

# How Function of Financial Management to Maximizing LQ45's Company Value Listed on the Indonesia Stock Exchange

Dewi Nari Ratih Permada

*Universitas Pamulang*  
*Jalan Surya kencana No 1 Pamulang,*  
*Tangerang Selatan City, 15417, Indonesia*  
[dosen00821@unpam.ac.id](mailto:dosen00821@unpam.ac.id), [dewi.permada@gmail.com](mailto:dewi.permada@gmail.com)

**ABSTRACT.** Financial management helps managers in managing company finances with various existing theories combined with the conditions and needs of the company in achieving the goals and targets set. This study aims to make people aware of the role of financial management in making important decisions, namely dividend policy which is the main target of company owners, namely the prosperity of shareholders. The research method used quantitatively uses panel data through a descriptive approach by explaining the relationship of factors that influence dividend policy decisions in 20 samples of companies listed on the LQ45 index on the Indonesia Stock Exchange for the period 2015 to 2018. The results of hypothesis testing can be explained as follows: H1: The effect of DER on ROA is Fulfilled because of the prob DER in Model A  $<0.05$ . H2: The effect of CR on DPR Fulfilled because of prob DER in Model 1  $<0.05$ . H3: The effect of DER on Firm Value is mediated by ROA Not met, because H3.2 is not significant. It is said to mediate when both the hypotheses for H3.1 and H3.2 are significant. H4: The effect of CR on FV is mediated by DPR Fulfilled because of the prob CR in Model B (H4.1) and DPR in Model C (H4.2)  $<0.05$ . H5: The simultaneous effect of DER and CR on FV mediated by DPR Fulfilled because of the simultaneous probabilities of DER and CR in Model B (H5.1) and DPR in Model C (H5.2)  $<0.05$ . H6: The simultaneous effect of DER and CR on FV mediated by ROA is not met, because H6.2 is not significant. It is said to mediate when both the hypotheses for H6.1 and H6.2 are significant.

**Keywords:** *capital structure, liquidity, profitability, dividend policy, and company value.*

## 1. INTRODUCTION

The development of the business world, especially in developing countries such as Indonesia, is strongly influenced by economic actors, coupled with the disclosure of information on companies' developments, which are believed to have the ability to achieve rapid progress; as well as enliven the country's economic progress. The role of economic development is marked by the proliferation of markets in various countries. The market here is the stock market or better known as the stock exchange. The stock exchange is a place to trade financial securities with a system that brings together securities' buyers and sellers. Financial securities refer to commercial securities, such as stocks, bonds, which are stated in investment contract units, futures contracts on securities, and any derivatives and securities. The information about the Indonesian stock exchange can be found in [www.idx.co.id](http://www.idx.co.id). A company's progress must be observed in various sectors, especially, the financial sector, which is the blood of the company. The

reflection of the financial sector's performance is undoubtedly an indicator of whether a company is successful or not. Many companies that have sold their shares to the public (public) are listed on the Indonesia Stock Exchange.

This study took a sample of 20 companies that fall into the LQ45 category that have a high level of liquidity and several other criteria such as having growth prospects and high transaction value. The qualifications of the companies included in the LQ45 are evaluated every 3 months for the order of stock movements and 45 changes will be made every six months in February and August annually.

We can see the company's performance from the analysis of three factors, which are closely related to the financial management function of a company, namely how the company finances its operations (financing decision); after obtaining funds, how does the company spend on its operations (Investing decision); and finally, after investing, the expectation is how the company can prosper its shareholders in the form of dividends (dividend policy)[1].

Management must manage the company to get maximum results from its goals and targets, even not only management or internal company circles but also people such as investors must understand how to assess a company's performance, especially companies that have been categorized well with certain categories such as LQ 45 on the Indonesia Stock Exchange. The parties with an interest in the financial performance of a company must be able to learn how the function of financial management can bring the company to achieve its goals, namely to prosper the shareholders or owners of the company.

Financial management must be able to strive for good company performance and maintain it from year to year so that it is increasingly trusted among company owners and investors. Actually, management and company owners are sometimes not in line, on the one hand, management wants the company's profits not to be given all to shareholders but to be reinvested into the company which we know as internal funding or retained earnings, while the principal (owner) and agency (management) [2].

Striving for a balance between the three main tasks of financial management must be assessed according to the various perceptions of the parties involved. For the financing decision task, financial management must try to find out how the company obtains internal funds in the form of retained earnings and reserves while external funds are in the form of loans. Long-term loans or additional shares from company owners must be able to increase the value of the company and a financial manager must be able to find the right ingredients in determining his capital structure. By studying the factors that affect the capital structure, financial managers can determine the exact financing policy or financing decision taken.

The next task is how to use existing funds for investment purposes so that the company can make a profit. This investment decision must analyze the company's estimated cash inflows and cash outflows related to investing activities using various investment appraisal methods. If the company estimates that it will benefit, the investment project can be carried out.

