# THE EFFECTS OF BANK SOUNDNESS WITH THE RGEC APPROACH (RISK PROFILE, GOOD CORPORATE GOVERNANCE, EARNINGS, CAPITAL) OF LEVERAGE AND ITS IMPLICATIONS ON COMPANY'S VALUE OF STATE BANK IN INDONESIA FOR THE PERIOD OF 2012 – 2016

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Abstract: The extent of bank soundness will provide great benefits for banks to gain customer trust in a bank institution. The purpose of this study is to examine partial and simultaneous effects of Company Value which consists of internal factors of the company associated with the Risk Profile (FDR), Good Corporate Governance (GCG), Earnings (ROA), and Capital on Leverage (CAR). The populations in this study are all companies incorporated in a state bank listed on the Indonesia Stock Exchange from 2012 to 2016. The samples of the study are 4 state banks in indonsia in accordance with the established criteria. Regression analysis is done based on the panel data analysis results. This research summarizes several things as follows: (1) Risk Profile (FDR) variable has positive and insignificant effect on Leverage, (2) Good Corporate Governance (GCG) has negative and significant effect on Leverage, (3) Earnings (NIM) has negative and insignificant effect on Leverage (4) Capital (CAR) have a negative and significant effect on Leverage, (5) Risk Profile, GCG, Earnings, and Capital simultaneously have positive and significant effect on Leverage supported with a leverage variable equal to 0.989227, or 98.92 percent, (6) Risk Profile has a negative and significant effect on Banking Value, (7) Good Corporate Governance (GCG) has negative and significant effect on Banking Value, (8) Earnings (NIM) has positive and significant effect on Banking Value, (9) Capital (CAR) has negative and insignificant effect on Banking Value, (10) Leverage (DER) have positive and insignificant effect on Banking Value, (11) Risk Profile, GCG, Earnings, Capital (RBBR) and Leverage simultaneously have a positive and significant effects on Banking Value supported with a variable of 0.994511 or 99.45 percent.

Keywords: Bank Soundness Ratings, RGEC, DER, Tobin's Q

#### A. INTRODUCTION

In the banking industry, bank soundness rating is one of the important elements in the survival of a banking institution. The soundness of a bank is a bank's ability to conduct a normal banking operations and able to fulfill all its obligations in accordance with prevailing banking regulations (Totok and Nuritomo, 2014: 73).

Great bank soundness ratings will provide great benefits for banks to gain customer trust. In addition to substantially beneficial to gain customer trust, bank soundness is also useful as one of the means for bank in evaluating the condition and problems faced by the bank as well as determine the follow-up action to overcome the weaknesses and problems of the bank.

The value of the firm can be basically measured through several aspects, one of which is the stock market price of the firm, because stock market price of the company reflects the overall investor's valuation for each equity owned. It is found in some literature that were calculated based on the stock price known as the term Tobin's Q market, that is by comparing the market value of a company listed on the financial market with the asset replacement value of the company.

According to JC. Van Horne (1912), "value is represented by the market price of the company's common stock which in turn, is a function of the firm's investment, financing and dividen decision." Stock market prices indicate the central valuation of all market participants, the stock market price acts as a barometer of corporate's management performance. The value of the firm with the stock price approach using Tobin's Q ratio because Tobin's Q ratio calculation is more rational considering the elements of liability are also included as the basis for calculation.

#### **B. LITERATURE REVIEW**

#### 1. Company Value

Company value is a certain condition that has been achieved by a company. It is seen as a picture of public confidence towards the company. The main purpose of the company is to maximize the company's wealth or value of the firm. Maximizing the value of a company is very important because by maximizing the value of the company also means to maximize shareholder wealth that is the main goal of the company.

MM Theory explains that firms with high profitability will use debt as a financing option in order to benefit from tax saving facilities. MM's results show that how a company will fund its operations will not mean anything, causing the capital structure to be irrelevant.

## 2. Leverage

Leverage is related to the source of funds, both internal and external sources theoretically based on two theoretical framework of balance theory or pecking order theory. Debt policy is measured by leverage i.e. the measure used to describe a company's ability to use assets or funds that have a fixed burden to increase the rate of return or net

profit for the owner of the company. Companies that use debt are companies that have financial leverage. The greater the proportion of debt used by the company, the owner of the capital will bear the greater risk.

