**International Journal of Social Science and Business**
Volume 8, Number 4, 2024, pp. 636-642
P-ISSN: 2614-6533 E-ISSN: 2549-6409
Open Access: https://dx.doi.org/10.23887/ijssb.v8i4.82928

# Determinants of Bond Performance (Study of Companies Listed on the Indonesian Stock Exchange)

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**ARTICLE INFO**

***Article history:***
Received July 18, 2024
Accepted November 18, 2024
Available online Nov 25, 2024

**Keywords:**
Bond Prices, Profitability, Liquidity, Leverage, Bond Ratings



**ABSTRACT**

The goal of this research is to use bond ratings to look at how profitability, liquidity, and leverage influence bond prices. Our study population consists of all firms registered on the Indonesian stock market from 2019 to 2021, totalling up to 116 entities. In a purposeful selection on the next year's treasury: 2019-2021 corporation produced a report, derive profit in rupiah, and is rated by the company issuing bonds PT. Pefindo. The research company chose 72 companies to test the hypothesis and employed route analysis. Findings of this study show that profitability, liquidity, and leverage have little effect on bond ratings, and bond prices have nothing to do with changes in liquidity and leverage, however profitability and bond rating have a considerable impact on bond prices. Meanwhile, bond ratings are unable to mediate liquidity and leverage on bond prices. However, the bond rating reflects the yield of bond prices. This study found that bond ratings are unaffected by profitability, liquidity, and leverage, although bond prices can be affected by profitability and bond ratings. Furthermore, the practical contribution demonstrates that bond ratings and bond prices play an important role in the company's efforts to enhance its performance. Specifically, liquidity to pay interest and instalments for leverage to boost the company's income.

## 1. INTRODUCTION

In Indonesia, investment in the form of bonds is still relatively small compared to investment in the form of shares. Investment in the form of bonds is very profitable than investment in the form of shares because investors who buy shares do not necessarily get a fixed company income. This is very different from bonds which provide fixed income and a predetermined maturity so that shares have a greater risk than bonds.

Currently, Indonesia is still struggling to recover from the effects of COVID-19. The majority of investors will relinquish ownership of state securities (SBN), which is marked by increased yields in almost all SBN benchmarks (Pranata, 2021). On the other hand, with higher expectations of economic recovery, it is not impossible that the demand for long-term corporate loans may narrow the gap even further (Tan, 2018). Not just hit the stock market and also, the domestic bond market will be a concern for investors about the spread of the virus. Bond investment is a form of investment that is in high demand by investors or shareholders because bonds have a fixed yield that is derived from the interest earned periodically and the principal at maturity (Yadinanti & Andika, 2022). For bond issuers, of course, this is a security that can be said to be relatively safe because the emission costs incurred are cheaper when compared to stocks (Markonah & Franciska, 2020).

Bond investing is believed to be safe, but that does not imply it is risk-free. The hazards associated with bond investing include bond coupon default and interest rate risk. A bond rating is required to simplify or reduce the risk of default for investors. Changes in ratings can also determine changes in bond prices which will later affect company funding (Widyastuti & Panjaitan, 2017).

There are factors that are able to predict bond ratings which are important to study because they can help investors to sell or buy bonds in order to, they will be offered predict rank issued by bond rating agencies, including the following. The profitability ratio is calculated using ROA, which measures a company's ability to manage its assets to make a profit (Cogliser & Brigham, 2004; Brigham & Houston, 2019). The ratio of debt to revenue is a financial ratio that assesses a company's capacity to satisfy long-term obligations such as debt interest payments, debt principal payments, and other liabilities. If a

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corporation is more indebted, it implies that more firms may fail, which has an impact on corporate bond ratings since it reduces investor interest in the company. Liquidity is the ratio used to measure the company's short-term ability to meet obligations. The higher the company's liquidity, the higher the company's bond rating (Mardiyati & Ahmad, 2015; Hung & Joe, 2021). Mardiyati and Ahmad (2015) argue that liquidity has a significant effect on the level of bonds. Bond prices are money issued as proof of participation or ownership in a company (Kyosev, 2019).

Based on the background and the inconsistency of previous research results, the author will test whether there is a direct influence between the variables of profitability, liquidity, leverage, on bond prices through bond ratings.

**Bond**

According to Brigham and Houston (2019) and Palepu et al., (2020), bonds are long-term contracts where the borrower has agreed to pay interest and principal on a certain date to the bondholders. Since a covenant bond is also defined as a certificate conveying a contract between an investor and a firm with nominal value, declaring that the investor or bondholder has made a loan to the company. The bonds are classified as government or state treasury bonds, corporate bonds, bonds issued by municipal governments, and bonds issued by states or international enterprises. Each form of bond has unique features and levels of risk, such as government bonds, which do not bear the danger of default since they are guaranteed by the government; yet, there is still risk that if interest rates rise, the value of the bond would fall.

