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# Determinants Of Capital Structure On Property And Real Estate Companies Listed On The Indonesia Stock Exchange For The Period Of 2015-2020

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**ABSTRACT**

This study aims to determine the effect of profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility on the capital structure of the property and real estate sector companies listed on the Indonesia Stock Exchange for the period of 2015-2020. Independent variables used in this study are profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility. The Dependent variable used is the capital structure (DER and DAR). This study also uses a control variable, namely institutional ownership. The sampling technique used in this study is purposive sampling with as many as 43 property and real estate companies that matched the sample criteria in the study. This study uses panel data regression analysis techniques using the Common Effect Model (CEM) and Random Effect Model (REM) approaches. The results of this study indicate that profitability, firm age, non-debt tax shield, growth opportunities, and earnings volatility have a negative and insignificant effect on capital structure (DER), while firm size has a positive and significant effect on capital structure (DER). The results of the robustness check with the Debt to Assets Ratio as a proxy for capital structure show that profitability, firm size, firm age, and growth opportunities have robust results, while non-debt tax shields, tangibility, and earnings volatility have not robust results. Therefore this research supports the trade-off theory, pecking order theory, and signaling theory.

**Keywords**
*Capital Structure, Profitability, Firm Size, Firm Age, Non-Debt Tax Shield, Tangibility, Growth Opportunities, Earnings Volatility, Institutional Ownership.*

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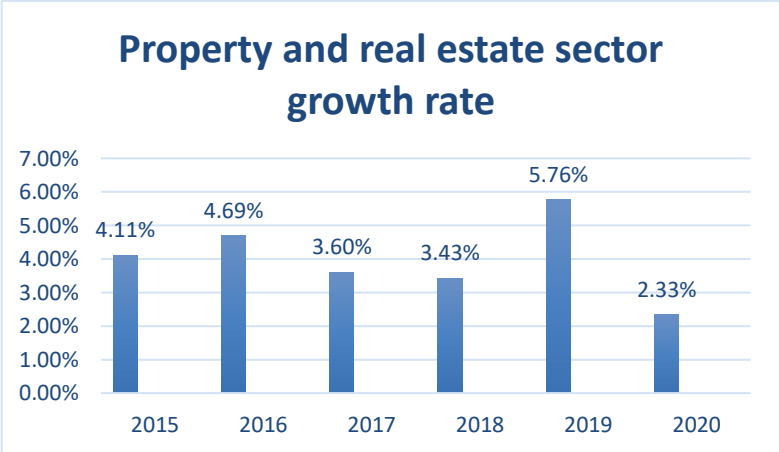
## INTRUDUCTION

In carrying out business activities, capital acts as a driving force for asset financing, business operational activities, and also business expansion. The

capital required for each stage of the business is based on the importance of capital structure decisions that determine the combination of sources of obtaining funds obtained as financing for company assets, either from within the company (Internal Financing) or from outside the company (External Financing). Capital structure is the way a company finances its assets through a combination of debt and equity. Financial managers have a role in making capital structure decisions so they need to be careful and thorough in comparing various sources of funding to create an optimal mix of capital or one that can minimize the overall cost of capital and maximize firm value. According to Alipour et al. (2015), making wrong decisions regarding capital structure can lead to financial difficulties or even bankruptcy. The optimal capital structure reflects the balance between risk and return, which describes how the financial condition of a company. The non-optimal capital structure becomes an obstacle in the company's business activities that can affect the development of the company. The property sector has a major role in Indonesia's national economic growth. This sector has a multiplier effect on 175 sectors and 350 MSMEs, so the increase in the growth of the property and real estate sectors will have a major influence on increasing demand for other sectors to encourage Indonesia's national economic growth. However, since 2015 this sector has experienced a decline and slowed growth which is as follows:




