# THE MODERATING EFFECT OF GROWTH OPPORTUNITIES ON THE RELATIONSHIP BETWEEN FINANCING DECISION, DIVIDEND POLICY, PROFITABILITY AND LIQUIDITY TOWARD FIRM VALUE

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#### ABSTRACT

This research examine the factors that affecting firm value (Tobin's Q), and whether the growth opportunity could enhance the relationship between independent variables and firm value. there are four independent variables used in this research which are financing decision, dividend policy, profitability and liquidity. Growth opportunity's proxy with MVE/BVE as moderating variable.

This research use quantitative approach, in which sample used is 60 listed companies in LQ-45 index for period 2010-2012 consecutively. There are three models used in this research, the first model was conducted using multiple regression analysis, the second model was using multiple regression analysis and the third model is using moderate regression. Calculation and hypotheses testing is using EViews statistic 6.10.

The result shows that financing decision have the negative relationship toward the firm value. Liquidity and dividend policy has non-relationship toward the firm value. Profitability has the positive relationship toward the firm value. In addition, growth opportunity act as quasi moderator in relationship between each of financing decision, profitability, and liquidity toward firm value. But, growth opportunity is unable to moderate the relationship between dividend policy and firm value.

# Keyword : Growth Opportunity, Investment Opportunity Set (IOS), Financing Decision, Dividend Policy, Profitability, Liquidity, Firm Value, Moderated Regression Analysis

# **INTRODUCTION**

The company's main objective is to maximize the firm value. Firm value used to measure

succesfulness of the company, due to the increasing of the firm value means that the increasing

prosperity of the owner of the company (Brigham, 2010:7).

Firm value can be determined by three factors: internal factor, external factor, and a technical

factor. In this research is mainly focused on the internal factor. Internal Factor analysis is often referred to as the company's critical factor, since it's nature can be controllable by the manager. Financing decision, dividend policy, profitability and liquidity are example of the critical internal factors.

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On other hand, firm value is indicated not a stand-alone value. The research by Myers (1977) views the value of a firm as the total of the value of assets in place and the growth prospect of options to make future discretionary investments. The research by Jensen (1986) the growth opportunities has arises by underinvestment and overinvestment problem in the company.

Growth is expected to provide positive aspects for the company thereby increasing the demanded opportunity to invest of the company. For investors the company's growth is a favorable prospects, because the investment expected to provide a high return in the future. Growth oportunity also called as investment opportunities. Investment opportunities are options to invest in positive net present value project.

The first motivation in this research is to expand on previous firm value research already done in the past. The are only few researcher who examined the interaction between internal factors and growth opportunity to the firm value. Also there are less research which aware about nature and type of growth opportunity as moderator effect to the firm value. The second motivation in this research, the result about firm value in the previous research have inconsistencies result and remain debatable. The third motivation in this research is the sample of research. LQ-45 is famous index in the indonesia stock exchange. LQ 45 is a liquid stock market capitalization, has a high-frequency of trading, have variable growth prospects and good financial condition. This index consists of 45 company's stocks with high liquidity, selected through multiple assessment criteria. Since LQ-45 maintain the high level of liquidity refer to the high level of current asset. It is make LQ-45 companies has strong indication of overinvestment problem. Based of this indication, it make LQ-45 become the approriate sample for the research of growth opportunity.

# **Problem Statement**

Based on the research background elaborated above, the problems will be discussed in this research are :

 Does financing financing decision, dividend policy, profitability and liquidity effect firm value ? 2. Does growth opportunity moderate the relationship between independent variables toward firm value?

#### **Research Purposes**

Based in the research background raised above, the objective(s) of this research are :

- To analyze the effect of financing decision, dividend policy, profitability and liquidity on firm value.
- 2. To examine whether growth opportunity could moderate the relationship between independent variable and firm value.

#### LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

## **Financing Decision and Firm Value**

According to Brigham and Houston (2001), the increase in debt is defined by outsiders about the company's ability to pay future obligations or the presence of low business risk, it will be responded positively by the market.

