ANALYSIS OF MARKET RISK, FINANCIAL LEVERAGE, AND FIRM SIZE TOWARD STOCK RETURN ON NON-BANKING COMPANIES LISTED IN LQ45 INDEX OF IDX

ANALISIS RISIKO PASAR, LEVERAGE KEUANGAN, DAN UKURAN PERUSAHAAN TERHADAP *RETURN* SAHAM PERUSAHAAN NON-PERBANKAN YANG TERDAFTAR DALAM INDEKS LQ45 DI BEI

by:
Rini Feronica Koluku[1]
Sifrid S. Pangemanan[2]
Ferdinand Tumewu[3]

[1,2,3]*Faculty of Economics and Business*
International Business Administration (IBA), Management Program
University of Sam Ratulangi Manado
email: [1]rinniferonica@gmail.com
[2]Sifridp_s@unsrat.ac.id
[3]tumewufj@gmail.com

Abstract: *In the world of investment, one underlies the decision of investors is stock returns that are depend on many factors. The purpose of this study was to analyze the effect of Market Risk, Financial Leverage, and Firm Size to Stock Return. By counting these factors, investors can see the effect of stock returns are important in decision making. The research methods associative with regression analysis and classical assumption techniques that include normality, multicollinearity, heteroscedasticity, and autocorrelation. Samples are 36 non-banking companies in LQ45 index during the period 2010-2012. Purposive sampling technique used to obtain a sample in accordance with the purpose of research. This study used cross section data with 108 observation period. The results showed Firm Size and Market Risk have significant effect on Stock Return, while Financial Leverage has no significant effect on Stock Return. To conclude, investors need to pay attention to the growth and asset quality, as well as the risks to be faced by a company as a consideration in investing their funds in order to invest in the right and profitable companies.*

Keywords: *market risk, financial leverage, firm size, stock return*

Abstrak : Dalam dunia investasi, salah satu yang mendasari keputusan investor adalah *return* saham yang tergantung pada banyak faktor. Tujuan penelitian ini untuk menganalisis pengaruh Risiko Pasar, Leverage Keuangan, dan Ukuran Perusahaan terhadap *Return* Saham. Dengan menghitung faktor-faktor tersebut, investor dapat melihat efek *return* saham yang penting dalam pengambilan keputusan. Metode penelitian asosiatif dengan teknik analisis Regresi Linier Berganda, dan uji asumsi klasik yang meliputi normalitas, multikolinearitas, heteroskedastisitas, dan autokorelasi. Sampel penelitian sebanyak 36 perusahaan non-perbankan dalam indeks LQ45 selama periode 2010-2012. Teknik sampling menggunakan Purposive untuk mendapatkan sampel sesuai dengan tujuan penelitian. Penelitian ini menggunakan data *cross section* dengan periode 108 observasi. Hasil penelitian menunjukkan Risiko Pasar dan Ukuran Perusahaan berpengaruh signifikan terhadap *return* saham, sementara Leverage Keuangan berpengaruh tidak signifikan terhadap *return* saham. Jadi, Investor perlu memperhatikan pertumbuhan dan kualitas aktiva produktif, serta risiko-risiko yang akan dihadapi suatu perusahaan sebagai alat pertimbangan dalam menginvestasikan dananya sehingga dapat berinvestasi di perusahaan yang tepat dan menguntungkan.

Kata kunci: *risiko pasar, leverage keuangan, ukuran perusahaan, return saham*

INTRODUCTION

Business activity has become very influential for the development of a company or country. Especially Indonesia as a developing country, needs a lot of programs in the field of economy to improve the welfare of its people. The Indonesian government and its people have long been familiar with the business world because of its strategic geographical location of Indonesia during the first trade by the colonizers. However, the Indonesian economy after the crisis in 1998 in various fields, the more we know as the multidimensional crisis are very influential on the development of the business world in Indonesia.

One of the economic recovery program undertaken by the government was based on the promotion of investment. Generally, investment is the application of money for earning more money. Thus, the program is promoted to invite more investors to invest in Indonesia through business activities, which is expected to create job opportunities more widely. It is very helpful for Indonesian goverment to improve the welfare of its people and also overcome the economic crisis.

In investment, the management must be careful in making decisions. Important decisions that must be made by the management is making investments (Investment Decisions) and spending decisions (Financial Decisions). These decisions should always be pursued effectively and efficiently. The technical term in the investment world which is "high risk high return", meaning that if someone wants to obtain greater return, it will be exposed to greater risk as well. Investment options can not only consider the return but also the level of risk to be faced.