Profitability is the ability of the company and the management to make a profit. Pecking order theory shows that if a company is more profitable, accordingly more funding comes from internal sources, which indicates low leverage level. However, there is a fact that refutes the statement where profitable companies usually borrow less. This is due to the operational needs of the company can be covered by the company's internal fund profit.

#### 3. Bank Soundness

In accordance with Bank Indonesia Regulation Number 13/1/PBI/2011 concerning Rating of Commercial Banks, banks are required to conduct Bank Rating based on risk-based on RGEC method with guidance referring to Bank Indonesia Circular Letter No.13/24/DPNP dated 25 October 2011, that are:

#### (a) Assessment of Risk Profile

Risk Profile Factor Assessment is an assessment of the Inherent Risk and Quality of Risk Management Implementation in the bank's operational activities. Compulsory risks consist of eight risk types: Credit Risk, Market Risk, Operational Risk, Liquidity Risk, Legal Risk, Strategic Risk, Compliance Risk, and Reputation Risk.

# (b) Assessment of Good Corporate Governance (GCG)

GCG factor assessment is assessments of the quality of bank management on the implementation of GCG principles that are guided by the provisions of Bank Indonesia concerning the Implementation of GCG for Commercial Banks taking into account the characteristics and complexity of the bank's business.

## (c) Assessment of Earnings (Profitability)

Assessments of Profitability factors include evaluation of earnings performance, sources of profitability, continuity (sustainability) of profitability, and profitability management.

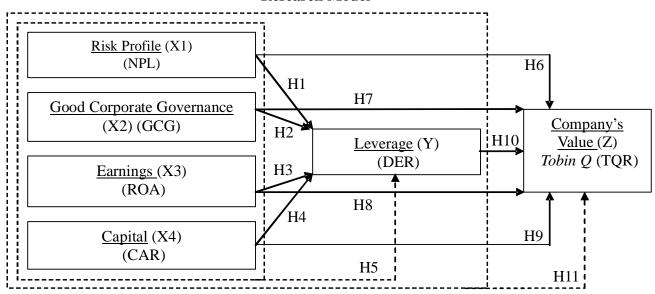
#### (d) Assessment of Capital

Assessment of the Capital factor includes evaluation of the adequacy of capital and adequacy of capital management, the bank shall refer to the provisions of Bank Indonesia concerning the Minimum Capital Requirement for Commercial Banks.

The Bank's Bank Composite Rating is determined based on a comprehensive and structured analysis of the ranking of each factor and taking into account the general principles of the rating of Commercial Banks as stated in Bank Indonesia Circular Letter No.13/24/ DPNP

Research done by Permana (2012) on Bank Soundness Rates Analysis Based on CAMELS and RGEC Methods, found that CAMELS method provides an effective picture of bank soundness. However, inter-factor provides a judgment of a different nature, whereas; the RGEC method emphasizes the importance of quality management.

#### Research Model



#### Research Hypothesis

Hypothesis (H<sub>1</sub>): The effect of Risk Profile (NPL) on Leverage.

Hypothesis (H<sub>2</sub>): The effect of Good Corporate Governance (GCG) on Leverage.

Hypothesis (H<sub>3</sub>): The effect of Earnings (ROA) on Leverage.

Hypothesis  $(H_4)$ : The effect of Capital (CAR) on Leverage.

Hypothesis (H<sub>5</sub>): The effect of NPL, GCG, ROA, and CAR on Leverage.

Hypothesis (H<sub>6</sub>): The effect of Risk Profile (NPL) on Company's Value.

Hypothesis (H<sub>7</sub>): The effect of Good Corporate Governance (GCG) on Company's Value. Hypothesis (H<sub>8</sub>): The effect of Earnings (ROA) on Company's Value

Hypothesis (H<sub>9</sub>): The effect of Capital (CAR) on Company's Value.

Hypothesis (H<sub>10</sub>): The effect of Leverage (DER) on Company's Value (TQR)

Hypothesis (H<sub>11</sub>): The effect of NPL, GCG, ROA, CAR, and DER on Company's Value.

# C. METHODOLOGY

This type of research uses a quantitative approach whith each variable or between variables are based on quantitative measurement scale.

The population in this study is a Government Public Bank registered in the Indonesian Stock Exhange (IDX) in the period of 2012-2016.

