
Financial Performance towards Value of Firms in Basic and Chemicals Industry

P. Purwanto¹, Jillian Agustin²

Abstract:

This research aims to empirically prove the significant influences of financial performance towards value of firm. This research chose the population in basic and chemicals industry during the period of 2009-2014.

Through purposive sampling and panel data, this research had 60 observations which was obtained through each firm. This research adopted quantitative research with random effect model, which used some analysis methods of descriptive analysis, classical assumption, multiple regression analysis and hypotheses testing.

The result was concluded that firm size, earnings growth, current ratio, DER and ROA had partial significant influences towards PBV. Simultaneously, those five independent variables provided 66.594% influences while the rest 33.406% was influenced by other factors. Moreover, firm size was chosen as the most significant factor which influences price to book value.

Keywords: PBV, Firm Size, Earnings Growth, Current Ratio, DER, ROA

¹ Faculty of Economic and Business, Padjajaran University, Bandung, Indonesia; Faculty of Business, President University, Jababeka Education Park, Jl. Ki Hajar Dewantara, Kota Jababeka, Cikarang Baru, Bekasi 17550 – Indonesia, E-mail: Purwanto@president.ac.id and Faculty of Business, President University, Jababeka Education Park, Jl. Ki Hajar Dewantara, Kota Jababeka, Cikarang Baru, Bekasi 17550 – Indonesia.

² Faculty of Business, President University, Jababeka Education Park, Jl. Ki Hajar Dewantara, Kota Jababeka, Cikarang Baru, Bekasi 17550 – Indonesia.

1. Introduction

Capital market is one of the major contributors of economic growth in Indonesia. Rise and fall of the stock index is a reflection of the economic dynamism of the country (Widoatmodjo, 2009). Capital market is a platform between parties who have excess fund (investors) to those who need additional fund by trading the securities issued by the related companies (Tandelilin, 2010). The performance of capital market could be used as a benchmark to determine the economy growth of a country (Fetai, 2015; Glavina, 2015; Thalassinou, 2008; Thalassinou *et al.*, 2012).

Investment activity is an activity of placing funds in to one or more than one assets in a certain period with expectation of generating income or increasing value of the investment. Increasing trading value will be followed by increasing stock price (Husnan, 2005). Investment climate in Indonesia tends to hike in accordance with the new regulation of Decree No. KEP-00071/BEI/11-2013 concerning Changes to Round Lots and Tick Price. Effectively implemented since January 6, 2014, the new regulation stipulated the round lot value of equity security now consists of 100 shares as compared to 500 shares set out in the previous Decree of 2012. Decreasing round lots is expected to attract investors to trade actively at stock exchange, because the funds needed to purchase a stock became less. Since more investors are entering the stock market, there will be more trading transactions so it will enhance market capitalization and the liquidity of stock will go up. Liquid stocks will have high trading value, which indicates the investors are attracted to this stock. Stock price is formed on the power supply and demand in the stock market which is influenced by investors' considerations both from firm's internal and external factors (Jogiyanto, 2010; Thalassinou *et al.*, 2015; Rupeika-Apoga and Nedovis, 2015).

An investor, before making any decision regarding an investment, should always analyze and have in depth knowledge about the performance of related firm. The firm's performance could be discovered through the firm's internal information sourced from the firm's financial statements (Hanafi and Halim, 1996). The information presented in the financial statements has been sufficiently described the development of the firm and its achievements. If the financial performance of a firm shows good prospects, the stockholders and potential investors will be interested in buying the stocks, which will affect stock price (Tcvetkov *et al.*, 2015).

Generally, the main purpose of a firm is to maximize the wealth of its stockholders through the firm's value as reflected in the stock price (Brigham and Houston, 2001). The stock price is the price that would be paid by investors as an evidence of ownership. The higher the value of the firm, the more an investor is willing to pay for a stock. The stockholders always observe stock price movements, as the value of their prosperity is determined by the stock price. The stock price will directly affect value of the firm, which is an important indicator for investors. Value of a firm is very essential because it reflects firm's performance that could affect investors' perception towards the firm. In general terms, there are three approaches to value a

firm which are discounted cash flow valuation, relative valuation, and contingent claim valuation (Damodaran, 2012). In reality, the most approach used is the relative valuation which will become the focus in this study. Relative valuation estimates the value of an asset by analyzing its pricing of comparable assets relative to a common variable. Price earnings ratio (PER), price to book value ratio (PBV), Tobin's Q, and price sales ratio are some of the widely used ratios to determine the value of a firm.

