THE EFFECT OF DIVIDEND POLICY, PROFITABILITY, LIQUIDITY AND FIRM SIZE ON FIRM VALUE IN MANUFACTURING COMPANIES OF FOOD AND BEVERAGE SUBSECTORS

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Abstract: The objective of this study is to determine and analyse the effect of dividend policy, profitability, liquidity and firm size partially and simultaneously on firm value in food and beverage companies listed on the Indonesia Stock Exchange. The population of this research is 10 food and beverage companies listed on the Indonesia Stock Exchange with observation years 2007 to 2017. The sample was selected using the purposive sampling method. Data is processed using panel data regression statistical test methods. The results of this study prove that partially dividend policy, liquidity and firm size have a positive but not significant effect on firm value on food and beverage companies listed on the Indonesia Stock Exchange. Simultaneously, profitability has a positive and significant effect on firm value in food and beverage companies listed on the Indonesia Stock Exchange.

Keywords: Dividend policy, Profitability, Liquidity, Firm size, Firm value

1. Introduction
The economy in Indonesia is strongly influenced by the rapid development of the capital market at this time. The capital market as a means for the financial sector outside the banking sector that provides funds for the business world through the sale of shares, bonds and securities. In an effort to strengthen the financial position, many companies use the capital market as an investment medium. In this case, investment decision is a decision to buy, sell or maintain share ownership. Basically someone is investing in order to make some money in the future.

Investment decisions or someone’s interest in investing are of course motivated by an understanding of investment starting from the type of investment, the return to be obtained and the risks that will be faced. A person’s investment choices behind returns that affect his perception are closely related to investment risk. According to Raditya (2014) every investor is able to bear different risks, but of course they expect an appropriate return. Investing in calculating returns alone is not enough, but the risk borne by the investor also needs to be considered.

The manufacturing industry is an industry that dominates all the activities of companies listed on the Indonesia Stock Exchange. In 2016 around 144 companies in the manufacturing industry and in 2017 there were 154 manufacturing companies which were grouped into several industrial sub-sectors. Among the several sub-sectors, there are Food and Beverage industry sub-sectors which are one of the industrial sectors that can survive in the midst of Indonesia’s economic conditions. Food and Beverage industry companies are one type of companies that are not significantly affected by the impact of the global crisis, the level of public consumption of goods produced in the industry has become a necessity and is
relatively unchanged, both economic conditions improving and deteriorating. Company value reflects the company's performance which can influence investor perceptions of the company. Companies that have high value, are companies that are targeted by investors.

Firm value can be observed through the stock price. A stock price that continues to rise will produce capital gains that will attract investors in buying the company’s stock. Companies that generate large profits and are relatively stable will tend to share their dividends. The company’s stock return can be used as a reference in transactions on the capital market. The rapid development of the number of manufacturing companies has not been supported by close supervision, this raises many problems that can cause companies to go bankrupt (liquidated). Therefore, manufacturing companies must be able to maintain the health of their money or liquidity. Data on the Indonesia Stock Exchange, stock returns calculated from market prices from 2013 - 2016 show data that fluctuate from year to year. In 2013, the stock return was valued at 24.64%, in 2014 it was worth 13.67% in 2015 and dropped drastically by -7.33% while in 2016 it rose to 58.25% (Monang, 2017).

Dividend policy is a decision about how companies use profits obtained whether to be reinvested or distributed to shareholders as dividends (Octavia, 2013). In addition to dividend policy, the value of profitability can also be used as a reference to attract investors to invest. The level of profit will affect the level of dividend payments distributed to shareholders. Another aspect is liquidity, which is the company’s ability to meet its short-term obligations in a timely manner. For companies, dividends are cash outflows, and this affects the position of the company’s cash. This resulted in reduced opportunities for companies to make investments using cash distributed in the form of dividends (Suharli, 2006). The more liquid a company is, the possibility of dividend payments made by the company will be even greater.

