AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Determinants of Indonesian corporate bond yield

Nicodemus Simu

Faculty of Economics and Business, Perbanas Institute Jakarta

corresponding e-mail: [nicosimu\[at\]perbanas\(dot\)id](mailto:nicosimu[at]perbanas(dot)id)

address: Faculty of Economics and Business, Perbanas Institute Jakarta,

Jl. Perbanas, Karet Kuningan, Setiabudi, Jakarta, Indonesia

Abstract:

Bonds are securities instruments quite attractive for investors. There are many factors that investors consider when going to invest in bonds market. A number of recent studies indicate that yield is one of the most commonly factors considered by investors. This study aims to identify the various factors that affect bond yields, as well as to explain the mechanisms by which each factors influence yields. The methodology of the research is to analyze secondary data available in Indonesian Bond Market Directory for the period of January 2015 - July 2016. Some statistic tools were used to analyze and interpret data, such as multiple linear regression analysis, coefficient of determination, and analysis of variance, and hypothesis testing using t-test. Based on data compiled from 67 companies and 138 bonds shows that bond maturity and coupon rate have a significant positive effect on bond yield. Instead, issuer's rating has a significant negative effect on bond yield. While on the other hand, liquidity does not give significant influence to bond yield.

JEL Classifications: G12

Keywords: Yield, liquidity, maturity, coupon rate, rating

Citation: Simu, N. (2017). Determinants of Indonesian corporate bond yield. *Business and Economic Horizons*, 13(5), 619-629, <http://dx.doi.org/10.15208/beh.2017.42>

1. Introduction

As an investment instrument that has fixed income, bonds are one of the most attractive financial securities in the Indonesia capital market investors. Bond investor is a creditor who provides a loan to the bond issuer over a period of time. From the perspective of investors, bonds are one of the financial securities that are relatively safe because it promises regular and fixed cash inflow. On the other hand, from the issuer's point of view, bonds are one of the long-term funding sources. Therefore, the issuer of a bond has an obligation to providing a fixed coupon rate and paid periodically to investor.

As an investment instrument, bonds are relatively new in the Indonesian capital market. Therefore, the data and information relating to the bonds is also relatively less compared with the data and information on stock market. Nevertheless, the bond market is a potential market and over the last few years has shown remarkable growth. Compared to stocks investment, investment on bonds has several advantages. One of the advantage is that the issuer, under any circumstances, must pay the coupon or the maturity value to the investor, at the time promised. Moreover, payments to bond investors must be carried out prior to the fulfillment of obligations to shareholders.

Based on these advantages, it seems reasonable if the growth of bond trading in Indonesia increased rapidly. During the period of 2011-2016, corporate bonds in Indonesia experienced an average growth of 17.51% per year. Even outstanding corporate bonds as of June 2016 also reached 108.08% compared to the outstanding during 2015. According to Asia Bond Monitor, in Q1-2013, Indonesia was one of the two countries with the highest growth of corporate bonds in Asia, approximately 26.9% year-on-year. Nevertheless, at the same time, Indonesia with a transaction volume of US \$ 20 billion is

considered the country with the lowest bond market in Asia. Indonesian total transaction volume is still very far below China that resides in the first rank, which recorded a transaction volume amounting to US \$ 1.1 trillion. This condition would make bonds and bond markets in Indonesia still an interesting topic to be studied further, especially in relation to the contribution of academic thought.

Despite providing fixed income, as a securities instrument, bonds also carrying risks. Bond risk can be derived from the characteristics of bond itself. One of the risks faced by the bondholders is the risk of a default bond. Default risk has been recognized as one of the contribution of bond yield. Bond yields are the most important factor as investors consider buying bonds as their investment instruments and a direct impact of the interaction of various factors. Yield is the result obtained from investing some funds in a bond. In addition, a bond yield is a indicator of bond income that investors will receive (Tandelilin, 2010).