Financing decision perspective related with firm value was divided into twotheory. Those theory are represented by the pecking order theory and trade-off Theory. Pecking Order theory establishes a sequence of financing decisions where the manager will first choose to use retained earnings, debt and the issuance of shares as a last option (Mamduh, 2004). According Brigham (1999), the company prefers to use debt as compared to the issuing of new shares due to costs resulting from the debt is less than the costs incurred when issuing new shares. Trade-off theory states that the optimal capital structure can be achieved if there is a benefit for the use of leverage or debt. Based Tradeoff Theory, debt levels are effected by the rate of growth of the company. In accordance with the Tradeoff Theory, companies that have high growth rates tend to finance their investments by debt, because of the relatively high share price.

#### **Dividend Policy and Firm Value**

Dividend policy on issues concerning the use of profits that belong to the shareholders. Basically, the profits can be distributed as dividends or retained for reinvestment. The profit can then be reinvested in operating assets used to purchase securities, used to pay off the debts of the company, and or distributed to the shareholders (Brigham, 2010 : 66).

According to the signalling theory, investors can infer information about a firm's future earnings through the signal coming from dividend announcements, both in terms of the stability, and changes of dividends. Dividends contain information about the firm's current and future cash flows, and managers have incentives to convey their private information to the market through dividend payments in order to close the information gap. The announcement of dividend will be taken as good news and the market will bid up share prices accordingly.

## **Profitability and Firm Value**

High profitability reflects the company's ability to generate high profits for shareholders. the greater it is benefits the greater the company's ability to pay dividends, and this affects the increase in the value of the company. With high profitability ratios that owned a company will attract investors to invest in the company.which will be captured by investors as a positive signal of the company which further simplify the management company to attract capital in the form of shares. If there is an increase in demand for stocks a company, then it will indirectly raise the stock price in the market.

## Liquidity and Firm Value

Liquidity is the ability of an asset level financial or otherwise turned into cash at any time necessary with minimum losses. The company's categorize as liquid company if it is can be meet short term obligations at it's maturity.

Choosing to hold its assets in liquid form, the firm will often help company to invest in higher expected return investment The alternative reason that focus on is a precautionary motive for keeping a high level of liquidity. Liquid assets provide a cushion that would allow the firm to survive a period of low earnings during which the firm might be unable to access capital markets or could do so only at a very high cost

# **Growth Opportunity Interaction toward Firm Value**

Myers (1977) The value of a firm as the total of the value of assets in place and the value of options to make future discretionary investments. Records the distinction as between assets that can be regarded as call options to purchase real assets where ultimate value depends on further discretionary investment by the firm, and real assets with a market value which does not depend on further discretionary investment.

Chung and Charoenwong (1991) stated that the essence of the growth of a company is the existence of investment opportunities that generate profits. If there are investment opportunities Advantageously, the manager tried to take the opportunity - the opportunity to maximize shareholder wealth. The greater the chance of profitable investment, the investment will be greater.

#### **Conceptual Model for Research**



Pict. 1 Conceptual Framework for Research

## **Research Hypotheses**

In order to answer the research question the following hypotheses were formulated:

- H1 :There is a positive relationship between financing decision and firm value.
- H2: There is a positive relationship between dividend and firm value.
- H3 : There is a positive relationship between profitability and firm value.
- H4 : There is a positive relationship between liquidity and firm value.

H5 : Growth opportunity will moderate the relationship between financing decision and firm value.

H6 : Growth opportunity will moderate the relationship between dividend policy and firm value.

H7 : Growth opportunity will moderate the relationship between profitability and firm value.

H8 : Growth opportunity will moderate the relationship between liquidity and firm value.

#### METHODOLOGY

## **Research Method**

Approaches or methods used for this study is a quantitative approach. Quantitative research is structured study and quantify the data. Quantitative research also emphasizes the hypothesis that is supported by theory, fact, previous studies based on statistical procedures.

The type of data required in this study is secondary data. According Sugiyono (2012:402) secondary data is the source of the data that does not directly provide data to data collectors, for example through other people or documents. Secondary data in the form of evidence, records or historical reports that have been arranged in the archive (data documents) are published.

#### **Population and Sample**

The population in this study is firms that had joined in the group LQ-45 during the period 2010 to 2012. The population is consist of 135 companies. This research using non-probability sampling and pusposive sampling to get proper sample among population.