Firm size is also considered able to affect firm value. The large firm size and continues to grow can illustrate the level of future profits, the ease of financing can affect the firm value and be good information for investors (Eko, 2014). Information about firm size in the market is very important for investors (Lischewski, 2010).

2. Literature Review
2.1. Agency Theory
Shareholders and management have different interests. The main principle of this theory states that there is a working relationship between the parties that gives authority (the principal), ie. the owner and the party that receives the authority (agent), namely the manager. The existence of these various interests, each party seeks to increase profits for themselves. The owner (principal) wants a maximum and maximum return on the investment made. Whereas the manager (agent) wants his interests to be maximally accommodated for his performance.

2.2. Signalling Theory
Signal theory according to Richard D. Morris (1987), was developed to deal with the problem of asymmetrical information in the company by increasing the
giving of information signals from parties who have more information to less-informed stakeholders. One of the information released by the company that becomes a signal to outside parties, especially for investors, is an annual report. Information disclosed in the annual report can be in the form of information relating to financial statements and non-financial statements that greatly affect the survival of the company in the future and how it affects the company.

2.3. **Firm Value**

Firm value is defined as the price that potential investors are willing to pay if a company is to be sold. The higher the firm value the greater the prosperity that will be received by the owner of the company. For companies that issue shares in the capital market, the price of shares traded on the stock exchange is an indicator of firm value. Maximizing firm value will be identical to maximizing profits (Husnan Suad, 2006: 6-7). The firm value can basically be measured through several aspects, one of which is the market price of the company’s stock because the stock market price reflects the overall investor valuation of each equity held.

2.4. **Dividend Policy**

Indonesian Institute of Accountants (2004), in PSAK No. 23, formulating dividends as profit distribution to shareholders according to their proportion of certain types of capital. Revenue expected by shareholders is income generated from dividends, in which the business entity surrenders a portion of its profits, for the benefit of shareholders’ welfare. Dividend policy is a decision about how companies use the profits obtained whether to be reinvested or distributed to shareholders as dividends (Octavia, 2013). Basically, the profit can be divided as dividends or retained earnings to be invested, while still paying attention to the company's goal, which is to increase firm value. This problem becomes complicated because of alternative funding from outside (Husnan, 1996). Dividend policy is measured by the Dividend Payout Ratio (DPR). Dividend Payout Ratio compares the dividends paid with the net income of the company. Dividend payout ratio is the percentage of income that will be paid to shareholders as a “cash dividend”. Dividend payout ratio is the ratio between dividend per share and earnings per share in the current period.

2.5. **Profitability**

Profitability is the company’s ability to earn profits or measure the effectiveness of the management of the company’s management (Wiagustini, 2010: 76). In this study using return on Assets (ROA) to know the company’s ability to make a profit by using the total assets owned therefore shareholders get information on the effectiveness of the company in managing the company. This ratio measures the rate of return on investment made by a company by using all of its funds (assets). A high ratio indicates the efficiency of asset management, which means management efficiency (Hanafi and Halim, 2003).

In this study also, researchers want to take another profitability ratio that is return on Equity (ROE) to find out the company’s ability to make a profit in using
its total equity as information for shareholders in managing the company by its management. The higher this ratio means the higher profits generated by the company. The high profit generated by the company reflects that the company has good prospects going forward.

2.6 Liquidity
Liquidity is the company’s ability to meet short-term obligations on time. A liquid company will be trusted by investors because it is considered a good company performance. This is because companies that have a high level of liquidity have large internal funds, so the company also uses its internal funds first to finance its investment before using external financing through debt. Brealey and Myers in Uremadu et al (2012) stated that investors will be attracted to companies that make money to pay debts or obligations. In this study using the Current Ratio because they want to know the company's ability to pay off short-term liabilities using current assets. Current Ratio (current ratio), if observed from the understanding of the balance sheet component, is less than one year.