**Picture 1.**
**The Growth Rate Of The Property And Real Estate Sector For The Period 2015-2020**

*Source: Data processed by the researcher*

Apart from its unstable growth rate, the contribution of the property and real estate sectors to Indonesia's Gross Domestic Product (GDP) is still low compared to other ASEAN countries, which was only 2.77% in 2019 (Republika.co.id, 2020). Even the very small GDP contribution of the property

and real estate sector has a large impact on the related sectors. With the role of the multiplier effect, the property and real estate sectors have a strategic position in Indonesia's national economic growth, increasing property sector growth will have a major influence on increasing demand for other sectors to encourage Indonesia's national economic growth. The property and real estate sector requires special attention given its close relationship with economic and population growth. The company needs to read and study the situation to be able to manage the company management properly, especially in terms of managing company funding. The company certainly expects the company's sustainable growth, so it needs the right policy regarding capital related to the problem of the number of funding needs that can be met by the company. Policies that lead to a balance between risk and return are what the company expects. Therefore, the determinants of the capital structure can provide an indication that needs to be considered in determining the optimal company capital structure.

In creating an optimal capital structure, there are some theories have been developed in the financial literature. This study adopts three theories, the first is the trade-off theory which states that the optimal capital structure can be realized by a trade-off between tax benefits on debt and the costs of financial difficulties that arise from bankruptcy risk and agency costs. second, the pecking order theory states that in financial decisions the company has a sequence in using funding sources to minimize information asymmetry problems and the company prioritizes internal funding. The three signaling theories state that companies with favorable prospects will emit positive signals that indicate a good management view of the company's development and tend to avoid issuing shares and trying to obtain new capital with other funding sources, including issuing debt and when companies have low-profit prospects will emit a negative signal indicating that the management's view is not good on the development of the company and the company will tend to issue shares which means bringing new investors to share the losses they earn.

This research uses several factors that are thought to be determinants of capital structure, namely profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility. The selection of these variables was based on the existence of a research gap in previous studies. The study used the same variables in determining the capital structure but had not obtained consistent research results.

Profitability is a measure of the company's ability to generate profits from the company's operational activities which is a representation of the effectiveness of company management. According to Sofat & Sing (2017),

companies with more profits show the availability of a lot of retained earnings so they tend to be less dependent on external funds. Firm size plays an important role in capital structure decisions that reflects the size of a company in terms of total sales, total assets, or market capitalization owned by the company. According to Gharaibeh & AL-Tahat (2020), large companies have greater capacity, are more diversified, can meet creditor commitments, and are less prone to corporate bankruptcy, so they tend to have high debt levels. Firm age is the number of years from the establishment of a company which became the beginning of the company's operations. The length of the establishment of a company affects the decision to use debt. Older firm age has a longer track record which makes the reputation value higher so that a company in this condition can easily access debt financers and obtain more debt (Khan et al., 2020; Sbeti & Moosa, 2012).

Non-debt tax shield is a substitute for tax benefits as obtained from other than interest such as depreciation, amortization, or research and development expenditures. Companies with high non-debt tax shields in the form of depreciation indicate the need for tax protection from interest on debt financing is lower and the more items included in addition to depreciation, the lower motivation of managers to use debt in its capital structure (Bajaj et al., 2018; Kumar et al., 2017). Tangibility assets owned by the company become a determining factor that can be considered in capital structure decisions that can be used as collateral for the use of debt. According to Yousef (2019), tangibility assets are easier to pledge and cause fewer losses if the company experiences financial difficulties. According to Nguyen et al. (2019), companies with high growth opportunities will use more debt than companies with lower opportunities. Earnings volatility is an increase or decrease in the company's operating income and its risks quickly which shows the uncertainty of the company's earnings flow in the future. Zarebski & Dimovski (2012) argue that if the company's income is uncertain then so is its ability to pay debts so companies must reduce debt as a priority to avoid mandatory interest obligations that can trigger financial difficulties.

In addition, based on a review of the literature on capital structure research that has been widely carried out but there are no consensus results regarding the determinants of capital structure. Moradi & Paulet (2019) and Yousef (2019) find that profitability negatively and significantly affects the capital structure, while Sofat & Singh (2017) and Dhita et al. (2018) show profitability has a positive and significant effect on capital structure. Yousef (2019) shows that growth opportunities have a negative and significant effect

on capital structure, while Nguyen et al. (2019) and Chakrabarti (2019) find profitability has a significant positive effect on capital structure.

