The Influence Of Bank Indonesia Interest Rate, Coupon Bonds, Maturity Time Of Bonds, And Net Profit Margin On Bonds Prices

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Abstract: This study aims to examine the effect of Bank Indonesia interest rates, bond coupons, bond maturity, and issuer net profit margin on the bonds price. It was conducted in the Indonesia Bond Pricing Agency (IBPA) during a period cover 2012-2016. The method used in this research is multiple linear regression analysis. The results of partial testing showed that Bank Indonesia interest rates have a negative influence on bond prices; The Bank Indonesia (BI) rate has a significant effect on bond prices; Bond coupons have a positive influence on bond prices. Bond coupons have a significant effect on Bond Prices. The finding show that the time maturity of Bond affects negatively the bond prices, but bond coupons do not have a significant effect on Bond Prices, and Net Profit Margin has a positive influence on bond prices. Profit Margin does not have a significant effect on bond prices. The finding of the study show that in terms of parameter marks, the influence of the independent variable is in accordance with the hypothesis, and it turns out that the BI Rate and coupon bonds have relatively more dominant influences

Index Terms: BI Rate, coupon bond, bond maturity, net profit margin and bond price.

1 INTRODUCTION
The capital markets have an important role in increasing economic growth, it have two functions namely economic functions and financial functions (Robert Ang, 1997; Consiglio, & Zenios, 2018). According to Tandelilin (2010) investment is a commitment to a number of funds with the aim of obtaining future profits. Instruments that are often used in investing in the capital market are bonds, which are long-term debt securities issued by companies with par value and maturity. Bonds have various provisions such as value, interest rate, time period, publisher's name and other provisions. Investments in bonds will provide a certain profit or return for the holder which can be in the form of a fixed interest income (coupon) that has been agreed at the beginning of the bond purchase agreement, as well as other benefits (Altavilla et al., 2018; Lopez, et al., 2018). Investment income from capital gains occurs because of changes in bond prices caused by buying and selling activities of investors and is influenced by changes in the magnitude of macroeconomic variables such as Bank Indonesia interest rates, bond coupons, bond maturity and profitability (Altavilla et al., 2018). Bank Indonesia interest rates can encourage changes in bond prices. The increase in interest rates can make bond prices fall, and vice versa. Generally the bond coupon value will be higher than the deposit interest rate, but lower than the bank loan interest rate. According to Sari and Sudjarni (2016) the higher the coupon offered by a bond, the more investors tend to buy the bond because it is considered to be able to provide benefits and benefits to investors. In general, the longer the time, the higher the coupon offered to cover additional risks due to a very long investment period.

The maturity period of the bonds is the time determined by the issuer's company on the bonds issued or the time required by the bond company to fulfill its obligations. Bodie et al., (2009), state that when a bond has approached the maturity date, the value will decrease due to the less remaining interest payments on the market. This theory is supported by research conducted by Ericsson and Reneby (2001) and Rubayah et al. (2002). According to Aarstol (2000); SaptoRahardjo (2003); Memmel, (2011); Shen, & Liao, (2014) suggest that the shorter the term of the bonds, the more attractive the investors will be because they are considered to be of lower risk. The company's ability to provide large profits is an attraction for investors. According to Alexandri (2008), stated that Net Profit Margin (NPM) is: "Net Profit Margin is the ratio used to show the company's ability to generate net profit after tax deduction". High net profit margin not only shows the strength of the business but also the strong enthusiasm of the management to control costs. Thus the company has high efficiency and also means to show the company's ability to generate high profits from its sales. The greater the NPM, the more productive the company's performance will be, thereby increasing investor confidence in investing in the company. The results of the study by Long staff and Schwartz (1993), state that interest rates have a significant negative effect on bond prices.

2. Literature Background
1. Bond
Bonds are a form of investment instrument in the form of a letter issued by a company (issuer) to obtain a number of funds and will return a fixed amount of money to the holder at the maturity in the future plus interest payments in the form of periodic coupons in accordance with the agreement. Bonds can also be defined as long-term debt that will be repaid at maturity with a fixed interest (Hartono, 2016). According to Tandelilin (2010), bonds when viewed from the side of the company are corporate debt to investors (bondholders), whereas if seen from the investor's side, corporate bonds represent claims from creditors to issuers and not ownership claims such as ordinary shares. According to IDX or IDX, bonds consist of several types, as for types of bonds, when
viewed from the side of issuer bonds divided into Corporate Bonds, Government Bonds, Municipal Bonds, whereas when viewed from exchange rights / bond options divided into convertible bonds, exchangeable bonds, callable bonds.

