DERERMINANTS OF ISLAMIC BOND MARKET REACTION
EMPIRICAL STUDY OF ISLAMIC BOND IN INDONESIA

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ABSTRACT

The main objective of this study is to examine several factors that cause islamic bonds market reaction as measured by cumulative abnormal return. The factors that are believed to be the determinants of islamic bond market reaction are the value of islamic bonds issuance, islamic bond rating, age of islamic bonds and size of the islamic bond issuing company. The population in this study are companies that issue Islamic bonds and are listed on the Indonesia Stock Exchange with a four-year observation period (2015-2018). The sample selection in this study uses purposive sampling based on certain criteria. In sample selection 36 Islamic bonds were obtained as samples. This study uses secondary data where the data is obtained from the annual report and the website of the issuing company. To test the hypothesis, using a multiple regression analysis tool with a significance level of 0.05. The results showed that the value of Islamic bonds issuance and rating of Islamic bonds issuance had a positive effect on market reaction. While the age of islamic bonds and the firm size have no effect on the reaction of the islamic bond market

Keywords:
Islamic bond issuance, Islamic bond rating, age of Islamic bond market Reaction.

BACKGROUND

In an effort to gain profits and develop business, the company will look for various suitable funding sources to provide optimal results (Anggraeni, Hartoyo, & Sasongko, 2019). One unique feature of the Indonesian financial market is the joint existence of the sharia bond market, better known as the islamic bonds market and conventional bonds. Unlike the more conventional bonds, Islamic bonds are structured to comply with Islamic principles that prohibit usury or interest.

The Islamic capital market history in Indonesia begins with the issuance of Sharia Mutual Funds, which is issued by PT. Danareksa Investment Management on July 3, 1997. In Indonesia, the predecessor to issue islamic bonds was PT. Indosat Tbk. A fatwa that has been issued by DSN (National Sharia Council) and MUI (Indonesian Ulema Council) about how the procedures of the Islamic capital market, products traded, and prerequisites that must be carried out by a participating issuer. The fatwa is No. 32 / DSN-MUI / IX / 2002 which explains that Islamic bonds mean long-term securities based on Islamic principles issued by issuers to islamic bonds holders, which require issuers to pay income to islamic bonds holders in the form of profit sharing / margin / fees and repay funds bonds at maturity. In Indonesia, there are 2 types of Islamic bonds that are still used, namely mudharabah bonds and ijarah bonds. In addition, MUI also issued an explanation of the two types of islamic bonds (Wijayaningtyas & Wahidahwati, 2016). To date, islamic bonds has been reported as the most active Islamic financial instrument issued in the debt market and is an important avenue as a fundraising mechanism for companies in addition to functioning as an investment activity for investors (Mohamed, Yahya, & Ishak, 2017).

Compared to other countries, Indonesia is among those who have a slow response to the islamic bonds opportunity. That is because the company has too little interest or interest in issuing bonds due to many obstacles in issuing bonds. These obstacles include management's understanding and knowledge of islamic bonds and procedures for issuing islamic bonds. In addition, there is a lack of interest in issuing corporate Islamic bonds because they are not liquid. In addition, the cost of issuing Islamic bonds is greater than the cost of issuing conventional bonds as a result, investors will expect a higher risk premium than conventional because the Islamic bonds market is not liquid (Wijayaningtyas & Wahidahwati, 2016).

When going to invest properly before making a decision the first thing an investor does is assess the performance of companies that issue Islamic bonds. What the company expects when issuing islamic bonds is that it can have an impact
on stock prices because it is a signal for an investor to be able to see how the company's current conditions are and to predict future developments because Islamic bonds will make an increase in the company's long-term debt and capital structure as well. Will change. Based on previous studies of Islamic bonds, a lot has been done. But getting different results. This research was conducted to determine the effect of the variable value of issuance, issuance rating, and age of Islamic bonds on capital market reactions (Cumulative Abnormal Return) with the firm size control variable. In this case the researchers took the object of research on several companies that issue Islamic bonds and are listed on the Indonesia Stock Exchange.

