Determinant Value of the Firm

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Abstract

This study aims to determine the effect of liquidity, solvency, and profitability on firm value with dividend policy as an intervening variable in the study of issuers indexed in LQ45 2014-2018. The population of this study were all companies indexed by LQ45, amounting to 45 companies. The technique used in determining the sample is purposive sampling, so that the sample in this study amounted to 8 companies indexed by LQ45 in 2014-2018. The data analysis technique used is multiple linear regression analysis with the help of the SmartPLS 3.0 application. The results of this study indicate that CR has a positive and insignificant effect directly on PBV. DER and ROE have a positive and significant effect directly on PBV. DPR has a positive and insignificant effect directly on PBV. CR, DER and ROE have a positive and insignificant effect directly on DPR. and CR, DER and ROE have a positive and indirect effect on PBV through DPR as an intervening variable.

Keywords: Current Ratio, Debt to Equity Ratio, Return on Equity, Dividend Payout Ratio, Price to book value

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I. INTRODUCTION

Investors invest in the company to make a profit in the form of relatively stable dividend income, thus reducing investors’ doubts in investing in the intended company (Brigham and Houston, 2014). On the other hand, the company expects consistent growth to maintain its viability, while providing greater welfare to its shareholders.

A company was established with the aim of achieving maximum profit and optimizing the value of the company. The value of the company is the investor's perception of the level of success of the company and describes the prosperity of the shareholders. High share prices create high corporate value as well. The company's high value will make the market believe not only in the current performance but also on the company's prospects. The management will carefully consider the decisions taken in order to lead to an increase in the value of the company.

The four figures below show the average sales, profit, dividend payout ratio and company value of THE LQ45 indexed issuers in 2014-2018.

Fig-1: Sales Graph After average (Source: Processed Data (2020))

It appears that there is a fluctuating sales movement with a tendency to rise even on a sloping level. The trend of rising sales should have a positive impact on the company's profit and value.
In line with sales, profit also tends to increase during 2014–2018 despite the rampant.

Different conditions are experienced by dividend payout ratio which tends to fall during 2014-2018. This means the dividend received by shareholders during that time decreases.

Similarly, to the dividend payout ratio, the company's value during 2014-2018 also tends to decrease.

Thus, the increase in sales and profit was not followed by an increase in dividend payments and the value of the company. Thus, it is worth suspecting that there are other factors that cause the behavior of the Dpr and the value of the company.

II. LITERATURE REVIEW

a. Company Value

According to Sartono (2010:487) stated that the value of the company is the selling value of a company as a business in operation. With the excess selling value above the liquidation value is the value of the management organization that runs the company.

In this study the company's values were measured using PBV, with the formula:

\[ PBV = \frac{\text{Share Price Per Share}}{\text{Book Value Per Share}} \times 100 \]

b. Dividend Policy

According to (Brigham and Houston, 2014) it is a decision on how much profit will currently be paid as a replacement dividend from the invested investment and how much is retained for re-investment in the company. According to Gitman (2006:602) that DPR represents a percentage of any money to be earned that is distributed to the owner in cash. The distribution can be calculated by dividing the dividend in the form of corporate cash with earnings per share. The DPR formula is:

\[ DPR = \frac{\text{Dividend}}{\text{Net Income}} \times 100 \]

c. Liquidity Ratio

According to Brigham and Houston (2014), liquidity is a ratio that shows the relationship between cash and other assets of other companies with current liabilities owned by the company. Usually, the liquidity ratio is used by the company to measure the extent of the company's ability to meet all of its short-term obligations. Current ratio is a ratio used to measure a company's ability to pay short-term liabilities, with the formula:

\[ CR = \frac{\text{Current Assets}}{\text{Current Debt}} \times 100 \]
d. Solvency Ratio