2.7 Firm Size
Firm size is the net worth of accounting or book value of Thavikulwat (2004). Firm size is one of the variables considered in determining firm value. Firm size is a reflection of the total assets owned by the company. The greater firm size, it means that the assets owned by the company are also getting bigger and the funds needed by the company to maintain its operational activities are increasing. According to Bambang Riyanto (2011; 299) firm size describes the size of a company that is shown in total assets, total sales, average sales.

2.8 Conceptual Framework
Based on the above theory, the conceptual framework and hypothesis in this study are as follows.
2.9 Hypothesis

3. Method
This research uses a quantitative approach that is by testing the comparative causal relationships of measured research variables (parametric). This type of research is descriptive research and causality. Descriptive research is research in the form of data collection to test research questions or hypotheses relating to current circumstances and events.

Data collection techniques used in this study are secondary data collection techniques, namely by downloading the annual financial statements of manufacturing companies that have been audited through the official website of the Indonesia Stock Exchange at www.idx.co.id during the study period. The number of samples in this study were 10 companies during the period 2007-2017 with 110 observations.

<table>
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<th>No</th>
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<th>Number of companies</th>
</tr>
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<tr>
<td>1</td>
<td>Food and beverage sub-sector Manufacturing Companies listed on the Indonesia Stock Exchange for the period 2007-2017</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Companies which do not publish their complete financial statements on the Indonesia Stock Exchange for the period 2007-2017</td>
<td>(9)</td>
</tr>
<tr>
<td>3</td>
<td>Companies that are being sample</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Total samples (10 companies x 11 years)</td>
<td>110</td>
</tr>
</tbody>
</table>

The data analysis technique used in this study uses panel data regression with Eviews 7 because in this study there are characteristics of cross section data and time series simultaneously.

Descriptive statistics are statistics used to analyse data by describing collected data as it is without intending to make generally accepted conclusions or generalizations. Included in this descriptive statistical analysis consists of measuring the mean, median, maximum value, minimum value, and standard deviation of each variable.
Research that uses panel data has the advantage of being more informative, greater variability, lower collinearity among variables and many degrees of freedom and more efficient. Chow test or likelihood ratio test is a test to choose between the common effect model and the right fixed effect model. Chow test is a test by seeing the results of F statistics greater than the level of significance ($\alpha > 0.05$) then $H_0$ is rejected, then the chosen model is the common effect, but if the F statistic results are smaller than the level of significance ($\alpha < 0.05$) then the chosen model is fixed effect then $H_0$ is accepted.

Hausman test aims to compare or choose the best model between fixed effects and random effects. Hausman test in determining the best model using chi square statistics with degree of freedom is $k$, where $k$ is the number of independent variables, if the chi square statistic value is greater than the significance level $\alpha > 0.05$ then $H_0$ is rejected, which means a better model is a random effect model, if the chi square statistical value is smaller than the significance level $\alpha < 0.05$ then $H_0$ is accepted which means that the better model is the fixed effect model (Widarjono, 2013)

Panel data regression is used to answer the hypotheses that have been proposed. In panel data regression, there are 3 models tested, namely the common effect model (CEM), fixed effect model (FEM) and random effect model (REM). Panel data is a type of data which is a combination of time series data and cross section data. Panel data is technically able to overcome the problem of multicollinearity and heteroscedasticity by combining time series data and cross section data so that panel data testing does not require the classical assumption test (Gujarati, 2003). Testing is done through an analysis tool, namely Eviews 7 software.

The F statistical test basically shows whether all independent or independent variables entered in the model have a joint effect on the dependent variable (Ghozali, 2013). Significant means the relationship that occurs can apply to the population. The statistical $t$ test basically shows how far the effect of one explanatory / independent variable individually in explaining the dependent variable (Ghozali, 2013). Used to determine the effect of each independent variable partially on the dependent variable tested with a 95% confidence level or $\alpha < 0.05$.