THEORY REVIEW AND HYPOTHESIS STUDY

The important role of the capital market in the economy is to allocate public funds. According to Tandelilin (2010): "The capital market acts as an intermediary institution, which has an important role in the capital market in supporting the economy because it can channel from those who need funds with the investors. In addition, the capital market can also encourage the creation of efficient fund allocations, because with the capital market, investors can choose investment alternatives that provide relatively large returns ". The form of capital market instruments is securities (securities). Types of effects include; stocks (stocks), bonds (bonds), right, warrant, and derivative products (derivatives).

Signaling Theory

Signaling Theory is a theory that is useful to know from the behavior of two parties both organizations and individuals who have the opportunity to obtain information (Conelly et al, 2011 in Rini, 2018). Signaling theory originates in pragmatic accounting theory which focuses on the influence of information on changes in information user behavior. One of the information used as a signal is an announcement made by an issuer. This announcement can affect the rising or falling prices of the securities of issuers that make the announcement (Suwardjono, 2016).

According to Jogiyanto (2013), information released as an announcement will give a signal to investors in making an investment decision. When information is announced, market users first interpret and analyze that information as a bad signal or a good signal. If the information announcement is perceived as a good signal, then investors will be interested and have an interest in conducting stock transactions, thus the market will react which can be reflected through changes in the volume of stock transactions so that the company's value will increase (Suwardjono, 2016).

Islamic bonds

The capital market has several products, one of which is bonds. Companies that are in need of funds to support or enhance the company's operational activities can issue these bonds as a solution. According to Keown, Scott, Martin, & Petty (2010) bonds are a type of debt or obligation to make long-term payments issued by borrowers and make agreements to pay holders with fixed rates of interest each year.

In Islam, of course bonds are prohibited because there is an element of usury which obliges the borrower to pay off the value of the bond along with the existing interest. Supported by the emergence of the fatwa of ulama which forbids conventional bonds because it contains elements of usury, then issued a fatwa from DSN (National Sharia Council) and MUI (Indonesian Ulema Council) No. 32 / DSN-MUI / IX / 2002 named Islamic bonds which of course use Islamic principles. The fatwa means that Islamic bonds are long-term securities with Islamic principles issued by issuers to pay income to holders of Islamic bonds in the form of profit sharing, margins and fees, and to repay bonds when they mature.

Capital Market Reaction

Capital market reaction is the market's response to information at an announcement issued by a company. The announcement is used as a signal from companies that illustrate the condition of a company and market users will respond immediately to information that has been received. Market reaction is exacerbated by changes in prices of related securities that can be measured by CAR.

Value of Islamic Bond Issuance

Islamic bonds issuance value is the amount of nominal value issued by a company according to the funding requirements. The bonds issued are in accordance with the funding requirements of the issuing company, if what is needed is Rp 200 billion, the company will issue bonds of Rp 200 billion. In issuing bonds to the issuer, the amount of funds needed by the company through the sale of bonds is known as the number of bond issuances. The size of the bonds depends on the ability of the company's cash flow and business performance (Ainuroochma & Priyadi, 2016). In determining the size of the number of Islamic bonds issuance depends on the ability of the
company’s cash flow and business performance by calculating the revenue of Islamic bonds in detail and comprehensively. The value of the issuance of Islamic bonds is worth considering in making investment decisions because its value will continue to change from time to time and is expected to further develop in the future (Herli & Nuraniyah, 2017).

H1: The Issuance Value of Islamic bonds has a positive effect on Market Reaction.

Islamic Bond Issuance Rating

Rating is a statement about the state of the debtor and the possibility of what can and will be done in relation to the debt held. It can be said that the ranking tries to measure the risk of failure, i.e. the opportunity of the issuer or borrower will experience conditions unable to meet financial obligations. Corporate bond ratings provide guidance for investors about the quality of bond investments they are interested in. All Islamic bonds that have been issued must be given a rating or rating so that investors can know and approximately how much risk will be borne. In Indonesia, bonds are rated by PT. PEFINDO which was established on December 21, 1993 and PT. KASNIC Creding Rating (Ainurrochma & Priyadi, 2016).

Sharia bond rating is a benchmark from a well-known sharia bond institution that can describe the performance of Islamic bonds issuers and is willing to pay off principal payments on time or at any time when due. In changing into the form of intervals using the Method of Successive Interval (MSI). PT.