Many factors are considered to affect bond yields. Based on traditional term structure models, the yields are determined by three factors, namely interest rate, default risk, and potential loss due to default (Liu, 2009). However, the traditional model of structure fails to explain the yield movement (Liu, 2009). Other research indicates that the yield of bonds is determined by factors such as issuer characteristics, issue characteristics, and macroeconomic conditions that contribute to the risk of industrial sector and country risk. The macroeconomic factor influenced was studied by Fitriana & Rohayati (2013), Poghosyan (2014), and Hsing (2015). The research that combines the influence of the macroeconomic and the characteristics of the issuer or the characteristics of bonds, among others, was conducted by Nurfauziah & Setyarini (2004), Surya & Nasher (2011). Indarsih (2013), Yuliani et al. (2016), Purnamawati (2013), Rahman & Sam'ani (2013), Adam et al. (2015), Muslim (2015), Sari & Abundanti (2015), Oktavian et al. (2015), and Dhar (2016). Meanwhile, study that examines specifically the characteristics of bonds as a determinant of bond yields was done by Yahya et al. (2016).

Therefore, the identification of these factors is important considering the scope of the impact. In line with the acceleration of bond market growth in Indonesia, the discussion of various determinants of the bonds yield has also become an interesting topic to educate market participants in understanding one of the characteristics of bonds itself and bonds market. Based on previous background, this study is devoted to examine the effect of bond characteristics on Indonesian corporate bonds yield using four predictor variables, namely liquidity, maturity, coupon rate, and rating.

2. Literature review and hypotheses

2.1. Liquidity and bond yield

Liquidity is one of the important factors in the bond market. Bond liquidity also shows the efficiency of the market. In the context of capital market, liquidity can be interpreted as the ease of securities for sale or in this case also means the ease of bonds to be used as cash on secondary market. In simple terms, based on dimension of market depth, liquidity of the instrument then using transaction volume as an indicator of measurement. Favero et al. (2010) states that securities that are not illiquid will lead to higher trading costs and will also cause additional risks. These costs and risks are the basis for investors' arguments to require higher yields. Conversely, low-risk bonds will make the returns required by investors also low. The high liquidity of bonds shows the increasing demand and supply of these bonds. The high supply and demand for bonds indicates that investors have a perception that the bonds are securities that are relatively safe, or in other words, the risk of such bonds is lower. The same conclusion results were also found by Chen et al. (2007) which stated that the less illiquid of a bond will result in higher yield demand. However,

Yahya et al. (2016) stated that the higher volume of transactions also indicates the higher the price volatility, and consequently investors are promised to yield higher as compensation. Based on the description, it can be proposed the following hypothesis:

H1: Liquidity has a negative impact on bond yield

2.2. Maturity and yield

Maturity refers to the length of time a bond takes to maturity. This time period is associated with the potential cash flow that the investor will receive, either in the form of a coupon or in the form of bond value. The potential for large risks is more likely to occur in longer-term investments. This greater potential risk is driven by exposure to bonds from interest rate risk and risk of price changes (Yahya et al., 2016). Bonds with a longer maturity will require guarantees that are usually marked with high yield-rate requirements as well. This opinion is supported by the research of Chen et al. (2007) which stated that the cost of liquidity will increase if the maturity period of bonds becomes longer. Higher liquidity costs will have an impact on higher yields.

Maturity has a positive effect on bond yields. The positive relationship between maturity and yield is due to longer maturity, and resulting bond with higher risk. This will have an impact on the higher yields required by investors. The underlying reason is that short-term securities are more liquid. In addition, short-term securities are also less sensitive to interest rates changes. According to Tandililin (2010), the decrease in interest rates will increase the price of bonds. However, larger price changes will occur in bonds that have longer maturities and/or lower coupon rates.

Normally, the shorter the bond maturity will be more interested for investors because it is considered have a lower risk. For long-term investments, in contrast, investors require more values. Thus, bonds that have longer maturity periods will lead to higher risk, and in turn, higher bond yield. This is in line with research conducted by Rahman & Sam'ani (2013); Purnamawati (2013); Indarsih (2013); Yuliani et al. (2016); Sari & Abundanti (2015); Yahya et al. (2016). Based on the above description, the proposed hypothesis is as follows:

H2: Maturity has a positive impact on bond yield

2.3. Coupon rate and yield

The coupon rate is the interest rate paid by the issuer to the investor periodically until the bond matures. This is supported by Tandililin (2010) stating that the bond coupon is a regular interest paid by the bond issuer to the investor. The bond coupon is expressed in terms of percentage. Generally, the type of bond coupon can be divided into fixed rate (fixed annually) or variable rate (interest paid will be adjusted periodically). The difference between these two types of coupons lies on the flexibility of interest rate changes. Bonds with variable rate coupons mean that the interest paid to investors can be adjusted periodically, referring to the prevailing market rate or market rate index.