A publicly traded firm provides information regarding its financial performance and financial ratios as consideration for investors in making an investment decision. There is significant and strong correlation between value of firm towards its financial performance. Financial performance is expected to be able to predict the value of the firm in the future. However, there is an inconsistency on the influence of financial ratios towards its value of firm. As stated by (Mahendra *et al.*, 2012) *“There are several factors that affect the value of the firm, namely: funding decisions, dividend policy, investment decisions, capital structure, earnings growth, and size of the firm. Some of these factors have a relationship and influence on the value of a firm inconsistently.”*

Many investors believe the larger the firm size, the easier a firm gets additional funding thus it will positively affect value of firm (Hidayah, 2014). On the other hand, Budi and Rachmawati (2014) did not found any influence between them. Kuswanto and Taufiq (2010) found that earnings growth has significant influence towards value of firm; however, Nasehah and Widyarti (2012) showed no influence of earnings growth to value of firm.

Firm that has a high level of liquidity, has much internal funds to manage its operational and tends not to use debt to finance its investment; it will enhance firm's ability to manage its fund so it will affect the value of the firm (Jantana, 2012). However, Lins and Kalcheva (2007) founding was theoretically contradicted, in which liquidity has negative influence towards value of firm. Many investors perceive that more debt will increase investment risk, therefore, they avoid the firm with high debt levels. However did not find any significant influence of leverage towards value of firm. Ang (1997) stated that profitability positively affect the firm's value as profitability ratio shows the firm's success in generating profits, which is also supported by Hidayah (2014) and Febrianti (2012).

Those research inconsistencies show that factors that affect price to book value will be varies across industry sector, period, or even country. Each sector, whether primary, secondary, or tertiary sector, will have different price to book value ratio which is not comparable among sector. This study will focus on the secondary sector, exactly in manufacturing, which transforms the raw materials into goods for sale or consumption. Indonesia Stock Exchange classified manufacture industry into three sectors; basic industry and chemicals, miscellaneous, and consumer goods. This research will emphasize on basic industry and chemicals sector, which suffers a downtrend stock movement.

Basic industry and chemicals sector, which consists of 65 listed stocks in Indonesia Stock Exchange, is included in the manufacturing industry. Thus, if this condition goes on, it will have bad impact towards this sector as investors will be attracted to other sectors. The negative movement of basic industry and chemicals sector, furthermore, will affect value of firms within the sector. Value of firms in manufacturing industry, which is measured using price to book value. It also shows the downtrend price to book value movement of basic industry and chemicals sector, which means the declining of its sectoral indices, will affect its price to book value. During 2013 to 2014, only basic industry and chemicals sector was decreasing while the other sectors of manufacture industry were increasing or at least stagnant. Since the movement it is related to value of the firm, the researcher has the desire to empirically check whether declining movement in basic industry and chemicals sector will negatively affect value of the firm (Thalassinos and Liapis, 2014).

Based on the problems stated and the research gaps which show discrepancies among research result, the researcher is attracted to compose a research with the focus on price to book value through the analysis of their financial performance which are firm size, earnings growth, current ratio, debt to equity ratio, and return on assets (Ugurlu *et al.*, 2014). The sample is taken from basic industry and chemicals firms listed in Indonesia Stock Exchange.

2. Previous Research

Some researchers had conducted researches about variables that may influence the price to book value. Those previous researches will help the researcher to identify and highlight the influential variables and record significant findings from researches which had been conducted (Sekaran and Bougie, 2011). The researcher has summarized some previous research from published journals which has price to book value as dependent variable.

Hidayah (2014) analyzed the influence of managerial ownership, debt to equity ratio, firm size, and return on asset towards price to book value in property and real estate firms from 2010-2012 listed in Indonesia Stock Exchange. This research found that managerial ownership, firm size and return on asset had positive significant effect on the price to book value while debt to equity ratio has negative but insignificant influence. The coefficient determination resulted from this research was 10.2%.

Marangu and Jagongo (2014) analysis was to establish the relationship between price to book value and financial statement variables of dividend payout ratio, return on assets, return on equity, return per share, dividend per share and earnings growth after tax. The sample was selected from Nairobi Stock Exchange 20 share index during 1991-2003. The result indicated return on assets, return on equity, and return per share have positive significant influence towards price to book value. On the other hand, there was negative significant influence between price to book value

ratio and dividend per share. While dividend payout ratio and growth rate in earnings after tax do had no statistically significant relationship. The coefficient determination resulted from this research was 72.6%.

