

## Conference Paper

# Factors Affecting Stock Beta Companies Listed in Jakarta Islamic Index 2012-2016 Period

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## Abstract

This study aims to analyze the effect of earning per share, debt to equity ratio, growth, return on asset and firm size to stock beta in Jakarta Islamic Index in partially and simultaneously. This research uses quantitative approach with linier multiple regression analysis technique. The statistical analysis tools being used is SPSS 23 software. The population in this study are manufacturing companies listed on the Jakarta Islamic Index (JII). The number of samples that meet specified criteria are seven companies listed in Jakarta Islamic Index. The observation period of this study from 2012-2016. The result showed that independent variables are earning per share, debt to equity ratio, growth, return on asset and firm size simultaneously and significantly affect the stock beta in Jakarta Islamic Index. While partially, the earning per share, debt to equity ratio and firm size have positive and significant impact, return on asset has negative and significant impact and growth variables has no significant impact on stock beta in Jakarta Islamic Index 2012-2016 period.

**Keywords:** Stock Beta, Earning per Share, Debt to Equity Ratio, Growth, Return on Asset, Firm Size

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## 1. Introduction

Islam is a religion that is universal and can provide guidance and guidance for human life both in terms of worship and social politics and economics. Humanity in order to realize the welfare of life on earth is closely related to economic activities. In the view of Islam, suitable and recommended economic activities are one of them through investment activities and prohibiting the practice of trading money which is an interest transaction. Investment is one way to realize the level of economic growth in the long term and in order to maximize the level of welfare of the Ummah. The importance of investing for future needs for humans has been conveyed in the Qur'an, namely in QS. Al-Haysr 18

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يٰۤاَيُّهَا الَّذِيْنَ ءَامَنُوْا اتَّقُوا اللّٰهَ وَارْجُوْا يَوْمَ تَلْقَوْنَ اللّٰهَ ۗ وَارْتَقِبْ يَوْمَ تَأْتِي سَآءَ السَّاعَةِ ۗ وَالَّذِيْنَ كَفَرَ ۙ اللّٰهُ يَخْتَارُ ۙ لِمَنْ يَّشَآءُ ۙ سَبِيْلًا ۗ وَالَّذِيْنَ كَفَرَ ۙ سَبِيْلًا ۗ وَالَّذِيْنَ كَفَرَ ۙ سَبِيْلًا ۗ وَالَّذِيْنَ كَفَرَ ۙ سَبِيْلًا ۗ

*Yā ʾayyuhā'l-lazīna āmanuttaqullāha wazārū mā baqiya minar-ribā in kuntum-mu'minīn*

Meaning: "O ye who believe, fear Allah and let every one of you pay attention to what he has done for tomorrow (hereafter); and fear Allah, for Allah is the Knower of what you do." (Ministry of Religion, 2013: 548).

Investment can be interpreted as a commitment to invest a number of funds at this time with a goal to gain future benefits (Tandelilin, 2010: 1). Investment activities can be carried out in various businesses both in the real sector and the financial sector. Investment in the real sector can be done by purchasing real assets such as land, gold, machinery and buildings. While investment in the financial sector is carried out in the money market and capital markets such as government securities, stocks, bonds / sukuk. According to Tandelilin (2010: 30), various long-term securities currently traded in the Indonesian capital market include ordinary stocks, preferred stocks, corporate bonds, convertible bonds, state bonds, proof of rights, warrants, option contracts, futures contracts and mutual funds.

Of the several instruments offered, stocks are instruments that are in great demand by investors when investing in the capital market is a stock, because stocks are able to provide attractive rates of profit. According to Tandelilin (2010: 32), stocks are certificate that shows proof of ownership of a company.

Along with the development of the Indonesian economy, the development of capital market instruments also showed rapid progress. The need for capital markets triggers the emergence of Islamic stocks which are expected to encourage Muslims to invest in the capital market.

One of the Islamic instruments in Indonesia that is identical with the capital market is the Jakarta Islamic Index (JII). JII calculates the index of the average price of shares for the types of shares that meet the criteria of sharia. On July 3, 2000, the Indonesia Stock Exchange (IDX) with PT. Danareksa Investment Management publishes Jakarta Islamic Index JII to facilitate Muslim investors in investing in sharia-based shares. The Jakarta Islamic Index is a benchmark in measuring the performance of an investment in shares with a sharia basis. The Jakarta Islamic Index consists of 30 shares selected from stocks that are in accordance with Islamic law and periodically evaluated every 6

months, every June and December or based on the period determined by Bapepam-LK, namely when the List of Sharia Securities is issued. While changes in the type of business of the issuer will be monitored continuously based on available public data ([www.idx.co.id](http://www.idx.co.id)).

Investment decisions are basically related to future expectations and are uncertain, thus posing a risk of inaccuracy between expectations and the reality of the income derived from the investment.