2. Bond Prices
Bond prices are the value of selling or buying a bond issued by an issuer in the capital market either through exchange transactions or Over the Counter. In contrast to instruments expressed in currency terms, bond prices are expressed as a percentage (%), which is a percentage of the nominal value. There are 3 (three) possible market prices of the bonds offered, namely:

a. Par value: Bond price is equal to nominal value. For example: Bonds with a nominal value of Rp 50 million are sold at a price of 100%, then the value of the bonds is 100% x Rp 50 million = Rp 50 million.

b. With premium: Bond price is greater than nominal value. Example: Bonds with a nominal value of Rp 50 million are sold at a price of 102%, the bond value is 102% x Rp 50 million = Rp 51 million.

c. Discount: Bond prices are smaller than the nominal value. For example: Bonds with a nominal value of Rp 50 million are sold at a price of 98%, the value of the bonds is 98% x Rp 50 million = Rp 49 million.

According to Fabozzi (2000); Baker and Mansi (2002); Baldan, & Zen (2012); Bao et al., (2011), bond prices are influenced by several factors, including SBI interest rates, liquidity, rating, coupons, and maturity. Based on Rahardjo (2007), generally the formation of a bond price is determined by various factors, namely the coupon rate, issuer rating, bond value, maturity period, bond liquidity, bond type and issuer external factors such as inflation, interest rates, JCI and exchange rates.

3. Bank Indonesia Interest Rate (BI Rate)
Bank Indonesian interest rate (BI Rate) is a policy interest rate that reflects the attitude of monetary policy determined by bank Indonesia and announced to the public. Interest rates are an important factor in a country's economy because interest rates can affect the economy in general (Dahlquist, & Hasseltolft, 2013; Dan, & Guohua, 2013; Consiglio, & Zenios, 2018). Interest rates have a very strong influence on the capital market (Erawati: 2002). In general, if the interest rate in the economic system decreases, the value of bonds rises; and vice versa if interest increases, the value of bonds falls (Dan, & Guohua, 2013; Sundjaja et.al, 2007). With the change in BI Rates, it will trigger a shift in investor interest in investing. And this is a very reasonable thing, because there are various investment instruments that offer attractive returns in the capital market. Likewise in bond investing, BI Rates have a dominant influence. Bond prices will change in a different direction from interest rate movements. According to Warsini (2009), if the SBI interest rate rises, bond prices will decrease, because rational investors will choose risk-free investments with equal or greater returns. Also added according to Takahashi et al., (2001), Delis, & Kouretas, (2011); Zubir (2012); (Altavilla et al., 2018), if the market interest rate rises, the bond price will decrease. Conversely, if the interest rate drops, bond prices rise, so it is profitable for investors if they have to sell the bonds. This happens if BI interest rates are higher than bond interest rates, investors will prefer to place their funds on deposits. So investors choose to sell the bonds they have and convert them into deposits (Cochrane, & Piazzesi, 2005; Ammann et al., 2008; Feng et al., 2016). If the BI Rate increases, it will cause bond prices to decline, because the real return obtained by investors becomes small, so many investors will sell and divert their investment to other instruments that provide greater returns.

4. Bond Coupons
Bonds provide income through coupons or interest to the bondholders. Coupon is the interest value paid by the issuer per period until the maturity date of the bond to the investor as a reward for the investment invested. Coupon bonds are expressed in percent. Coupons are interest payments paid to bondholders (Brealey et al., 2008). Coupons are interest paid periodically by the bond issuer to the holder (Tandellin, 2010; Entrop, et al., 2015). High coupons will cause investors to get greater benefits. The higher the coupon value the greater the cash flow for the owner. The coupon rate on bonds shows the percentage of interest on the nominal value of the bonds to be paid annually (Keown et al., 2011; Comelli, 2012; Csontó, 2014; Lopez, et al., 2018). Fixed Coupon bonds provide the same coupon rate until maturity. Coupon bonds with interest rates will still protect coupons from movements or changes in market interest rates that can cause investor income to change at any time (Anderson et al., 2007). Bond prices will continue to decline if changes in interest rates that occur make investors sell bonds that they have (Anderson et al., 2007). This happens because the level of return received by small investors. In contrast to bonds with a higher coupon rate, the returns obtained by bondholders are quite competitive, and allow the bonds to be sold at a higher price than the low coupon bonds. But the situation reverses, if there is a decrease in market interest rates, the price of bonds that have lower coupons will experience a higher price increase compared to bonds that have higher coupons (Tandellin, 2010).