Budi and Rachmawati (2014) analyzed property and real estate firms during 2010-2013 listed in Indonesia Stock Exchange. The results indicated return on equity, debt equity ratio, and growth had positive significant effect on price to book value, while firm size had positive insignificant effect towards price to book value partially. Also, return on equity, debt to equity ratio, growth, and firm size were simultaneously had significant effect on price to book value with the coefficient determination of 22.4%.

Nasehah and Widyarti (2012) analyzed the influence of return on equity, debt to equity ratio, dividend payout ratio, growth, and firm size towards price to book value. The sample was taken from 14 manufacture firms listed in Indonesia Stock Exchange during period of 2007-2010. The research found that return on equity and dividend payout ratio had positive significant influence to price to book value, while debt to equity ratio had negative significant influence to price to book value. On the other hand, growth and firm size did not have any significant influence. All independent variables simultaneously affect price to book value with adjusted R^2 value of 52%.

Febrianti (2012) conducted research with the sample taken from 15 mining companies listed in Indonesia Stock Exchange during 2003-2007. This study get a comprehensive picture regarding the influence of fixed asset to total asset, operating profit margin, current ratio, sales growth, firm size, debt to equity ratio, and debt ratio towards price to book value. The results showed sales growth, firm size, and debt to equity ratio had positive impact towards price to book value while fixed asset to total asset, operating profit margin, current ratio, and debt ratio had positive insignificant impact.

Jantana (2012) with the research used debt to equity ratio, return on equity, and current ratio to analyze the value of firm. This research found debt to equity ratio, return on equity, and current ratio had partial significant influence towards value of firm. Simultaneously, all independent variables were significantly influence firm value by 74.7%.

Sofyaningsih and Hardiningsih (2011) performed a study with the research sample taken from 115 manufacture firms listed in Indonesia Stock Exchange during 2007-2009. By using multiple linear regression to examine the effect of managerial ownership, insitutisional ownership, dividend policy, and debt policy on firm value by including the variable size, growth and performance as the control variable, this research found that managerial ownership, firm size, earnings growth, and return on assets were proven positively affect price to book value. While institutional ownership, dividend payout ratio, and debt to equity ratio were not proven to affect price to book value. Coefficient of determination from this research was 50.5%.

Kuswanto and Taufiq (2010) performed a research by analyzing return on equity, growth, dividend payout ratio, and degree of financial leverage towards price to book value and its implication towards stock return. This research adopted quantitative research with the sample taken from 27 manufacture firms listed in Indonesia Stock Exchange from 2006 to 2008. The results showed partially return on equity positively affect price to book value while growth negatively affect price to book value. Dividend payout ratio and degree of financial leverage did not affect price to book value.

Lins and Kalcheva (2007) conducted a research to examine the net costs and benefits of cash holdings by taking samples for over 5000 firms from 31 countries. This study found there is negative and significant influence of cash holdings and dividend payment towards value of firm. On the other hand, managerial control and shareholders right did not affect value of firm.

3. Research Hypotheses

This study develops financial performance to measure price to book value. The independent variables in this study are firm size, earnings growth, current ratio, debt to equity ratio, and return on assets while the dependent variable is price to book value. Therefore, based on previous theoretical framework researcher has formulated some hypotheses which will be tested in this research. Those hypotheses are:

- H₁** : There is significant influence of firm size towards PBV in basic industry and chemicals sector.
- H₂** : There is a significant influence of earnings growth towards PBV in basic industry and chemicals sector.
- H₃** : There is a significant influence of current ratio towards PBV in basic industry and chemicals sector.
- H₄** : There is a significant influence of debt to equity ratio towards PBV in basic industry and chemicals sector.
- H₅** : There is a significant influence of return on assets towards PBV in basic industry and chemicals sector.
- H₆** : There is a significant simultaneous influence of firm size, earnings growth, current ratio, debt to equity ratio, and return on assets towards PBV in basic industry and chemicals sector.

