

The Effect of Capital Structure, Firm Growth and Dividend Policy on Profitability and Firm Value of the Oil Palm Plantation Companies in Indonesia

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Abstract

This research aims to test and analyze the effect of capital structure, firm growth, and dividend policy on the firm value, either direct or indirect. This research uses secondary data from the quarterly financial statements of oil palm plantation companies listed in the Indonesian Stock Exchange for period 2007-2011. Based on the recapitulation, the data that meet the criteria for analysis are from 5 companies of the 13 companies listed in the Indonesian Stock Exchange. The research results shows that the capital structure negatively and significantly influences the profitability and the firm value. The firm growth negatively and significantly influences the profitability and the firm value. The dividend policy positively and significantly influences the profitability but positively and not significantly influence the firm value. The profitability positively and significantly influences the firm value. The capital structure negatively and significantly influences the firm value through profitability. The firm growth negatively and not significantly influences the firm value through profitability, and the dividend policy positively and significantly influences the firm value through profitability.

Keywords: Capital structure, Dividend policy, Firm growth, Firm value, Profitability

I. Introduction

Indonesian palm oil industry has grown significantly in the last twenty years. Since 2006, Indonesia has become the largest palm oil producer in the world. In 2008, the total production of crude palm oil (CPO) of Indonesia and Malaysia account for about 85% of total world production of palm oil. Along with the development of the palm oil industry in Indonesia, the companies engaged in the oil palm industry grow as well.

There are 15 plantation sector companies that have been listed in the Indonesia Stock Exchange in oil palm sub-sector (www.idx.co.id, 2012). Each company is trying to improve or add the area to achieve economies of scale so that the company can be more profitable. Based on the data from Statistics Indonesia, the total number of oil palm plantation area in 1979 is 260,116 hectares, with palm oil production as much as 641,240 tons. In 2015, the plantation area is 11,754,801 hectares, with total production 31,284,306 tons (Statistics Indonesia, Oil Palm Plantations Commodities, 2012-2016).

The accretion area is an indicator of the growing number of funds or financing needed for the development of oil palm plantations of the company, as a result of growth in the managed plantation area. The development of plantation area, of course requires the most economical sources of financing and enables the accelerated realization of oil palm plantation development, both internally and externally, by considering cash outflow during the development.

The phenomenon that occurs indicates that a growing number of oil palm plantation companies that use internal financing sources are going public, that is obtaining funding from the public for oil palm plantation development by trading in their shares in the Indonesia Stock Exchange. This option is taken with the consideration that the period of the oil palm plantation development until it can produce (the investment period) is three years. It can be stated that during the three years of development, there is no cash inflows for operational of the company.

In making of investment decisions, the investors in the stock market need information on stock valuation. Stock valuation can be done in three approaches, namely: book value, market value and intrinsic value. The book value is the value of the shares according to the company's financial statements. The market value is the value of shares in the stock market, and intrinsic value is the actual value of the shares. An understanding of these three concepts is necessary and useful because it can be used to determine the growing stocks and undervalued stocks.

One approach in determining the intrinsic value of a stock is the price book value (PBV). PBV is the ratio between the stock market price and book value per share. Debt policy can be used to create firm value desired, but the debt policy also depends on the firm growth which is also related to the firm size. It means that large company that have a good growth rate is relatively easier to access the capital markets. Company with good growth rate shows the company's ability to pay interest on debt, if it is used to run company's operations. Therefore, it is relevant to relate the capital structure with the firm growth, dividend policy, and firm value.

Based on the background that has been explained before, the purpose of this study is to test and analyze the effect of capital structure, firm growth, and dividend policy on profitability and firm value of oil palm plantation companies in Indonesia, either direct or indirect.

II. Theoretical and Empirical Review

Titman, et al. (2011) state that financial management is the behavior of how people and companies evaluate their investments and raise capital to finance the company's operations. Each party related to the management need to study about topics such as strategic planning, personnel, organizational behavior and human relationships, which together cover the use of money currently with the hope to generating more money in the future.

There are three questions in management which underlying the behavior of decision making, such as: (1) which long-term investments that should be executed (capital budgeting), (2) how the company will earn funds to finance (capital structure), and (3) how does the company manage its cash flow in carrying out operations day by day (working capital management).

In the later development, agency theory states that the company which separates the functions of management and ownership would be vulnerable to the agency conflict. This is caused by the separation of roles between the shareholders as principal and manager as agent. The manager will ultimately have a significant controlling interest in terms of how they allocate funds from investors. Titman, et al. (2011) state that managers who do not have or have little shares of the company will be less enthusiastic or motivated to work for the interests of shareholders. Managers will act in personal interests and other financial benefits of a personal nature.