The novelty in this research from previous studies in Indonesia related to the determinants of the capital structure of the property and real estate sector companies, namely adding the non-debt tax shield and earnings volatility variables in the research, and the signaling theory is added which previous studies not much to explain in depth related to the relationship of variables in determining capital structure. With empirical findings that provided inconclusive results, there is a need to continuously evaluate the validity of capital structure theory by re-examining the determinants of capital structure to bridge the gap between theoretical and practical explanations of finance involving capital structure. Begin the Introduction by providing a concise background account of the problem studied. This study attempts to address this gap by focusing on understanding the determinants of the capital structure of property and real estate companies listed on the Indonesia Stock Exchange for the 2015-2020 period.

## RESEARCH METHODE

### Data and Samples

In this study, the population used is the property and real estate sector companies listed on the IDX for the period 2015-2020. The purposive sampling method was used in determining the determination of the research sample. The following are the criteria used in determining the research sample:

1. Property and real estate companies listed on the IDX during the 2015-2020 period.
2. Property and real estate companies that publish financial reports successively during the 2015-2020 period.
3. Property and real estate companies that present financial statements in rupiah.
4. Property and real estate companies that display in full the financial data needed in this research related to the variables in the study.

Based on the criteria used in determining the sample, there are 43 property and real estate sector companies listed on the Indonesia Stock Exchange for the 2015-2020 period that have met these criteria, so the number of observations in this study is 258 data. The analytical method used in this research is panel data regression and the data is processed using E-views 12.

**The Regression Model**

The regression equation model in this study is as follows:

$$DER_{it} = \beta 0 + \beta 1 ROA_{it} + \beta 2 SIZE_{it} + \beta 3 AGE_{it} + \beta 4 NDTS_{it} + \beta 5 TANG_{it} + \beta 6 GROWTH_{it} + \beta 7 EVOL_{it} + \beta 8 KI_{it} + e_{it}$$

$$DAR_{it} = \beta 0 + \beta 1 ROA_{it} + \beta 2 SIZE_{it} + \beta 3 AGE_{it} + \beta 4 NDTS_{it} + \beta 5 TANG_{it} + \beta 6 GROWTH_{it} + \beta 7 EVOL_{it} + \beta 8 KI_{it} + e_{it}$$

In which Debt to Equity Ratio ($DER_{it}$) and Debt to Assets Ratio ($DAR_{it}$) are the dependent variables; $ROA_{it}$ – Profitability; $SIZE_{it}$ – firm size; $AGE_{it}$ – firm age; $NDTS_{it}$ – non-debt tax shield; $TANG_{it}$ – tangibility; $GROWTH_{it}$ – growth opportunities; $EVOL_{it}$ – earnings volatility; $KI_{it}$ – institutional ownership; $\beta 0$ – constant; $e$ – error; it – i-companies and t-time; $\beta_{1\text{-}8}$ – regression coefficient.

**Research Variables**

**Dependent Variables**

The dependent variable is capital structure. This research employed two measures of capital structure (DER and DAR). Debt to Equity Ratio (DER) is a financial ratio that compares the proportion of equity and debt in financing company assets. Meanwhile, Debt to Asset Ratio (DAR) is a financial ratio that measures the ratio of assets and debt, and how much the company's assets are financed with debt (Chadha & Sharma, 2016).

**Independent Variables**

The main independent variables considered in this study are profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility.

**Table 1.**
**Operational Variables**

| Variables | | Measures | References |
|---|---|---|---|
| **Dependent Variables** | *Debt to Equity Ratio* | Total Debt/Total Equity | (Ahmad et al., 2017; Moradi & Paulet, 2019; Sofat & Singh, 2017) |
| | *Debt to Assets Ratio* | Total Debt/Total Assets | (Chakrabarti, 2019; Gharaibeh & AL-Tahat, 2020; Yousef, 2019) |
| **Independent Variables** | Profitability (*Return on Assets*) | Net Income/Total Assets | (Chandra et al., 2019; Kahya et al., 2020; Wang et al., 2019) |