The value of a company is an achievement seen from its financial performances. Financial performance is considered as the most important factor in determining company's stock prices, it is because company's financial performance is the most objective factor and clear enough to describe the corresponding stock prices at a company.

Stock Return is one of the underlying investor's decision in investment. It can be said that return that occurs are investor's response to an information. Investor's decisions relating to the decision whether to buy or sell stocks. When we talk about the return of an investment, then we will also talk about the risks that follow. Most investors want to avoid risk, and those who took risks necessarily expect a commensurate return. Therefore, investors need information about the desired risk and return.

Risk in the context of finance can be differ into several types, and one of those types are Market Risk. Single market risk factor developed in the Capital Asset Pricing Model as the only factor that is able to measure the systematic risk of securities. The use of debt funding to meet the needs of the company causing the interest and principal to be paid, in other words, debt is a source of funds that can be used to fund the activities of the company so that the company can increase the ability to generate profits. So, Large debt means large leverage ratio. Firm size is the market value of a company can be obtained from the calculation of the share price multiplied by number of shares issued (outstanding shares). There are a number of reasons why size is likely to capture some dimension of risk.

Research Objectives

The four main objectives in this research are to analyze the effect of:

1. Market Risk, Financial Leverage, and Firm Size simultaneously toward Stock Return.
2. Market Risk Partially toward Stock Return.
3. Financial Leverage Partially toward Stock Return.
4. Firm Size Partially toward Stock Return.

THEORETICAL REVIEW

Financial Management

Paramasivan and Subramanian (2008:4) define financial management is an essential part of the economic and non economic activities which leads to decide the efficient procurement and utilization of finance with profitable manner. In the olden days the subject Financial Management was a part of accountancy with the traditional approaches. Despite the different duties and responsibilities in each company, the main tasks of financial management include: decisions about investment, financing and dividend distribution business activities of a company.

Financial Ratio

Wild, Subramanyam, and Halsey (2005:36) define ratio is a tool to provide a view of the underlying condition. The ratio is one of the starting point, not the end point. The ratio is interpreted to indicate the exact area that requires further investigation. From this definition the ratio can be used to determine whether there are deviations by comparing the financial ratios with previous years.

Market Risk

Mcnail, Frey, and Embrechts (2005:374) stated that Market Risk is the risk of a change in the value of a financial position due to changes in the value of the underlying components on which that position depends, such as stock and bond prices, exchange rates, commodity prices, etc. In other words, Risk is the magnitude of the deviation between the expected rate of return with the rate of actual. One of investment activities of investors was confronted by systematic risk. Systematic risk is also called market risk, as the impact affects all stocks.

Financial Leverage

Financial leverage is funding process to develop a business with a certain interest costs (Weston, 2009). Financial Leverage become one of the important roles in the operation of the company, how the company finance its activities. Debt (which raises financial leverage) is used to meet the financing needs of the company so that the company can operate, invest, and be able to expand its business.

Firm Size

Firm size is a variable that is measured from the amount of total assets of the sample firms (Chen, 2005). The size of the company will affect corporate capital structure. This leads to the tendency of companies require more funds than smaller firms. Large funding requirements indicate that the company wants growth profit and also growth of stock returns (Fama and French, 1992).

Stock Return

Gitman (2009:228) define that Return is the total gain or loss experience on an investment over a given period of time. It commonly measured as the change in value plus any cash distributing during period of time, expressed as a percentage of the beginning period of investment value.