In other words, coupon rate is a promise offered by bond issuers to investors as a reward for their debt. rate coupon is one of the factors that determine the bond yield. Yahya et al. (2016) found that there was a negative and significant relationship between coupon payments and bond yields. It should be noted, however, that coupon rate also reflects the amount of tax on which investors are charged considering that bonds with high coupon rates will be burdened with high taxes (Lu et al., 2010) and therefore bonds with low coupon rates will be more valuable. This is in line with the findings of Chen et al. (2007)

and Chen et al. (2010) which stated that high coupon payments will have an impact on high bond yields as well. Based on the description above, then the hypothesis that arises is.

H3: Coupon rate has a positive impact on bond yield

2.4. Rating and yield

Bond rating is one of the factors that determine the risk and return of a bond. Bond ratings have an important role in providing information about the quality of a bond and reflecting the yield of a bond. Bonds issued by issuers with low ratings indicate high risk of default and have negative correlation with its yield (Yahya et al., 2016). On the other hand, a high rating indicates that the bond issuer is credible, reliable, and default risk becomes lower. For issuers, the rating is used as a verification of debt worthiness. Meanwhile, for investors, the rating is used as a potential risk measurement parameter. Bonds with a high rating are basically bonds that are relatively secure and will generally make bonds yields decreasing.

Some of previous research concluded that rating has a significant negative effect on yields was carried out by Surya & Nasher (2011); Purnamawati (2013); Octavian et al. (2015); Sari & Abundanti (2015). On the other hand, Adam et al. (2015) and Yahya et al. (2016) found that the influence of rating on returns was positively significant, while Nurfauziah & Setyarini (2004), Indarsih (2013), and Muslim (2015) stated that there was no influence of bond rating against returns. Based on the description above, the hypothesis proposed is as follows:

H4: Rating has a negative impact on bond yield

3. Method

This research adopted quantitative research design and data were analyzed using multiple linear regression technique. This research design was adopted based on the nature of the variables of the study. The variables on this study are characterized by observation of events or influences on a phenomenon that have already taken place. The object of research is Indonesian corporate bonds, with bond yield as dependent variable. Meanwhile, the predictor variables are liquidity, maturity, coupon rate, and bond rating.

TABLE 1. OPERATIONALIZATION OF VARIABLES

Variable	Concept of variable	Indicator
<i>LIQUIDITY</i>	The ease and speed in selling the asset at fair value or the ability to trade a large asset quickly and at a low cost	Bond trading volume, contained within the IBMD
<i>MATURITY</i>	The remaining term of circulation of a bond up to maturity	The time difference between the date of the data up to the maturity date of the bond, contained in the IBMD
<i>COUPON</i>	Interest income on bonds based on nominal value or amount of fixed income to be received by bond investors.	Coupon rate contained in the Indonesian Bond Market Directory (IBMD)
<i>RATING</i>	The bond rating reflects the security level of the bond issuing company and belongs to the category of investment grade and uses the criteria of PT Pefindo	Ratings are expressed in the form of rating scores, ie: IdAAA + = 10 to IdBBB = 1, contained within the IBMD
<i>YIELD</i>	The rate of return received by investors	Yield used was the bond yield in IBMD

Hypothesis testing was done by using t-test. Furthermore the F-test was used for goodness of fit testing as a guide to determine the feasibility of the model. Measurement of the ability of independent variables in influencing the dependent variable or measuring the contribution of independent variables to the variation of dependent variable was done by using coefficient of determination, adjusted R Square.