| | | | |
|---|---|---|---|
| | Firm Size | Ln (Total Assets) | (Gharaibeh & AL-Tahat, 2020; Neves et al., 2020; Yousef, 2019) |
| | Firm Age | Year of research-year of establishment | (Chakrabarti, 2019; Chadha & Sharma, 2015; Rahman & Yilun, 2021) |
| | *Non-Debt Tax Shield* | Depreciation/Total Assets | (Rao et al., 2019; Gharaibeh & AL-Tahat, 2020; Khémiri & Noubbigh, 2018) |
| | *Tangibility* | Fixed Assets/Total Assets | (Chaklader & Chawla, 2016; Gharaibeh & AL-Tahat, 2020; Yousef, 2019) |
| | *Growth Opportunities* | (Total $Assets_t$-Total $Assets_{t-1}$)/Total $Assets_{t-1}$ | (Alipour et al., 2015; Khémiri & Noubbigh, 2018; Saif-Alyousfi et al., 2020) |
| | *Earnings Volatility* | σEBIT/Total Assets | (Khémiri & Noubbigh, 2018; Moradi & Paulet, 2019; Saif-Alyousfi et al., 2020) |
| **Control Variable** | Institutional Ownership | Number of Institutional Ownership/Number of Shares Outstanding | (Cahyani & Isbanah, 2019; Khafid et al., 2020; Puspita & Suherman, 2018) |

*Source: Data processed by the researcher*

**Control Variable**

This study includes a control variable to avoid biased estimations. The control variable in this study is institutional ownership which is a part of the company's shares owned by institutions such as insurance companies, investments, and others who have a role as a party that monitors the company and has a strong position in influencing the company decisions.

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## RESULT AND DISCUSSION

### Descriptive Statistics

Descriptive statistics provide an overview of several data information in a clearer, simpler, and easier-to-understand form which is indicated by the average value (mean), maximum value, minimum value, and standard deviation of the capital structure (DER and DAR) as the dependent variable, profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility as independent variables, and institutional ownership as the control variable. The descriptive statistics are shown in table 2, as follows:

**Table 2.**
**Descriptive Statistics**

| | DER | DAR | ROA | SIZE | USIA | NDTS | TANG | GROWTH | EVOL | KI |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mean** | 0,651 | 0,356 | 0,030 | 28,956 | 29 | 0,070 | 0,092 | 0,105 | 0,049 | 0,693 |
| **Median** | 0,508 | 0,352 | 0,028 | 29,275 | 30 | 0,022 | 0,033 | 0,043 | 0,033 | 0,791 |
| **Max** | 3,701 | 1,108 | 0,359 | 31,740 | 65 | 0,874 | 0,704 | 3,565 | 0,349 | 0,999 |
| **Min** | -10,255 | 0,035 | -0,375 | 23,660 | 2 | 0,0003 | 0,0001 | -0,259 | 0,005 | 0,0000012 |
| **Std.Dev** | 0,929 | 0,190 | 0,072 | 1,623 | 11,115 | 0,144 | 0,132 | 0,307 | 0,052 | 0,276 |
| **Obs.** | **258** | **258** | **258** | **258** | **258** | **258** | **258** | **258** | **258** | **258** |

*Source: Data processed by the researcher using E-views 12*

### Multicollinierity Test

Based on table 3 regarding the results of the multicollinearity test, it can be seen that there is no correlation coefficient between the independent variables with a value of 0.8. So it can be concluded that there is no multicollinearity problem in this study.

**Table 3.**
**Multicollinierity Test**

| | ROA | SIZE | USIA | NDTS | TANG | GROWTH | EVOL | KI |
|---|---|---|---|---|---|---|---|---|
| **ROA** | 1.000000 | | | | | | | |
| **SIZE** | 0,106 | 1.000000 | | | | | | |
| **USIA** | - | -0,145 | 1.00000 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0,021** | | 0 | | | | | |
| **NDTS** | -0,153*** | -0,187*** | 0,219 | 1.000000 | | | | |
| **TANG** | 0,053* | -0,131*** | 0,187 | 0,438 | 1.000000 | | | |
| **GROWTH** | 0,165 | 0,061* | -0,108*** | -0,019*** | 0,094* | 1.000000 | | |
| **EVOL** | 0,050** | -0,113*** | 0,089* | 0,060* | 0,026*** | 0,007*** | 1.000000 | |
| **KI** | 0,193 | 0,081* | 0,097* | -0,020*** | -0,062*** | 0,030** | 0,051* | 1.000000 |

*Source: Data processed by the researcher using E-views 12*

Notes : ***, **, and * shows statistical significance at the 1%, 5%, and 10% levels, respectively.