5. Bond Maturity
At the maturity date of the Bond, the bond issuer must pay off the principal and interest value of the bond. Rahardjo (2003); Campbell and taksler (2003), states that what must be remembered in discussing the maturity date of a bond is that the longer the maturity period of the bonds, the higher the level of investment risk. Because in such a long period or period, the risk of adverse events or events that cause a company's performance to decline can occur. Bonds that have a long maturity will have a higher level of risk so the yield obtained is also different from bonds with a fairly short maturity period. Small yields will cause small returns too. This causes bonds to have a low selling value compared to bonds that have a short maturity. If there is an increase in the interest rate, the price of bonds that have a longer maturity period will experience a greater decline in prices compared to bonds that have a shorter time (Gebhardt et al., 2005; Tandellin, 2010; Claessens et al., 2015; Hachenberg, & Schiereck, 2018; Caliendo, 2019). This condition is due to the concern of bondholders to the financial condition of the company which may be faltering in relation to changes in interest rates. Changes in interest rates will increase the company's operating expenses, which will lead to the company's ability to pay coupons. If the condition is long, it is likely that the company will experience a large default compared to the company that issues bonds with a short term (Memmel, 2011;
Shen, & Liao, 2014).

6. Net Profit Margin

Profitability ratios are ratios used to measure a company's ability to generate profits from the normal activities of its business. One of the company's main objectives in its operations is to generate maximum profits. Therefore, profitability is one of the indicators of company performance. To measure a company's ability to generate profits, the author uses the Net Profit Margin ratio as an indicator. According to Ludvigson, & Ng,(2009); Marinkovic, & Radovic, (2010); Hanafi and Halim (2012) the net profit margin indicates the extent to which a company's ability to generate net income at a certain level of sales. Net profit margin is the sales profit after calculating all income costs and taxes (Martono and Harjito, 2010). Another definition according to Sumarsan (2013) states that this ratio describes the company's net income after tax obtained by each sale made. Sartono (2013), defines NPM as follows: "Net Profit Margin is the ratio between net income i.e. sales that have been deducted by all costs including tax compared to sales". This ratio describes the ability of a company to obtain high profits at a certain level of sales, while a lower net profit margin indicates sales are too low for a certain level of cost (Clasenssens et al., 2016; Chaudron, 2018). A high NPM level illustrates that the company has succeeded in carrying out efficiency in operations. Companies can reduce costs that are not needed, so that eventually the company is able to generate net income. If the percentage level of net income recognized as equity is higher than the percentage of net income distributed as dividends, then the growth of the company always records high net income, and net income will enter as retained earnings which will ultimately add to the company's equity. According to Zubir (2012), the ability of companies to pay coupons and principal loans is determined by the company's ability to generate profits. Analyze the ability of companies to create profits, namely through the calculation of Net Profit Margin. This information is presented in financial statements that are reported regularly, and things become triggers in the movement of bond prices (Tsiverioitlis, & Fernandes, 1998; Hong, & Kacperczyk, 2009; Hachenberg, & Schiereck, 2018; Zerbib, 2019). A keen investor will study the development of the company presented in financial statements, especially at the NPM ratio, so that the expected return can be achieved.

3 RESEARCH AND METHODOLOGY

This research was conducted on companies registered in the Indonesia Bond Pricing Agency (IBPA) in 2018. Quantitative associative methods are used to determine the effect of independent variables, namely Bank Indonesia interest rate, bond coupons, maturity time, and issuer net profit margin on prices bonds as Dependent Variables. The estimation method used is Multiple regression. The population in this study were 331 issuers registered with IBPA in the period 2012-2016. The sample selection was purposive as many as 49 issuers. The conceptual framework of the study that explains the relationship between independent variables and dependent variables is presented in the following figure.

Figure 1. Theoretical Framework of Research Paradigms

Research Hypothesis

H1: Bank Indonesia’s interest rate has a negative effect on bond prices
H2: Bond coupons have a positive effect on bond prices
H3: The maturity date of bonds has a negative effect on bond prices
H4: Net profit margin of the issuer’s has a positive effect on bond prices
H5: Bank Indonesia interest rates, Bond Coupons, Bond Maturity Time, and Net Profit Margin (NPM) of issuers have an effect on bond prices

4 RESULT AND DISCUSSION

1. Test of Classical Assumptions
   a. Normality test

The normality test aims to test whether the regression of the dependent variable and the independent variable has normal or near normal data distribution. The results of normality test data can be seen from the normality test graph, where it can easily be seen that the distribution of data approaches a straight line (diagonal). Thus, it can be said that residual (data) is normally distributed.