The coefficient of determination essentially measures how far the model's ability to explain the variation of the dependent variable. The coefficient of determination is between zero and one ($0 < R^2 < 1$). A value close to one means that the independent variables provide almost all the information needed to predict the dependent variables (Ghozali, 2013).

4. Result and Discussion

4.1 Result

There are three tests that can be used as a tool in choosing a panel data regression model, namely: Common Effect, Fixed Effect and Random Effect. Based on the characteristics of the data held, it can be done, namely: Chow Test and Hausman Test.

Chow test is conducted to compare / choose which model is the best between common effects and fixed effects. From the Chow test results, the Prob value is
obtained. Cross-section F is 0.0211 whose value <0.05 thus it can be concluded that rejecting H0, the fixed effect method is more appropriate than the common effect model.

Hausman test is conducted to compare / choose which method is best used between fixed effects or random effects. From the Hausman test results obtained Prob value. Random cross-section of 0.3339 whose value > 0.05 thus it can be concluded that the random effect model is more appropriate than the fixed effect model. Based on testing with the Chow test and Hausman test, it was decided that the most appropriate estimation model to use was the random effect model.

Based on the Chow test and the Hausman test, the chosen regression model is the random effect model. Therefore, the results of the regression are done through a random effect model and can be seen the results of the regression panel which can then be arranged regression equation as follows:

\[ Y = 0.5595 + 0.0001DPR + 0.0153ROA + 0.0028ROE + 0.0235CR + 0.0015FS \]

From the regression equation it can be stated that:

1. A constant value of 0.5595 means that if dividend, profitability, liquidity and company size policies are considered constant, firm value will increase by 0.5595.
2. The regression coefficient value of the DPR variable is 0.0001, which is positive. This means that the DPR has a positive effect on PBV. Given the Prob value. is 0.8625, which is > 0.05 significance level, then the DPR has no significant effect on PBV.
3. The regression coefficient of the variable ROA is known to be 0.0153, which is positive. This means that ROA has a positive effect on PBV. Given the Prob value. is 0.0010, which is < 0.05 significance level, then ROA has a significant effect on PBV.
4. The regression coefficient of the variable ROE is known to be 0.0028, which is a positive value. This means that ROE has a positive effect on PBV. Given the Prob value. is 0.0246, that is < 0.05 significance level, then ROE has a significant effect on PBV.
5. The regression coefficient of the CR variable is known to be 0.0235, which is a positive value. This means that CR has a positive effect on PBV. Given the Prob value. is 0.2827, i.e. > 0.05 significance level, then CR has no significant effect on PBV.
6. The regression coefficient of firm size is known to be 0.0015, which is a positive value. This means that firm size has a positive effect on PBV. Given the Prob value. is 0.8150, i.e. > 0.05 significance level, then the firm size has no significant effect on PBV.

Simultaneous significant test (F test) was carried out to find out whether all independent variables used had a joint effect on the dependent variable. Simultaneous test results can be seen in the following table:
### The F Statistical Value and the F Statistical Probability Value in This Study Were

The F statistical value and the F statistical probability value in this study were 16.42900 with a probability of 0.000000. The statistical F probability value is smaller than the significant value $\alpha = 5\%$, so it can be concluded that all independent variables, namely DPR, ROA, ROE, CR, firm size simultaneously, have a significant effect on PBV variables.

## Discussion

4.2 Discussion

The results of partial hypothesis testing indicate that the value of dividend policy which is proxied to the variable dividend payout ratio (DPR) is positive but has no significant effect on PBV with a Prob value. is 0.8625 $>$ a significance level of 0.05. The results of this study are in line with research Research conducted by Sugiiarto (2011) and Fenandar (2012) states that dividend policy has a significant positive effect on firm value. According to Indriyo Gitosudarmo and Basri (2014) dividend policy has a strong effect on the market price of shares outstanding. Paying more dividends will tend to increase share prices. Increasing the stock price will increase the value of the company. Investors feel safer to obtain income in the form of dividend payments rather than waiting for capital gains because the dividends distributed have risks and lower cost consequences. So companies should form a high dividend payout ratio that offers a high dividend yield in order to maximize stock prices and firm value.