Solvency is a ratio used to measure the extent to which the company's assets are financed with debt or the ratio used to measure the company's ability to pay all its obligations both short-term and long-term if the company is dissolved or liquidated (Cashmere, 2008). This ratio is often used by analysts and investors to see how much the company owes when compared to equity held by the company or its shareholders, with the formula:

\[ \text{DER} = \frac{\text{Total Payables}}{\text{Total Equity}} \times 100 \]

e. Profitability Ratio

Profitability is a ratio that shows the success of the company in generating profit. The better the profitability ratio, the better it describes the company's high profitability (Fahmi, 201). In other words, this ratio is used to measure how much net profit will be generated from each rupiah of funds embedded in total equity (Herry, 2018). ROE results in the use of corporate equity in creating net income, with the formula:

\[ \text{ROE} = \frac{\text{Net income}}{\text{Total Equity}} \times 100 \]

A. Previous Research

Bandyopadhyay and Chakraborty (2011) found ROE had an insignificant negative effect on the DPR, while Kanwal and Hameed (2017) found ROE had a significant positive effect on the DPR. Then Mulyana and Rini (2017) found DER had a significant positive effect on PBV. Meanwhile, Umaiyah and Salim (2018) found CR had an insignificant positive effect on PBV, while Georgian (2012) found DER and ROE had a significant positive effect on DPR. Rahmasari, Suryani, and Oktaryani (2019) found CR had a significant positive effect on PBV and DPR while DPR had insignificant negative effect on PBV, and CR had insignificant negative effect on PBV with DPR as intervening variable.

B. Research Framework

Based on background, problem formulation, research objectives and literature studies. So the researchers described the conceptual framework as follows:

C. Hypothesis Development

Based on the background of information, problem formulation and framework, the hypotheses used in this study are:

\[ H_1: \text{CR negatively affects PBV} \]
\[ H_2: \text{DER positively affects PBV} \]
\[ H_3: \text{ROE positively affects PBV} \]
\[ H_4: \text{CR negatively affects DPR} \]
\[ H_5: \text{DER negatively affects DPR} \]
\[ H_6: \text{ROE positively affects DPR} \]
\[ H_7: \text{DPR positively affects PBV} \]
\[ H_8: \text{CR negatively affects PBV with DPR as intervening variable} \]
\[ H_9: \text{DER negatively affects PBV with DPR as intervening variable} \]
\[ H_{10}: \text{ROE positively affects PBV with DPR as intervening variable} \]

III. RESEARCH METHOD

A. Types of Research, Population and Research Samples

This study used causal design, with a population of 45 and sampling techniques using purposive sampling method, so obtained 8 companies as samples, with the criteria:

5) Have financial data to calculate price to book value ratio during the period 2014 – 2018.
6) Companies that are not banks / financial institutions

IV. RESULTS AND DISCUSSION

A. Descriptive Statistical Test Results

Descriptive statistics are done to get an overview of the data so that it is easier to read. In descriptive statistics umunya displayed maximum, minimum, mean (mean) and standard deviation numbers.
Based on the descriptive statistics in Table 1, found several things: Minimum PBV value of 18.00 in PT Indo Tambangraya Megah Tbk. in 2017 and maximum value of 8,244.00 at PT Unilever Indonesia Tbk. in 2017 for an average value of 962.75 means that the average value range with the maximum value is wider than the average value range with a minimum value, then the PBV is mostly below average. The standard deviation value of 1,801.08 was greater than the average value, indicating the PBV data in this study varied or varied.

The minimum value of DPR is 137.00 in PT Indofood Sukses Makmur company in 2018 and the maximum value of 11,801.00 is achieved by PT Indo Tambangraya Megah in 2017. The average value of 5,116.47 means that the average value range with the maximum value is wider than the average value range with the average value, so the DPR is mostly below average. The standard deviation value of 3,071.34 is greater than the average value, this indicates that the DPR data in this study varies.