#### Research Sample

| No. | Code | State Bank in Indonesia         |  |
|-----|------|---------------------------------|--|
| 1   | BBNI | Bank Negara Indonesia (Persero) |  |
| 2   | BMRI | Bank Mandiri (Persero) Tbk.     |  |
| 3   | BBRI | Bank Rakyat Indonesia (Persero) |  |
| 4   | BBTN | Bank Tabungan Negara (Persero)  |  |

#### Operationalization of Variable

| Variable                       | Proxy           | Measurement  |
|--------------------------------|-----------------|--|
| Risk Profile (X1)              | NPL             | $NPL = \frac{Total\ Credit}{Third - Party\ Fund}$                      |
| Good Corporate Governance (X2) | GCG             | BCG  |
| Earnings (Profitability) (X3)  |                 | $NIM = \frac{Net\ Interest\ Income}{Avg.\ Earning\ Assets} \times 100$ |
| Capital Adequacy Ratio (X3)    | CAR             | $CAR = \frac{Capital}{ATMR} \times 100$                                |
| Leverage (Y)                   | DER             | $DER = \frac{TL}{TE} \times 100$                                       |
| Company's Value (Z)            | Tobin's Q Ratio | $TQR = \frac{(CP \times TS) + TL}{TA} \times 100$                      |
|                                | (TQR)           |  |

The data analysis method conducted in this research was using regression analysis method of panel data. To determine one of the three panel regression approaches to be used are Ordinary Least Square (OLS) or Common Effect Model, Fixed Effect Model, Random Effect Model. Therefore, Chow test and Hausman test were conducted. To process the secondary data obtained, the researchers use statistical software applications support programs such as MS.Exel 2010 covering the creation of tables and graphs for descriptive analysis. Whereas for the data processing activities, EVIEWS version 9.0 was used to assist in analyzing the data used in performing the test of significance of multiple linear regression analysis of panel data.

#### D. RESULTS AND DISCUSSION

#### Results

Factors that affect Company Value consist of internal factors of the company associated with the Risk Profile (FDR), Good Corporate Governance (GCG), Earnings (ROA), and Capital on Leverage (CAR).

#### 1. Descriptive

Description of statistics factors that influence Company's Value considering internal factors, and external of company and test implications on Company's Value of State Bank In Indonesia for the period of 2012–2016 of each variable used in the, shown below:

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|                | TQR      | DER      | LDR      | GCG      | NIM      | CAR      |
|----------------|----------|----------|----------|----------|----------|----------|
| Mean           | 1.027700 | 7.423891 | 0.834500 | 1.736000 | 0.095500 | 0.181500 |
| Median         | 0.953000 | 6.771250 | 0.695000 | 2.000000 | 0.085000 | 0.175000 |
| Maximum        | 1.352000 | 11.39583 | 1.970000 | 3.000000 | 0.200000 | 0.230000 |
| Minimum        | 0.890000 | 5.261818 | 0.600000 | 1.000000 | 0.050000 | 0.150000 |
| Std. Dev.      | 0.161207 | 1.957591 | 0.381168 | 0.595646 | 0.038726 | 0.024554 |
| Skewness       | 1.042564 | 0.891108 | 2.138030 | 0.602701 | 1.488985 | 0.282279 |
| Kurtosis       | 2.355727 | 2.369811 | 6.237188 | 2.802176 | 4.508735 | 1.928248 |
| Jarque-Bera    | 3.969036 | 2.977863 | 23.97007 | 1.243439 | 9.287154 | 1.222816 |
| Probability    | 0.137447 | 0.225614 | 0.000006 | 0.537020 | 0.009623 | 0.542586 |
| Sum            | 20.55400 | 148.4778 | 16.69000 | 34.72000 | 1.910000 | 3.630000 |
| Sum Sq. Dev.   | 0.493764 | 72.81107 | 2.760495 | 6.741080 | 0.028495 | 0.011455 |
| Observations   | 20       | 20       | 20       | 20       | 20       | 20       |
| Cross sections | 4        | 4        | 4        | 4        | 4        | 4        |

Description of statistical data consisted of mean, median, maximum, minimum, standard deviation, skenness, kurtosis and Jarque-Berra statistic and p-value. The mean, median, maximum, and minimum values for each variable used in the study have different numbers, but the highest number of the four indicators occured on the DER variable.