4. Research Methodology

This research will be conducted by adopting quantitative approach to analyze determinant factors of price to book value in basic industry and chemicals. In quantitative method pieces of information can be counted mathematically, the data is gathered from proportionally representative of population and is analyzed using statistical methods (Neuman, 2006). The quantitative method is selected because this study will focus on calculation by inputting data to find out the result and conclude

from the statistical result. This research will emphasize on measuring variables and testing hypotheses to find out the impact of independent variables towards dependent variable.

4.1. Multiple Regression Analysis

Multiple regression analysis is chosen to be used in this research since this research has five independent variables. The dependent variable is price to book value while the independent variables are firm size, earnings growth, current ratio, debt to equity ratio, and return on assets. The influence of independent to dependent variables can be written in linear regression equation as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Y is price to book value ratio, β_0 is constant, X_1 is firm size, X_2 is earnings growth, X_3 is current ratio, X_4 is debt to equity ratio, X_5 is return on assets, $\beta_1 - \beta_5$ are regression coefficient and ε is error. The value of partial regression coefficient $\beta_1 - \beta_5$ has a very important role to measure the marginal contribution of independent variable to dependent variable, by holding all other variables are constant (Schwert, 2010)

4.2. T-Test

The decision to reject or to not reject the null hypothesis can be concluded through the probability value of t-statistics of each independent variable with significance level of $\alpha = 5\%$. The t-test will help researcher in determining the partial influence among an independent variable towards dependent variable. The hypotheses of t-test are:

- $H_{01} : \beta_1 = 0$ or if probability t-statistics $> \alpha$ then there is no significant partial influence of firm size towards PBV in basic industry and chemicals sector.
- $H_{a1} : \beta_1 \neq 0$ or if probability t-statistics $< \alpha$ then there is a significant partial influence of firm size towards PBV in basic industry and chemicals sector.
- $H_{02} : \beta_2 = 0$ or if probability t-statistics $> \alpha$ then there is no significant partial influence of earnings growth towards PBV in basic industry and chemicals sector.
- $H_{a2} : \beta_2 \neq 0$ or if probability t-statistics $< \alpha$ then there is a significant partial influence of earnings growth towards PBV in basic industry and chemicals sector.

- H₀₃ : $\beta_3 = 0$** or if probability t-statistics $> \alpha$ then there is no significant partial influence of current ratio towards PBV in basic industry and chemicals sector.
- H_{a3} : $\beta_3 \neq 0$** or if probability t-statistics $< \alpha$ then there is a significant partial influence of current ratio towards PBV in basic industry and chemicals sector.
- H₀₄ : $\beta_4 = 0$** or if probability t-statistics $> \alpha$ then there is no significant partial influence of debt to equity ratio towards PBV in basic industry and chemicals sector.
- H_{a4} : $\beta_4 \neq 0$** or if probability t-statistics $< \alpha$ then there is a significant partial influence of debt to equity ratio towards PBV in basic industry and chemicals sector.
- H₀₅ : $\beta_5 = 0$** or if probability t-statistics $> \alpha$ then there is no significant partial influence of return on assets towards PBV in basic industry and chemicals sector.
- H_{a5} : $\beta_5 \neq 0$** or if probability t-statistics $< \alpha$ then there is a significant partial influence of return on assets towards PBV in basic industry and chemicals sector.

4.3. F-Test

The f-test will help researcher in determining the simultaneous influence of a set of independent variables towards dependent variable. The hypothesis of f-test is:

H₀₆ : $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ or if probability f-statistics $> \alpha$ then there is no significant simultaneous influence of firm size, earnings growth, current ratio, debt to equity ratio, and return on assets towards PBV in basic industry and chemicals sector.

H_{a6} : at least there is one $\beta_i \neq 0$ or if probability f-statistics $< \alpha$ then there is significant simultaneous influence of firm size, earnings growth, current ratio, debt to equity ratio, and return on assets towards PBV in basic industry and chemicals sector.

4.4. Scope of the research

This study is conducted with ten samples of basic industry and chemicals firms listed on Indonesia Stock Exchange by analyzing the influence of financial performance which is represented by firm size, earnings growth, current ratio, debt to equity ratio, and return on assets towards the price to book value. The samples chosen have total assets less than IDR 35 trillion and have no negative earnings.

4.5. Sample

The sample provides population means, the entire group of individuals or objects that the researcher is interested to analyze (Sekaran and Bougie, 2011). Population is

a very large number of individuals or objects which is not feasible to manage; therefore a part of population is selected for research purpose. In this study, research population is focused on basic industry and chemicals firms listed in Indonesia Stock Exchange. Based on annual Indonesia Stock Exchange report period 2014, there are 65 firms which are categorized in this sector. Those ten firms represents each subsector, with the proportion of sample from each subsector are as Table 1.