The minimum CR value was 654.00 in PT Unilever Indonesia in 2018 and the maximum value of 42,614.00 was achieved by PT Surya Citra Media in 2018. The average value is 17,228.77 which means that the range of average values with the maximum value is wider than the average value range with the minimum value, then the CR is mostly below average. The standard deviation value of 9,521.74 is greater than the average value, this indicates that the CR data in this study varied or varied.

The minimum DER value of 2.00 at PT Surya Citra Media in 2018 and the maximum value of 87.55 means that the range of average values with the maximum value is wider than the range of average values with the minimum value, then DER is mostly below average. The standard deviation value of 61.93 is greater than the average value, this indicates that the DER data in this study varies.

In ROE, a minimum value of 11.00 belongs to PT Indofood Sukses Makmur in 2017 and a maximum value of 13,585.00 was achieved by PT Unilever Indonesia in 2016. An average value of 17,228.77 means that the range of average values with the maximum value is wider than the average value range with the minimum value, so ROE is mostly below average. The standard deviation value of 3,409.82 is greater than the average value, this indicates that the ROE data in this study varied.

### B. Evaluation Results of Structural Models (Inner Model)

1. \( R^2 \) Value Result

A small \( R^2 \) value means that the ability of independent variables to explain dependent variable variations is very limited. A value approaching one means an independent variable provides almost all the information needed to predict variations of dependent variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>( R^2 ) Value Result (Model 1)</th>
<th>( R^2 ) Value Result (Model 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBV</td>
<td>1.000</td>
<td>0.085</td>
</tr>
<tr>
<td>DPR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 above the \( R^2 \) value is 0.780 or 78.0% which means the free variable is able to explain the bound variables in this study by 78.0% while the remaining 22% is explained by other variables not included in this study.

2. \( Q^2 \) Value Result

In the PLS model is also evaluated by looking at the predictive \( Q^2 \) value relevance to the constructive model. \( Q^2 \) measures how well the observation value is generated by the model and its parameter estimation. A \( Q^2 \) value greater than 0 indicates that the model has predictive relevance value, whereas if \( Q^2 \) value is less than 0, it indicates that the model lacks predictive relevance.
Table-8: Q² Value Result (Model 1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Q Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBV</td>
<td>0.496</td>
</tr>
</tbody>
</table>

Source: Data Processing Results with SmartPLS 3.0 Program

Based on Table 8 above the Q² value is 0.496. Because the Q² result is greater than 0, it means that the Company Value indicates that the model has predictive relevant.

C. Multiple Linear Regression Analysis Test Results

This analysis is shown to determine the direction of the relationship between independent variables and dependent variables, i.e., whether each independent variable is positive or negative, and to predict the value of dependent variables if the value of independent variables increases or decreases.

The linear regression equations are as follows:

Model 1:

\[ Y' = b_1X_1 + b_2X_2 + b_3X_3 \]

Description:

\[ Y' = PBV \]
\[ X_1 = CR \]
\[ X_2 = DER \]
\[ X_3 = ROE \]
\[ b_1, b_2, b_3 = \text{Regression Coefficient} \]

Table-10: Multiple Linear Regression Analysis Test Results (Model 1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample(O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR -&gt; PBV</td>
<td>0.277</td>
</tr>
<tr>
<td>DER -&gt; PBV</td>
<td>0.819</td>
</tr>
<tr>
<td>ROE -&gt; PBV</td>
<td>0.243</td>
</tr>
</tbody>
</table>

Source: Data Processing Results with SmartPLS 3.0 Program

Based on Table 10 obtained multiple linear regression equations (Model 1) in this study as follows:

\[ \text{PBV} = 0.277 \times \text{CR} + 0.819 \times \text{DER} + 0.243 \times \text{ROE} \]

Which Means:

1. CR variable regression coefficient of 0.277 which means CR has a positive effect directly on PBV. If there is a 1% increase in CR, the PBV will increase by 0.277%.
2. The coefficient of DER variable regression is 0.819 which means DER has a positive effect directly on PBV. If there is an increase of 1% in DER, then the PBV will increase by 0.819%.
3. The regression coefficient of ROE variable is 0.243 which means ROE has a positive effect directly on PBV. If there is a 1% increase in ROE, the PBV will increase by 0.243%.
Table-11: Multiple Linear Regression Analysis Test Results (Model 2)

<table>
<thead>
<tr>
<th>Variable Z</th>
<th>Original Sample (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR -&gt; DPR</td>
<td>0.114</td>
</tr>
<tr>
<td>DER -&gt; DPR</td>
<td>0.101</td>
</tr>
<tr>
<td>ROE -&gt; DPR</td>
<td>0.252</td>
</tr>
</tbody>
</table>

**Source:** Data Processing Results with SmartPLS 3.0 Program

Based on Table 11 obtained multiple linear regression equations (Model 2) in this study as follows:

\[ DPR = 0.114 \times CR + 0.101 \times DER + 0.252 \times ROE \]

Which means?

1. CR variable regression coefficient of 0.114 means CR has a positive effect directly on DPR. If there is an increase of 1% in the CR, then the DPR will increase by 0.114%.
2. The coefficient of DER variable regression of 0.101 means that DER has a positive effect directly on DPR. If there is an increase of 1% in der, then the DPR will increase by 0.101%.
3. The coefficient of regression of ROE variable of 0.252 means ROE has a positive effect directly on DPR. If there is a 1% increase in ROE, then the DPR will increase by 0.252%.

Table-12: Multiple Linear Regression Analysis Test Results (Model 3)

<table>
<thead>
<tr>
<th>Variable Y</th>
<th>Sampel Asli (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR -&gt; PBV</td>
<td>0.170</td>
</tr>
</tbody>
</table>

**Source:** Data Processing Results with SmartPLS 3.0 Program

Based on Table 12 obtained multiple linear regression equations (Model 3) in this study as follows:

\[ PBV = 0.170 \times DPR \]

The variable regression coefficient of DPR of 0.170 means that DPR has a positive effect directly on PBV. If there is a 1% increase in the DPR, the PBV will increase by 0.170%.

D. Hypothesis Test

Hypothetical testing is obtained through the Bootstrapping procedure. The significance value in SmartPLS 3.0 can be seen in the t Statistics and P Values columns, where the value of t statistics must be greater than the table t and P Values must be less than 0.05 for the two-tailed hypothesis at alpha 5% (Abdillah and Hartono, 2015). Formula t table = N – K.

Based on Table 13, the following results are obtained:

1. CR statistic t value of 1.723 is greater than the value of t table 1.68709 and P values of 0.085 is greater than 0.05 which means CR has no direct effect on PBV.
2. DER statistics t value of 2.270 greater than t table of 1.68709 and P values of 0.024 less than 0.05 which means DER has a significant effect directly on PBV.
3. ROE statistic t value of 0.713 is less than t table of 1.68709 and P values of 0.476 greater than 0.05 which means ROE has no direct effect on PBV.
4. The statistical value of DPR is 1.503 less than the t table value of 1.68709 and P values of 0.134 is greater than 0.05 which means DPR has no direct effect on PBV.

<table>
<thead>
<tr>
<th>Variable</th>
<th>T Statistic</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR -&gt; PBV</td>
<td>1.723</td>
<td>0.085</td>
</tr>
<tr>
<td>DER -&gt; PBV</td>
<td>2.270</td>
<td>0.024</td>
</tr>
<tr>
<td>ROE -&gt; PBV</td>
<td>0.713</td>
<td>0.476</td>
</tr>
<tr>
<td>DPR -&gt; PBV</td>
<td>1.503</td>
<td>0.134</td>
</tr>
<tr>
<td>CR -&gt; DPR</td>
<td>0.401</td>
<td>0.689</td>
</tr>
<tr>
<td>DER -&gt; DPR</td>
<td>0.256</td>
<td>0.798</td>
</tr>
<tr>
<td>ROE -&gt; DPR</td>
<td>1.018</td>
<td>0.309</td>
</tr>
<tr>
<td>DR -&gt; DPR -&gt; PBV</td>
<td>0.460</td>
<td>0.646</td>
</tr>
<tr>
<td>DER -&gt; DPR -&gt; PBV</td>
<td>0.380</td>
<td>0.704</td>
</tr>
<tr>
<td>ROE -&gt; DPR -&gt; PBV</td>
<td>1.006</td>
<td>0.315</td>
</tr>
</tbody>
</table>