The results of partial hypothesis testing indicate that profitability with the current on Asset (ROA) and current on Equity (ROE) proxies has a positive and significant effect on firm value with a Prob value. ROA is 0.0010, and the value of Prob. ROE is 0.0246 ie <0.05 significance level. The results of testing this research hypothesis are consistent with the results of research conducted by Malinda Adi Purnama Sakti (2013) conducting research on the effect of liquidity, leverage, profitability on firm value. The results of the study are liquidity and profitability have a significant effect on firm value, The results of the research of Dewi (2013), Yunita, et al (2014) and Mardiyati, et al (2012) stated that profitability affects the

<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tr>
<td>X1</td>
<td>0.000191</td>
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<tr>
<td>X5</td>
<td>0.001557</td>
<td>0.006640</td>
<td>0.234528</td>
<td>0.8150</td>
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<tr>
<td>C</td>
<td>0.559515</td>
<td>0.186726</td>
<td>2.996449</td>
<td>0.0034</td>
</tr>
</tbody>
</table>

R-squared 0.441296, Mean dependent var 0.637703

Adjusted R-squared 0.414435, S.D. dependent var 0.423272

S.E. of regression 0.323897, Sum squared resid 10.91057

F-statistic 16.42900, Durbin-Watson stat 2.086047

Prob(F-statistic) 0.000000
firm’s value. This means that the higher the level of profitability, the higher the firm value. If the company’s total assets increase, firm value will also increase.

The results of partial hypothesis testing indicate that liquidity with the current ratio (CR) proxy has a positive but not significant effect on firm value with a Prob value. is 0.2827, which is > 0.05 significance level. In 1963, Modigliani-Miller (MM) published an article following MM’s theory in 1958. The previous assumption was that the greater the use of debt, the greater the risk so that the cost of capital itself increased. So, the use of debt will not increase firm value because the profits from smaller debt costs are covered by rising capital costs themselves. Malinda Adi Purnama Sakti (2013) conducted research on the effect of liquidity, leverage, profitability on firm value. The results of the study are liquidity and profitability have a significant influence on firm value. The results of testing this research hypothesis have also been consistent with the results of research conducted by Corry Winda Anzlina and Rustam (2013) conducting research by examining the effect of the level of liquidity, solvency, activity and profitability on firm value. The results obtained show that the liquidity ratio has a significant effect on firm value.

The results of partial hypothesis testing of firm size variables as a proxy of firm size have a positive effect on firm value. Given the Prob value. is 0.8150, i.e. > significance level 0.05, then the firm size has no significant effect on the firm value proxied to PBV. The results of this study have been consistent with research revealed by Dewi (2013) which states that there is no effect of firm size on firm value.

5. Conclusion and Suggestion

5.1 Conclusion

Based on the results of research and hypothesis testing that has been done, several conclusions can be drawn as follows:

1. Dividend payout ratio (DPR) has a positive but not significant effect on price book value (PBV).
2. Return on assets (ROA) has a positive and significant effect on price book value (PBV).
3. Return on equity (ROE) has a positive and significant effect on price book value (PBV).
4. Current ratio (CR) has a positive but not significant effect on price book value (PBV).
5. Firm size has a positive but not significant effect on price book value (PBV).

5.2 Suggestion

The suggestions that can be given on the basis of these conclusions are as follows:

1. For Company Management

   Company managers must consider the use of funds owned by the company both funds sourced from internal and external funds. In addition, company managers must also determine the policy on the use of debt and the policy in
determining dividends to be given to investors so that investors will be interested in investing.

2. For further researchers

For the next researcher to add another study of variables related to the price book value such as adding capital structure variables, sales growth and other variables and using a larger sample, in order to be able to generalize research results that affect the price book value of registered food and beverage companies on the Indonesia Stock Exchange.

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