4.6. Source of Data

This research uses secondary data since the data are already published and can be accessed through official website such as Indonesia Stock Exchange, related firms, and as well as the other websites that contain necessary information for this research. The data that used in this research is annually data during period 2009 until 2014 with source of data are taken from annual report of basic industry and chemicals firms which are being researched and IDX statistics annually. After the data were gathered, the data were filtered by the criteria listed on the sampling design in order to get sample size.

Therefore, this research adopts documentary method since researcher try to study about certain phenomenon by analyzing the documents which contain information needed.

Table 1. Sample Proportion

Subsector	Number of Firms	Number of Samples	Firm's Stock Ticker
Animal Feed	4	1	CPIN
Cement	5	1	INTP
Ceramics, Glass, Porcelain	6	1	AMFG
Chemicals	10	1	UNIC
Metal and Allied	16	2	CTBN and LION
Plastics & Packaging	13	2	AKPI and IGAR
Wood, Pulp & Paper	11	2	KDSI and TKIM
Total	65	10	

The firms which have been selected as the sample in this study are:

1. Argha Karya Prima Industry Tbk. (AKPI)
2. Asahimas Flat Glass Tbk. (AMFG)
3. Champion Pacific Indonesia Tbk. (IGAR)
4. Charoen Pokphand Indonesia Tbk. (CPIN)
5. Citra Tubindo Tbk. (CTBN)

6. Indocement Tunggal Prakarsa Tbk. (INTP)
7. Kedawung Setia Industrial Tbk. (KDSI)
8. Lion Metal Works Tbk. (LION)
9. Pabrik Kertas Tjiwi Kimia Tbk. (TKIM)
10. Unggul Indah Cahaya Tbk. (UNIC)

The research adopts panel data, in which the elements are the time series and cross sectional data. The time series data is six years (2009-2014) while data are taken annually, and cross sectional data refer to ten firms. The researcher chooses six years because the published data are limited by the firms. Therefore, the total observation data are six years multiply by ten firms which are 60 data (Gujarati, 2004). Since the cross section unit has the same number of time series observations, then this research is using balanced panel data.

Roscoe (1975) in Sekaran and Bougie (2011) stated that the sample size larger than 30 and less than 500 are adequate for most research. In addition, in using multiple regression analysis the sample size should be ten times or more as large as the total variables which are used in the research. Thus, as this research uses six variables, the sample size should be 60 data (six variables multiply by ten times).

5. The Result and Discussion

5.1. Descriptive Statistics

Descriptive statistic provides general information of the variables in the research which are being tested. Mostly, it shows the calculation results of mean, minimum, maximum, and standard deviation for each variable. The summary descriptive statistic of each variable for this research is shown in Table 2 using Eviews version 9.

Table 2. Descriptive Statistics

	PBV_Y	SIZE_X1	EGR_X2	CR_X3	DER_X4	ROA_X5
Mean	1.61777	14.7607	0.35493	3.37053	0.78794	0.11317
Maximum	5.52762	17.2734	6.92928	9.44105	2.62851	0.43240
Minimum	0.20000	12.5112	-0.74518	1.13194	0.15364	0.00660
Std. Dev	1.46358	1.46087	1.21819	2.16758	0.65176	0.09654
Observations	60	60	60	60	60	60

5.2. Multiple Regression Analysis

Table 3 shows the result of multiple regression by adopting random effect model.

Table 3. Multiple Regression Analysis Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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C	-6.404082	0.817797	-7.830893	0.0000
SIZE_X1	0.575471	0.058130	9.899694	0.0000
EGR_X2	-0.179014	0.043634	-4.102598	0.0001
CR_X3	-0.092649	0.020587	-4.500354	0.0000
DER_X4	-1.028114	0.118821	-8.652658	0.0000
ROA_X5	6.303170	0.805653	7.823677	0.0000

The column labeled “Coefficient” explains the estimated coefficients. By holding all other variables fixed, it can measure the marginal contribution of independent variables on dependent variable. The multiple regression equation will be formulated based on the regression coefficient of each independent variable. Based on the table 3 above, the multiple regression equation will be formed as follows:

$$Y = -6.404082 + 0.575471 X_1 - 0.179014 X_2 - 0.092649 X_3 - 1.028114 X_4 + 6.30317 X_5$$

5.3. Coefficient of Determination

The coefficient of determination (R^2) aims to measure the ability of independent variables to influence the dependent variable (Winarno, 2011). This research uses more than two independent variables then it should use the Adjusted R-squared. The result for coefficient of determination will be shown by Table 4.