The study used secondary data obtained from Indonesia Bond Market Directory (IBMD) 2015-2016. The population of this study are the corporate bonds published in Indonesia Bond Market Directory 2015 - 2016 with a total of 116 companies and 535 Bonds. The sampling technique used in this research was purposive sampling, with criteria: (1) Bonds issued during the period 2012--2015; (2) bonds during the period 2012-2015 are not yet due; (3) Corporate bonds consisting of private companies and a government-owned company (not including government bonds and sharia bonds/sukuk); (4) Rupiah denominated bonds with fixed coupon rate; (5) investment grade rating bonds; and (6) actively traded bonds or has transaction volume data. Based on these criteria, 138 bonds were issued as bonds issued by 67 companies.

The Table 1 shows the variables used in this study along with the operational definitions and measurement indicators.

4. Results and discussion

The table below is a descriptive statistic that describes the data of each variable studied.

TABLE 2. DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. deviation
Yield	138	0.0860	0.1281	0.100930	0.0070177
Liquidity	138	4000000000	4308000000000	521675289900	668666073400
Maturity	138	1	102	25.56	18.799
Coupon	138	0.06400	0.12550	0.0898138	0.01256784
Rating	138	1	10	6.11	2.348
Valid N	138				

Based on the above table, it shows that the corporate bond yields in Indonesia is in the range of 8.6% - 12.81%, with an average of 10.09%. The highest yield is offered by PT MNC Kapital Indonesia. The yield range remained above the BI-Rate (the policy rate reflecting the monetary policy stance adopted by Indonesian Central Bank and announced to the public) during the same period of 7.75% in early 2015 and declined to 6.50% in July 2016. This is also an indication that investors remain rational in making investments. Referring to this condition is very reasonable if corporate bonds are still attractive to investors, indicated through high transaction volumes.

Basically, the liquidity of corporate bonds in Indonesia during observation period showed fairly good data, which is characterized by relatively high trading volume. Table 2 shows that the trading volume of corporate bond transactions in Indonesia is in the range of Rp4 billion to Rp4.3 trillion, with an average is about Rp521 billion. The lowest transaction volume was recorded by BII Finance Center, PT Duta Anggada Realty, and PT Mitra Adiperkasa. Conversely, the highest transaction volume is issued by PT Surya Semesta Internusa. Based on data, the interesting fact is that the highest transaction volume is a bond that has a rating of 4 (idA), which is a bond with a position below the average rating. Other facts also indicate that these bonds also have yields that are also below the average yield of 9.9%.

In accordance with sampling method, the object of research is a corporate bond that has an investment grade rating. Bonds that were the object of the study had a rating in the range of rank 1 (IdBBB) to rank 10 (IdAAA +), with an average of 6.11. Based on data, 42.75% or as many as 59 bonds have a rating above average and is a bond of 24 issuers. In the coupon data, the average coupon rate offered by Indonesian corporate bonds was 8.89%. The average coupon rate offered by Indonesian corporate bonds is 8.89%. the coupon rate is above the bank's benchmark interest rate over the same period. This fact once again shows that bonds remain an attractive investment instrument. When considered, the lowest coupon rate is 6.4% and the highest coupon rate is 12.55%. Bonds with the lowest coupon are bonds from Indonesian Import Financing Institution (government owned institution, Indonesia Exim Bank) issued in 2013. Meanwhile, bonds with the highest coupon rate are bonds issued by PT Verena Multi Finance in March 2014.

In general, the maturity of corporate bonds in Indonesia is in the range of 1 month to 8.5 years, with an average age of 25.6 months. Bonds that will soon mature are PT Global Mediacom, PT Batavia Prosperindo Finance, PT Bumi Serpong, PT Bank Tabungan Pensiunan Nasional, PT Mandala Multifinance and PT Serasi Autoraya. Meanwhile, the longest bond maturity date is PT PLN bonds. A total of 58 bonds have maturity above average, while the remaining 50 bonds are less than 2.1 years.

TABLE 3. COEFFICIENTS ^a

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.097	0.003		35.586	0.000
	Liquidity	-3.769E-16	0.000	-0.036	-0.945	0.346
	Maturity	0.000	0.000	0.490	12.843	0.000
	Coupon	0.120	0.025	0.214	4.806	0.000
	Rating	-0.002	0.000	-0.625	-14.064	0.000

Note: ^a - Dependent variable: Yield.