1. The company went public listed in Indonesia Stock Exchange and included in the LQ-45 indexed for the period:

- a. February 2010 July 2010
- b. August 2010 January 2011
- c. February 2011 July 2011

- d. August 2011 January 2012
- e. February 2012 July 2012
- f. August 2012 January 2013
- 2. The company publishes a complete annual report for the year 2010 and 2012, which have been audited, officially published and can be downloaded via the official website IDX, and the company's website.
- 3. Companies selected into the sample is non-banking companies, non-financial. These criteria are intended for banking and finance industry has special characteristics and regulations.
- 4. The company did not stop its activities in the capital market, and do not stop operations during 2010-2012.
- 5. Company lisiting on LQ 45 since february 2010 until january 2013 that pay the divident for the year 2010, 2011 and 2012
- 6. The Company has the necessary data and information and related variables to be studied.

The sampling is resulted 20 companies as the final sample of research. Observation period for this study using the data the annual report and financial statements of companies included in the LQ-45 index for the years 2010 ,2011, and 2012. So, the total sample used in this research is 60 sample.

## Variable Measurement

Variable	Variable Concept	Indicator	Scale
Financing Decision	According Brigham (2010) The financing decision is a decision with regard to the amount of funds provided by the company, whether it is debt or equity capital.	Debt Equity Ratio	Ratio
Divident Policy	Dividends according to Weston and Copeland (2005) Dividends are corporate profits granted to shareholders	Divident Payout Ratio	Ratio
Growth Opportunity	Ghalandari (2013) Growth opportunities indicates the company ability to make a future investment positive	MVE/BVE	Ratio

Table 1. Operational Variable

	NPV project.		
Value of The Firm	According to (Brigham, 2001) The value of the company is the price that buyers are willing to pay if the company is sold	Tobin's Q	Ratio
Profitability	Kusumawati (2005) profitability is the company's ability to generate profits in the future and is an indicator of the future success of the operation company	ROE	Ratio
Liquidity	Liquidity is defined as the ability of a company meets financial obligations in the short term or that must be paid (Mamduh, 2004).	Current Ratio	Ratio

# **Analysis Model**

$$Y = \alpha + \beta_1 P + \beta_2 DP + \beta_3 FD + \beta_4 L + e \qquad (Model 1)$$
$$Y = \alpha + \beta_5 P + \beta_6 DP + \beta_7 FD + \beta_8 L + \beta_9 GO + e \qquad (Model 2)$$

 $P*GO + \beta_{17}P*GO + \beta_{18}L*GO + e$  $\mathbf{Y} = \mathbf{\alpha} + \mathbf{\beta}_{10}\mathbf{I}$ 

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$P + \beta_{11}DP + \beta_{12}FD + \beta_{13}L +$	$-\beta_{14}GO + \beta_{15}FD^*GO + \beta_{16}D^*$ (Model 3)
ation of equation :	
Y = Firm value	
$\alpha = constant,$	

- $\beta$  = Regression Coefficient
- P = profitability
- FD = financing decision
- DP = dividend policy
- L = liquidity

GO = Growth Opportunity

- = Error term 3
- Model I Regression was conducted in purpose to examine the direct relationship ٠ between independent variable toward dependent variable

- Model II was conducted in purpose to examine the moderating effect, specifically determine the relationship between moderator variable to criterion **and/or** predictor variable.
- Model II was conducted in purpose to examine the moderating effect, specifically interaction between moderator variable **with** predictor variable

## **Analysis Technique**

Analysis technique used in this research is data panel regression by using Eviews 6.0. Modeling using panel data regression can be done in three models as OLS Pooled Least Square, Fixed Effect Method, Random Effect Method. The chow test and haussman test is used as estimation tool to choose the best between those three models.

Chow test is used to select the pooled least square or fixed effect model (FEM) that should be used in the research. Hypotheses of Chow test is as follows:

H<sub>0</sub>: OLS pooled Least Square (Common Effect)

H<sub>1</sub>: fixed effect model (FEM)

If the results of probability value is x < 0.05 then, H0 is reject, OLS pooled least square is not appropriate model. So, that H1 is accept, the research best done by FEM model. Vice versa.

Hausman test is used to choose between the fixed effect model (FEM) or the random effects model (REM) which should be used in this study. Hypotheses to perform Hausman test is as follows::

H0: random effect model(REM)

H1: fixed effect model(FEM)

If the results of probability value is x < 0.05 then, H0 is reject, REM is not appropriate model. So, that H1 is accept, the research best done by FEM model. Vice versa.