Index for measuring systematic risk is beta ( $\beta$ ), the beta coefficient describes the tendency of stocks to move up or down in the market. The use of beta ( $\beta$ ) as a systematic risk gauge refers to the concept of the single-index model. This model is based on the observation that the price of securities fluctuates in the direction of the market price index (Jogiyanto, 2010: 341).

This study uses fundamental variables namely earning per share, debt to equity ratio, growth, return on assets and firm size. According to Tandililin (2010: 241) the first important component that must be considered in the company's analysis is earnings per share or better known earnings per share. The greater the value of earnings per share shows that the company is able to provide higher profits for investors.

Debt to equity ratio is one solvency ratio that shows the proportion of debt to finance a company's investment (Sartono, 2001: 120).

Growth is a ratio that describes the company's ability to maintain its economic position in the midst of economic growth and its business sector (Kasmir, 2012: 107).

Firm Size shows the size of the company which is seen from the value of equity, the value of the company or the value of the total assets of a company (Riyanto, 2001)

Return on Asset is part of the profitability ratio. Profitability is the ratio used by a company to measure a company's ability to generate profits (Sartono, 2001: 122).

The formulation of the problem in this study is whether there is an influence between earnings per share, debt to equity ratio, growth, return on assets and firm size on Islamic stock beta in the Jakarta Islamic Index for the 2012-2016 period?

The purpose of this study was to determine the effect of earnings per share, debt to equity ratio, growth, return on assets and firm size of Islamic stock beta in the Jakarta Islamic Index for the 2012-2016 period.

## 2. Theoretical Basis

Investment can cover activities very broad. This form of investment can take the form of investing money in certificates, deposits, bonds and shares or mutual funds. "Investment is a top commitment a number of funds or sources of funds made at this time with the aim of obtaining profits in the future will come "(Tandelilin, 2001: 3).

Whereas according to Jogiyanto (2000: 5) "Investment is a delay Current consumption that is put into an efficient production process over a certain period of time results in consumption in the future ".

Investments made by a Muslim should be in an effort to get closer to Allah SWT. In the view of Islam, investment has a broader understanding and purpose because it includes aspects of the world (material) and the afterlife (ukhrawi) as described by Ryandono (2009: 70): "Sharia investment is a sacrifice of resources in the present to get definite results, with the hope of obtaining greater results in the future, both directly and indirectly while remaining grounded in overall sharia principles (kaffah). Besides that, everyone this form of investment is carried out in the framework of worshipping God to achieve happiness born inward in the world and the hereafter both for the present generation and the generations to come. "

From the understanding and objectives of investment proposed by Ryandono it can be clearly seen that there are differences between Islamic investment and capitalist investment, namely Islamic investment always refers to sharia principles because the goal is not only to gain worldly profit (material) but also to achieve victory in the hereafter.

Investment is one of the muamalah activities that is recommended in the concept of Islamic economics because by investing the assets owned will become more productive and will bring benefits to individuals as well as broad economic growth. Recommendations for working and investing have been conveyed in the Qur'an, namely in QS. At-Taubah: 105

وَقُلِ اَعْمَلُوا فَسَيَرَى اللهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ  
 وَسُرَدُّونَ اِلَىٰ عَلِيِّ الْعَلِيبِ وَالشَّهَادَةِ فَيُنشِرُكُمْ بِمَا كُنْتُمْ  
 تَعْمَلُونَ ﴿١٠٥﴾

Meaning: And say, "Work for you then Allah and His Messenger and the believers will see your work, and you are returned to (Allah) who knows the unseen and the real, then He proclaims to you what has been you do it ".

(Surah at-Taubah 9: 105, Ministry of Religion of the Republic of Indonesia 2013: 203)

Tandelilin (2010: 30) states that the capital market is a market for long-term securities in the form of debt and equity (own capital) as well as various derivative products. Various long-term securities currently traded in the Indonesian capital market include common stock, preferred shares, corporate bonds, convertible bonds, state bonds, proof of rights, warrants, option contracts, futures and mutual funds. Securities in the capital market have the characteristics of maturing more than one year.

According to Ryandono (2009: 227-228) stock trading on the stock exchange that is currently running, there are still many practices that violate sharia. For example, bonds that provide returns in the form of interest, short selling practices, margin trading and speculation in securities transactions. In order to avoid sharia violations that continue in capital market transactions, the idea of a capital market system to apply the sharia principles need to be realized immediately. In its development, the capital market began to apply sharia principles for each transaction, so that a sharia capital market was formed. Islamic investment in Indonesia began with the issuance of Islamic mutual funds on July 3, 1997 by PT. Danareksa Investment Management. Furthermore, regulators began issuing regulations relating to capital market sharia investment transactions, such as DSN-MUI fatwas.