Table 3 shows that the selected independent variables have successfully explained the variation of the corporate bond yield. Furthermore, it can be seen that maturity and coupon variables have a positive influence on yield, in the sense that the increase of value of these two variables, individually or collectively, will also increase the yield value of corporate bonds in Indonesia. However, the influence on yields as a result of changes in the liquidity and rating variables gives different directions. The increase in the beta coefficients in these two variables, individually and collectively, has a decreasing influence on yield variables.

Referring to the same table, the Sig. value of variables maturity, coupon, and rating are 0.000 respectively, and are in less than α (0.05). This means that the influence of these three variables on the yield of corporate bonds is statistically significant. In contrast, the Sig. value of liquidity variable is 0.346 and greater than α (5%) and indicates that the influence of liquidity on yield is not statistically significant.

Goodness of fit testing by using F-test is a form of testing to determine whether the estimation model generated from statistical analysis in this study is feasible to be used to explain the influence of predictor variable to the dependent variable. In other words, the F-test is used to determine whether the estimation model obtained is feasible to be used as a prediction function.

TABLE 4. ANOVA ^a

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	0.005	4	0.001	143.989	0.000 ^b
	Residual	0.001	133	0.000		
	Total	0.007	137			

Notes: ^a - Dependent Variable: Yield. ^b Predictors: (Constant), Rating, Maturity, Liquidity, Coupon.

From ANOVA test result in table 4 obtained Sig (F-statistic) value of 0.000. The test benchmark is an alpha value (5%), in which case the feasibility model is acceptable if the value of Sig. < Alpha = 5%. Paying attention to the value in the Sig column. It can be concluded that the model deserves to be used in its capacity as a prediction function. The last testing stage is the use of coefficient of determination to determine the contribution of the influence of predictor variables together to the dependent variable. The test results can be seen in table 5.

TABLE 5. MODEL SUMMARY ^b

Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson
1	0.901 ^a	0.812	0.807	0.0030849	1.810

Notes: ^a - Predictors: (Constant), Rating, Maturity, Liquidity, Coupon. ^b - Dependent variable: Yield.

Table 5 shows that the value of Adjusted R square is 0.807. This means that the predictor variables used in this study, i.e. liquidity, maturity, coupon, and rating altogether contribute to the variation occurring in the bond yield is amounting to 80.7%, while the remaining 19.3% is influenced by other variables that not addressed in this study.

This study shows that the rating has a significant negative influence on the amount of corporate bond yield and this finding is in line with the research hypothesis. Rating is an indicator of the quality of bonds. The rating determination involves consideration of the potential future risk of a particular bond (Keown et al., 2014). High-rated bonds mean that the bonds are relatively safe bonds and avoid default risk. The bond rating also reflects the yield of a bond.

High-rated bonds indicate that the bond issuer company has a good reputation and is considered capable of fulfilling its obligations, either paying the coupon or paying the principal. In addition, high-ranking bonds also indicate the credibility of the publishing company is quite good. Therefore, the yield given on these bonds also tends to be low. The existence of significant influence is also at the same time an indicator that the rating conducted by PT Pefindo is one of the factors that affect the bond yield and become one of the considerations that investors use to decide to transact on corporate bonds in Indonesia. This research is in line with the research conducted by Adam et al. (2015). Di On the other hand, this study is not in line with the research conducted by Nurfauziah & Setyarini (2004), Restuti (2007), Indarsih (2013), Purnamawati (2013), Muslim (2015), Oktavian et al. (2015), and Sari & Abundanti (2015).