Dividend payment is a way to reduce agency cost due to the reduction of conflict between management and shareholders. Dividend payment shows that the management is already good in managing the company, and it can be a positive signal for shareholders to reinvest in the company. Easterbrook (1984) explains that the dividend payment will reduce the sources of funds controlled by the manager, thus reducing the manager power. This makes dividend payment similar to the capital market monitoring, which happened when the company obtained new capital from external parties, thereby reducing agency costs.

It is understood that dividend payment may reduce the agency problem, but until now, the studies that discuss the direct relationship between dividends and firm value still have ambiguous results. Miller and Modigliani (1961) in Brigham and Houston (2011) argued that with the perfect markets assumption, rational behavior, and perfect certainty, it is not relevant to find the relationship between the firm value and dividend policy. However, in actual practice in the real market, it was found that the dividend policy seems to be the problem, and loosen one or more assumptions of perfect capital market establishing the theories that became a contrary of dividend policy theory.

Brigham and Houston (2011) stated that the theory of modern capital structure began in 1958 when Professor Franco Modigliani and Merton Miller published the most influential financial articles. This theory is proved, with a set of very restrictive assumptions, that the firm value is not affected by the capital structure. In other words, the results of this theory show how a company that finance its operations will not mean anything, so that the capital structure is an irrelevance. However, studies of this theory are based on some assumptions that are not realistic, including the following: 1) There are no brokerage fees, 2) No taxes, 3) There are no bankruptcy costs, 4) Investors can borrow at the same rate with companies, 5) All investors have the same information with the management about the company's investment opportunities in the future, 6) EBIT is not affected by the use of debt.

Although some of these assumptions are clearly unrealistic, the result of this irrelevant theory has a very important meaning. By showing the conditions in which the capital structure is irrelevant, this theory has also provided clues about what things are needed in order to make the capital structure becomes relevant, which affect the firm value. The work of this theory marked the beginning of modern capital structure research, with further research focusing on loosening the assumptions of this theory to develop the capital structure theory that is more realistic.

Stulz (1990) found evidence that in company with low growth opportunity, the debt ratio is positively related to the firm value. While in company with high growth opportunity, the debt ratio is negatively related to the firm value. Therefore, the effect of debt on the firm value is highly dependent on the existence of growth opportunities. Dennis (2006) stated that the financial ratio analysis is the best method used to obtain the company's overall financial condition.

Dividend policy is often regarded as a signal to investors in assessing the merits of the company. This is because the dividend policy may effect the company's stock price. There are some views on the effect of dividend policy on firm value: Brigham and Houston (2011) stated the dividend irrelevance theory that a firm's dividend policy has no effect on either its value or its cost of capital. Miller and Modigliani explained that based on the investment decisions of companies, the dividend payout ratio is only the details and do not affect shareholder wealth. The firm value is determined only by the ability to generate profits from the company's assets or its investment policy. How the profit is splitted between dividends and retained earnings, will not affect the firm value.

Gordon and John Lintner in Brigham and Houston (2011) stated that the dividend is more certain than capital gains, also called as the theory of bird in the hand, that is the belief that dividend income has a higher value for investors than capital gains. This theory assumes that dividends is more certain than capital income. Signal is an action taken by a firm's management that provides clues to investors about how management views the firm's

prospects.

Clientele effect is the tendency of companies to attract the type of investors who like its dividend policy. Miller and Modigliani's argument stated that a company establishes a special dividend distribution policy, which in turn attracts a bunch of enthusiasts or clientele consists of investors who liked the special dividend policy (Brigham and Houston, 2011).

In this study, the dividend policy is proxied by Dividend Payout Ratio (DPR), since DPR can describe managerial opportunistic behavior, which is to see how much profit is distributed to shareholders as dividends and how much is stored in the company (Subramanyam and Wild, 2010).

Profitability is a description of management's performance in managing the company. There are various measurements of profitability of the company, such as operating profit, net profit, return on investment or return on assets, and return on equity. Brigham and Houston (2012) states that the ratio of profitability reflects circumstances that have occurred in the past, but the report also provides clue about the things that are important, namely the possibility of what will happen in the future.

2.1 The Effect of Capital Structure on Profitability

The research conducted by Denise and Robert (2009) found the investment strategy based on the ownership capital of the company (equity) was positively related to profitability. This means, if companies obtain greater results from the loan rather than the interest to be paid, then the returns (profit) for the owners will increase. Research conducted by Kusumasari, et al. (2009) found that the capital structure has no significant effect on the financial performance. While the research conducted by Safieddine and Titman (1997) found that the company's financial performance increases along with the increase in leverage recapitalization.