Sharia capital market expected to increase investor confidence to invest in sharia-based shares and provide benefits to investors in carrying out Islamic sharia to invest in the stock exchange.

Shares are certificates that show proof of ownership of a company (Tandelilin, 2010: 32). The form of shares is a piece of paper that explains that the owner of the paper is the owner of the company that issued the securities. The portion of ownership is determined by the amount of funds or capital invested in the company (Darmadji and Fakhruddin, 2001: 5).

Risk can be interpreted as the level of income obtained from the expected level of income. The risk according to Brigham (2001: 216) is the opportunity that some unfavorable events will occur. The difference between an expected return and a truly acceptable return is a risk that must always be considered in the investment process.

Beta ( $\beta$ ) is a systematic measure of risk derived from several company fundamental factors and factors market characteristics about company shares. Beta ( $\beta$ ) measures the fluctuations in the return of individual individual stocks on the return of market indices. The magnitude of the beta index is influenced by the movement of variables attached

to risk assets that are related to the macro conditions of a country. The higher the beta, the higher the systematic risk that cannot be eliminated by diversification.

According Jogiyanto (2000: 237-238) beta is a measure of the volatility of return of a security or portfolio return to market returns. Volatility can be interpreted as a fluctuation of the return-return of a security or portfolio for a certain period or it can be interpreted as beta is a measure of the extent to which the rate of return of a stock changes due to market changes.

Based on the description above the hypothesis in this study are as follows:

HA1: Earning per share partially has a significant effect on the performance of Islamic mutual funds in Indonesia during 2012-2016 period.

HA2: Debt to equity ratio has a significant effect on the performance of Islamic mutual funds in Indonesia for the period 2012-2016.

HA3: Growth partially has a significant effect on the performance of Islamic mutual funds in Indonesia for the period 2012-2016.

HA4: Return on assets partially has a significant effect on the performance of Islamic mutual funds in Indonesia for the period 2012-2016.

HA5: Firm size partially has a significant effect on the performance of Islamic mutual funds in Indonesia for the period 2012-2016.

HA6: Earning per share, debt to equity ratio, growth, return on assets and firm size simultaneously has a significant effect on the performance of Islamic mutual funds in Indonesia for the period 2012-2016.

### 3. Research Methods

#### 3.1. Research approach

The approach used in this study is the quantitative method of Anshori and Iswati (2009: 13) explaining that the quantitative approach is a research method that quantifies data to be generalized and apply a form of analysis to accept or reject the hypothesis.

#### 3.2. Operational definition

Operational definitions in this study are as follows:

### 3.2.1. Stock beta

The magnitude of each beta coefficient stocks can be calculated in several ways, here is the formula for calculating the amount of stock beta by using a standard formula (Hartono, 2010: 349):

$$\beta_i = \frac{\sigma_{im}}{\sigma^2_m} = \frac{\sum_{t=1}^N [(R_{it} - \overline{R_{it}})^2]}{\sum_{t=1}^N [(R_{mt} - \overline{R_{mt}})^2]}$$

### 3.2.2. Earning per share

Earning per share (EPS) is an indicator of what investors think about the company's performance in the past and in the future. To measure company earnings per share, use the equation:

$$\text{EPS} = \frac{\text{Net Income}}{\text{Total Outstanding Shares}}$$

### 3.2.3. Debt to equity ratio

Debt to equity ratio is one solvency ratio that shows the proportion of debt to finance a company's investment (Sartono, 2001: 120). For measuring the company's debt to equity ratio used the equation:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

### 3.2.4. Growth

Growth is a ratio describes the company's ability to maintain its economic position in the midst of economic growth and its business sector (Kasmir, 2012: 107).

$$\text{Growth} = \frac{\text{EBIT}(t) - \text{EBIT}(t - 1)}{\text{EBIT}(t - 1)}$$

### 3.2.5. Return on asset

According to Hanafi and Halim (2003: 27), return on assets is the company's financial ratio associated with profitability measures the ability of a company to generate profits or profits at a certain level of income, assets and share capital.

$$\text{Return on Asset} = \frac{\text{Net Income}}{\text{Total Assets}}$$

### 3.2.6. Firm size

Firm size is a large and small scale of a company that can be measured by several things, which can be judged by the magnitude of natural log (ln) of labor, market capitalization, total assets and total company sales (Al-Malkawi, 2008)

$$\text{Firm Size} = \ln \text{ Total Asset}$$

### 3.3. Population and sample

The population in this study includes companies registered in Jakarta Islamic Index for the 2011-2016 period. Sampling using purposive sampling technique. The companies sampled are companies that meet the following criteria:

1. Companies that are consistently listed in the Jakarta Islamic Index (JII) during the study period starting in 2012 s.d 2016.
2. Companies that are consistently listed in the Jakarta Islamic Index (JII) and publish annual audited financial reports (annual reports) during the study period starting from 2012 to 2016
3. The company has the data needed in the study.