The third task is how from the results of these investment decisions can prosper the owner of the company in the form of dividend policy. The factors that influence dividend policy have been studied in many academies, but not all follow the same pattern. For example, not all of the profits from investing activities are distributed to shareholders in the form of dividend payments or we proxied it to the Dividend Payout Ratio (DPR), but dividend policy

is very dependent on the results of the general meeting of shareholders so that some of these funds are reinvested in our company activities. familiar with retained earnings [3]. The different patterns between these companies are interesting to study so that research on the DPR will be continued which will add insight to both internal and external parties in investing.

Of all the activities carried out by the financial manager, it leads to the achievement of company value, where company value becomes the benchmark for the success of a company. This company value is the basis of the company wants to merge or acquire or be acquired by another company.

Judging from the problems taken around the above themes, the problem formulations in this study are:

- a. How is the effect of leverage (DER) on profitability (ROA)
- b. How liquidity (CR) affects dividend payments (DPR)
- c. How does the influence of leverage (DER) on firm value (FV) mediated by profitability (ROA)
- d. How is the effect of liquidity (CR) on firm value (FV) mediated by dividend payments (DPR)
- e. How to do leverage (DER) and liquidity (CR) simultaneously affect firm value (FV) mediated by dividend payments (DPR)
- f. How to do leverage (DER) and liquidity (CR) simultaneously affect firm value (FV) mediated by dividend payments (ROA).

The initiators of Capital Structure theory are Modigliani, F., & Miller, M. H. (1958) [4] in their journal entitled "The Cost of Capital, Corporation Finance and the Theory of Investment" published in The American Economic Review, Vol. 48, No. 3. In June 1958 pages 261-297. Themes such as those developed by Eugene F. Fama in 1978 [5] and reviewed again by George M. Frankfurter and George C. Philippatos in 1992[6].

From the capital structure, we learn how companies finance their activities through long-term debt and equity. Determination of the capital structure adopted by the management must analyze the influencing factors such as (1) sales stability; (2) asset structure; (3) operating leverage; (4) growth rate; (5) profitability; (6) tax; (7) control; (8) management attitude; (9) the attitude of the lender; (10) market conditions; (11) internal company conditions; (12) financial flexibility (Brigham, 2014) [7]. Talking about the capital structure cannot be separated from the trade-off theory, which is a balance between risk and return. The trade-off

theory complements Modigliani & Miller's first capital structure theory in which they argue that capital structure is not related to firm value, assuming that there are no brokerage fees, no taxes, and no bankruptcy costs. Of course, this is no longer relevant to current conditions, so that a trade-off theory, pecking order theory, and agency theory has emerged (D. Agus Harjito, 2011) [8].

In the theory of trade-off, the capital structure will impact on the value of the company with the optimal level of leverage. To achieve an optimal capital structure, one has to balance financial difficulties due to agency costs with tax benefits due to debt financing. So the optimal capital structure can be achieved if the present value of tax benefits due to debt financing is the same as the present value of financial difficulties due to the debt itself (D. Agus Harjito, 2011) [8].

If the company wants to increase prosperity for shareholders in the form of a dividend payout ratio (DPR), the investment decision must be financed by debt to benefit from tax savings while maintaining the number of shares outstanding in the market. If the investment decision is derived from debt, it means that the company does not increase the number of shares outstanding so that the (DPR) will be higher. According to Meissner and Brigham (2001) [9], an optimal dividend policy is a dividend policy that can create a balance between current dividends and future growth that can maximize the company's stock price.

The pecking order theory explains that the company will prioritize new internal funding towards external funding. The main priority for internal funding sources is retained earnings and reserves, then through debt financing and finally through funding for additional equity. This means that the priority starts from the source with the lowest cost of capital (Myers and Majluf, 1984) [10].

Companies tend to make investment decisions with internal funding for the projects they undertake. The company will adjust the DPR's target with the investment opportunity, it's just that sometimes the company carries out a rigid dividend policy and makes unplanned investments to pursue profits that are not necessarily stable for the following years.

Agency theory relates to the principal as the owner of company funds with the agency as the manager of the company. Problems arise because the agency does not side with the best interests of the principal. Principals in this case can be bondholders or stakeholders. The company will

have a high growth opportunity by making greater equity financing in the future, but this means allowing profitable investment opportunities with the use of high leverage (Myers and Majluf, 1984) [10].

As we all understand, agency theory was developed by Michael C. Jensen and William Meckling in 1976 [11]. This theory arises concerning the problem between the principal (company owner) and agency (management) in the separation of ownership and control of a company. This theory has also been reviewed by Fama, EF, & Jensen, MC (1983) [12], Ruback, RS, & Jensen, MC (1983) [13]. decision making and control within the company raises problems in the management of a company. The principal as the owner of the company is the one who bears the greatest risk for all activities and controls and assesses the agency's performance. Agency as company management has a decision-making function in managing a company. Since the principal does not carry out the management of the company he owns himself, the transfer of this right will result in agency costs. This agency cost arises because: first, the decline in firm value where the principal considers the agent not always acting in the best interest of the principal and the two principals will incur monitoring costs designed to limit the deviant activity of the agent (Richard D. Morris, 1987)[2].