**Heteroscedasticity Test**

Based on table 3 in model 1 with the capital structure proxy is DER, it can be seen that the Prob value. F-statistic of 0.2654. These results indicate the Prob value. F-statistic > 0.05 which means there is no heteroscedasticity. Meanwhile, in model 2 where the capital structure proxy is DAR, it can be seen that the value of Prob. F-statistic of 0.2945. These results indicate that the value of Prob. F-statistic > 0.05 which means there is no heteroscedasticity.

**Table 4.**
**Heterocedasticity Test**

| | *Test Breusch-Pagan-Godfrey* | |
|---|---|---|
| | **Dependent Variable Proxy** | **Prob. F** |
| **Model 1** | DER | 0,2654 |
| **Model 2** | DAR | 0,2945 |

Source: Data processed by the researcher using E-views 12

**Regression Result**

The result of lagrange multiple test shows that the model common effect is the most appropriate model in model 1 to be used in this research. The result of the panel data regression equation, is as follows:

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**Table 5.**
**Panel Data Regression Test Results Model 1**

| | Y = DER | |
|---|---|---|
| | **Coefficient** | **Prob.** |
| **C** | -2,515 | 0,0221 |
| **ROA** | -0,885 | 0,2919 |
| **SIZE** | 0,109 | 0,0030*** |
| **USIA** | -0,0004 | 0,9354 |
| **NDTS** | -0,519 | 0,2574 |
| **TANG** | 0,799 | 0,1066 |
| **GROWTH** | -0,205 | 0,2831 |
| **EVOL** | -1,170 | 0,2905 |
| **KI** | 0,114 | 0,5929 |
| ***R-Squared*** | 0,060 | |
| ***Adj. R-Squared*** | 0,029 | |
| **F-*Statistic*** | 1,955546 | |
| ***Prof (F-Statistic)*** | 0,052620 | |
| ***Sample*** | 43 | |
| ***Observations*** | 258 | |
| ***Regression Model*** | *Common Effect Model* | |

*Source: Data processed by the researcher using E-views 12*
Notes: ***, **, dan * shows statistical significance at the 1%, 5%, and 10% levels, respectively.

Based on table 5 shows that the coefficient value generated from the profitability variable is -0.885 with the resulting probability value showing a value of 0.2919 > 0.1. This value means that profitability has a negative and insignificant effect on capital structure, so the first hypothesis ($H_1$) which states that profitability has a negative and insignificant effect is rejected. The coefficient value resulting from the firm size variable is 0.109 with a probability value of 0.0030 < 0.1. This means that firm size has a positive and significant effect on capital structure, therefore the second hypothesis ($H_2$) is accepted. While the coefficient value was generated from the variable firm size of -0.0004 with a probability value showing a value of 0.9354. The value is greater than 0.1 which means that the age of the company has a negative and insignificant effect on the capital structure, so the third hypothesis ($H_3$) states that the age of the company has a positive and significant effect on the capital structure is rejected.

the coefficient value generated from the firm size variable is -0.519 and the probability value generated shows a value of 0.2574 which is greater than 0.1. This value means that the non-debt tax shield has a negative and insignificant effect on the capital structure, so the fourth hypothesis ($H_4$) which states that the non-debt tax shield has a negative and significant effect on the capital structure is rejected. The coefficient value resulting from the tangibility variable is 0.799 and the probability value shows the result is 0.1066. This value is greater than 0.1 which means that the effect of tangibility on the capital structure of property and real estate companies has a positive and insignificant effect on capital structure, so the fifth hypothesis ($H_5$) states that tangibility has a positive and significant effect is rejected. the coefficient value generated from the growth opportunities variable is -0.205 and the probability value generated shows a value of 0.2831 > 0.1. This value indicates that growth opportunities have a negative and insignificant effect on capital structure, so the sixth hypothesis ($H_6$) which states that growth opportunities have a positive and significant effect on capital structure is rejected. the coefficient value resulting from the earnings volatility variable is -1.1170 and the probability value generated is 0.2905, > 0.01. This means that earnings volatility has a negative and insignificant effect on capital structure, so the seventh hypothesis ($H_7$) which states that earnings volatility has a negative and significant effect on capital structure is rejected.