Previous Research

Rouwenhorst (1998) examines the effects of momentum and the effect of firm size in 12 European countries and found that in all countries the winner stocks capable outperform over the medium term of 1% per month. Fama and French (1992) found that significant market risk against return. Regressed either partially or in combination with other variables, the market beta is only able to explain a little about the average return. While the combination of size and book to market equity is able to explain the role of E/P and leverage to return. The results also showed that the leverage negatively correlated to the return while the book to market equity shows the return positif relationship, even relationship book to market more powerful in explaining equity returns than size. Acheampong, Agalega, and Shibu (2013) found that financial leverage insignificantly effect on stock return while the effect of stock return on market risk and size is significant.
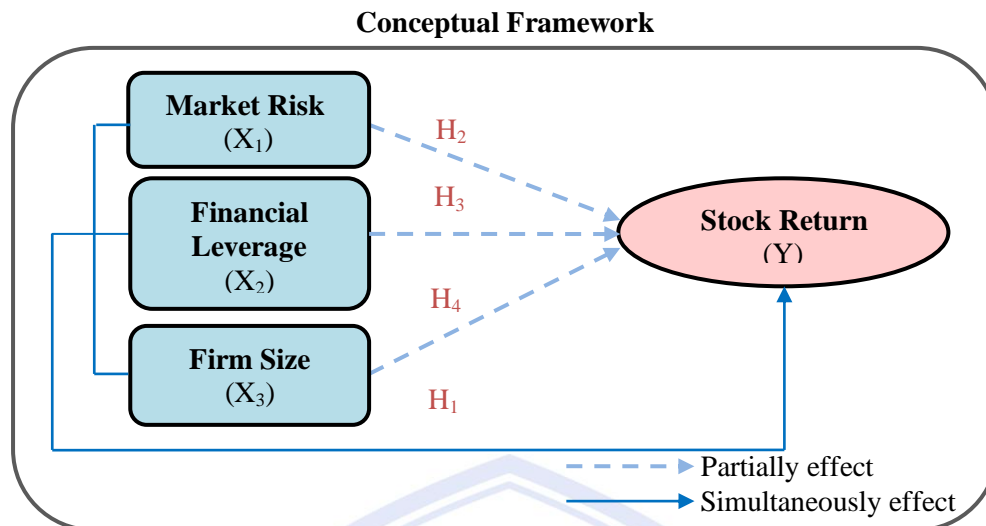
Conceptual Framework

Figure 1. Conceptual Framework
Source: Theoretical Review

Research Hypotheses

The hypotheses of this research are:

H_1 : Market Risk, Financial Leverage, and Firm Size influence Stock Return, simultaneously.

H_2 : Market Risk influence Stock Return.

H_3 : Financial Leverage influence Stock Return.

H_4 : Firm Size influence Stock Return.

RESEARCH METHOD

Type of Research

        This research uses causal type of research. This type of research also determines if one variable causes another variable to occur or change. In this research is to analyze the effect of Market Risk, Financial Leverage, and Firm Size toward Stock Return.

Place and Time of Research

        Place of reseach explains field of research, e.g. company, university, etc. The study was conducted in Manado between two months July - August 2013.

Population and Sample

        Populations in this research are non-banking companies listed in LQ45 index of Indonesia Stock Exchange (IDX) during period 2010-2012. The sampling design is a saturated sample that is considered as the best way of getting some basic information effective and more accurate (Sekaran and Bougie, 2009:263). The selection of this population based on the consideration that categorized as illiquid stocks. Liquidity of a stock means that the stock is actively traded. Meanwhile, the sampling technique was purposive sampling in order to obtain a sample in accordance with the research objectives. Purposive sampling method is a sampling method that is based on certain considerations or criteria. Based on purposive sampling, the sample used in this research were 36 listed companies.

Data Collection Method

        This research using quantitative data. The quantitative data are secondary data such as financial data, including historical reports of stock price and trading volume of the companies. With electronic and library research method, in order to obtain additional information through Internet access to websites Indonesian Stock Exchange (IDX), World Investment, ICMD (Indonesian Capital Market Directory), and other relevant links.

Data Analysis Method

Validity and Reliability Test

Validity is a test of how well an instrument that is developed measures the particular concept it is intended to measure (Sekaran and Bougie, 2009:157). To analyze the validity of questionnaire, Pearson Product Moment is used. The purpose of reliability test is to check the consistency of a measurement instrument. The reliability test in this research uses Alpha Cronbach. Cronbach's Alpha is reliable coefficient that can indicate how good items in asset have positive correlation one another.

Multiple Regression Analysis Method

The method of analysis used in this study is multiple regression models to approach the return. To find out the effect dependent variable with independent variables used multiple linear regression with the formula:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where,

Y   : Stock Return
a   : Constant, equal to 0
β_1-β_3 : Regression coefficient of each independent variable
X_1 : Market Risk
X_2 : Financial Leverage
X_3 : Firm Size
e   : error

RESULT AND DISCUSSION

Result

Validity and Reliability Test

The Reliability result shows that the instrument is acceptable because the Alpha Cronbach coefficient has a value of 0.705; it proves that the data is up to standard and can move forward to the next step. The Validity result shows that the validity for each variable are good where the values are above minimum level of 0.30. It means that all independent variables in are above the minimum level.