# **Hypotheses Testing**

Hypotheses testing for model 1 equation which is focus on the direct effect relationship between independent variable toward dependent variable is as follow :

- 1. Determine the level of significance, significance level is 5%
- 2. Determine the significance of the t test. T-tests of significance in this study using a significance level of 5%.
  - a. H0 is accept H1-H4 reject; if the p-value  $\geq 5\%$  significance level, then the individual independent variable has no effect on the dependent variable
  - b. H0 is reject H1-H4 accept; if the p-value <significance level of 5%, then the individual independent variables affect the dependent variable

Hypotheses testing for model 2 and 3 equation (H5-H8) which is focus on the moderating effect of moderator variable on relationship between independent variable toward dependent variable is as follow :

# Table 2

Typology	of Speci	fication	Moderator	Variables
- ) 0)				

	<b>Related to Criterion</b>	Not Related to Criterion
	and/or predictor	and Predictor
No interaction with	Intervining, Exogenous,	Moderator (homologizer)
predictor	Antecendent, Suppressor,	
	Predictor	
Has interaction with	Moderator (quasi	Moderator (pure
predictor variable	moderator)	moderator)
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Source : Sharma et. al (1981)

- $\beta_9$  (model 2) Significant and  $\beta_{15}/\beta_{16}/\beta_{17}/\beta_{18}$  (model 3) significant, growth opportunity is quasi moderating variable.
- $\beta_9$ (model 2) Significant and  $\beta_{15}/\beta_{16}/\beta_{17}/\beta_{18}$  (model 3) non significant, growth opportunity is intervening, suppressor, predictor variable.
- $\beta_9$ (model 2) Not Significant and  $\beta_{15}/\beta_{16}/\beta_{17}/\beta_{18}$  (model 3) significant, growth opportunity is pure moderating variable.
- $\beta_9$ (model 2) Not Significant and  $\beta_{15}/\beta_{16}/\beta_{17}/\beta_{18}$  (model 3) not significant, growth opportunity is homologizer

# **RESULT AND DISCUSSION**

# Chow test

The result of F-statistic (chow test) as below :

## Chow Test Result : model 1 equation

# Redundant Fixed Effects Tests

Pool: POOL

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.598394	(19,36)	0.1106
Cross-section Chi-square	36.703101	19	0.0086

Based on table 4.3, it shows that F significant level is 0,1106. It means that the value is higher than 0,05, so the  $H_0$  is accept and  $H_1$  is reject. It can interpret that the best model used of the first equation is on OLS Pooled Least Square.

#### Table 4

Chow Test Result : Model 2 equation

Redundant Fixed Effects Tests

Pool: POOL

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.951680	(19,35)	0.5324
Cross-section Chi-square	24.989301	19	0.1609
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Based on table 5, it shows that F significant level is 0,5324. It means that the value is higher than 0,05, so the  $H_0$  is accept and  $H_1$  is reject. It can interpret that the best model used of the second equation is on OLS Pooled Least Square.

# Table 5

# Chow Test Result : Model 3

Redundant Fixed Effects Tests

Pool: POOL

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.628841 (19	9,31)	0.8547
Cross-section Chi-square	19.56015119		0.4215

Based on table 4.4, it shows that F significant level is 0,8547. It means that the value is higher than 0,05, so the  $H_0$  is accept and  $H_1$  is reject. It can interpret that the best model used of the third equation is on OLS Pooled Least Square.

Table 6

## **Regression Result**

The Summary of OLS pooled least square t-Test for model 1-3				
Variables	Equation	t-statistic	Probability Value	Significant/Not Significant
Financing Decision	Model 1	-2.300110	0,0253	Significant*
Dividend Policy	Model 1	0.592412	0,5924	Not Significant*
Profitability	Model 1	8.331706	0,0000	Significant*
Liquidity	Model 1	1.195278	0,2371	Not Significant*
Growth Opportunity (β <sub>9</sub> )	Model 2	7.611053	0,0000	Significant*
Financing Decision*Growth Opportunity ( $\beta_{15}$ )	Model 3	3.748914	0.0005	Significant*
Dividend Policy*Growth Opportunity ( $\beta_{16}$ )	Model 3	1.068260	0.2905	Not Significant*
Profitability*Growth Opportunity (β <sub>17</sub> )	Model 3	-6.787319	0.0000	Significant*
Liquidity*Growth Opportunity (β <sub>18</sub> )	Model 3	2.567119	0.0133	Significant*