**Discussion**

**The Influence of Profitability on Capital Structure**

Profitability has a negative and insignificant effect on capital structure. The direction of the relationship is in accordance with the pecking order theory in which the company will prioritize the use of internal funds first as a source of funding and will use external funds if internal funding is insufficient. This result is in line with research conducted by Aloysius (2017) which states that profitability has a negative and insignificant effect which indicates that the profitability of the company is not intended to increase the capital structure where there is a possibility that profitability is used to add to the company's operational activities and distributed to shareholders. When viewed from the average ROA of property and real estate companies produced is very small at 3%, it is possible that the net profit obtained from the total assets owned is not a consideration in determining the capital structure.

**The Influence of Firm Size on Capital Structure**

Firm size has a positive and significant effect on capital structure. This result is in line with research conducted by Gharaibeh & AL-Tahat (2020) and Yousef (2019) which states that firm size has a positive and significant effect

because it has a larger capacity, and is more diversified, can meet creditor commitments, and is less prone to bankruptcy. The size of a company can be used as collateral, so companies with larger sizes have better borrowing capacity because they have collateral in the form of larger assets than small companies. This relationship is in accordance with signaling theory which states that when a company has good business prospects, the company will fund its investment opportunities by issuing debt which is a positive signal that the company is in good condition.

**The Influence of Firm Age on Capital Structure**

Firm age has a negative and insignificant effect on capital structure. The direction of this relationship is not in line with the signaling theory but is in line with the pecking order theory which states that relatively old companies tend to have good cash flows so they do not use debt financing sources. These results are in line with research conducted by Bernawati & Batara (2019) which state that firm age has a negative and insignificant effect because experience in managing companies, especially related to finance, is the main factor and long firm age does not always indicate that the company can to manage its business properly.

**The Influence of Non-Debt Tax Shield on Capital Structure**

Non-debt tax shield has a negative and insignificant effect on capital structure. The direction of this relationship is in line with the trade-off theory which states that if the tax benefits of borrowing interest encourage companies to use more debt, then those with more non-debt tax shield benefits will use less debt in their capital structure. These results are in line with research conducted by Chaklader & Chawla (2016), Febriani & Kristanti (2020), and Prasetya & Asandimitri (2014) which state that the non-debt tax shield has no significant effect on the capital structure because the acquisition of additional funds from the depreciation value is not significant. including real funds, so it cannot fund the company's operational activities directly.

**The Influence of Tangibility on Capital Structure**

Tangibility to the capital structure of property and real estate companies has a positive and insignificant effect on the capital structure. The direction of this positive influence is in accordance with the signaling theory which argues that the positive signal given by the company indicates that the management views the company's prospects in good condition and can fulfill its obligations with the guarantee of its fixed assets. The insignificant relationship between tangibility and capital structure means that property and real estate companies listed on the Indonesia Stock Exchange for the 2015-2020 period are more likely not to use their fixed assets as collateral to obtain debt but instead use them for

their operational activities. This result is in line with research conducted by Ratuloly et al. (2020) which states that tangibility has a positive and insignificant effect because a company with high tangibility reflects an adequate number of assets so that the company can meet its operational needs with internal funds compared to external.

**The Influence of Growth Opportunities on Capital Structure**

Growth opportunities have a negative and insignificant effect on capital structure. The direction of this influence is not in accordance with the signaling theory but is in line with the trade-off theory which links growth opportunities with the costs of financial difficulties because higher company growth means greater costs of financial difficulties which in this theory the optimal capital structure creates a trade-off between tax benefits and costs of financial distress. These results are in line with research conducted by Yunita & Aji (2018) and Prasetya & Asandimitri (2014) which state that growth opportunities have a negative and insignificant effect on the capital structure because growth opportunities are high and low, they will continue to use internal funds because high opportunities often face greater uncertainty.