2.2 The Effect of Capital Structure on Firm Values

Modigliani and Miller (1958) in Brigham and Houston (2011) showed that the firm value is not affected by capital structure. Such evidence is based on a set of assumptions: there are no brokerage costs, no taxes, no bankruptcy, investors can borrow at equal interest rates as the company, all investors have the same information, EBIT is not affected by the cost of debt. These results indicate the conditions under which capital structure is irrelevant. Modigliani and Miller also provided guidance that capital structure to be relevant so that it will affect the firm value.

The theory of trade-off and leverage is a theory that explains that the optimal capital structure is found by balancing the benefits of debt with interest rates and higher bankruptcy (Brigham and Houston, 2011). Furthermore, Modigliani and Miller approach expressed that in the presence of the corporate income tax, the firm value will increase due to the increasing use of debt. It should be noted that financial distress and agency cost may result in decreased value of the firm that has leverage.

Soliha and Taswan (2012) in their research indicated that the debt policy has positive and insignificant effect on firm value. Driffield, et al. (2007) in his research indicated that ownership structure has a significant influence on the leverage (DER) and the firm value (Tobin's Q) in Indonesia, Korea, Malaysia, but insignificant in Thailand. The research conducted by Syarif (2007) found that the increase in debt can increase the firm value. While study with different result conducted by Arijit (2008) in Kusumajaya (2011) showed that the use of leverage has a negative impact on the chances of improving the firm value in the future.

Sudjoko and Soebiantoro (2007) found that the debt policy as measured by debt-to-equity ratio (DER) and the firm size as measured by total assets, have positive and significant impacts on price book value (PBV). The same result was found by Ekayana (2007). While Chen (2002) found that capital structure has positive and insignificant effect on the firm value. Chen also proved that the firm value will increase if the company chose no debt in the capital structure.

2.3 The Effect of Firm Growth on Profitability

Greiner (1972) stated that the relationship between the firm growth and profitability can be positive or negative. Otherwise, that growth can contribute to the destruction of informal relationships formed within the company from time to time. Greater growth requires greater formality in the form of employment relationship, which is difficult to be achieved efficiently in a short term. This condition causes the company's profitability is reduced. On the other hand, greater growth can generate greater profitability, as a result of the increased motivation of employees who expect greater salary in the future, resulting from the larger size of the company. In this study, it is concluded that the impact of the firm growth on profitability is everything, and depends on the ability of management to motivate the employees. If a positive effects on the employee motivation have greater appeal than the negative effects caused by changes in the employment relationships, the firm growth could increase the firm profitability. If not, firm growth could decrease the firm profitability.

Roper (1999) who studied Ireland companies, and Gschwandtner (2005) who studied American companies, found insignificant relationship between growth and profitability. Using a sample of Portuguese

companies, Serrasqueiro (2009) contributed to the literature that shows evidence of a positive and significant relationship between growth and profitability. Therefore, it can be concluded that the effect of employee motivation as a consequence of the possibility of a greater income in the future, may be relevant for the company, to overcome the negative effects arising from the temporary inefficiency of the new working relationships which are more formal. Methodologically, to calculate the relationship between growth and profitability of the company, dynamic probe panels are used: GMM (1991), GMM system (1998) and LSDVC (2005). At first, it was used to calculate the relationship between growth and profitability. Then, adding another variable that explains the profitability to simultaneously testing the significance of the relationship between growth and profitability, and improve the quality of the analysis performed. The variables used to explain the profitability are: 1) size; 2) Debt; and 3) Liquidity (Adams and Buckle, 2003; Goddard, et al., 2005). By using a dynamic probe panel, it can determine the degree of relatedness of profitability, as well as estimate the relationship between profitability in prior periods to profitability in the current period.

2.4 The Effect of Firm Growth on Firm Value

Kallapur and Trombley (1999) stated that the realization of the firm growth is measured by the value of firm growth, including growth of assets and equity. Assets of the company show the decision use of funds or investment decisions in the past. Assets are defined as resources that have the potential to provide economic benefits to the company in the future. The resource that could generate cash inflows or reduce cash outflow, can be called as an asset. These resources will be recognized as an asset if the company obtained the right to use such assets as a result of a transaction or exchange in the past and it is able to measure the future economic benefits, quantified with sufficient accuracy level.

Helfert (1997) explains that the growth is the impact of the cash flow of the company's operational changes, due to growth or decline in business volume. The firm growth is expected by the company's internal or external, for it is a good signal of the development of the company. From the perspective of investors, the firm growth is a sign that the company has a favorable aspect, and the investor would expect a rate of return on investments made, which showed a good growth.