The study found that maturity has a significant positive effect on bond yields. Referring to the liquidity preference theory, investors generally prefer to buy short-term securities instruments. This condition is understandable because short-term instruments are generally more liquid and volatility which is relatively stable (Gitman & Zutter, 2015). Koesrindartoto & Adventius (2011) argued that "bonds with different maturities give different levels of yield". This opinion is supported by a theory which states that "the

longer life of the bond, the higher yield is given" (Yuliani et al., 2016). This fact shows that the longer the maturity period, the higher the yield demanded by investors. Bonds with a longer maturity directly indicate that these bonds are exposed to risks, both risks associated with interest rates, risks associated with the dynamics of the economy and business, as well as the risks that come from the fundamentals of the issuing company. Bonds that have longer maturity periods will bear significant market risks because if interest rates increase, then the increase will not have a significant impact for investors. Even considering the bond coupon is fixed and constant, the attractiveness of the bonds will decrease and impact on the declining prices. With all these risks, longer maturity bonds will offer higher yields when compared to shorter maturity bonds. This rule is likely to be different in the event of a condition called "inverted yield curve", ie when the short-term interest rate is higher than the long-term interest rate. This situation is very rare and although it does occur, the length of time will not be long.

Referring to normal conditions, the popular investment advice given to investors is to try to shorten the maturity of its bond portfolio. This effort is done in the framework of mitigation of potential losses that occur due to the length of maturity. Therefore, it is fair that investors tend to choose short-term bonds because although the yield received tends to be smaller, but the risk borne by the bond is lower. In other words, the shorter the bond period, then it will be the more interested to investors because it is considered a smaller risk. This research is supported by Indarsih (2013), Purnamawati (2013), Rahman & Sam'ani (2013), and Sari & Abundanti (2015).

Coupon is the interest rate paid by the issuer of a bond company periodically to the investor until the bond matures. Coupon rate serves to determine the level of bond attractiveness based on investor perspective. The higher the coupon rate will make the bond more attractive to investors. The fact that is often overlooked is the high coupon, in addition to indicating future earnings potential, but also shows relatively low quality bond tendencies, which must be compensated with high coupon rates. Therefore, bonds that promise a high coupon - regardless of the factors that make up the amount of the coupon - will be more attractive to investors when compared to low coupon bonds.

This study found that coupons have a significant positive effect on bond yields. These findings indicate bonds that promise higher coupons tend to encourage investors to require higher yields. Coupons are related to other characteristics of bonds. The longer the maturity that means also the higher the coupon will drive higher bond yields (Yuliani et al., 2016). In contrast, the shorter its maturity, the higher is coupon and the higher its yield. In other words, a coupon is one factor that investors consider when choosing a bond as one of the instruments in their investment portfolio. This research is in line with Indarsih (2013), Purnamawati (2013), Adam et al. (2015), and Muslim (2015) studies. However, some other research results are not supported the findings of this study, namely Nurfauziah & Setyarini (2004) and Rahman & Sam'ani (2013).

Trading volume is one of the indicators that can provide information about the performance of a bond, in this case is the liquidity of the bonds. The high volume of trading basically means a high liquidity position. High liquidity indicates the availability of buyers and sellers of the assets traded. This should reduce the price distortion, lower the liquidity risk, and will also impact on the yield reduction. A concept related to the price of a financial asset is a liquidity premium. Liquidity premium is a concept that states that the price of a financial asset will be higher than other assets because it has a higher liquidity. These assets can be traded at large volumes but at a low cost (Ejsing et al., 2012).

This study shows that there is no significant influence of trading volume to bond yield. In other words, trading volume is not considered by investors to invest in certain bonds. This indication can be interpreted that investors do not view the volume of trading of corporate bonds in Indonesia as a indicator of strength or weakness of the market or even as indicator of bonds quality. In this context, the prevailing general formula is that the highest trading volume should be owned by high-rated bonds and / or bonds that

promise above-average yields. The findings in this study indicate that the general formula does not apply to corporate bonds in Indonesia during the research period. The facts show that during the research period, bonds that posted the highest trade volume are bonds with idA rating. This rating is a bond that is below average rating. Other facts also indicate that these bonds also have yields that are also below the average yield of 9.9%.

Observing data published by the stock exchange authority, the volume of corporate bond transactions in Indonesia is much lower than the volume of government bond transactions. As of July 15th, 2016, the outstanding volume of corporate bond transactions amounting to Rp270 trillion, while government bonds (Government Securities) have outstanding amounting to Rp1.608 trillion. This condition was worsened again with stock market capitalization data on my date, which amounted to Rp5.489, 69 trillion. Thus it can be understood that the liquidity of the corporate bond market is still very low when compared with government bonds or stock market liquidity. This causes the available funds in the capital market to move more in the government bond market and the stock market than in the corporate bond market. In addition, high prices also indicate a high potential risk of bonds as well. This is likely to cause non-significant influence because investors tend to be reluctant to invest in bonds at high prices.