**The Influence of Earnings Volatility on Capital Structure**

Earnings volatility has a negative and insignificant effect on the capital structure. This is in line with the signaling theory which states that when the company's condition is not good, the company will hesitate to issue debt because of the company's concerns regarding difficulties in meeting its debt obligations and increasing the possibility of bankruptcy, in this bad condition the company will use other external funding in the form of share issuance. This result is in line with the research conducted by Hidayati & Septiana (2021) which revealed that earnings volatility has a negative and insignificant effect on the capital structure which is because most of the company's earnings are in a stable condition. Therefore, the level of earnings volatility is not a determinant in preparing the capital structure.

**Robustness Test**

Table 6 presents a robustness test which uses the Debt to Assets Ratio as a proxy for the capital structure which is the dependent variable. The results of the regression analysis presented in table 9 show that several variables do not support the main analysis with the Debt to Equity Ratio as a proxy for capital structure, including non-debt tax shield, tangibility, and earnings volatility, while other independent variables such as profitability, firm size, age companies, and growth opportunities support the main analysis results.

**Table 6.**
**Robustness test Results**

| Variable | Y= DAR | |
|---|---|---|
| | *Coefficient* | *Prob.* |
| **C** | -0,763 | 0,0700 |
| **ROA** | -0,108 | 0,3055 |
| **SIZE** | 0,041 | 0,0046*** |
| **USIA** | -0,0009 | 0,6114 |
| **NDTS** | 0,032 | 0,5242 |
| **TANG** | 0,193 | 0,0149** |
| **GROWTH** | -0,032 | 0,1176 |
| **EVOL** | 0,259 | 0,3403 |
| **KI** | -0,080 | 0,0508* |
| ***R-Squared*** | 0,076 | |
| ***Adj. R-Squared*** | 0,046 | |
| ***F-Statistic*** | 2,550725 | |
| ***Prob (F-Statistic)*** | 0,010932 | |
| ***Sample*** | 43 | |
| ***Periods*** | 6 | |
| ***Observations*** | 258 | |
| ***Regression Model*** | REM | |

*Source: Data processed by the researcher using E-views 12*
Notes : ***, **, dan * shows statistical significance at the 1%, 5%, and 10% levels, respectively.

## CONCLUSION

Based on the results and discussions that have been carried out in this research regarding the effect of profitability, firm size, firm age, non-debt tax shield, tangibility, growth opportunities, and earnings volatility on the capital structure of the property and real estate sector companies listed on the Indonesia Stock Exchange in the period 2015 -2020, it can be concluded as follows:

1. Profitability has a negative and insignificant effect on capital structure with DER proxy. The results of the main analysis remain consistent after the robustness test with DAR as a proxy for capital structure confirms

that profitability has a negative and insignificant effect on capital structure.

2. Firm size has a positive and significant effect on capital structure with DER proxy. The results of this main analysis remain consistent after the robustness test with DAR as a proxy for capital structure confirms that firm size has a positive and significant effect on capital structure.
3. Firm age has a negative and insignificant effect on DER. The results of this main analysis also remain consistent after the robustness test with DAR as a proxy for capital structure confirms that firm age has a negative and insignificant effect on capital structure.
4. Non-Debt Tax Shield has a negative and insignificant effect on DER. The results of this main analysis are not in harmony after the robustness test with DAR as a proxy for capital structure shows that the Non-Debt Tax Shield has a positive but not significant effect on capital structure.
5. Tangibility has a positive and insignificant effect on capital structure. The results of this main analysis are not in harmony after the robustness test with DAR as a proxy for capital structure shows that tangibility has a positive and significant effect on capital structure.
6. Growth Opportunities have a negative and insignificant effect on DER. The results of the main analysis remain consistent after the robustness test with DAR as a proxy for capital structure confirms that Growth Opportunities have a negative and insignificant effect on capital structure.
7. Earnings volatility has a negative and insignificant effect on DER. The results of this main analysis are not consistent after the robustness test with DAR as a proxy for capital structure shows that earnings volatility has a positive and insignificant effect on capital structure.

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Based on the research results that have been obtained, the managerial implication for property and real estate companies listed on the Indonesia Stock Exchange for the 2015-2020 period is that company managers need to pay attention to the size of the company in terms of total assets and also the level of fixed assets owned in determining its capital structure. These variables can be taken into consideration by company managers in making decisions on the combination of funding sources, whether using their capital or foreign capital in the form of debt. The funding is expected to create an optimal capital structure for the company's sustainability.

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