This study estimates leverage and its implications on the value of banking.

# 2. Determinant of Leverage

Based on testing of paired data regression model against the third panel, the conclusions are as follows:

| No | Methods                       | Testing                        | Result        |
|----|-------------------------------|--------------------------------|---------------|
| 1. | Chow-Test                     | common effect vs fixed effect  | fixed effect  |
| 2. | Langrage Multiplier (LM-test) | common effect vs random effect | random effect |
| 3. | Haustman Test                 | fixed effect vs random effect  | fixed effect  |

Estimation of Panel Data Regression Model Partially (T Test) and Simultaneously (Test F), Fixed Effects Model with White-Test. As follows:

Dependent Variable: DER?

Method: Pooled EGLS (Cross-section weights)

| Variable              | Coefficient | Std. Error | t-Statistic | Prob.  |
|-----------------------|-------------|------------|-------------|--------|
| C                     | 12.29062    | 0.567990   | 21.63881    | 0.0000 |
| LDR?                  | 0.731793    | 0.522246   | 1.401241    | 0.1865 |
| GCG?                  | -0.394803   | 0.130681   | -3.021121   | 0.0106 |
| NIM?                  | -1.764977   | 4.874968   | -0.362049   | 0.7236 |
| CAR?                  | -25.47372   | 1.966049   | -12.95681   | 0.0000 |
| Fixed Effects (Cross) |             |            |             |        |
| _BMRI—C               | -1.348007   |            |             |        |
| _BBNI—C               | -1.161313   |            |             |        |
| _BBRI—C               | -0.338397   |            |             |        |
| _BBTN—C               | 2.847717    |            |             |        |

|                                       | Effects Specifica | tion               |          |
|---------------------------------------|-------------------|--------------------|----------|
| Cross-section fixed (dummy variables) |                   |                    |          |
|                                       | Weighted Statis   | tics               |          |
| R-squared                             | 0.989227          | Mean dependent var | 8.555308 |
| Adjusted R-squared                    | 0.982943          | S.D. dependent var | 2.276799 |
| S.E. of regression                    | 0.248824          | Sum squared resid  | 0.742958 |
| F-statistic                           | 157.4135          | Durbin-Watson stat | 2.575980 |
| Prob (F-statistic)                    | 0.000000          |                    |          |
|                                       | Unweighted State  | istics             |          |
| R-squared                             | 0.987628          | Mean dependent var | 7.423891 |
| Sum squared resid                     | 0.900844          | Durbin-Watson stat | 2.648696 |

# Estimation Regression Data Panel Result for Fixed Effect as follow:

| Model        | Adjusted R <sup>2</sup> | Prob. (F-stat.) $\alpha - 0.05$ | Probabili | ty α-0,05       |
|--------------|-------------------------|---------------------------------|-----------|-----------------|
| Fixed Effect | 0.982943                | 0.0000                          | LDR       | Not Significant |
|              |                         |                                 | GCG       | Significant     |
|              |                         |                                 | NIM       | Not Significant |
|              |                         |                                 | CAR       | Significant     |

# 3. Implication on Company's Value

Based on testing of paired data regression model against the third panel, the conclusions are as follows:

| No | Methods                       | Testing                        | Result        |
|----|-------------------------------|--------------------------------|---------------|
| 1. | Chow-Test                     | common effect vs fixed effect  | fixed effect  |
| 2. | Langrage Multiplier (LM-test) | common effect vs random effect | random effect |
| 3. | Haustman Test                 | fixed effect vs random effect  | fixed effect  |

Estimation of Panel Data Regression Model Partially (*T Test*) and Simultaneously (*Test F*), *Fixed Effects Model* with *White-Test*.) As follows:

Dependent Variable: TQR?