**Source:** Data Processing Results with SmartPLS 3.0 Program
greater than 0.05 which means that DPR has no direct effect on PBV.
5. CR statistic t value of 0.401 is less than the value of t table as much as 1.68709 and P values of 0.689 greater than 0.05 which means CR has no direct effect on DPR.
6. DER statistic t value of 0.256 is less than the t table value of 1.68709 and P values of 0.798 is greater than 0.05 which means DER has no direct significant effect on DPR.
7. ROE statistic t value of 1.018 is less than the t table value of 1.68709 and P values of 0.309 is greater than 0.05 which means ROE has no direct significant effect on DPR.
8. CR statistic t value of 0.460 is less than the t table value of 1.68709 and P values of 0.646 is greater than 0.05 which means CR has insignificant effect indirectly on PBV through DPR as intervening variable.
9. The statistical t value of DER is 0.380 less than the t table value of 1.68709 and P values of 0.704 is greater than 0.05 which means DER has insignificant effect indirectly on PBV through DPR as intervening variable.
10. ROE statistical t value of 1.006 is less than the t table value of 1.68709 and P values of 0.315 is greater than 0.05 which means roe has insignificant effect indirectly on PBV through DPR as intervening variable.

DISCUSSION

Based on the results of the analysis obtained, the findings of this study are as follows:
1) The effect of CR directly on PBV

The results of the analysis are known that CR has a positive and insignificant effect directly on PBV. This indicates that a company that has a good level of liquidity means that having a small level of risk because the company is able to meet its obligations well, many funds are available for the company to pay dividends, finance its operations and investments. So, when investors see a good level of liquidity will give a positive signal to the company. Thus, high liquidity means that the stock is in great demand by investors and it can increase the value of the company. The results of this study are in line with the research of Umaiayah and Salim (2018).

2) The effect of DER directly on PBV

The results of the analysis are known that DER has a positive and significant effect directly on PBV. This indicates that the higher the debt, the higher the value of the company. Proper use of debt according to investors will be well appreciated assessment of the company. This means that investors believe in the company's performance so that investors tend to invest in the company, so the market will give positive sentiment and have an impact on the increasing value of the company. The results of this study are in line with mulyana and Rini’s research (2017).

3) The effect of ROE directly on PBV

The results of the analysis showed that ROE had a positive effect not directly significant on PBV. This indicates that the high profitability value indicates the company’s ability to make a profit is also increasing, so that the company's ability to distribute dividends to shareholders will also increase. This activity will be positive information captured by investors so as to give market positive sentiment to the company. If profitability increases then it will be followed by an increase in the value of the company. The results of this study are in line with the research of Lubis, Sinaga and Sasongko (2017).

4) The effect of DPR directly on PBV

The results of the analysis showed that the DPR had a positive effect not significantly directly on the PBV. This indicates that the greater the dividend distributed indicates that the company has a high profit. With such a large profit, investors believe that the company’s financial condition is good and the market provides a positive centien so as to increase the value of the company. The results of this study are in line with Ganar's research (2018).

5) The effect of CR directly on DPR

Based on the analysis of data known CR has a positive effect is not significant directly to the DPR. This indicates that the higher liquidity of a company will increase the ability of the company to distribute dividends to investors. The Company also focuses on the distribution of dividends along with fulfilling its short-term obligations. The results of this study are in line with the research of Rahmasari, Suryani, and Oktaryani (2019).