Table 4. Coefficient Determination Result

Weighted Statistics	
R-squared	0.694251
Adjusted R-squared	0.665940

Coefficient determination considered as good when the value is closer to one, which indicates strong capability to influence dependent variable (Baltagi, 2008). As displayed by table 4 above, the result of adjusted R-squared is 0.66594. It means that all independent variables, which are firm size, earnings growth, current ratio, debt to equity ratio, and return on assets provide 66.594% influences simultaneously towards price to book value. The rest of 33.406% is influenced by other variables which are not examined in this study.

5.4. Discussion

a. The Influence of Firm Size towards Price to Book Value

The first hypothesis states that “There is significant influence of firm size towards price to book value in basic industry and chemicals sector.” Firm size has positive influence towards the price to book value, which is indicated by coefficient regression of 0.575471. It means that an increase in firm size leads to increments in price to book value. Weston and Brigham (2000) stated that large firm has more access to the capital market, which means the firm is flexible and

has an ability to obtain funds in the short term from debtors or investors due to more assets that they have, compared to small firms. Thus, the more total assets owned by a firm, the larger a firm is which will cause a tendency to attract more investors to the firm since large firms has better control towards market conditions (Soliha and Taswan, 2002). The investors will seize such facility as a positive signal and good prospect. As a result of many attracted investors, the demand for its stocks will increase thus the price to book value will go up. This is proven by the research of Hidayah (2014), who found that positive significant influences between firm size and price to book value.

The result of this research also matches with the research done by Febrianti (2012) and Sofyaningsih and Hardiningsih (2011) who proved that firm size has positive and significant influence towards price to book value. Larger firm shows that the firm has reached a stage of maturity where at this stage the firm generates positive cash flow and is considered to have good prospects within a relatively long term, but it also reflects that the firm is relatively more stable and able to generate profits better than firm with small number of total assets. Based on the discussion above, it can be concluded that in case of basic industry and chemicals sector for period of 2009 to 2014, investors prefer large firms than small firms to invest their money in due to the flexibility and stability large firms have.

b. The Influence of Earnings Growth towards Price to Book Value

The second hypothesis states that “*There is significant influence of earnings growth towards price to book value in basic industry and chemicals sector.*” Earnings growth has negative influence towards the price to book value, which is indicated by coefficient regression of -0.179014. It means that an increase in earnings growth will decrease the price to book value. Febrianti (2012) stated that the more rapid the growth rates of a firm, the more funds needed to finance the expansion. Brigham and Gapenski (1997) state that firm with high growth rates tends to require huge amount of funding from external sources.

Due to the greater need for funds, the firm tends to have more retained earnings which resulting in smaller dividend to stockholders. As the low dividend-paying ability, the firm will no longer attractive to investors, therefore the demand for the stock will decrease and price to book value will decline. This indicates that firm with high growth will be responded negatively by investors. This founding is supported by Kuswanto and Taufiq (2010) who found negative and significant influence of earnings growth towards price to book value. The investors prefer to invest their money in more stable firm rather than firm with rapid growth which needs more financing; therefore, it will affect its price to book value.

c. The Influence of Current Ratio towards Price to Book Value

Table 3 provides information to accept the third hypothesis which is “*There is significant influence of current ratio towards price to book value in basic industry and chemicals sector.*” The significant value of current ratio is 0.0000.

Current ratio has negative influence towards the price to book value, which is indicated by coefficient regression of -0.092649. It means that an increase in current ratio will decrease the price to book value. Theoretically, current ratio is positively related to price to book value. The higher the current ratio is, the higher the value of the firm, vice versa. Investors will respond positively to liquid firms, as the result, the stock price will rise and price to book value will also increase (Febrianti, 2012).