Classical Assumption Test
Multicollinearity

Table 1. Multicollinearity

Model	Collinearity Statistics	
	Tolerance	VIF
1 MRISK	,514	1,946
FINLEV	,990	1,010
FSIZE	,517	1,933

a. Dependent Variable: RETURN
Source: Data Processed 2014

The VIF value of Market Risk (X_1), Financial Leverage (X_2), and Firm Size (X_3) was below numbers <10, this means that there is no connection between the independent variables. Thus, multicollinearity assumptions are met (free of multicollinearity).
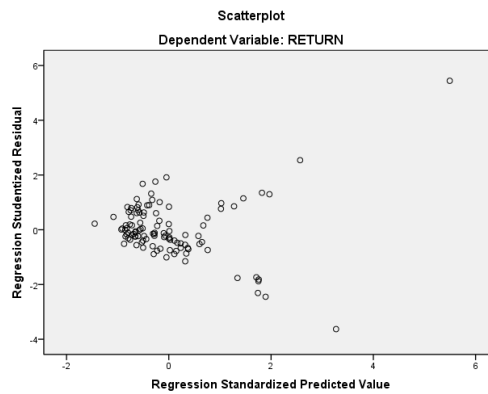
Heteroscedasticity Test

Figure 2. Heteroscedasticity Test Result
Source: Data Processed 2014

The figure shows that there is no established pattern, in other words the points describing the plot spread above and below the number 0 (zero) on the Y-axis. This proves that the model is free from heteroscesdasticity.
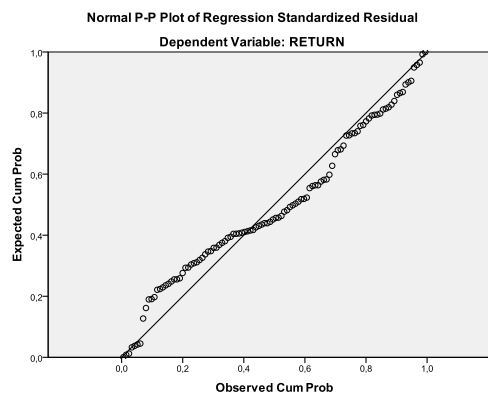
Normality Test

Figure 3. Normality Test Result
Source: Data Processed 2014

The figure shows that the data that represented by dots are spreading near the diagonal line and the spreading following the direction of diagonal line. This proves that the model is passing the normality test.

Multiple Linear Regression

Table 2. Multiple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,353	,496		-0.711	,000		
	X_1	-1,352	,102	-,719	-13,214	,000	,514	1,946
	X_2	,307	,227	,053	1,352	,179	,990	1,010
	X_3	,114	,025	,253	4,667	,000	,517	1,933

a. Dependent Variable: Y
Source: SPSS data processed 2014.

The linear regression equation is as follows :

$$Y = -0,353 - 1,352 X_1 + 0,307 X_2 + 0,114 X_3$$

With interpretation as follows :
1) Constant value of -0,353 means that if the variables in this research of Variable X_1, X_2, and X_3 simultaneously increased by one scale will increase the Y at -0,353 point.
2) Coefficient value of -1,352 means that if the variables in this research of X_1 increased by one scale, it will improve and increase Y at -1,352.
3) Coefficient value of 0,307 means that if the variables in this research of X_2 increased by one scale, it will improve and increase Y at 0,307.
4) Coefficient value of 0,114 means that if the variables in this research of X_3 increased by one scale, it will improve and increase Y at 0,114.

Table 3. Table R and R^2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,918[a]	0,842	0,837	0,38866029	2,074

a. Predictors: (Constant), X_3, X_1, X_2
b. Dependent Variable: Y
   Source: SPSS data processed 2014

The analysis of correlation (r) is equal to 0,918 indicating that the Correlation of the Effect of Market Risk (X_1), Financial Leverage (X_2), and Firm Size (X_3) toward Stock Return (Y) has a strong relationship. To determine the contribution The Effect of X_1, X_2, and X_3 toward Y can be seen that the determinant of the coefficient (r^2) in the table above. r^2 value of 0,842 in this study was imply that the contribution of Market Risk (X_1), Financial Leverage (X_2), and Firm Size (X_3) toward Stock Return (Y) of 84,2% while the remaining 15,8% is affected by other variables not examined in this study.

Hypothesis Testing

T-Test
        T-test is used to determine the partial effect of each independent variable to dependent variable. T-test value is obtained by comparing value of t_{count} with t_{table}. If t_{count} is higher than t_{table}, H_o is rejected and Ha is accepted.