![Normal P-P Plot of Regression Standardized Residual](image)

Based on the data processing using SPSS seen in Figure 1, the graph shows that the existing points approach or are in a straight line (diagonal), so that it can be concluded that the residual data is normally distributed, then the panel data regression model meets the assumption of data normality.

b. Heterocedasticity test

Heterocedasticity test is used to test whether in the regression model variance and residual inequalities occur one
observation to another observation. If the residual variance from one observation to another observation remains, it is called homoskedasticity, on the contrary if it is different it is called heteroskedasticity. A good regression model is homoskedasticity, because if a regression is found there is heteroskedasticity then the variance is not constant which in turn causes the bias standard error. From the test results it can be stated that there are no heteroskedasticity problems.

c. Multicollinearity Test
Multicollinearity test aims to test whether the regression model found a correlation between independent variables. In a good regression model there should be no correlation between independent variables. Multicollinearity test is done by looking at the tolerance value and variance inflation factor (VIF), if the tolerance value is higher than 0.10 or VIF is smaller than 10, it can be concluded that there is no multicollinearity.

Table. 1. Multicollinearity Test

<table>
<thead>
<tr>
<th>Coefficients*</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.006</td>
<td>.019</td>
<td>53.622</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>BI Rate</td>
<td>-1.754</td>
<td>.160</td>
<td>-.558</td>
<td>-10.995</td>
<td>.000</td>
</tr>
<tr>
<td>Bond Coupon</td>
<td>.948</td>
<td>.168</td>
<td>284</td>
<td>5.628</td>
<td>.000</td>
</tr>
<tr>
<td>Time Maturity</td>
<td>-7.202E-6</td>
<td>.001</td>
<td>.000</td>
<td>-.008</td>
<td>.994</td>
</tr>
<tr>
<td>NPM</td>
<td>.003</td>
<td>.002</td>
<td>.070</td>
<td>1.405</td>
<td>.161</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Harga Obligasi
Based on the results of testing using SPSS seen in Table 1 it was found that the VIF value in the SBI Level variable was 1.023, the Coupon variable was 1.035, the Maturity Time was 1.048 and the NPM variable was 1.012. The results are below 10. In the same table the Tolerance value of the SBI Level is 0.978, the Coupon variable is 0.966, the Maturity Time is 0.954, and the NPM variable is 0.988. The results are above 0.01. If the VIF value is less than 10 and or the Tolerance value is more than 0.01, it can be concluded that there is no multicollinearity problem, so the test results are said to be reliable or reliable.

d. Autocorrelation Test
The autocorrelation test aims to test whether in a linear regression model there is a correlation between interfering errors in period t with errors in period t-1 (before). If there is a correlation, then there is an autocorrelation problem.

Table. 12. Autocorrelation Test

<table>
<thead>
<tr>
<th>Runs Test</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Value</td>
<td>.00223</td>
</tr>
<tr>
<td>Cases &lt; Test Value</td>
<td>122</td>
</tr>
<tr>
<td>Cases &gt;= Test Value</td>
<td>123</td>
</tr>
<tr>
<td>Total Cases</td>
<td>245</td>
</tr>
<tr>
<td>Number of Runs</td>
<td>134</td>
</tr>
<tr>
<td>Z</td>
<td>1.345</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.179</td>
</tr>
</tbody>
</table>

a. Median
Based on Table 2, the Autocorrelation Test using the Runs Test, found that the value of Asymp. Sig of 0.179, the value is greater than the sig value of 0.05. Then it can be concluded that the variables tested in this study did not occur with autocorrelation.

2. Test the Hypothesis Partially (t-Test)
The results of the regression analysis and the magnitude of the calculated t-values are presented in the following table.