TABLE 1: List of Companies as Research Samples.

No	Nama Perusahaan
1.	Akr Corporindo Tbk
2.	Astra International Tbk.
3.	Indocement Tunggul Prakarsa Tbk.
4.	Kalbe Farma Tbk.
5.	Perusahaan Gas Negara (Persero) Tbk.
6.	Semen Indonesia Tbk.
7.	PT. Telekomunikasi Indonesia (Persero) Tbk.

Source: www.idx.co.id (data processed)

### 3.4. Analysis technique

This study uses multiple linear regression analysis to answer the existing hypothesis. Multiple linear regression analysis test is a tool to see the influence of two or more



independent variables to prove whether or not there is a relationship. The equation model of multiple linear regression analysis is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Research that uses Regression analysis models included as parametric analysis groups. There are several analysis requirements that must be met before making conclusions from the regression analysis, namely linearity test, normality test, autocorrelation test, multicollinearity test and heteroscedasticity test.

## 4. Results and Discussion

### 4.1. Data linearity test results

Data linearity test is used to determine whether the independent variables with the dependent variable have a significant linear relationship or not. Good data has a linear relationship between independent variables and dependent variables.

TABLE 2: Data Linearity Test Results.

		Sig
BETA*EPS	Deviation From Linearity	0,180
BETA*DER	Deviation From Linearity	0,388
BETA*Growth	Deviation From Linearity	0,219
BETA*ROA	Deviation From Linearity	0,715
BETA*SIZE	Deviation From Linearity	0,772

Source: processed SPSS data 23

Test results show the significance value of the five variables is > 0.05 so it can be concluded that the relationship between the independent variable and the dependent variable is linear.

### 4.2. Normality test

Normality test is used to test whether in the regression model, confounding or residual variables are normally distributed. A good regression model is a normal or near normal data distribution (Ghozali, 2005: 107). The statistical analysis used to test for normality in this study was the Kolmogrov-Smirnov test. Criteria for data are said to be normally distributed if the significance value (2-tailed) shows a value greater than 0.05. The Kolmogorov-Smirnov test results are as follows:

TABLE 3: Normality Test Result– Kolmogrov Smirnov.

	Unstandardized Residual
Kolmogrov-Sminorv Z	0,889
Asymp. Sig. (2-tailed)	0,409

Table 3 shows the results of the Kolmogrov-Smirnov test that is 0.889 with a significance level of 0.409. The significance value is greater than 0.05, so it can be concluded that the data is normally distributed.

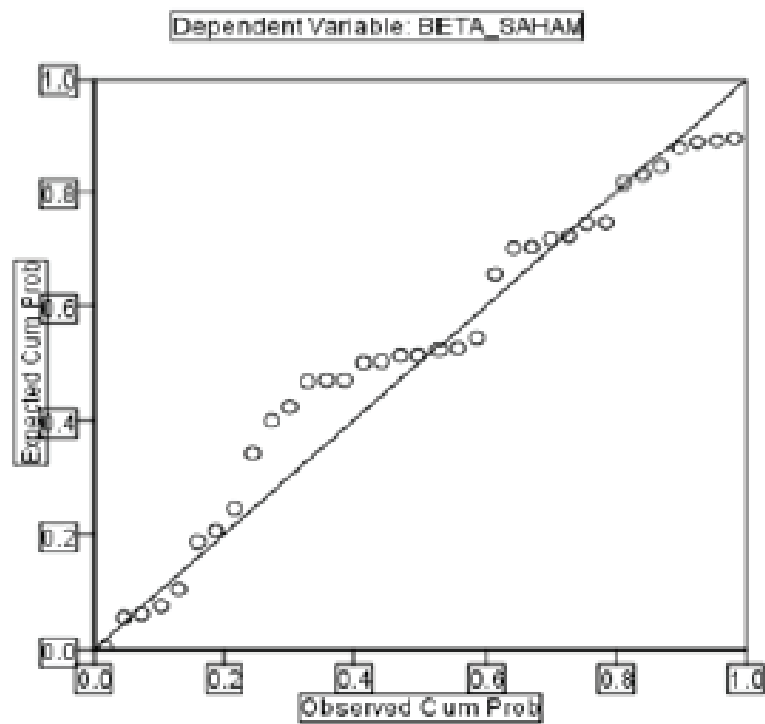


Figure 1: Normality Test Result (Normal P-Plot). (source: processed data SPSS 23)

Normal P-Plots indicate that the points or data spread around the diagonal line and follow the direction of the line which is towards the right top. This gives the conclusion that the normality test with graph analysis has data that is normally distributed.