H2: Sharia Bond Issuance Rating has a positive effect on Market Reaction

Age of Islamic Bonds

Hartaroe, Mardani, & Abs (2016) explained that "the age of the bond (maturity) is the date when the bondholders will get the principal repayment or the nominal value of the bonds they have. The maturity period of bonds varies from 365 days to more than 5 years. Generally, the longer the bond's life, the greater the level of uncertainty so that the greater the risk of maturity and vice versa ". The age of Islamic bonds is usually around 10 to 40 years. For the most effective maturities are those that have shorter lives. So that Islamic bonds with short life are more effective (Brigham & Houston, 2014).

According to Ma'arrij et al (2014) Islamic bonds age is the time period when the Islamic bonds holder will get the principal repayment he has. Maturity is one that must be considered to analyze bond yields. Investors tend to prefer bonds with a short life because bond issuers are considered more able to pay off the principal payment obligations when they are due compared to the long life of bonds (Siti Ma'sumah, 2015).

H3: Age of Islamic bonds does not have a positive effect on Market Reaction

Firm Size

Firm size is a size or scale that is used to determine the size of the company. The size of the company is basically grouping into 2 groups, namely large companies and small companies. The size of the company will affect the ability to bear the risks that may occur from a variety of situations faced by the company (Lestari, 2014).

RESEARCH METHODS

Population and Sample

The population in this study is all companies that issue Islamic bonds and are listed on the Indonesia Stock Exchange in 2015 until 2018. The sample is 36 Islamic bonds issuance. The type of data used in this study is secondary data. The data needed is in the form of an annual report from each company which can be obtained from the Indonesia Stock Exchange or the web www.idx.co.id, www.web.idx.id/, or can also visit the web of each company.

Variable Definition

The variable used in this study is CAR (Cumulative Abnormal return) as the dependent variable. The value of Islamic bonds issuance, Sharia bond issuance rating, and age of Islamic bonds as independent variables and control variables, namely company size. The following is an explanation of all the variables in this study:

a. The value of Islamic bonds issuance, can compare the nominal Islamic bonds issued with the total equity of the company

Value of Islamic Bonds

\[ \text{Value of Islamic Bonds} = \frac{\text{Islamic Bonds Porsion}}{\text{Total Equity}} \]

b. Sharia bond issuance rating is a benchmark from a reputable sharia bond institution that can describe the performance of Islamic bonds issuers and is willing to pay off principal payments on time or at any time when due. In changing into the form of intervals using the Method of Successive Interval (MSI). PT.
PEFINDO is a securities rating agency and many companies are given ratings on bonds from various companies in Indonesia (Wijayaningtyas & Wahidahwati, 2016).

c. Sharia bond age, measured on a nominal scale because the Islamic bonds age variable is a dummy variable. The scale is worth 1 if the bonds have a life span of 1-5 years and a value of 0 if the bonds have a life span of >5 years (Anggraini, 2017).

d. Company size is proxied by total assets and measured by the natural logarithm of total assets.

\[ \text{SIZE} = \ln (\text{Total Asset}) \]

e. Market reaction is measured by cumulative abnormal return with the following procedures:

- Determine the actual return

\[ R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \]

Where:
- \( P_i \) = The price of Islamic bonds period i in the even period t
- \( P_{i-1} \) = The price of Islamic bonds period i in the event period t-1

- Determine the market return

\[ R_{mt} = \frac{1\text{HSG}_t - 1\text{HSG}_{t-1}}{1\text{HSG}_{t-1}} \]

Where:
- \( R_{mt} \) = Actual return of market in the even period t
- \( 1\text{HSG}_t \) = Indeks Islamic bonds prices in the even period t
- \( 1\text{HSG}_{t-1} \) = Indeks Islamic bonds prices in the even period t-1

- Determine the abnormal return

\[ \text{AR}_i = R_{it} - \text{E}[R_{it}] \]

Where:
- \( \text{AR}_i \) : abnormal return of securities i in the even period t
- \( R_{it} \) : actual return of securities I in the even period t
- \( \text{E}[R_{it}] \) : expected return of securities i

- Determine the cumulative abnormal return

\[ \text{ARTN}_{it} = \sum \text{RTN} \, \text{i.a} \]

Where:
- \( \text{ARTN}_{it} \) : cumulative abnormal return
- Islamic bonds firm i in the period t that accumulated form abnormal return firm share.