Method: Pooled EGLS (Cross-section weights)

| Variable              | Coefficient | Std. Error | t-Statistic | Prob.  |
|-----------------------|-------------|------------|-------------|--------|
| C                     | 1.087604    | 0.112900   | 9.633309    | 0.0000 |
| DER?                  | 0.009133    | 0.009557   | 0.955601    | 0.3598 |
| LDR?                  | -0.122160   | 0.031862   | -3.834011   | 0.0028 |
| GCG?                  | -0.026717   | 0.007592   | -3.519139   | 0.0048 |
| NIM?                  | 1.048144    | 0.308607   | 3.396375    | 0.0060 |
| CAR?                  | -0.437913   | 0.217966   | -2.009092   | 0.0697 |
| Fixed Effects (Cross) |             |            |             |        |
| _BMRI—C               | -0.124277   |            |             |        |
| _BBNI—C               | -0.070143   |            |             |        |
| _BBRI—C               | -0.065463   |            |             |        |
| _BBTN—C               | 0.259883    |            |             |        |

|                                       | Effects Specifica | tion               |          |
|---------------------------------------|-------------------|--------------------|----------|
| Cross-section fixed (dummy variables) |                   |                    |          |
|                                       | Weighted Statis   | tics               |          |
| R-squared                             | 0.994511          | Mean dependent var | 1.218224 |
| Adjusted R-squared                    | 0.990520          | S.D. dependent var | 0.429195 |
| S.E. of regression                    | 0.012120          | Sum squared resid  | 0.001616 |
| F-statistic                           | 249.1480          | Durbin-Watson stat | 3.006959 |
| Prob(F-statistic)                     | 0.000000          |                    |          |
|                                       | Unweighted State  | istics             |          |
| R-squared                             | 0.995987          | Mean dependent var | 1.027700 |
| Sum squared resid                     | 0.001982          | Durbin-Watson stat | 3.174766 |

# Estimation Regression Data Panel Result for Fixed Effect is as follows:

| Model        | Adjusted R <sup>2</sup> | Prob. (F-stat.) $\alpha$ – 0,05 | Probab | ility $\alpha = 0.05$ |
|--------------|-------------------------|---------------------------------|--------|-----------------------|
| Fixed Effect | 0.990520                | 0.0000                          | LDR    | Significant           |
|              |                         |                                 | GCG    | Significant           |
|              |                         |                                 | NIM    | Significant           |
|              |                         |                                 | CAR    | Not Significant       |
|              |                         |                                 | DER    | Not Significant       |

# 4. Determinant of Leverage and its Implications on Company's Value: Hybrid Analysis

The table below describes the combined two models. The regression data panel, on the first model, explains determinants Leverage, Risk Profile (LDR), Good Corporate Governance (GCG), Earnings (NIM), Capital

(CAR) simultaneously has significant effect on Leverage. The second model describes the Implications on Company's Value of State Bank in Indonesia with the result that the FDR, GCG, NIM, CAR, and DER simultaneously has significant effect on Company's Value of State Bank in Indonesia for the period of 2012–2016 as follows:

Determinant of Leverage and Its Implications for State Bank Company's Value

| Independent Variable | ole Model 1<br>Determinant of Leverage |        |                    | Model 2<br>Implications on Company's Value |        |                     |
|----------------------|--|--------|--------------------|--|--------|---------------------|
|                      | Regression<br>Coefficient              | Prob.  | Sign./Not<br>Sign. | Regression<br>Coefficient                  | Prob.  | Sign./<br>Not Sign. |
| LDR                  | 0.731793                               | 0.1865 | Not Sign.          | -0.122160                                  | 0.0028 | Significant.        |
| GCG                  | -0.394803                              | 0.0106 | Significant        | -0.026717                                  | 0.0048 | Significant         |
| NIM                  | -1.764977                              | 0.7236 | Not Sign.          | 1.048144                                   | 0.0060 | Significant         |
| CAR                  | -25.47372                              | 0.0000 | Significant        | -0.437913                                  | 0.0697 | Not Sign.           |
| DER                  | -                                      | -      | -                  | 0.009133                                   | 0.3598 | Not Sign            |

It can be concluded as follows:

1. Risk Profile (LDR) has no negative effect nor significant on leverage, and has a significant negative

effect on firm value (TQR). Risk Profile directly affects the value of the company and does not affect the leverage, indirectly leverage does not affect the

value of the company so that leverage does not mediate between the LDR to the value of the company. If the management wants to increase the value of the company it must directly reduce LDR or reduce the problem loans owned by a state bank, it does not need to raise the leverage (debt).