### 4.3. Multicollinearity test

Multicollinearity test is used to test whether there is a relationship or correlation between the independent variables in the regression model. The measurement of multicollinearity can be seen in the results of VIF (Variance Inflation Factor) and tolerance value. If the tolerance value is > 0.1 and the VIF value is <10, then the variable does not have a

multicollinearity problem with the other independent variables. The VIF value of each variable is summarized in the following table.

TABLE 4: Multicollinearity Test Result.

Variables	Collinearity Statistics	
	Tolerance	VIF
Earning per Share	0,384	2,608
Debt to Equity Ratio	0,457	2,189
Growth	0,956	1,046
Return on Asset	0,540	1,852
Firm Size	0,586	1,707

Based on Table 4 it is known that the VIF value of earnings per share variable, debt to equity ratio, growth, return on assets and firm size is less than 10 and the tolerance value is more than 0.1. So you can concluded that there is no multicollinearity between independent variables.

#### 4.4. Autocorrelation test

The autocorrelation test is used to test whether in the linear regression model there is a correlation between confounding variables in a certain period (t) with the previous period (t-1).

A good regression model is free of autocorrelation. One method for testing autocorrelation is to use the Durbin-Watson (DW) test.

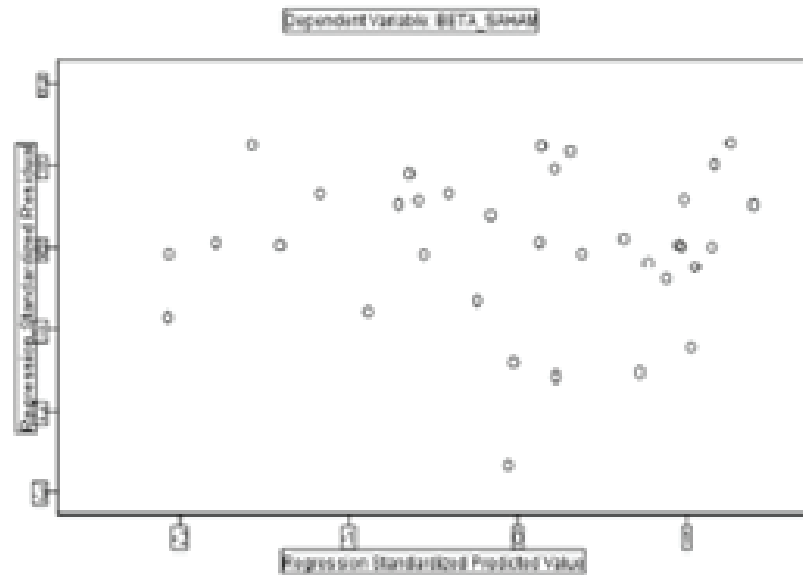
TABLE 5: autocorrelation test result.

<b>Durbin-Watson</b>
<b>1.645</b>
Source: processed SPSS data 23

Table 4 shows the test results autocorrelation with Durbin-Watson has a calculated value of 1.645. A value of 1.645 is between -2 to +2 or still in the range of autocorelation-free regions. It can be concluded that the regression model is free from autocorrelation.

#### 4.5. Heteroscedasticity test

Criteria for regression models do not occur heteroscedasticity is if the points spread and do not form a specific pattern.



**Figure 2:** Heteroscedasticity Test (Source: processed SPSS data 23).

Based on Figure 2 Scatter plot diagram above shows that the points spread randomly and did not form a particular pattern. These points spread above and below the number 0 on the Y axis. It can be concluded that in the linear regression model, variants between group members are the same. The results of this test state that the regression model is homoscedasticity or heteroscedasticity does not occur.

#### 4.6. Multiple linear regression analysis

The following are the results of multiple linear regression tests that examine the effect of independent variables, namely stock beta on dependent variable earnings per share, debt to equity ratio, growth, return on assets and firm size.

TABLE 6: Multiple Linear Regression Analysis Result.

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	0,132	0,542	
EPS	0,001	0,000	0,851
DER	0,181	0,079	0,496
Growth	-0,096	0,067	-0,214
ROA	-0,050	0,015	-0,663
SIZE	0,092	0,043	0,408

Source: processed SPSS data 23

Based on the results of the analysis test of multiple linear regression above, it can be concluded that the regression equation model is as follows:

$$Y = 0,132 - 0,001X1 + 0,181X2 - 0,096X3 - 0,050X4 + 0,092X5$$

Table 6 shows the results of positive and negative influences. The coefficient that has a positive sign indicates the change in the dependent variable to the independent variable is in the same direction, while the coefficient with a negative sign indicates that the change in the dependent variable to the independent variable is not in the same direction or opposite.

## 4.7. Hypothesis testing

### 4.7.1. T test

In this study it is known that t table with df = 29 and Alpha 5% shows the number 2.045. T test results are shown in the following table:

TABLE 7: T test results.