Stulz (1990) found evidence that if the company faces low growth opportunity, the debt ratio is positively related to the firm value. While when the company faces high growth opportunities, the debt ratio is negatively related to the firm value. Therefore, the effect of debt on the firm value is highly dependent on the existence of growth opportunities. The research conducted by Sriwardany (2006) proved that the firm growth has a positive influence on stock price changes. This means that information about the firm growth will be responded positively by investors, thereby increasing the stock price. While a different result found by Safrida (2008), proved that the firm growth has insignificant negative effect on firm value.

2.5 The Effect of Dividend Policy on Profitability

Research on the effect of dividend policy on profitability is related to previous research conducted by Lee, et al. (2012) which analyzed the relationship between the current dividend changes with changes in future earnings in the companies that going public in the Malaysia Stock Exchange, in 1998-2007. The results show that the change in the current dividend is significantly associated with contemporary profit changes. Current dividends have a weak correlation with changes in profit in the first year, and the majority are not related to earnings in the second and third year. This study also found weak evidence which states that future earnings are associated with changes in the size of dividend and dividend stability.

This finding has at least three implications. First, the results may reflect the dividend policy practice of local Malaysian companies. Malaysian local manager does not state the important of using dividends as a signaling device of future earnings. In other words, expectations of future earnings is not a decisive factor in the current dividend policy of the companies. Second, these findings have important implications for investors, especially for those who depend on dividend information for the investment decision. Third, these findings add to the evidence that is needed on this topic in the local market of Malaysia.

Amidu (2007) conducted a study of how the dividend policy affects the performance of the go public company in the Ghana Stock Exchange (GSE). The result shows there is a positive relationship between Return on Asset (ROA), dividend policy, and sales growth. The results also support the idea that the dividend policy is relevant to the company's performance. The results of this study indicate that the major companies in GSE are in lower performance based on ROA. The result of this study also revealed a negative association between ROA and Dividend Payout Ratio and leverage.

Merekefu and Ouma (2012) examined the relationship between dividend payout and the performance of the go public company in the Nairobi Security Exchange (NSE), Kenya. The results show that the dividend payout has a positive and significant effect on the firm performance.

The results of this study also identify that the main factors affecting the dividend policy of a go public company are: profitability, dividends pattern of the past, the rule of law, financial leverage, investment

opportunities, growth rates and capital structure. Other factors such as the ownership structure, expectations of shareholders, shareholder tax, the capital structure, growth rates of similar industry and access to capital markets, can also be used as considered variables in designing dividend policy, although it will widely affect dividends.

Ajanthan (2013) examined the relationship between dividend payout and the profitability of the go public hotels and restaurants in Colombo Stock Exchange (CSE), Sri Lanka. The results indicate that dividend payments have a significant impact on the profitability. This means that an increase in a company's financial well-being tends to positively affect the level of dividend payments. Further, this study ensures that there is a significant positive relationship between income and profitability of the company, and between total assets and profitability.

Lintner (1956) stated that in determining dividend policy, top management (senior managers) make the estimation model consists of the following variables: earning stability, equipment expenditure, the desire to use external funding, company size, ownership of control group and use of stock dividend. The research used sample of 600 companies listed in the stock exchange. He collected data by interviewing, and not all managers of 600 companies were interviewed in this study. From the findings, it is explained that most managers viewed current income and the target payout (dividend payout) are decisive in making the dividend policy.

2.6 The Effect of Dividend Policy on Firm Value

Several empirical studies show its support for the dividend irrelevance theory. Black and Scholes (1974) examined the relationship between the return of securities and dividend yields, by forming a well-diversified portfolio and rank the securities based on its systematic risk, and then arrange them according to the dividend for each risk group. Black and Scholes (1974) concluded that the dividend does not affect the return of the securities. Similarly, research conducted by Pettit (1976) showed that the price of the common shares is not determined by the dividend policy. The research result of Miller and Scholes (1983) found no evidence to support the statement that there is no effect of dividend policy on stock prices.

Several empirical studies show its support for the bird in the hand theory. Long (1978) carefully examined the case of Citizen Utilities, a company that has two groups of stocks that are similar in every aspects, except that one group received a cash dividends and other groups received stock dividends. He found evidence that shareholders prefer cash dividends. Bhattacharya (1979) confirmed the bird in the hand theory of Lintner (1962) and Gordon (1963), which explains that investors prefer high dividends because the dividends received risk reduce the uncertainty, compared to the profits that are not distributed in the form of retained earning (capital gains).

Baker and Farrelly (1989) conducted a survey of institutional investors to learn what is the important consideration in the company's dividend policy. Their findings show that experienced investors believe the dividend policy affect stock prices and dividends stability is very important. These results are consistent with Lintner (1956). Glen, et al. (1995) found evidence that firms in developing countries perform dividend payout policy with payout ratio two-thirds greater than the companies in developed countries. The companies in developing countries are more concerned with the dividend policy based on the payout ratio compared with monetary magnitudes.