Data analysis
To test the hypothesis will use multiple regression analysis with a significance level of 5%. The multiple regression equation is as follows:

\[ \text{CAR} = \beta_0 + \beta_1 \text{VIB} + \beta_2 \text{AGE} + \beta_3 \text{RAT} + \beta_4 \text{SIZE} + \alpha \]

Where:
- \( \text{CAR} \) = market reaction
- \( \text{VIB} \) = value of Islamic bonds
- \( \text{AGE} \) = age of Islamic bonds
- \( \text{RAT} \) = rating of Islamic bonds
- \( \text{SIZE} \) = firm size

RESULT AND DISCUSSION

Descriptive Statistics
Analysis In this research, descriptive statistical analysis is seen using the minimum value, maximum value, average and standard deviation.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIB</td>
<td>36</td>
<td>0.0000</td>
<td>0.3300</td>
<td>0.0540</td>
<td>0.0776</td>
</tr>
<tr>
<td>RAT</td>
<td>36</td>
<td>10.0000</td>
<td>19.0000</td>
<td>15.0833</td>
<td>2.6118</td>
</tr>
<tr>
<td>AGE</td>
<td>36</td>
<td>1.0000</td>
<td>14.0000</td>
<td>5.5000</td>
<td>3.0845</td>
</tr>
<tr>
<td>SIZE</td>
<td>36</td>
<td>27.2900</td>
<td>33.2200</td>
<td>30.8893</td>
<td>1.2503</td>
</tr>
<tr>
<td>CAR</td>
<td>36</td>
<td>-0.4100</td>
<td>0.2100</td>
<td>-0.0106</td>
<td>0.1047</td>
</tr>
</tbody>
</table>

Valid N (listwise) 36

Source: Data Processed
Based on the table above, the minimum value of Islamic bonds (VIB) is 0.0029. While the maximum value is 0.33. The mean value of Islamic bonds (VIB) on average in 2015-2018 is 0.0495 with a standard deviation of 0.07763. The minimum value of islamic bonds rating (RAT) is 10. While the maximum value of islamic bonds rating (RAT) is 19. The mean value of islamic bonds (ROS) on average for 2015-2018 is 15.0833 with a standard deviation of 2.61179.

The minimum age value of islamic bonds (AGE) is 1 year. While the maximum age of islamic bonds (AGE) is 14 years. The mean age of islamic bonds (AGE) in 2015-2018 is 5.5, with a standard deviation of 3.08452. The minimum value of a company size (SIZE) is 27.29. While the maximum value of company size is 33.22. The mean value of company size for 2015-2018 is 30.8893 with a standard deviation value of 1.25032. The minimum capital market reaction (CAR) value is -0.41. While the maximum value of the capital market reaction (CAR) is 0.21. The mean value of the capital market reaction (CAR) in 2015-2018 is -0.0106 with a standard deviation of 0.10466.

### Hypothesis Test Results

Testing the hypothesis in this study using the T statistical test. The following are the results of the t test in this study:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.4200</td>
<td>0.5200</td>
<td>0.8090</td>
<td>0.4250</td>
</tr>
<tr>
<td>VIB</td>
<td>0.4430</td>
<td>0.2100</td>
<td>0.3290</td>
<td>2.1050</td>
</tr>
<tr>
<td>RAT</td>
<td>0.0170</td>
<td>0.0070</td>
<td>0.4170</td>
<td>2.5220</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.0080</td>
<td>0.0060</td>
<td>-0.2240</td>
<td>-1.1940</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.0220</td>
<td>0.0170</td>
<td>-0.2570</td>
<td>-1.2960</td>
</tr>
<tr>
<td>a. Dependent Variable: CAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Value of Islamic bonds issuance and Capital Market Reaction**

The results of the analysis on the t test showed a significant magnitude of the regression coefficient of islamic bonds value of 0.443 and a significance value of 0.043. At the significance level α = 5%; then the regression coefficient is significant because the significance of 0.043 <0.05 so it can be concluded that the value of Islamic bonds issuance has a significant positive effect on capital market reactions so that the first hypothesis of this study can be supported. If the value of islamic bonds issuance is higher, it will increase the capital market reaction (Fathoni, 2017).