Table 3 Hypothesis Tests H1, H2, H3, and H4 with t test

<table>
<thead>
<tr>
<th>Coefficients*</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.006</td>
<td>.019</td>
<td>53.622</td>
<td>.000</td>
</tr>
<tr>
<td>X1</td>
<td>-1.754</td>
<td>.160</td>
<td>-.558</td>
<td>-10.995</td>
</tr>
<tr>
<td>X2</td>
<td>.948</td>
<td>.168</td>
<td>284</td>
<td>5.628</td>
</tr>
<tr>
<td>X3</td>
<td>-7.202E-6</td>
<td>.001</td>
<td>.000</td>
<td>-.008</td>
</tr>
<tr>
<td>X4</td>
<td>.003</td>
<td>.002</td>
<td>.070</td>
<td>1.405</td>
</tr>
</tbody>
</table>

a. Dependent Variable: BP
Based on the regression test results in table 3 above, the regression equation is obtained as follows:

a. Regression of Bank Indonesia Interest Rate (X1) on Bond Prices, Y = 1.006 - 1.754X1. The interpretation of the equation is:
The regression coefficient is obtained at -1.754, this means that if the BI Rate increases by one unit then the value of the bond price will decrease by 1.754. Based on the results of the regression test above it is also known that the value of the t-stat BI Rate variable is -10.995 with a significance of 0.00. The t-stat value is greater than t-table (2.015), thus in this study the hypothesis that the level of the BI Rate affects the price of bonds is acceptable.

b. Regression of Bond Coupon (X2) on Bond Prices, Y = 1.006 + 0.948X2.
The interpretation of the equation is:
The regression coefficient is obtained at 0.948, this means that if there is an increase in the value of the bond coupon even though it is only a unit of value, the value of the bond price will increase by 0.948. Based on the results of the regression test above it is also known that the value of the t-stat Bond Coupon variable is 5.628 with a significance of 0.00. Based on the provisions of the hypothesis that Ho is rejected and Ha is accepted if the value of t count> t table is 2.015, then in this study the hypothesis that the coupon of bonds affects the price of bonds can be accepted.

c. Regression of Bond Maturity (X3) on Bond Prices, Y = 1.006 - 0.008X3.
The interpretation of the equation is:
The regression coefficient value is obtained at - 0.008, this
means that if there is an increase in the value of the maturity date of the bond even though it is only a unit of value, the value of the bond price will decrease by 0.008. Based on the results of the regression test above, it is also known that the value of the variable coupon t value is - 0.008 with a significance of 0.994. Based on the provisions of the hypothesis that Ho is accepted and Ha is rejected if the value of t count <t table is 2.015, then in this study the hypothesis that the maturity time does not affect the price of bonds is acceptable.

Regression of Issuer Net Profit Margin (X4) on Bond Prices, Y = 1.006 + 0.003X4.

The interpretation of the equation is:
The regression coefficient is obtained at 0.003, this means that if there is an increase in the value of the bond coupon even though it is only a unit of value, the value of the bond price will increase by 0.003. Based on the results of the regression test above it is also known that the value of the bond coupon variable count is 1.405 with a significance of 0.161. Based on the provisions of the hypothesis that Ho is accepted and Ha is rejected if the value of t-stat <t table is 2.015, then in this study the hypothesis which states that the Net Profit Margin of the Issuer does not affect the bonds price is acceptable. Overall, the findings of the above research can be summarized briefly in the following multiple regression equation:

\[
Y = 1.006 - 1.754X1 + 0.948X2 - 7.202X3 + 0.003X4
\]

The coefficient of determination (R2) is 0.403, which explains that 40.3 percent of the variable Bond Price (Y) can be explained together by the four independent variables BI Rate, Bond Coupon, Maturity Time, and Net Profit Margin. In other words, the total effect of the independent variables together on Bond Price is 40.3 percent. On the other hand, this shows that there are 59.7 percent remaining which reflects the magnitude of the influence of other variables not examined which can affect Bond Price.

**DISCUSSION**

1. **The influence of BI Rate on bond prices**
   Bank Indonesia interest rates have a negative influence on bond prices. The results of hypothesis testing indicate that the calculated t-stat is greater than the t-table (10.995> 2.015). Thus, it can be concluded that the BI rate has a significant effect on Bond Prices at a 95% confidence level. The results of this study are the same as those of I Wayan Sumarna and Ida Bagus Badjra (2016), Long staff and Schwartz (1993), Sukanto (2009), Widjati (2009), Juhartono (2010), Karagiannis et al., (2016), who explained that Bank Indonesia Interest Rates negatively affected Bond Prices.

2. **The influence of bond coupons on bond prices**
   Bond coupons have a positive influence on bond prices. The results of hypothesis testing indicate that the value of t-stat is greater than the t-table (5.628> 2.015). Thus, it can be concluded that bond coupons have a significant effect on Bond Prices at a confidence level of 95%. The results of this study are the same as those of Ida BagusBadjra (2016), Edward (2007), and Krisnilasari (2007) which explain that Bond Coupons have a positive effect on Bond Prices. The results of this study get the same results because they have similarity in the use of purposive sampling as a sampling technique even though the type of company, data processing program and research period are different.