Table 4. T-test Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,353	,496		-0,711	,000
	X_1	-1,352	,102	-,719	-13,214	,000
	X_2	,307	,227	,053	1,352	,179
	X_3	,114	,025	,253	4,667	,000

a. Dependent Variable: Y
   Source: SPSS data processed 2014

The partial effect for each independent variable will be explained as follows:
1. Market Risk (X_1) to Stock Return (Y)
   t_{count} for X_1 -13,214 > t_{table} 1,658 and value sig. 0,000 means X_1 has significant effect partially on Y. Therefore, H_a accepted.
2. Financial Leverage (X_2) to Stock Return (Y)

t_{count} for X_2 1,352 < t_{table} 1,658 and value sig. 0.179 means X_2 has no significant effect partially on Y. Therefore, H_o accepted.

3. Firm Size (X_3) to Stock Return (Y)

   t_{count} for X_3 4,667 > t_{table} 1,658 and value sig. 0,000 means X_3 has significant effect partially on Y. Therefore, H_a accepted

F-Test

F test is used to determine the whole effect of all independent variables to dependent variable. This test done by comparing the F_{count} with F_{table}. If F_{count} is higher than F_{table}, H_o is rejected and Ha is accepted.

Table 5. F-test Result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83,687	3	27,896	184,671	,000[a]
	Residual	15,710	104	,151		
	Total	99,397	107			

a. Predictors: (Constant), X_3, X_1, X_2

b. Dependent Variable: Y

Source: SPSS data processed 2014

The level of significant (α) 0,05 and df numerator k-1 = 4-1 = 3 and the denominator nk = 108-4 = 104, retrieved the F_{table} = 2.7 and F_{count} = 184.671 (Sig. F = 0.000 a). Retrieved Sig = 0.000 < Level of Significant = 0.05, then Ho rejected or Ha accepted. It proves that there is simultaneously effect of Market Risk (X_1), Financial Leverage (X_2), and Firm Size (X_3) toward Stock Return (Y).

Discussion

The research result clarifies that there are some factors that can affect stock return in investment. F-test result demonstrates that there is a linear relationship in this multiple regression model. It is described that independent variables (market risk, financial leverage, and firm size) simultaneously effect Stock return as dependent variable. Thr result of T-test shows that there is one independent variable (financial leverage) shows no significant effect on dependent variable. It is explained that there is other factor that can described more than financial leverage that does effect on stock return.

Market Risk and Firm Size does effect on stock return. This research found that the higher the market risk, the higher the company's stock returns are obtained and firm size likely to capture some dimension of risk. It is because Market Risk affect investors' analysis to identify the prospects of the company and the influencing factors to estimate the stock price in the future, and the earning prospects of small capitalization firms are more sensitive to macroeconomic risk factors than are those of large capitalization firms. This research supports a research by Chen (2005) and Fama & French (1992), which also found the simultaneous effect of Market Risk and Firm Size to Stock Return is significantly positive. Another independent variable of this research is financial leverage which is not significantly effect on dependent variable. This is because the benefits gained in the use of debt to be less than the costs arising from the use of such debts. This finding is consistent with the findings of Acheampong, Agalega, and Shibu (2013).

Market Risk affect an organization's ability to achieved its objectives and execute its strategies. If the investor expects to obtain a high rate of return, it must be willing to bear high risk anyway. There are a number of reasons why firm size is likely to capture some dimension of risk. The need for greater funding have a tendency that companies have to use financial leverage because the company wants growth in earnings. Those variable is a fraction of many factors to be considered and evaluated for investors in order to make successfull investment in business.

CONCLUTION AND RECOMMENDATION

Conclution

The final conclutions of this research are:

1. All independent variables (market risk, financial leverage, and firm size) are simultaneously effect to Stock return as dependent variable.
2. Market Risk has a significant effect to stock return.
3. Financial leverage has no significant effect to stock return.
4. Firm size has a significant effect to stock return.

Recommendation

The result found that market risk and firm are the most influencing factors to stock return, and then followed by financial leverage. Whether partially, financial leverage has no significant effect, but simultanously it has. In the real world almost all investments contain elements of uncertainty or risk. Financiers do not know with certainty that the result would be obtained from its investments. Because investors face a risky investment opportunities, investment options can not be rely solely on the expected level of profit. If the investor expects to obtain a high rate of return, it must be willing to bear high risk anyway. That's why the need to understand the investment process are important for investors. To make such decisions need to take a lot of consideration and evaluation.

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