# \*At Significant Level of 5%

#### The Effect of Financing Decision toward Firm Value

The first hypothesis (H1) stated that financing decision has positive effect toward firm value. The research result using multiple regression shows the financing decision has negative effect toward firm value (model 1). This result can seen from the significancy of financing decision toward firm value is 0,0253 with the coefficient value -2,300110. It depict that in the interaction of company growth opportunity, increasing financing decision of debt would affect decreasing on firm value at the significant level 5%. As a conclusion, the research is reject the first hypothesis (H1).

This result is linier with Cortez & Stevie (2012) and Fama (1978). The greater debt lead to higher level of bankruptcy probability. Because the company can not pay interest and principal. The investor will response negativelyt o these signals and may be able to Decrease the value companies that reflected the company's stock price

## The Effect of Dividend Policy toward Firm Value

The second hypothesis (H2) stated that dividend policy has positive effect toward firm value. The research result using multiple regression shows dividend policy does not effect the firm value (model 1). This result can seen from the significancy of dividend policy toward firm value is 0,5560 with the coefficient value 0,592412. It depict that dividend policy would not affect decreasing nor increasing on firm value at the significant level 5%. As a conclusion, the research is reject the second hypothesis (H2).

This result is linier with Afzal and Abdul (2012), Fodio (2009), Jiang and Komain (2013), Mardiyanti, et al. (2012), and Susanti (2010). Dividends not always be a positive signal to investors. By distribute dividend t, investors assume that corporate managers are less sensitive to investment opportunities that can generate profits and bring good prospect to the company

# The Effect of Profitability toward Firm Value

The third hypothesis (H3) stated that profitability has positive effect toward firm value. The research result using multiple regression shows the profitability has positive effect toward firm value (model 1). This result can seen from the significancy of profitability toward firm value is 0,0000 with the coefficient value 8,332706. It depict that increasing in profit would affect increasing on firm value at the significant level 5%. As a conclusion, the research is accept the third hypothesis (H3).

The results are linier with research Pasaribu (2008), Kusuma (2009), and Nurmalasari (2009). High profitability shows good prospects for the company, so that investors will respond positively to these signals and may be able to increase the value companies that reflected the company's stock price

#### The Effect of Liquidity toward Firm Value

The fourth hypothesis (H4) stated that liquidity has positive effect toward firm value. The research result using multiple regression shows the liquidity has no effect toward the firm value (model 1). This result can seen from the significancy of liquidity toward firm value is 0,2371 with the coefficient value 1,195278. It depict that increasing in liquidity would not affect decreasing nor increasing on firm value at the significant level 5%. As a conclusion, the research is reject the fourth hypothesis (H4).

The results are linier with research by Mahendra (2011). Liquidity is simply does'nt have effect toward firm value. This matter likely due to liquidity is just information regarding the composition of assets, liabilities and do not describe the actual value of the company.so that changes from liquid assets owned by the company does not have an impact on investors perception, there is no increase nor decrease in the value of the company as reflected the company stock price.

# Effect of Growth Opportunity on the Relationship between Financing Decision and Firm Value

The fifth hypothesis (H5) stated that growth opportunity will moderate the relationship between financing decision and firm value. Based on table 6, growth opportunity is act as quasi moderator variable to the relationship between financing decision and firm value. This deduction taken from ( $\beta_9$ ) is significant and ( $\beta_{15}$ ) is also significant. The significance value of interaction model of financing decision and growth opportunity is less than 0,05, which is 0,0005. As the conclusion, the research accept the hypothesis (H5) at significant level of 5%. It means that growth opportunity is able to moderate and significantly enhance the effect of financing decision toward firm value.