**Profitablity**

According to Cogliser and Brigham (2004), profitability is the end result of some policies made by the company. The profitability ratio measures the income or success of a company's operations within a certain time (Glaser & Walther, 2013; Dewi & Utami, 2020). Gitman and Flanagan (2015) state that the ratio measures the company profitability used to produce advantage of sales, assets, and capital. The profitability level, which indicates the company's profit from investment often related with debt. This is because firms with high profitability prefer to employ debt that is relatively small since it is sufficient to fund the majority of the demands of financing companies.

Ratio used to measure profitability ratio is ROA (return on assets) (Brigham & Houston, 2019). The better a company's profitability, the greater its capacity to create profits. As a result, it will have an influence on both higher performance and ranking. Research conducted by the Goddess and Eristy (2020) states that profitability ratios have a impact to bond ratings.
H1: Profitability has a significant impact on bond ratings

Profitability is utilized to generate corporate profits while also determining a company's success in resource management. If corporate earnings receive high ratings, the variable is considered to grow, which might impact on the price of bonds. According to Glaser and Walther (2013) and Dewi and Utami (2020), the higher a firm's profitability, the higher the price of bonds issued by the corporation.
H2: Profitability has a significant impact on bond prices

**Liquidity**

Horne and Wachowicz (2012) used for liquidity was the ratio measures the company in the short term to meet obligations. This ratio compares assets smoothly and a short-term obligation owned company. Palmatier, Houston and Hulland (2018) and Brigham and Houston (2019) explain liquidity ratio was the ratio showing the relation between the current assets of enterprise with current liabilities. The liquidity ratio allows those firms to analyze the company's agent capacity to manage money entrusted, including funds needed to pay for a short-term obligation company.

Company liquidity is the ability of the company in paying off its short-term liabilities. A good ratio compared to a smooth obligation. Based on signal theory, the company's management gives potential investors with information from financial company reports by examining the firm's smooth assets. If a corporation has a high activation, it means that it is paying off short-term obligations both quickly and effectively, indicating that it is liquid. The high liquidity ratio indicates that corporate bonds are investment grade since the assets are more reliable and have demonstrated the company's capacity to meet a short-term obligation to investors on time.
H3: Liquidity has a significant impact on bond rating

The company's liquidity is its capacity to pay short-term commitments as assessed by a favourable ratio to liabilities. Based on these indications, firm management offers potential investors with comprehensive financial reports regarding the company's assets. While a corporation has a large amount

of current assets, it is able to pay off short-term obligations in a timely and efficient manner, indicating that the company is liquid. The liquidity ratio indicates that firms with high bonds are classified as investment grade since current assets exceed liabilities in the short term, indicating the company's capacity to make timely payments to investors. The explanation above is in line with research conducted by Maskami, Putra and Pondrinal (2022), which states that liquidity has a significant effect on bond prices.
H4: Liquidity has a significant impact on bond prices

**Leverage**

Based on Brigham and Houston (2019), leverage is the extent to which corporations get finance through debt (financial leverage) in order to demonstrate the corporate ability to optimize debt. The financial leverage ratio assesses the company's long-term ability to satisfy commitments such as paying interest, making the final payment on loans, and other responsibilities. Long-term obligation is often described as a debt that is due to be paid in more than a year.

Debt to equity ratio is a ratio that shows the percentage of debt to equity. This ratio indicates how much debt the corporation utilizes to fund investments. As a result, if a firm's financial leverage is too great, it will undermine investors' trust to invest their money, as it signals that the company is unable to satisfy its obligations. As a consequence, bonds with a lower rating were issued. According to Phety (2018), leverage has a large influence on bond ratings.
H5: Leverage has impact significant on bond ratings

When leverage rises, bond prices fall due to a decline in public faith in bonds; if leverage ratios fall, bond prices rise as opposite. Based on the results of research conducted by Maskami et al. (2022) said that leverage significant impact on bond prices.
H6: Leverage has a significant impact on bond prices

**Bond Rating**

Corporate bond ratings can impact not just the pricing of current corporate bonds, but also interest rates and the marketability of new corporate bonds that are issued. Bond ratings are an essential tool for corporations that issue them since they indicate risk. If the bond rating is better, the coupons will be lower. Most investors will avoid or will be prohibited from buying bonds that have a low rating, for example, below the BBB rating (Chen et al., 2020). Bond ratings are determined by factors such as managerial competence, good taste, and future technology that affects long-term profit, among others. Bond ratings can change; for example, when a bond receives a good rating, it implies that investors trust the firm enough to put their money in a bond, which can cause bond prices to rise.
H7: Bond ratings have a significant impact on bond prices