- 2. Good Corporate Governance (GCG) has a significant negative effect on leverage, and has a significant negative effect on company value (TQR). GCG directly affects the company's value and leverage, indirectly leverage does not affect the value of the company so that leverage does not mediate between GCG to the value of the company. If management wants to increase the value of the company it must reduce the composite value of GCG.
- 3. Earnings (NIM) have no negative nor significant effect on leverage, and has a significant positive effect on firm value (TQR). Earnings directly affects the value of the company and does not affect the leverage, indirectly leverage does not affect the value of the company so that leverage does not mediate between Earnings to the value of the company. For management in increasing the value of the company, it must increase earnings, especially interest income.
- 4. Capital (CAR) has a significant negative effect on leverage, and has no positive and significant effect on firm value (TQR). Capital directly does not affect the value of the company and does not affect the leverage. Indirectly leverage does not affect the value of the company so that leverage does not mediate between the Earnings to the value of the company. In this case, in increasing the company value management should not increase capital but must reduce debt if it wants to increase the value of the company.
- 5. The dependent variables of leverage in the first model become an independent variable in the second model. Empirical findings in this study indicate that leverage (DER) has a positive effect and not significant to firm's value (TQR). Based on the results of model 1 and model 2, the combined analysis of the 4 independent variables significantly affects leverage and directly implies the combined value of the firm that is LDR, GCG and NIM variables, and there are

two independent variables i.e. CAR shown from the regression coefficient, where the direct effect is greater than the indirect effect. Meaning that leverage can not fully mediate from the four independent variables to firm value.

#### E. CONCLUSION

- Risk Profile (FDR) has positive and insignificant effect partially to Leverage, thus FDR variable affects Leverage of State Banking in Indonesia for the period of 2012 - 2016
- Good Corporate Governance (GCG) has a negative and significant effect partially on Leverage, thus GCG variable affect State Banking Leverage in Indonesia for the period of 2012 - 2016
- 3. Earnings (NIM) is partially has **negative and insignificant** effect to Leverage, thus the NIM variable affect State Banking Leverage in Indonesia for the period of 2012 2016
- 4. Capital (CAR) partially has a **negative and significant** effect on *Leverage*, thus CAR variable does not affect the *Leverage* of State Banking in Indonesia for 2012-2015 period.
- Risk Profile, GCG, Earnings, and Capital simultaneously have a positive and significant impact on State Banking Leverage in Indonesia for 2012-2015 period, and able to explain leverage variable equal to 0.989227, or 98.92 percent, while the rest of 1.08% (100% - 98, 92%) is influenced by other variables that are not in this research. The dominant variable or the highest dominance of the leverage variable is Capital, equal to -25.47372, the non dominant variable or the lowest dominance to the leverage variable is GCG of -0.394803. The Bank with the highest rate of sensitivity shift simultaneously and partially to the largest leverage is Bank Tabungan Negara (Persero) with a constant value of 2.847717 and the Bank with the smallest change of sensitivity to leverage is Bank Mandiri (Persero) Tbk. with a constant value of -1.348007.
- Risk Profile has negative and significant effect partially to the Value of Banking. Thus, the FDR variable affects State banking Value in Indonesia for the period of 2012 - 2016

- Good Corporate Governance (GCG) has a negative and significant effect partially on Banking Value, thus GCG variables affect the value of State banking in Indonesia for the period 2012 - 2016
- Earning (NIM) has a positive and significant effect partially on Banking Value. Thus, NIM variable affects State banking Value in Indonesia for 2012 – 2016 Period
- Capital (CAR) has a negative and insignificant effect partially on Banking Value. Thus, the CAR variable affects State banking Value in Indonesia for 2012 – 2016 Period
- 10. Leverage (DER) has a positive and insignificant partial effect on Banking Value. Thus, DER variable does not affect the value of State banking in Indonesia for 2012-2015 periods.
- 11. Risk Profile, GCG, Earnings, Capital (RBBR) and leverage simultaneously have a positive and significant effect on the value of State banking in Indonesia for 2012-2015 period, and able to explain variables of 0.994511 or 99.45 percent while the remaining 0.55% 100% -99.45%) is influenced by other variables that are not covered in this research. The dominant variable or the highest dominance of the Bank Performance variables is Earnings, amounting to 1.048144. The non dominant variable or the lowest dominance of the firm's value variable is leverage (DER) of 0.009133. The Bank with the largest average sensitivity change simultaneously and partially to the value of the company is the Bank Tabungan Negara (Persero = 0.259883), and the Bank having the smallest average change of sensitivity to the value of the company which is Bank Mandiri (Persero) Tbk with constant value of -0.124277.

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