5. Conclusion

Based on the multiple linear regression model developed, the results of this study shows that the liquidity effect on the yield can not be confirmed. In contrast, the effects of both maturity and coupon rate variables on bond yields are confirmed in a positive direction. The effect of the remaining variable, the effect of the rating variable on the yield, is also confirmed. Therefore, these last three variables can be regarded as the main stimulator to develop Indonesia corporate bond market. Coupon rate is the variable that has the highest effect on bond yield, followed by bond rating, and then maturity variable.

For the future research, it is suggested to examine topics related to (1) the influence of factors on Indonesian bond yields and prices, without distinction between government bonds, sharia bonds, and corporate bonds; (2) comparison of determinant factors that influence the yields and prices of government bonds, sharia bonds, and corporate bonds; (3) comparison of determinant factors that influence the yields and prices of corporate bonds of private corporations and state-owned companies.

References

- Adam, Mohamad, Reza Gasharma, & Mutiarany Nuary. (2015). The corporate bonds yields in Indonesia. *Jembatan: Jurnal Ilmiah Manajemen Bisnis dan Terapan*, XII(1), 1-14.
- Chen, L., Lesmond, D. A., & Wei, J. (2007). Corporate yield spreads and bond liquidity. *Journal of Finance*, LXII(1), 119-149.
- Chen, T. K., Liao, H. H., & Tsai, L. P. (2010). Internal liquidity risk in corporate bond yield spreads. *Journal of Banking and Finance*, 35(4), 978-987.
- Dhar, Sujoy Kumar, (April 9, 2016). Determinants of corporate bond's yields in economy. Available at SSRN: <https://ssrn.com/abstract=2761308>
- Ejsing, J., Grothe, M., & Grothe, O.. (2012). *Liquidity and credit risk premia in government bond yields* (Working paper Series No. 1440). European Central Bank. Available online at: <https://www.ecb.europa.eu/pub/pdf/scpwps/>
- Favero, C., Pagano, M., & E-L von Thadden. (2010). How does liquidity affect government bond yields. *Journal of Financial and Quantitative Analysis*, 45(1), 107-134.
- Fitriana, Eka Sari, & Suci Rohayati. (2013). Pengaruh suku bunga terhadap harga obligasi melalui yield obligasi [The influence of interest rates on the price of bonds through bond yield]. *Jurnal Ilmu Manajemen*, 1(3), 724-734.
- Gitman, J. Lawrence, & Zutter, C. J. (2015). *Principles of managerial finance* (14th Edition). England: Pearson Education Limited.
- Hsing, Yu. 2015. Determinants of the government bond yield in Spain: a loanable funds model. *International Journal of Financial Studies*, 3, 342-350.
- Indarsih, Nanik. (2013). Pengaruh Tingkat Suku Bunga SBI, Likuiditas dan maturitas terhadap *yield to maturity* obligasi [Effect of Interest Rates, Liquidity and maturity of the yield to maturity of bonds]. *Jurnal Ilmu Manajemen*, 1(1), 125-136.
- Keown, Arthur J., John D. Martin, & J. William Petty. (2014). *Foundation of finance: the logic and practice of financial management* (8th edition). Edinburg Gate, Harlow, Essex, England: Pearson Education Limited.
- Koesrindartoto, D. P., & Adventius, F. (2011). Indonesian government bond stochastic simulation. *Jurnal Manajemen Teknolog*, 10(2), 212-223.
- Liu, S., Shi J., Wang J., & Wu, C. (2009). The determinants of corporate bond yields. *The Quarterly Review of Economics and Finance*, 49(1), 85-109.
- Lu, W. C., Chen, K. T., & Liao, H. H. (2010). Information uncertainty, information assymetry and corporate bond yield spreads. *Journal of Banking and Finance*, 34(9), 2265-2279.
- Muslim, Abdul. (2015), Pengaruh faktor fundamental keuangan perusahaan dan informasi non akuntansi terhadap tingkat yield obligasi [The influence of fundamentals of corporate finance and non-accounting information on bond yield level]. *Jurnal TEKUN*, VI(1), 17-35.
- Nurfauziah, N., & Adistien Fatma Setyarini. (2004), Analisis faktor-faktor yang mempengaruhi *yield* obligasi perusahaan: studi kasus pada industri perbankan dan industri finansial [Analysis of the factors that influence the yield of corporate bonds: case studies in the banking industry and the financial industry]. *Jurnal Siasat Bisnis*, 2(9), 241-256.
- Oktavian, Oky, Haryetti, Sjahruddin. (2015), Pengaruh tingkat inflasi, debt to equity ratio, likuiditas obligasi dan rating obligasi terhadap yield obligasi korporasi yang terdaftar di bursa efek Indonesia (BEI) Tahun 2009-2012. [Influence of inflation rate, debt to equity ratio, bond liquidity and bond rating on the yield of corporate bonds listed on the Indonesian Stock Exchange (IDX) Year 2009-2012]. *JOM FEKON*, 2(1), 1-20.
- Poghosyan, Tigran. (2014). Long-run and short-run determinants of sovereign bond yields in advanced economies. *Economic Systems*, 38, 100-114. Available online on: <http://dx.doi.org/10.1016/j.ecosys.2013.07.008>