However, Riyanto (1995) stated that if the increasing liquidity does not raise the dividends but increase the free cash flow within the firm, then there will be idled money within the firm. A firm which has a high liquidity due to large amounts of cash flow means the turnover rate is low and reflects the excess cash flow. High liquidity value will have bad impact towards earnings power since there is idle cash or excess working capital; the idle cash or excess fund will decrease the opportunity to generate more earnings. Declining firm's earnings will result in a decline in stock prices, which means also price to book value will also go down. The management considered the firm which has high liquidity demonstrated poor management performance due to idle cash balances, excessive inventories or ineffective firm's credit policy, resulting in high accounts receivable (Hanafi and Halim, 1996).

Higher liquidity shows ineffectiveness of the firm's management to manage excessive current assets, which can be used by the firm to pay dividends, pay long-term debt, fund operations and investments with more returns rather than being idle. Investors will seize it as a negative signal because firms have to bear the capital costs, thus price to book value will decrease as investors' confidence in related firms are faded. This founding is supported by Lins and Kalcheva (2007) who found that liquidity has negative and significant influence towards value of firm.

Based on the discussion above, it can be concluded that current ratio has negative significant influences to price to book value in basic industry and chemicals sector. Negative sign explains that during 2009 to 2014 the firm's current assets are rated by investors has not been effectively used for the operations so this may result in decreased profits to be obtained by the firm thus reducing the demand for the stocks.

d. *The Influence of Debt to Equity Ratio towards Price to Book Value*

The forth hypothesis states that “*There is significant influence of debt to equity ratio towards price to book value in basic industry and chemicals sector.*” Debt to equity ratio has negative influence towards the price to book value, which is indicated by coefficient regression of -1.028114. It means that an increase in debt to equity ratio will decrease the price to book value.

The theory of Modigliani and Miller (1961) stated "*Firms would be able to increase its value when using the maximum debt in its capital structure.*" That is, the usage of debt gives positive influence towards value of firm since the interest expense could reduce tax payments. Interest allows the reduction of tax payments as an expense, but dividend payments to shareholders cannot be deducted.

However, this research finding contradicts with theory, the increasing debt will negatively affect price to book value. The reason underlies in this result is Modigliani and Miller theory abandoned the bankruptcy cost. The issue that related to bankruptcy tends to occur when the firm uses more debt on its capital structure (Brigham and Houston, 2001). When the bankruptcy cost is high, the cost of debt will also arise because the creditors will charge higher interest rate to compensate for the increase in bankruptcy risk. Instead, the present value of financial distress may result in decreased value leveraged firm (Sartono, 2008).

The interest expense from debt usage will deduct the tax expense. However, the excessive usage of debt will bring disadvantage for the firm since firm's obligation to repay the loan and interest, thus, the interest will rise higher than the tax savings (Sofyaningsih & Hardiningsih, 2011). It is supported by trade-off theory in which the usage of debt will increase the value of firm only until optimal point and after that point; the excess debt usage will decrease value of firm (Hermuningsih, 2013). Based on trade-off theory, as long as the benefits are greater, additional debt is allowed. If the costs for using debt are greater, then the additional debt is not allowed because it will decrease value of the firm. Nasehah and Widyarti (2012) found that debt to equity ratio has negative and significant influence towards value of firm since the costs of using debt is greater than its benefits.

As proposed by Warren *et al.* (2005) that "*The smaller debt to equity ratio, the better the firm's ability to survive in poor condition*". Lower debt to equity ratio indicates that the firm is still able to meet its obligations to creditors, which suggests better financial performance of the firm (Gibson, 2011). The higher the debt, the greater the risk of financial distress since the firm has to pay a huge amount of interest to the debt holders, in accordance with uncertain future earnings. The higher the debt to equity ratio shows the firm has relatively high bankruptcy risk, consequently, investors tend to avoid stocks that have high debt to equity ratio (Ang, 1997).

In addition, higher debt to equity ratio will affect the net earnings available to stockholders; including dividends distributed; since its obligations to pay debts take precedence over the distribution of dividends (Sartono, 2008). As the low dividend-paying ability and high risk firm, the firm will no longer attractive to investors, therefore the demand for the stock will decrease and price to book value will decline. As a conclusion, this study which used basic industry and chemicals in the period of 2009 to 2014 obtains the result that debt to equity ratio

has negative significant influences to price to book value since firms with high debt to equity ratio is more risky and not attractive for investors.

e. *The Influence of Return on Assets towards Price to Book Value*

Table 3 provides information to accept the fifth hypothesis of “*There is significant influence of return on assets towards price to book value in basic industry and chemicals sector*” with the significant value of 0.0000. Return on assets has positive influence towards the price to book value, which is indicated by coefficient regression of 6.30317. It means that an increase in return on assets will lead to increments of price to book value.