Bajaj and Vijn (1990) use the samples from the period 1962 to 1987, showed that the level of dividend yield has a significant influence on the movement direction of stock prices. The study also found evidence that influences the level of the dividend yield has a strong influence on stock prices for small scale companies. This is due to lack of information of small scale companies, so the announcement of dividend payments is the key information for shareholders. Allen, et al. (2000), and Baker and Wurgler (2004) estimated that the dividend payments are the answers to requests from investors to dividend requirements.

DeAngelo and DeAngelo (2005) stated that the dividend policy is integral in influencing the wealth of shareholders. Therefore, dividend policy will affect the selection of investment. Research results of Graham, et al. (2005) provided evidence that the financial executives hesitate to make major changes in dividend policy, because such changes would alter the company's capital structure and poorly affect its share price. Amidu (2007) conducted a study to test whether the dividend policy affects the company's financial performance. This research was conducted on companies listed in the Ghana Stock Exchange (GSE), using data for eight years, from 1997 to 2004. The results supports the statement that the dividend policy is relevant to the firm value, as measured by Tobin's q, Return on Assets and Return on Equity.

Several empirical studies show its support for the tax preference theory proposed by Farrar and Selwyn (1967). Research result of Brennan (1970) show that investors do not like dividends and demand a higher return before taxes, to cover the taxes imposed. *Ceteris paribus*, stocks with greater dividend payments, then the price will be lower. Easterbrook (1984) stated that the more the dividends paid by the company, the less retained earning. As a result, companies should look for external costs for new investments. However, issuance costs for external funding become expensive due to the flotation cost. Therefore, they assumed that the dividend should be distributed as small as possible, as far as the funds can be used to invest in profitable projects or investment project that can provide positive Net Present Value (NPV).

Litzenberger and Ramaswamy (1982) examined the relationship between the dividend payment and the

return on securities using the model of Brennan (1970). The study concluded that the results of risk adjusted return will be higher for securities with higher dividend.

The company's net profit may be distributed to shareholders as dividends or held in the form of retained earnings to finance the company's investment. Dividend policy is a decision on the use of profits as the right of the shareholders. Dividend Payout Ratio essentially determines the portion of profits to be distributed to shareholders, and which will be retained as retained earnings. Brigham and Houston (2011) stated that the manager believes that investors prefer companies that have a stable dividend payout ratio. Dividend distribution will indicate that the company makes a high profit enough to be able to distribute it to shareholders. This will increase the market's view of the firm value. Aharony and Swary (1980) tested the effect of the announcement of dividends and earnings associated with the behavior of the stock. They used data on dividend announcement either preceded or followed by the announcement of earnings in a period of 11 days. The result shows that the dividend announcement provides more useful information than earning announcement. This can be seen from the positive market reaction to the dividend increase and a negative market reaction to the decline in dividends.

Research conducted by Sudjoko (1999) examined the information content of dividends and test the efficiency of the market in the Indonesia Stock Exchange. Sudjoko used sample of 150 companies and divided into 4 groups: companies that increase dividends, companies that increase dividends consistently, the growing company that increase dividends, the company that increase dividends and does not grow. The final results showed that the dividend announcement brought a positive reaction to the market. This means that investors in the Indonesia Stock Exchange using the dividend announcement information as a tool for decisions making.

2.7 The Effect of Profitability to Value Company.

From the view of investors, forecasting the future is the essence of financial statements analysis. While from the view of management, financial statement analysis will be beneficial both to help anticipate the future conditions and more importantly, as a starting point for planning measures that increase the company's performance in the future. If management wants to maximize the firm value, they should take advantage of the company's strengths and improve the company's weaknesses. Financial statement analysis compares the company's performance with trends of another company in the same industry and evaluate the financial position over time. These studies will help management to identify any deficiencies they have and then take actions to improve its performance (Brigham and Houston, 2012).

Profitability is a description of management's performance in managing the company. Ang (1997) revealed that profitability (rentability) ratios demonstrate the company's success in generating profits. In this study, profitability is measured by return on equity, which show the rate of return generated from the capital provided by the owners of the company. In other words, ROE shows the benefits that will be owned by shareholders.

The growth of ROE shows the prospects of the company are getting better because it means the potential for increased company's profits. This is seen by investors as a positive signal from the company that will increase investor confidence, and will facilitate the management of the company to attract capital in the form of shares. If there is an increase in demand for shares of a company, then it will indirectly raise the price of such shares in the capital market.