- Purnamawati, Ayu. (2013), Pengaruh peringkat obligasi, tingkat suku bunga sertifikat bank Indonesia, rasio leverage, ukuran perusahaan, dan umur obligasi pada imbal hasil obligasi korporasi di Bursa Efek Indonesia [The effect of bond rating, interest rate on Indonesian bank certificates, leverage ratio, firm size, and bond age on corporate bond yields in Indonesia Stock Exchange]. *VOKASI Jurnal Riset Akuntansi*, 2(1), 28-44.
- Rahman, Anang Aulia, & Sam'ani. (2013), Analisis faktor-faktor yang mempengaruhi yield obligasi negara Tahun 2010-2012 [Analysis of the factors that affect the yield of the state bonds in 2010-2012]. *Jurnal Ekonomi-Manajemen-Akuntansi*, XX(35), 1-16.
- Restuti, Maria Immaculatta Mitha Dwi. (2007), Pengaruh pertumbuhan perusahaan terhadap peringkat dan yield obligasi [Influence of corporate growth on bond rating and yield]. *Integrity: Jurnal Akuntansi dan Keuangan*, 1(3), 235-248.
- Sari, Ni Wayan Linda Naluritha, & Nyoman Abundanti. (2015). Variabel - variabel yang mempengaruhi yield obligasi pada perusahaan yang terdaftar di Bursa Efek Indonesia [Variables affecting bond yields at companies listed on the Indonesia Stock Exchange]. *E-jurnal Manajemen Unud*, 4(11), 3796-3824.
- Surya, Budhi Arta, & Teguh Gunawan Nasher. (2011). Analisis pengaruh tingkat suku bunga SBI, exchange rate, ukuran perusahaan, dan debt to equity ratio, dan bond rating terhadap yield Obligasi Korporasi di Indonesia [Analysis of the influence of SBI interest rate, exchange rate, the size of the company, and the debt to equity ratio, and bond rating to the yield corporate bonds in Indonesia]. *Jurnal Manajemen Teknologi*, 10(2), 186-195.
- Tandelilin, Eduardus. (2010). *Analisis investasi dan manajemen portofolio* [Investment analysis and portfolio management]. Edisi Pertama, Cetakan Kedua. Yogyakarta: BPFE.
- Yahya, Norliza Che, Ruita Abdul-Rahim, & Rosidah Mohd-Rashid. (2016). Determinants of corporate bond yield: the case of Malaysian bond market. *International Journal of Busines and Society*, 17(2), 245-258.
- Yuliani, Utami, Bambang Juanda, & Trias Andati. (2016). Analysis the influence of internal factor and external factor on yield bonds government in 2011-2014. *International Journal of Science and Research*, 5(8), 2319-7064.