# Effect of Growth Opportunity on the Relationship between Dividend Policy and Firm Value

The sixth hypothesis (H6) stated that growth opportunity will able to moderate the relationship between dividend policy and firm value. Based on table 4.9, growth opportunity is unable to moderate and tend to act between intervining, exogenous, antecendent, suppressor, predictor variable to the relationship between dividend policy and firm value. This deduction taken from ( $\beta_9$ ) is significant and ( $\beta_{16}$ ) is not significant. the significance value of interaction model of dividend policy and growth opportunity is more than 0,05 which is 0,2905. As the conclusion, the research reject the hypothesis (H6) at significant level of 5%. It means that growth opportunity is not able to moderate do not significantly enhance the effect of dividend policy toward firm value.

# Effect of Growth Opportunity on the Relationship between Profitability and Firm Value

The seventh hypothesis (H7) stated that growth opportunity will able to moderate the relationship between profitability and firm value. Based on table 6, growth opportunity is act as quasi moderator variable to the relationship between financing decision and firm value. This deduction taken from ( $\beta_9$ ) is significant and ( $\beta_{17}$ ) is also significant. the significance value of interaction model of profitability and growth opportunity is less than 0,05 which is 0,000. As the conclusion, the research accept the hypothesis (H7) at significant level of 5%. It means that growth opportunity is able to moderate and significantly enhance the effect of profitability toward firm value.

# Effect of Growth Opportunity on the Relationship between Liquidity and Firm Value

The eight hypothesis (H8) stated that growth opportunity will able to moderate the relationship between liquidity and firm value. Based on table 6, growth opportunity is act as quasi moderator variable to the relationship between financing decision and firm value. This deduction taken from ( $\beta_9$ ) is significant and ( $\beta_{18}$ ) is also significant. the significance value of interaction model of liquidity and growth opportunity is less than 0,05 which is 0,0133. As the conclusion, the research accept the hypothesis (H8) at significant level of 5%. It means that growth opportunity is able to moderate and significantly enhance the effect of liquidity toward firm value.

# CONCLUSION

The conclusions as follows :

- 1) Conclusion for independent variable as follows :
  - a) Financing decision has negative effect toward firm value. The greater the debt the higher the level of probability bankruptcy because the company can not pay interest and principal.
  - b) Dividend policy has no effect toward firm value. Dividends not always be a positive signal to investors. It arises because investors assume that corporate managers are less sensitive to investment opportunities that can generate profits and bring good prospect to the company.
  - c) Liquidity has no effect toward firm value. It arises due the liquid company, not necessarily illustrated a good firm if too many fund reserve. So that changes from liquid assets owned by the company does not have an effect on the increase or decrease in the value of the company.
  - d) Profitability has positive effect toward firm value. High profitability shows good prospects for the company, so that investors will respond positively to these signals and may be able to increase the value companies that reflected the company's stock price.
- 2) Conclusion for moderating variable as follows :
  - a) The growth opportunity moderate and acts as quasi moderator on the relationship between financing decision toward firm value.
  - b) The growth opportunity moderate and acts as quasi moderator on the relationship between liquidity toward firm value.
  - c) The growth opportunity moderate and acts as quasi moderator on the relationship between profitability toward firm value.
  - d) The growth opportunity unable to moderate the relationship between dividend policy and firm value. Growth opportunity act as between intervining, exogenous, antecendent, suppressor, or predictor.

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# **Attachment 1 : Research Sample**

No. Code Company Name Source	
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1.	AALI	Astra Agro Lestari, Tbk.	IDX Publication website
2.	ADRO	Adaro Energy, Tbk.	IDX Publication website
3.	ANTM	Aneka Tambang (Persero), Tbk.	IDX Publication website
4.	ASII	Astra International, Tbk	IDX Publication website
5.	GGRM	Gudang Garam, Tbk	IDX Publication website
6.	INDF	Indofood Sukses Makmur, Tbk.	IDX Publication website
7.	INDY	Indika Energy, Tbk.	IDX Publication website
8.	INTP	Indocement Tunggal Prakasan, Tbk	IDX Publication website
9.	ITMG	Indo Tambangraya Megah, Tbk.	IDX Publication website
10.	JSMR	Jasa Marga (persero), Tbk.	IDX Publication website
11.	KLBF	Kalbe Farma, Tbk.	IDX Publication website
12.	LPKR	Lippo Karawaci, Tbk.	IDX Publication website
13.	LSIP	London Sumatera Plantation, Tbk	IDX Publication website
14.	PGAS	Perusahaan Gas Negara, Tbk.	IDX Publication website
15.	PTBA	Tambang Batubara Bukit Asam (persero),	IDX Publication website
		Tbk.	
16.	SMGR	Semen Gresik (persero), Tbk.	IDX Publication website
17.	TINS	Timah (persero), Tbk.	IDX Publication website
18.	TLKM	Telekomunikasi Indonesiae (persero), Tbk.	IDX Publication website
19.	UNTR	United Tractors, Tbk.	IDX Publication website
20.	UNVR	Unilever Indonesia, Tbk	IDX Publication website