Model	T	Sig.	Conclusion
EPS	3,597	0,001	Significant
DER	2,287	0,030	Significant
Growth	-1,430	0,163	Not Significant
ROA	-3,328	0,002	Significant
SIZE	2,133	0,041	Significant

Source: processed SPSS data 23

The test results can be explained as follows:

1. Variable earning per share (EPS) in this study has a t count of 3.597 with a significance of 0.001. The t count value is greater than t table ( $3.021 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.001 < 0.05$ ), it can be concluded that the variable earnings per share has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA1 was accepted and H01 was rejected.
2. The variable debt to equity ratio (DER) has a t count of 2,287 with a significance of 0,030. The value t count is greater than t table ( $2.156 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.030 < 0.05$ ), it can be concluded that the variable

debt to equity ratio has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA2 was accepted and H02 was rejected.

3. The growth variable has a t count of -1.430 with a significance of 0.163. Curve testing is done on the left side because t counts negative (-). The value of t arithmetic is greater than t table ( $1,430 < 2,045$ ) and the significance value is greater than Alpha 5% ( $0,163 > 0,05$ ), it can be concluded that the growth variable has no significant effect on Islamic stock beta. Thus the hypothesis in this study proved that HA3 was rejected and H03 was accepted.
4. The variable return on asset (ROA) has a t count of -3.3328 with a significance of 0.002. Curve testing is done on the left side because t counts negative (-). The value of t count is greater than t table ( $3.328 > 2.048$ ) and the significance value is smaller than Alpha 5% ( $0.002 < 0.05$ ), it can be concluded that the variable return on assets has a significant negative effect on Islamic stock beta. Thus the hypothesis in this study proved that HA4 was accepted and H04 was rejected.
5. Variable firm size (SIZE) has a t count of 2.133 with a significance of 0.041. The value of t count is greater than t table ( $2.133 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.041 < 0.05$ ), it can be concluded that the firm size variable has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA5 was accepted and H05 was rejected.

#### 4.7.2. F test

In this study, it is known that F table with the denominator df is 29 and the numerator df is 5, indicating the number 2,550. The F test results are shown in the following table:

TABLE 8: Test Results.

Model	df	Mean Square	F	Sig.
Regression	5	0,530	3,524	0,013
Residual	29	0,150		
Total	34			

Source: processed SPSS data 23

Based on table 8 F test results in this study, obtained the calculated F value of 2.550 with a significance value of 0.043. It can be concluded that F count is greater than F table ( $3.524 > 2.550$ ) and the significance level of F is smaller than Alpha 5% ( $0.013 < 0.05$ ). The results of this test show that the variables of earnings per share, debt to

equity ratio, growth, return on assets, and firm size simultaneously influence the Islamic stock beta. Thus the hypothesis in this study was proven because HA6 was accepted and H06 was rejected.

#### 4.8. Coefficient of determination ( $R^2$ )

The coefficient of determination is used to measure how far the independent variable can explain the dependent variable simultaneously. The value of the coefficient of determination ranges from 0 to 1, the greater the coefficient of determination, the better independent variables in explaining the diversity of the dependent variable or the relationship will be closer. The test results of the coefficient of determination are shown in the following table:

TABLE 9: Coefficient of Determination (R Square) Test Results.

Model	R	R Square
1	0,615	0,378

Source: processed SPSS data 23

Based on the test results of the coefficient of determination (R Square), the R square value is 0.378. It can be concluded that changes in Islamic stock beta can be explained by earnings per share, debt to equity ratio, growth, return on assets, and firm size of 0.378 or 37.8%, as if the rest of 0.622 or 62.2% is explained by other variables that are not used in this study.

### 5. Discussion

#### 5.1. The effect of earning per share on Islamic stock beta

The results of this study indicate that earnings per share have a significant positive effect on Islamic stock beta. This can be seen from the t count value of 3.597 with a significance value of 0.001. Based on these results t count value is greater than t table ( $3.597 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.001 < 0.05$ ), it can be concluded that the variable earnings per share has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA1 was accepted and H01 was rejected.

The results of this study are in line with the study conducted by Utomo (2006) which states that earning per share has a positive effect on stock beta. However, these results

are not in line with research conducted by Fidiana (2006) which states that earnings per share have no effect on stock beta, because in assessing returns and risks and the future prospects of the company, investors have not considered earnings per share and investors consider the profits of companies that have gone public will always be stable.

## 5.2. The effect of debt to equity ratio on Islamic stock beta

Partial hypothesis testing aims to prove the effect of debt to equity ratio on Islamic stock beta as measured by the level of use of debt to the total equity of the company. The results of this study indicate that the debt to equity ratio has a significant positive effect on Islamic stock beta. This can be seen from the t count of 2,287 with a significance of 0,030. The value t count is greater than t table ( $2.156 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.030 < 0.05$ ), it can be concluded that the variable debt to equity ratio has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA2 was accepted and H02 was rejected.