The reason in this study is the value of issuance of Islamic bonds containing information and including being considered in making decisions by an investor. Islamic bonds issuance value is the total nominal value issued by a company according to the funding requirements. In determining the size of the number of Islamic bonds issuance depends on the capabilities possessed such as the company's cash flow and business performance which is calculated from the revenue of Islamic bonds in detail and comprehensively. The value of the issuance of islamic bonds is worth considering for investment decision making because its value will change constantly over time and is expected to progress further in the future (Herli & Nuraniyah, 2017). If the islamic bonds issuance value is high, the return that will be received by the issuer is also high.

These results are in accordance with the research of Vina Indah Iswara, Jeni Susyanti and M. Agus Salim (2018) proving the value of islamic bonds issuance has a positive and significant impact on capital market reactions.

**Islamic bonds Rating and Capital Market Reaction**

The results of the analysis on the t test showed the significance of the regression coefficient of sharia bond rating variables. The regression coefficient value generated from the sharia bond rating variable is 0.017 and the significance value is 0.017. At the significance level α = 5%; then the regression coefficient is significant because the significance of 0.017 <0.05
so that conclusions can be drawn from the ranking of Islamic bonds positively influences the capital market reaction so that the second hypothesis of this study can be supported. The higher or better the islamic bonds rating will increase the capital market reaction (Fathoni, 2017).

The reason is that the ranking of islamic bonds issuance contains information and one of the criteria that needs to be considered in an investor's decision making. Ratings are symbols given by rating agencies to show the risk of the islamic bonds. The risk of the islamic bonds is the possibility that the bonds cannot be paid off (default). Islamic bonds ratings can be used as a proxy for islamic bonds risk (Jogiyanto, 2013). Sharia bond rating is a benchmark from a well-known sharia bond institution that can describe the performance of islamic bonds issuers and is willing to pay off principal payments on time or at any time when due. According to Eva Wulanandari and Sugeng Wahyudi (2018) if there is an announcement there is an increase in the ranking the market will give a positive response, whereas if there is a decline in the rating the market will give a negative response. If the islamic bonds issuance rating is high, the return that will be obtained by the company is also high.

Age of Islamic Bonds and Capital Market Reactions

The results of the t test show the significance of the regression coefficient of the age variable of Islamic bonds. The value of the regression coefficient for the age of islamic bonds is -0.008 and a significance value of 0.242. Significantly increased α = 5%; then the regression coefficient is not significant because the significance of 0.242> 0.05 so that it can be concluded that the age of islamic bonds does not significantly influence the capital market reaction so that the third hypothesis of this study cannot be supported. The higher the age of islamic bonds will not increase the capital market reaction. The reason in this study is that companies that usually issue islamic bonds with short maturities will get reciprocity from changes in stock prices because investors' interest in islamic bonds that have short maturities is more desirable but not all investors think so (Putri Wijayaningtyas, 2016).

That happened because of the weak level of understanding and knowledge of market users regarding sharia investment instruments namely sharia products in the capital market such as islamic bonds. Market users are of the view that islamic bonds transactions are not as simple as conventional bond transactions. Most markets are not familiar with Islamic bonds and do not understand the costs and benefits of Islamic bonds. These results are consistent with research by Putri Wijayaningtyas and Wahidahwati (2016) which proves that the age of islamic bonds issuance has no significant effect on capital market reactions.

CLOSING

Based on an analysis of the independent variable value of Islamic bonds issuance, rating of Islamic bonds, and age of Islamic bonds on the dependent variable capital market reaction (CAR) on 36 bond issuances in companies listed on the Indonesia Stock Exchange 2015-2018 that have met the specified criteria. The results show that the value of Islamic bonds issuance has a positive and significant effect on capital market reaction (CAR). Then the sharia bond issuance rating has a positive and significant effect on capital market reaction (CAR). while the age of islamic bonds shows no significant effect on capital market reaction (CAR).

From the above research that has been submitted, it can be given suggestions for further research, to add research samples with other industries and increase the research period so that it is expected to be able to generalize the research results. Then for further research it is recommended to add the independent variables used such as increasing islamic bonds return, islamic bonds risk and islamic bonds interest.

REFERENCE