Signaling theory describes the urge of the firm to provide reliable financial information to investors and creditors since there is asymmetry of information (Febrianti, 2012). The published information is an announcement to give a signal to investors in making investment decisions (Jogiyanto, 2010). If the information contains good news, it is expected that the market will react to the information by increasing stock price. Brigham & Houston (2006) mentioned that return on assets shows the ability of a firm to gain profit from the utilized or invested assets in a period. Therefore, increasing return on assets will increase the price to book value since the higher the ratio level, the bigger the profitability of a firm. Then the higher a firm’s ability to earn profit, the more efficient a firm’s management (Gibson, 2011). As a result, such thing can be a positive sign for investors to invest their money in order to obtain certain return.

The level of return obtained indicated how well the value of firm from investors’ point of view (Brigham and Houston, 2001). If the firm recorded a huge profit level, it will motivate investors to invest in the stock. Indeed, the management tries to give signal to investors about firm’s good prospect by publishing financial report. Thus, based on the information about firm’s good prospect from financial report, the stock price and demand for the stock will increase as well. The rising stock price will increase the value of firm which is indicated by price to book value. The finding of this research is in accordance with signaling theory, in which the good information will attract investors to buy its stock; therefore price to book value will increase. The result of this research is supported by Hidayah (2014) and Marangu and Jagongo (2014) who found return on assets has positive and significant influence towards price to book ratio.

Sofyaningsih and Hardiningsih (2011) also supported this statement by founding positive and significant relation between return on assets and price to book value. Firm with high profitability, is able to generate high profits to maintain equity remained positive and even increased. Febrianti (2012) stated that firm which is able to generate more profits are also likely be able to do the funding by its internal cash resources, so it has smaller obligation to pay interest on the debt, and the profit generated can be distributed to stockholders in the form of dividends. Thus, the management tries to give signal to investors about firm’s

good prospect by distributing dividends which is generated from high earnings so the investors will respond positively and demand for the stocks is increasing, resulting to the increments of price to book value (Febrianti, 2012).

As a conclusion, this study which used basic industry and chemicals in the period of 2009 to 2014 obtains the result that return on assets has positive significant influences to price to book value. It means that investors are keen to profitability value before they make any investment decision.

f. Simultaneous Influence of Firm Size, Earnings Growth, Current Ratio, Debt to Equity Ratio, and Return on Assets towards Price to Book Value

The hypothesis states that “*There is significant simultaneous influence of firm size, earnings growth, current ratio, debt to equity ratio, and return on assets towards price to book value in basic industry and chemicals sector*” is accepted. This was proven by the probability value of f-statistic which is 0.0000 less than 0.05. All independent variables are simultaneously influence the dependent variable. Firm size, earnings growth, current ratio, debt to equity ratio, and return on assets are able to influence price to book value by 66.594% while the rest of 33.406% is influenced by other variables which are not examined in this study.

6. Conclusions and Recommendations

The larger firm size reflects that the firm is relatively more stable and able to generate more profits. The investors will seize such facility as a positive signal and good prospect. As a result, the demand for its stocks will increase thus the price to book value will go up. The more rapid the growth rates of a firm, the more funds needed to finance the expansion. Due to the greater need for funds, the firm tends to have more retained earnings so dividend to stockholders will be smaller. Hence, the firm will no longer attractive to investors, thus demand and price to book value of stock will decline. Investors will seize it as a negative signal thus reducing the demand and price to book value for the stocks.

However, it is in accordance with trade-off theory because the excessive usage of debt will bring disadvantage for the firm since the firm has relatively high bankruptcy risk, consequently, investors tend to avoid stocks that have high debt to equity ratio. Therefore the demand for the stock will decrease and price to book value will decline. The finding of this research is in accordance with signaling theory, in which the management tries to attract investors to buy its stock by publishing financial statements to show its good prospect. Firm with high profitability is able to generate high profits. As a result, such thing can be a positive sign for investors to invest their money in order to obtain certain return. Thus, the stock price will increase and affect the price to book value positively.

We propose further study of this issue in another research with strong financial performance, the firm should also have good management since it will stimulate

price to book value to go up. Also, the firm should have good debt management to implement the trade-off theory to its best interest; to maximize benefits of debt usage. A good management will lead to better financial performance.

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