The results of this study are in accordance with the opinion of Tandililin (2010) states that debt to equity ratio is an important determinant of systematic risk because debt has priority over ordinary shares in terms of division of corporate income and also in the distribution of assets when bankruptcy occurs, the greater the debt in the company's capital structure the greater the risk of failure (default risk) vice versa.

## 5.3. The effect of growth on Islamic stock beta

Partial hypothesis testing aims to prove the effect of growth on Islamic stock beta measured by using EBIT growth which is calculated based on the percentage change in EBIT.

The results of this study indicate that growth has no significant effect on Islamic stock beta. It can be seen that growth has a t count of -1.430 with a significance of 0.163. Curve testing is done on the left side because t counts negative (-). The value of t count is greater than t table ( $1.430 < 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.163 > 0.05$ ), it can be concluded that the growth variable does not significantly influence the Islamic stock beta. Thus the hypothesis in this study proved that HA3 was rejected and H03 was accepted. The results of this study are consistent with research conducted by Iqbal and Shah (2012) which states that growth has no effect on stock beta.



#### 5.4. The effect of return on assets on Islamic stock beta

Partial hypothesis testing aims to prove the effect of asset return on Islamic stock beta as measured by dividing the company's net income with total assets. The results of this study indicate that return on assets have a significant negative effect on Islamic stock beta. This can be seen in the results of testing that return on assets has a t count of - 3.328 with a significance of 0.002. Curve testing is done on the left side because t counts negative (-). The value of t count is greater than t table ( $3.328 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.02 < 0.05$ ), it can be concluded that the variable return on assets has a significant negative effect on Islamic stock beta. Thus the hypothesis in this study proved that HA4 was accepted and H04 was rejected.

This result is in accordance with what was stated by Hanafi (2003) that if high return on assets means high net profit, a company must be in a favorable condition. Without profit, it will be difficult for companies to withdraw capital from outside. The results of this study are also relevant to the research of Noveriantina (2007) which states that return on assets has a negative effect on Islamic stock beta. So that it can be said that the higher return on assets will decrease the stock beta, because if the return on assets decreases, then the company is considered to be no longer profitable for investors so the stock beta increases.

#### 5.5. The effect of firm size on Islamic stock beta

Partial hypothesis testing aims to prove the effect of firm size on Islamic stock beta. The results of this study indicate that firm size has a significant negative effect on Islamic stock beta. This can be seen in the test results that the firm size has a t count of 2.133 with a significance of 0.041. The value of t count is greater than t table ( $2.133 > 2.045$ ) and the significance value is smaller than Alpha 5% ( $0.041 < 0.05$ ), it can be concluded that the firm size variable has a significant positive effect on Islamic stock beta. Thus the hypothesis in this study proved that HA5 was accepted and H05 was rejected.

The results of this study are in accordance with Halim (2007) who argues that the greater the size of a company, the greater the tendency to use foreign capital. This is because large companies need large amounts of funds to support their operations, and one alternative is to meet foreign capital if the capital does not meet their own capital, thus increasing the risk. Research conducted by Lee and Jang (2007) states that the higher firm size, the higher the stock beta.

## 5.6. The effect of earning per share, debt to equity ratio, growth, return on assets and firm size against Islamic stock beta simultaneously

Simultaneous hypothesis testing aims to prove the effect of Earning per Share, Debt to Equity Ratio, Growth, Return on Assets and Firm Size simultaneously on Islamic stock beta. The simultaneous test results in Table 4.14 show the calculated F value of 3.524 with a significance value of 0.013. Based on these results the calculated F value is greater than F table ( $3.524 > 2.550$ ) and the significance value is smaller than Alpha 5% ( $0.013 < 0.05$ ). So it can be concluded that the independent variables, namely Earning per Share, Debt to Equity Ratio, Growth, Return on Assets and Firm Size together (simultaneously) have a significant effect on the dependent variable, namely the beta of Islamic stocks in the Jakarta Islamic Index 2012-2016.

Coefficient calculation results to explain how much influence the independent variable can explain the dependent variable, namely Islamic stock beta can be seen from the results of the coefficient of determination (R<sup>2</sup>) of 0.378 or 37.8%. This shows that the changes in Islamic stock beta of 62.2% are influenced by other factors not examined in this study. Factors that influence the Islamic stock beta can come from macro variables, namely the inflation rate, the rupiah exchange rate against the dollar, gross domestic product (GDP), interest rates and others.

There are also other company fundamental factors that have not been studied, such as dividend payout ratio, growth in assets, liquidity and others.