6) The effect of DER directly on DPR

Based on the analysis of data known DER positive effect is not significant directly to the DPR. This indicates that increasing debt makes the company's financial resources greater in supporting operations so that the greater the chance of increasing profits, the higher the DPR. The end result is that the company is consistent in making dividend payments and investors are willing to give to the company because of positive signals from the company. The results of this study are in line with Georgian research (2012).

7) The effect of ROE directly on DPR

Based on the analysis of data known ROE has a positive effect is not significant directly to the DPR. This indicates that the increase in ROE will be followed by an increase in the DPR in an insignificant amount. This indicates that the company used a portion of its net profit to pay dividends and partly used to increase equity to strengthen the company's operating funding in
the form of retained earnings. The results of this study are in line with Malik and Gul’s research (2013).

8) The effect of CR indirectly on PBV through DPR

The results of the analysis showed that CR had an insignificant positive effect indirectly on the PBV through the DPR as an intervening variable. These results indicate that CR is being taken into consideration by management in dividend payments. That is there is some liquidity used to pay dividends and some of it is used to buy fixed assets or permanent current assets to take advantage of investment opportunities. Thus, the dividend paid to shareholders is able to increase investor interest and ultimately have an impact on the increase in the value of the company. The results of this study have not been found in previous researchers who stated that CR variables have a positive and insignificant effect on PBV through dpr as intervening variables.

9) The effect of DER indirectly on PBV through DPR

Based on the analysis of data known DER positive effect is not significant indirectly to the PBV through the DPR as an intervening variable. Companies can use debt to strengthen funding to increase productivity and ultimately make higher profits. By increasing the debt means the level of risk, but at the same time it will also increase the amount of return that will be obtained. The use of such debt is able to increase dividend payments to shareholders. With the increasing return received by investors in the form of dividends, this will increase the value of the company in the eyes of investors. In other words, debt is a positive sign or signal to increase the value of the company in the eyes of investors. The results of this study are in line with Novitasari’s research (2018).

10) The effect of ROE indirectly on PBV through DPR

Based on data analysis, ROE is known to have insignificant positive effect on PBV through DPR as intervening variable. This indicates that if profitability is high then it will be a good signal for investors, because with high profitability shows the company’s performance is good and investors will be interested in investing in the company, then profitability will have a positive impact on the value of the company. In line with this, distributing high dividends will boost the share price and ultimately have a positive impact on the company’s value. Because dividend distribution is a sign for investors, where the huge increase in dividend indicates that management is optimistic about the future of the company. In line with these results, profitability has a big influence on the value of the company, but with the company sharing dividends also, investors will be more interested in the company and will increase the value of the company. The results of this study are in line with Sari’s research (2015).

11) The effect of CR, DER, and ROE indirectly on PBV through DPR

Based on the analysis known CR, DER and ROE positive effect is not significant indirectly to PBV through DPR as intervening variables. Thus, DPR does not mediate the relationship between CR, DER and ROE to PBV.

V. CONCLUSION

Based on the results and discussions that have been described before, it can be drawn some conclusions as follows:

1. CR has a positive and insignificant effect directly on PBV
2. DER has a positive and significant effect directly on PBV
3. ROE has a positive and insignificant effect directly on PBV
4. DPR has a positive and insignificant effect directly on the PBV
5. CR has a positive and insignificant effect directly on the PBV
6. DER has a positive and insignificant effect directly on the PBV
7. ROE has a positive and insignificant effect directly on the PBV
8. CR has a positive and insignificant effect on PBV through DPR as intervening variable
9. DER has a positive and insignificant effect on PBV through DPR as intervening variable
10. ROE has a positive and insignificant effect on PBV through DPR as intervening variable
11. DPR does not mediate the relationship between CR, DER and ROE to PBV

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- http://www.scm.co.id/
- http://www.unitedtractors.com/id
- https://www.unilever.co.id/