt to assets should not be more than 45%. So the size of the debt to investors has no effect on risk.

4.5. Liquidity influence on ROE and Investment Risk

Liquidity demonstrates the company's ability to pay short-term debt. The higher the liquidity the more profitability and investment risk decreases. The results showed that liquidity has a significant positive effect on ROE. Liquidity has no effect on the risk of investment because investors do not consider that the liquidity of companies that demonstrate the company's ability to repay short-term obligations as elements that affect the investment risk. Investors assume that the companies listed in JII is a company that has been filtered based on Islamic principles so that less attention in assessing financial ratios for the shares.

4.6. ROE influence on the Investment Risk

High profitability means that the company has the ability to generate corporate profits, higher corporate profits, the investment risk will be even greater. ROE research results have no significant effect on the risk of investment because investors do not just look at the ROE as a company, but also looking at the prospect of other aspects (e.g. technology, production, industrial environment, etc.).

Results of research it pays advisable for investors and prospective investors pay attention to internal factors (capital structure, liquidity and other fundamental factors) companies due to internal factors will affect the profitability of Integration. External factors will affect investment risk therefore external factors need to be considered in investing. Researchers further recommended to add variable good research to external variables (e.g. gross domestic product), internal variables (e.g. Asset Growth, financial leverage, operating leverage, etc.), using mediating variables other than the ROE, as well as increase the number of companies that become the object of research.

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