## 6. Conclusion

Based on the results of the analysis and discussion of the effect of earnings per share, debt to equity ratio, growth, return on assets and firm size on sharia stock beta in the Jakarta Islamic Index for the period 2012-2016 which has been reviewed in the previous chapter, the results of the study can be concluded as the following:

1. Earning per share partially has a positive and significant effect on Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period, at a significance level of 5% ( $\alpha = 0.05$ ).
2. Debt to equity ratio partially has a positive and significant effect on Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period, at a significance level of 5% ( $\alpha = 0.05$ ).

3. Growth partially has no significant effect on the Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period, at a significance level of 5% ( $\alpha = 0.05$ ).
4. Return on assets partially has a negative and significant effect on Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period, at a significance level of 5% ( $\alpha = 0.05$ ).
5. Firm Size partially has a positive and significant effect on Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period, at a significance level of 5% ( $\alpha = 0.05$ ).
6. Earning per share, debt to equity ratio, growth, return on assets and firm size simultaneously have a significant effect on Islamic stock beta in the Jakarta Islamic Index in the 2012-2016 period.
7. As much as 37.8% of Islamic stock beta is explained by earnings per share, debt to equity ratio, growth, return on assets and firm size. Meanwhile, the remaining 62.2% is explained by other variables outside the exogenous variables used in the study.

## 7. Suggestion

### 1. For Issuers

Companies or issuers should strengthen the company's fundamentals, especially return on assets of the company and maintaining the level of corporate debt.

### 2. For Investors

For investors who want to invest halally, they can choose Islamic stocks based on observations they always experience positive development.

### 3. Further research

This research is expected to be used as a reference for further research so that the advice that can be given in this research research has a coefficient of determination of 37.8% so that there are still 62.2% of other variables that can explain the stock beta of sharia. Therefore, it is recommended to add other variables related to the company's stock beta.

## References

- [1] Anshori, Muslich dan Sri Iswati. 2009. *Metode Penelitian Kuantitatif*. Surabaya: Airlangga University Press.
- [2] Brigham, Eugene F dan Joel F. Houston. 2006. *Dasar-dasar Manajemen keuangan Buku 1, Edisi Kesepuluh*. Jakarta: Salemba Empat.
- [3] Darmadji, Tjiptono dan Hendy M. Fakhruddin. 2001. *Pasar Modal di Indonesia*. Jakarta: Salemba Empat
- [4] Fidiana. 2006. *Nilai-nilai Fundamental dan Pengaruhnya Terhadap Beta Saham Syariah pada Jakarta Islamic Index*. Jurnal Ekuitas. Vol. 13 No.1 Hlm 40-60.
- [5] Hanafi, Mamduh M dan Abdul Halim. 2003. *Analisa Laporan Keuangan*. Edisi Revisi. Yogyakarta: AMPYKPN.
- [6] Hartono, Jogiyanto. 2010. *Teori Portofolio dan Analisis Investasi*. Edisi Ketujuh. Edisi Ketujuh. Yogyakarta: BPFE
- [7] Iqbal, Muhammad Junaid dan Dr. Syed Zulfiqar Ali Shah. 2012. *Determinants of Systematic Risk*. The Journal of Commerce Vol.4 no.1. Pakistan: University of Punjab.
- [8] Kasmir. 2015. *Analisis Laporan Keuangan*. Edisi Kedelapan, Jakarta:Rajawali Pers
- [9] Kementerian Agama Republik Indonesia. 2013. *Al-Qur'an dan Terjemahannya*. Solo: PT Tiga Serangkai Pustaka Mandiri
- [10] Lee, S.J. dan Jung, C.S. 2006. *The Systematic Risk Determinants of US Airline Industry*. Tourism Management, No.28 pp.434-442.
- [11] Noveriatina, Tipuk. 2007. *Pengaruh Kinerja Keuangan Perusahaan terhadap Beta Saham pada Perusahaan yang Tergabung dalam Jakarta Islamic Index di Bursa Efek Indonesia*. Surabaya: Fakultas Ekonomi dan Bisnis Universitas Airlangga.
- [12] Ryandono, Muhamad Nafik H. 2009. *Bursa Efek dan Investasi Syariah*. Jakarta: Serambi.
- [13] Riyanto, Bambang. 2001. *Dasar-dasar Pembelanjaan Perusahaan, Edisi Keempat*. Yogyakarta: BPFE.
- [14] Sartono, Agus. 2001. *Manajemen Keuangan Teori dan Aplikasi*. Yogyakarta: BPFE.
- [15] Tandelilin, Eduardus. 2010. *Portofolio dan Investasi Teori dan Aplikasi. Edisi Pertama*. Yogyakarta: Penerbit Kanisius.
- [16] \_\_\_\_\_. 2001. *Analisis Investasi dan Manajemen Portofolio*. Edisi Pertama. Yogyakarta: BPFE.
- [17] Utomo, Denny Suryo. 2006. *Pengaruh Asset Growth, Debt to Equity Ratio, Return on Equity Ratio dan Earning per Share Terhadap Beta Saham Pada Perusahaan*

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