Research conducted by Yuniasih and Wirakusuma (2006) in Kusumajaya (2011) found that financial performance, as measured by return on assets, has a significant positive effect on firm value. Sari (2005) proved that the factors that influence the firm value are the managerial ownership, leverage ratio, leverage and investment interaction, profitability and investment interaction. While research conducted by Carningsih (2008) proved that ROA negatively affect the firm value, and ROE positively affect on firm value.

III. Data and Research Method

3.1 Conceptual Framework of Research

Based on the theoretical and empirical studies that have been raised, then the research model is as follow:

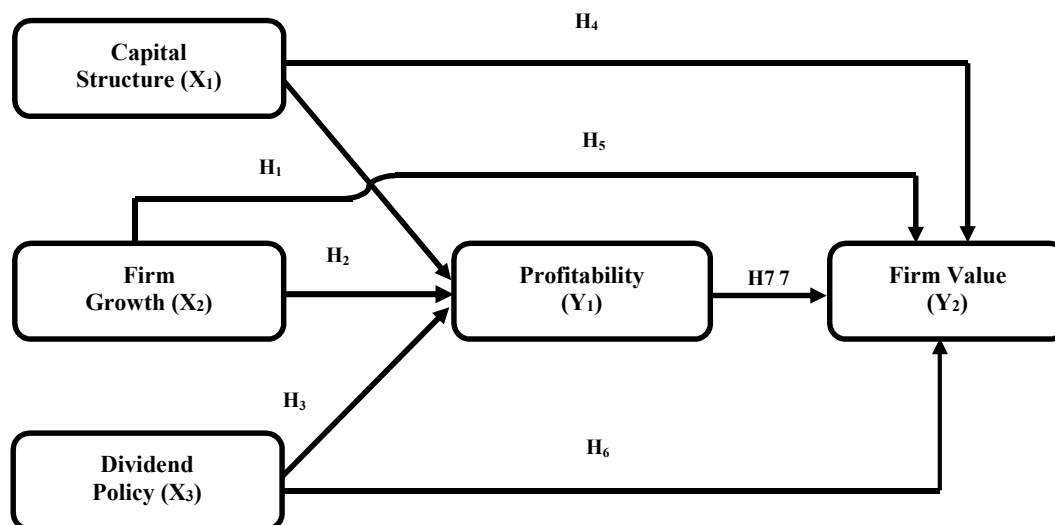


Figure 1. Conceptual Framework

3.2 Research Hypotheses

Based on the previous explanations, this study aims to test the following hypotheses:

- 1) Capital structure has negative effect on the profitability.
- 2) The firm growth has positive effect on the profitability.
- 3) Dividend policy has positive effect on the profitability.
- 4) The capital structure has positive effect on the firm value.
- 5) The firm growth has negative effect on the firm value.
- 6) Dividend policy has positive effect on the firm value.
- 7) The profitability has positive effect on the firm value.
- 8) The capital structure has positive effect on the firm value through the profitability.
- 9) The firm growth has positive effect on the firm value through the profitability.
- 10) Dividend policy has positive effect on the firm value through the profitability.

3.3 Research Method

This study focused on empirically testing the model of capital structure, the firm growth, profitability and firm value. The study was included in the verificative research category, meaning the research is done by verifying or testing the theories, especially the theory of financial and capital markets: static trade-off, pecking order theory, and the dividend relevance theory, which is done by testing the hypothesis (Glaser and Strauss, 1967). The theory regarding the dividend is one of the fundamental theories in financial management which discusses the functional relationship between dividend policy and the firm value. The irrelevance of dividend proportion states that the dividend does not affect the firm value. While the relevance of dividend proportion considers that dividends have relevant impact to the firm value. Another theory to be tested is a bird in hand theory (Gordon, 1959) which states that the dividend has an influence on the firm value. With this positivist approach, the required data are analyzed using SPSS statistical hypotheses with the path analyses. Data were collected by survey method as cross-sectional and time series data.

3.4 Population and Sample

The sample in this research is the oil palm plantation companies listed in the Indonesia Stock Exchange during the period of 2007- 2011, with a minimum area of 75 hectares, and has published financial statements over a period of 5 years in the Indonesian Capital Market Directory (ICMD). Based on these criteria, then the number of samples are 5 companies.

IV. Analysis Results

4.1 Data Analysis

The analysis in this research using path analysis which examines the effect of exogenous variables (X_1 , X_2 , X_3) on endogenous variables (Y_1 and Y_2). The capital structure is measured by debt equity ratio (DER) as X_1 , firm growth (FG) is measured by the growth of total assets as X_2 , and dividend policy is measured by dividend payout ratio (DPR) as X_3 . The endogenous variables consists of profitability (Y_1) and firm value (Y_2). The profitability is

measured by return on equity (ROE), and firm value is measured by price book value (PBV). Further, this study examines the effect of direct and indirect of total exogenous variables (X_1, X_2, X_3) on endogenous variables (Y_1 and Y_2).