# Attachment 2 : Firm Value Pooled Least Square (PLS) for model 1 from Eviews 5.10 Year 2010-2012

Dependent Variable: TOBINSQ? Method: Pooled Least Squares Date: 12/24/14 Time: 12:49 Sample: 2010 2012 Included observations: 3 Cross-sections included: 20 Total pool (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.449779	0.825756	-0.544688	0.5882
CR?	0.001197	0.001002	1.195278	0.2371
ROE?	0.109604	0.013155	8.331706	0.0000
DPR?	0.008805	0.014864	0.592412	0.5560
DER?	-0.010143	0.004410	-2.300110	0.0253
R-squared	0.772037	Mean dependent	var	2.613667
Adjusted R-squared	0.755458	S.D. dependent var		2.555073
S.E. of regression	1.263515	Akaike info criterion		3.385327
Sum squared resid	87.80580	Schwarz criterion		3.559855
Log likelihood	-96.55980	Hannan-Quinn c	riter.	3.453595
F-statistic	46.56676	Durbin-Watson stat		1.781334
Prob(F-statistic)	0.000000			

# Attachment 3 : Firm Value Pooled Least Square (PLS) for model 2 from Eviews 5.10 Year 2010-2012

Dependent Variable: TOBINSQ? Method: Pooled Least Squares Date: 01/07/15 Time: 15:55 Sample: 2010 2012 Included observations: 3 Cross-sections included: 20 Total pool (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.830018	0.602775	1.376995	0.1742
CR?	0.001240	0.000702	1.766454	0.0830
ROE?	-0.003003	0.017434	-0.172234	0.8639
DPR?	0.014753	0.010449	1.411982	0.1637
DER?	-0.016470	0.003201	-5.145116	0.0000
IOS?	0.394697	0.051858	7.611053	0.0000
R-squared	0.890019	Mean dependent var		2.613667
Adjusted R-squared	0.879835	S.D. dependent var		2.555073
S.E. of regression	0.885711	Akaike info criterion		2.689787
Sum squared resid	42.36213	Schwarz criterion		2.899222
Log likelihood	-74.69362	Hannan-Quinn criter.		2.771709
F-statistic	87.39843	Durbin-Watson stat		1.833011
Prob(F-statistic)	0.000000			

# Attachment 4 : Firm Value Pooled Least Square (PLS) for model 3 from Eviews 5.10 Year 2010-2012

Dependent Variable: ZTOBINSQ? Method: Pooled Least Squares Date: 12/22/14 Time: 10:31 Sample: 2010 2012 Included observations: 3 Cross-sections included: 20 Total pool (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.255649	0.038692	6.607304	0.0000
ZCR?	0.223517	0.044060	5.073036	0.0000
ZROE?	0.108372	0.101688	1.065729	0.2917
ZDPR?	0.023641	0.055120	0.428905	0.6698
ZDER?	0.040398	0.029543	1.367432	0.1776
ZIOS?	1.741548	0.114320	15.23395	0.0000
ZCRIOS?	0.224810	0.087573	2.567119	0.0133
ZROEIOS?	-0.397060	0.058500	-6.787319	0.0000
ZDPRIOS?	0.085626	0.080155	1.068260	0.2905
ZDERIOS?	0.494903	0.132012	3.748914	0.0005

R-squared	0.963346	Mean dependent var -6.67E-	
Adjusted R-squared	0.956748	S.D. dependent var	1.000000
S.E. of regression	0.207971	Akaike info criterion	-0.151827
Sum squared resid	2.162591	Schwarz criterion	0.197230
Log likelihood	14.55482	Hannan-Quinn criter.	-0.015292
F-statistic	146.0116	Durbin-Watson stat	2.340943
Prob(F-statistic)	0.000000		