3. **The influence of the time maturity of bonds on bond prices**
   The time maturity of Bond has a negative influence on bond prices. The results of hypothesis testing indicate that the value of t-stat is smaller than the t-table (0.008< 2.015). Thus, it can be concluded that bond coupons do not have a significant effect on Bond Prices at a 95% confidence level. The results of this study are the same as those of Kecskés et al., (2012), King, & Mauer, (2014), I Wayan Sumarna and Ida Bagus Badjra (2016), Monica (2007), and Satria (2014) which explain that Maturity Time has a negative effect on Bond Prices. The results of this study get the same results because they have similarities in the use of purposive sampling as a sampling technique even though the types of companies, data processing programs and research periods are different.

4. **The influence of Net Profit Margin (NPM) Issuers on bond prices**
   Net Profit Margin has a positive influence on bond prices. The results of hypothesis testing indicate that the value of t-stat is smaller than the t-table (1,405<2.015). Thus, it can be concluded that Net Profit Margin does not have a significant effect on Bond Prices at a 95% confidence level.

5. **The influence of BI rates, bond coupons, bond maturity, and Net Profit Margin of Issuers on bond prices.**
   Simultaneous testing of the effects of X1, X2, X3 and X4 on Y indicates the BI Rate, Bond Coupon, Maturity Time, and Net Profit Margin of the Issuer which has a significant effect on bond prices.

5. **CONCLUSION**
   Based on the results of testing The influence of independent variables on the dependent variable carried out by the author, then conclusions can be described as follows:

1. **The influence of BI Rate (X1) on bond prices (Y).** Variable BI Rates have a sig value of 0.000<0.05, with a regression coefficient of - 1,754, which means that if there is an increase in the value of SBI 1 unit of value, the value of bond prices will decrease by 1,754. So it can be concluded that the research hypothesis is accepted, namely the BI Rate has a significant effect on bond prices.

2. **The influence of bond coupons on bond prices.** The bond coupon variable has a sig value of 0.000<0.05, with a regression coefficient of 0.948, which means that if there is an increase in the value of the bond coupon even if only 1 unit of value, the value of the bond price will increase by 0.948. So it can be concluded that the research hypothesis is accepted, namely the bond coupon has a significant effect on bond prices.

3. **The influence of bond maturity on bond prices.** The bond maturity variable has a sig value of 0.994>0.05, with a regression coefficient of - 7.202, which means that the results indicate that the increase in bond prices cannot be achieved by extending the maturity of the bonds. Then it can be concluded that the research hypothesis is accepted, namely the maturity date of bonds has a negative effect on bond prices.

4. **The influence of Issuer Net Profit Margin on bond prices.**
The Issuer Net Profit Margin variable has a value of 0.161–0.05, with a regression coefficient of 0.003, which means that the results of changes in bond prices cannot be achieved by increasing the value of the net profit margin (NPM). The hypothesis is accepted, namely the maturity date of bonds has a negative effect on accepted bond prices, namely Bank Indonesia interest rates, bond coupons, bond maturity, and Net Profit Margin (NPM). Issuers have a significant effect on bond prices.

Implications
From the analysis of The influence of BI Rate, bond coupons, bond maturity, and Issuers Net Profit Margin on bond prices of the 49 emissions listed at IPBA in the 2012-2016 found that bond coupons have a positive effect on bond prices while the BI Rate has a negative influence on bond prices, this condition has implications for companies and investors as follows:

1. BI rate have a significant influence on bond prices. This gives an implication that the BI rate has a dominant factor in influencing bond price movements. Any changes in BI Rate that occur will cause the bond price to be corrected. In this study, it appears that the relationship that occurs is negative, it can be concluded that any changes that occur in BI Rate will cause an impact that is opposite the bond price. The higher the change in the BI Rate, the lower the price of existing bonds.

2. Bond Coupons. Bond coupons have a significant influence on bond prices. This gives the implication that the market considers bond prices to be driven by the amount of coupons on emissions sold. In this study, it can be seen that the influence of coupons on bond prices is positive, it can be concluded that each bond coupon gives a positive boost to bond prices on the market. With a high coupon rate, it also means a high return, this is a driving factor for increasing bond prices. In the investment context, investors will choose investment instruments that have returns that match their expectations.

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References