Bond ratings reflect the risk of bonds. The higher bond ratings the lower the coupon. They can depend on these factors such as management quality, changes of taste, technology in the future and also profit of the company. Fortunately, bond ratings are valued higher, the company's bond prices will climb. Investors' confidence and interest in the firm also grow.
H8: Bond ratings are able to mediate the relationship between profitability and bond prices

The greater the value of this ratio, the more liquid the financial firm, which affects bond ratings. The higher the liquidity ratio, the better the bond rating (Aditya et al., 2023). The other result of research states liquidity has a negative impact on bond ratings but liquidity has not a directly impact bond prices (Kaltsum & Anggraini, 2021).
H9: Bond ratings are able to mediate the relationship between liquidity and bond prices

Leverage is a financing policy related to the company's decision to finance its operations. When operations of company using debt will be subject of interest and the loan principal and both of them need liquidity. The use of debt carries a significant risk if the firm fails to pay its debts, hence creating profit is the most crucial factor. When a business has excessive leverage, it reduces investor trust in the firm since it indicates that the company may be unable to repay its loan. This is a price-decline trend in bonds, which will impact on bond prices.
H10: Bond ratings are able to mediate the relationship between leverage and bond prices

## 2. METHODS

This study uses three independent variables: profitability, liquidity, and leverage. Bond ratings are a mediating variable, whereas bond price is the dependent variable. The population includes all issuers listed on the BEI (Indonesian stock market) from 2019 to 2021, totaling 116 entities. To collect samples for this study, purposive technique was used using the following specification: 1) Companies that publish annual financial reports for 2019-2021; 2) companies that make a profit; 3) use the rupiah currency, and 4) companies that issue bonds classified by PT. PEFINDO, and total of 72 companies were sampled in this study. In the study, it can be seen that the relationship between variables is the focus of the overall study which shows a causative relationship. Research that has the characteristics of a cascading relationship, then the analysis technique that can be used is by using path analysis.

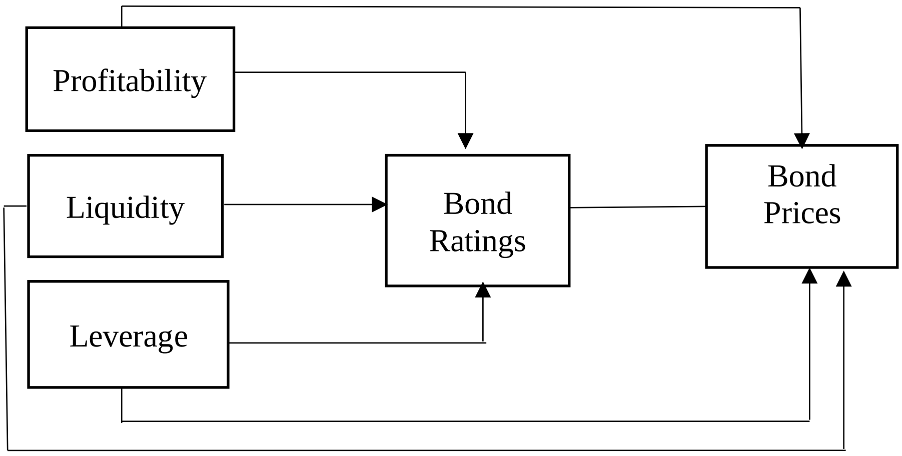


**Figure 1.** Conceptual Framework

## 3. RESULTS AND DISCUSSIONS

### Results

This study use path analysis to test the hypothesi with the outcome is a t-statistics test with a probability of 5%. Hypothesis is accepted, if the likelihood is less than 5%.

**Table 1.** Path Analysis Results

| Hypothesis | | Beta | Sig | Direct Influence | Indirect | Information |
|---|---|---|---|---|---|---|
| H1 | Profitability→Bond Ratings | 0.081 | 0.297 | | | Not significant |
| H2 | Liquidity→Bond Ratings | -0.029 | 0.203 | | | Not significant |
| H3 | leverage→Bond Ratings | 0.31 | 0.682 | | | Not significant |
| H4 | Profitability→Bond Price | 0.156 | 0.032 | | | Significant |
| H5 | Liquidity→Bond Price | -0.032 | 0.655 | | | Not significant |
| H6 | leverage →Bond Price | -0.123 | 0.085 | | | Not significant |
| H7 | Bond Rating→Bond Price | 0.318 | 0.000 | | | Significant |
| H8 | Profitability→Bond Ratings→Bond Price | | | 0.156 | 0.399 | Mediating |
| H9 | Liquidity→Bond Ratings→Bond Price | | | -0.032 | -0.009 | Not Mediating |
| H10 | Leverage →Bond Ratings→Bond Price | | | -0.123 | 0.0098 | Not Mediating |

**Discussion**

As a result of the first hypothesis, it appears that profitability has no effect on bond valuation. In this study, the return on assets (ROA) is used to compare profitability. A company's profitability refers to its capacity to create profit over a specific time period. The company's profitability seldom has a direct impact on bond investments. This is because, regardless of how much profit the firm produces, the bondholder will continue to receive the previously established interest rate. This study conforms with study of Mahfudhoh and Cahyonowati, (2014) and Laila et al., (2021), according to which profitability has no impact on bond valuation.