Table 1. Result of Hypotheses Testing

No.	Variables Relationship	Causal effect		
		Direct Effect	Indirect effect through Y_1	Total
1	$X_1 \rightarrow Y_1$	- 0,197	-	- 0,197
2	$X_1 \rightarrow Y_2$	- 0,477	$(- 0,197 \times 0,190) = - 0,037$	- 0,514
3	$X_2 \rightarrow Y_1$	- 0,114	-	- 0,114
4	$X_2 \rightarrow Y_2$	- 0,147	$(- 0,114 \times 0,190) = - 0,022$	- 0,169
5	$X_3 \rightarrow Y_1$	0,281	-	0,281
6	$X_3 \rightarrow Y_2$	0,073	$(0,281 \times 0,190) = 0,053$	0,126
7	$Y_1 \rightarrow Y_2$	0,190	-	0,190

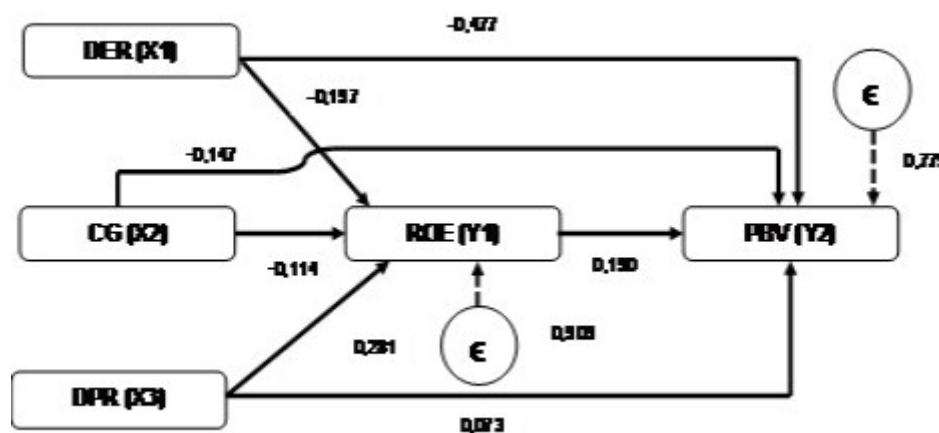


Figure 2. Result of Path Diagram

4.2 Analysis Results

4.2.1 The Effect of Capital Structure on Profitability

Hypothesis testing results show that the capital structure has a linear relationship with profitability. The regression coefficient of capital structure is - 0.197, with significance level 0.046. This means that capital structure has negative significant effect on profitability. This shows that if the capital structure (DER) is increased by one unit, profitability (ROE) will decline by 0.197 unit and vice versa. If DER is increased, ROE is getting smaller and vice versa.

4.2.2 The Effect of Capital Structure on Firm Value

Hypothesis testing results show that the capital structure has a linear relationship with the firm value. The regression coefficient of capital is - 0.477, with significance level 0.000. This means that capital structure has negative significant effect on the firm value. This shows that if the capital structure (DER) is increased by one unit, the corporate value (PBV) will decrease by 0.477 units and vice versa. If the DER is higher, then PBV will be smaller.

4.2.3 The Effect of Firm Growth on Profitability

In this study, the data of the firm growth is the data of the previous year, due to the influence of the current firm growth will not have an impact on profitability this year, but will have an impact in next year period. Hypothesis testing results show that the firm growth does not have a relationship with profitability. The regression coefficient is - 0.114, with significance level 0.228. This means that the firm growth has no negative significant effect on profitability.

4.2.4 The Effect of Firm Growth on Firm Value

Hypothesis testing results show that the firm growth has a linear relationship with the firm value. The regression coefficient is - 0.147, with significance level 0.071. This means that the firm growth has no significant negative effect on the firm value.

4.2.5 The Effect of Dividend Policy on Profitability

In this study, the data of dividend policy is the data of the previous year, due to the influence of this current

dividend policy has no impact on profitability of this year, but will have an impact on the subsequent years. Hypothesis testing results show that the dividend policy has a linear relation with profitability. The regression coefficient is 0.281, with significance level 0.005. This means that dividend policy has positive and significant effect on the profitability. This shows that the dividend policy (DPR) is increased by one unit, profitability (ROE) will increase by 0.281 units, and vice versa. If DPR is higher, then ROE will increase, and vice versa.

4.2.6 The Effect of Dividend Policy on Firm Value

Hypothesis testing results show that the dividend policy does not have a linear relationship with the firm value. The regression coefficient is 0.073 with significance level 0.402. This means that dividend policy has no significant positive effect on firm value.

4.2.7 The Effect of Profitability on the Firm Value

Hypothesis testing results indicate that profitability has a linear relationship with the firm value. The regression coefficient is 0.190 and the significance level 0.032. This means that profitability has positive significant effect on firm value. This show that if profitability (ROE) is increased by one unit, the firm value (PBV) will increase by 0.190 units, and vice versa. If the ROE higher, PBV will increase, and vice versa.

4.2.8 The Indirect Effect of Capital Structure on the Firm Value through Profitability

The regression coefficient of capital structure is - 0.037, with significance level 0.0478. This means that capital structure has a significant negative effect on the firm value through profitability. This shows that if capital structure (DER) is increased by one unit, the firm value (PBV) through profitability (ROE) will decrease by 0,037 units, and vice versa. If the DER is higher, the PBV through ROE will decrease and vice versa.

4.2.9 The Indirect Effect of Firm Growth on Firm Value through Profitability

The regression coefficient of firm growth is -0.022, with significance level 0.1449. This means that the firm growth has no significant negative effect on the firm value through profitability.

4.2.10 The Indirect Effect of Dividend Policy on Firm Value through Profitability

The regression coefficient of dividend policy is 0.053, with significance level 0.0180. This means that the dividend policy has a positive and significant impact on the firm value through profitability. This show that if the dividend policy (DPR) is increased by one unit, the firm value (PBV) through profitability (ROE) will decrease by 0,053 units, and vice versa.

V. Conclusion and Recommendation

Referring to the description in the previous analyses, the research conclusions can be drawn as follows:

- 1) Capital structure (DER) has a linear relationship with profitability (ROE) and firm value (PBV). DER has negative significant effect on ROE and PBV of oil palm plantation companies which go public in Indonesia Stock Exchange. This indicates that the companies have been pursuing a policy of capital structure that goes beyond the optimal capital structure that will maximize the company's share price. The average total debt of the companies are almost equal to their own capital (equity) in the amount of 93.018%. The increased DER has become a negative signal to investors, the magnitude threat of bankruptcy or potential impact of bankruptcy (Brigham and Houston, 2011).
- 2) The firm growth has no linear relationship with ROE, but has linear relationship with PBV. The firm growth has negative and insignificant effect on ROE and PBV. This is due to the characteristics of the palm oil industry which has the investment period about 3 years and start to produce in the fourth year and will have a break even point in the eighth year with the payback period is approximately 8.3 years.
- 3) Dividend policy (DPR) has a liner relationship with ROE, and has no liner relationship with PBV. DPR has positive and significant impact on ROE, but insignificant on PBV. The effect of DPR on ROE indicates that the companies use the DPR based on the investor preferences on dividends versus capital gains, or use the optimal dividend policy (Brigham and Houston, 2011) .While the DPR does not significantly influence the PBV because companies less responding to the increased DPR as a positive signal, according to signaling theory (Brigham and Houston, 2011).
- 4) ROE has a linear relationship with PBV. ROE has a positive and significant impact on PBV. This shows that the companies has given a positive signal to investors who expect that the company management will raise the dividend by increasing the company's net profit.
- 5) DER has significant negative effect on the PBV through ROE. This suggests that the increase in DER has been a negative signal to investors that consider the growing impact of the threat of bankruptcy or potential bankruptcy (Brigham and Houston, 2011). Although it is able to increase its net profit in the future and may encourage management to increase dividends.
- 6) The firm growth has negative insignificant effect on PBV through ROE. This shows that the firm growth is not responded by the investor or does not affect the attitude of investors, although the firm growth may increase its net income in the future.
- 7) DPR has positive and significant effect on the PBV through ROE. This suggests that the increasing DPR is responded positively by investors based on the expectation that the firm growth is an indicator of the

increasing ROE in the future and will encourage management to increase the DPR.

The conclusions of this study are as follows:

- 1) The optimal capital structure is an important elements to be considered by the management of oil palm plantation companies that go public in Indonesia Stock Exchange in implementing business expansion so that the percentage of the total debt will not negatively responded by the investor, led to concerns over the risk of bankruptcy.
- 2) Management of oil palm plantation companies that go public in Indonesia Stock Exchange must be aware that the previous firm growth (t-1) does not directly contribute to the profitability and firm value within the next 5 years, due to the characteristics of oil palm plantation companies that require good financial capacity to maintain its viability.
- 3) Management of oil palm plantation companies that go public in Indonesia Stock Exchange should conduct regular dividend payments so that dividend policy can be positive and has significant impact on the profitability and firm value.

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