Profitability affects the price of bonds. If the company able to generate high profit, it will also given an increase ratung, in turns this variable to be able to influence the price of a bond. These result are consistent with study from Markonah and Franciska (2020), according the higher the price of bonds issued by that company.

Liquidity has no influence on bond ratings. These findings can be used to determine if the company's liquidity large or small bond rating is unchanged. Campony's liquidity refers to its ability to meet short-term commitments, whereas bonds are long-term securities. On the other hand, excessive liquidity may be detrimental since it indicates that a substantial portion of the firm's assets are idle, resulting in a poorer corporate return and business management not managing present assets appropriately and efficiently. This research result conforms with the research result of Laila et al. (2021), Maskami et al., (2022) and Heryati and Kurniawan,( 2023).

Bond prices do not depend on liquidity. It is a measure of current assets relative to current liabilities. It means that this is a shorter-term decision policy, but bonds are long-term debt, so the ups and downs of current assets have no impact on long-term investment decisions. As a result, bond prices are not affected by liquidity. This result is consistent with Muhamad and Marpaung (2022) research that liquidity has no impact on bond prices

The leverage does not affect the rating of the bonds.. The company's liabilities are fewer than its assets, indicating that it can pay its bills. Furthermore, effective debt can give possibilities for the firm to increase earnings, thus the degree of financial leverage does not influence the bond's rating. Investors do not consider how much debt the firm holding the bonds has, but the amount of debt solvency is an arbitrary leverage for investors. It cannot anticipate a company's bond rating. The research conform with the research of Maskami et al., (2022). Leverage has no effect on bond pricing. Companies with significant leverage have high debt-to-equity ratios. High leverage will serve as a signal to investors, encouraging them to purchase bonds because the high risk of debt can lead bond prices to fall. This results conform with research of Simu (2017) and Megananda et al., (2021).

Bond ratings have a considerable influence on bond prices. When a company's bonds have high ratings, it indicates that investors are willing to invest in bonds, which can lead to an increase in the price of the company's bonds. If the case is the contrary, and a company's bonds have a worse rating, investors will not invest in it. This result confirms with research of Cole et al. (2022) and Maskami et al. (2022).

Bond ratings have a role in mediating profitability and bond pricing. This function quantifies the assets that create profits. If the protif is high, the bond's rating will climb. It is possible that this occurred because investor trust and interest in the firm has grown, resulting in higher bond prices. This is according to research from Megananda et al. (2021).

Bond ratings are unable to measure the link between liquidity and bond prices. According to studies, liquidity has no influence on bond prices since investors favor bonds with relatively low prices, however when bond prices are relatively high, fewer investors participate in these bonds, making them illiquid. Liquidity has no direct influence on bond ratings because it measures the ability to pay current creditors. While bonds are classified as long-term investments, if they are high, it may indicate that the company's idle assets are also high, resulting in a reduction in profitability. As a result, bond ratings cannot mediate the relationship between liquidity and bond prices.

This research contribution is consistent with research by Maskami et al. (2022), according to this research, bond ratings cannot mediate liquidity to the price of bond.

Bond rating can not intervene leverage to bond prices. Simu (2017) states that companies with high leverage indicate that the company's debt is also high relative to equity. High leverage is going to function as a signal to investors, encouraging them to purchase bonds because the high risk of debt can lead bond prices to fall.

Investors do not consider how much debt the firm holding the bond has, but the amount of debt solvency is an arbitrary leverage for investors. It cannot anticipate a company's bond rating and consistent with Graham and Maher (2006) and Maskami et al. (2022 study results states that bond ratings can not mediate leverage to bond price.

## 4. CONCLUSION

Profitability, liquidity, and leverage have no effect on bond ratings it is mean if three of them rise or fall then bond ratings remain unchanged. Nevertheless, profitability has an effect on bond prices it's mean if profitability rises or fall then bond prices will rise or fall, too. Here, liquidity and leverage cannot affect bond prices so rise or fall of them can't change bond prices. Bond ratings impact on bond prices and have the capacity to mediate profitability to bond prices; however, bond ratings cannot mediate liquidity and leverage to bond prices. Although liquidity and leverage had no effect on bond ratings and bond prices in our study, their significance in financial companies dealing with bonds and prices is critical, especially on all for cash to pay interest and installments. The role of leverage is to boost the company's revenue

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