There are several research gaps from previous research so that researcher is interested in researching the impact of management activities, especially financial management, namely financing decisions which are proxied by leverage, in this case, the debt to equity ratio (DER), investment decisions which are proxied by liquidity, in this case, the current ratio. (CR), dividend policy proxied by profitability and dividend payout ratio against firm value. The first gap research according to Abor, J. (2005) [14] states that leverage has a positive and significant effect on profitability, according to Adita, A., & Mawardi, W. (2018) [15] saying that leverage has a negative and significant effect on profitability, while according to Rahmasari, DR, Suryani, E., & Oktaryani, S. (2019) [16] leverage has no significant effect on profitability.

The second research gap according to Rahmasari, D. R., Suryani, E., & Oktaryani, S. (2019) [16] liquidity has a positive and significant effect on dividends. Meanwhile, Gatot Nazir Ahmad and Vina Kusuma Wardani (2014) [17], Nurhayati, M. (2013) [18], Eko Wahjudi (2020) [19] said they had a negative effect. The third gap

research according to Helmi Yulianto (2018) [20] and Dini Desryadi Rahmatullah (2019) [21] profitability has a negative and significant effect on firm value, while Azizah Luthfiana (2018) [22], Irma Desmi Awulle, Sri. Murni, Christy N. Rondonuwu (2018) [23], Nurhayati, M. (2013) [18], Anisqe Adita (2018) [24], Rizqia, D. A., & Sumiati, S. A. (2013) [25] have a positive and significant effect. According to Nurhayati, M. (2013) [18], the fourth research gap has a negative and significant effect, while Rizqia, D. A., & Sumiati, S. A. (2013) [25] says it has a positive and significant effect.

From several studies on the above themes, no research comprehensively discusses the effect of leverage and liquidity on company value mediated by profitability and dividend payout ratios in companies listed on the LQ45 Indonesia Stock Exchange for the period 2015 to 2018.

In this study, the hypothesis developed is rooted in the basic function of financial management, where the role of financing decisions as proxied by the leverage (DER) affects the dividend policy which is proxied by profitability (ROA) and dividend payout ratio (DPR). Then the investing decision function which is proxied by liquidity (CR) affects the dividend policy which is proxied by the dividend payout ratio (DPR) and profitability (ROA). Finally, all functions in financial management boil down to the company value (Firm Value) which is proxied by price-book value (PBV) so that the hypothesis to be developed in this study are:

H1: The effect of DER on ROA H2: The effect of CR on the DPR

H3: The effect of DER on Firm Value is mediated by ROA H4: The effect of CR on FV is mediated by the DPR

H5: The simultaneous influence of DER and CR on FV is mediated by the DPR H6: The simultaneous effect of DER and CR on FV is mediated by ROA

From the development of this hypothesis, it can be described in the following framework:

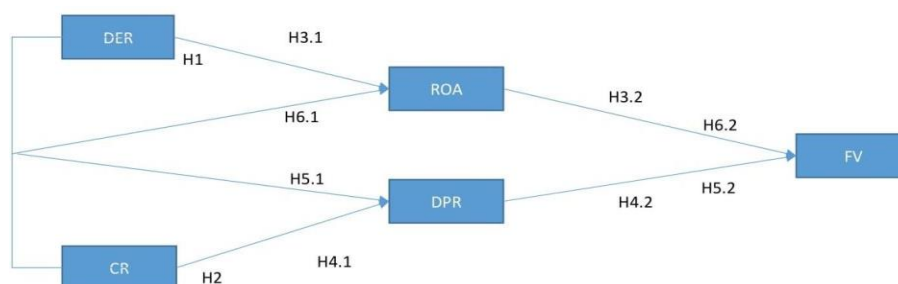


FIGURE 1. Framework

## 2. METHODS

### 2.1 Population

The population in this study was four years of financial statements of companies listed in IDX LQ45 as of August 2019.

### 2.2 Sample

The sampling technique in this study was the purposive sampling method. 20 industrial companies were selected as samples. These companies produced products and were registered in the last four years in the list of IDX LQ45. Thus, this study comprises of 80 samples of companies years

### 2.3 Type of Research

The type of research is quantitative with an associative approach, which aims to determine the relationship between the independent variable and the mediated dependent variable.

### 2.4 Data Analysis Methods

This study utilized a descriptive analysis method, which tests the assumptions and the significance of the parameters (model evaluation), the parameter significance test, and the coefficient of determination. The significance used in this study is 5%. Model evaluation is divided into 3 stages because there are two mediating variables, namely ROA and DPR. Capital A is to test the effect of DER and CR simultaneously on FV mediated by ROA, including testing the effect of DER on FV mediated by ROA. Capital B tests the effect of DER and CR on FV mediated by the DPR, including examining the effect of CR on FV mediated by the DPR. Capital C tests the effect of ROA and DPR simultaneously on FV.

## 3. RESULT AND DISCUSSION

### 3.1 Descriptive Analysis

Observations in this research sample of 80 years of the company show the following

descriptive: the dependent variable Firm Value (FV) is determined by many factors in this study according to the hypothesis developed is influenced by leverage, current ratio, debt to equity ratio, dividend payout ratio. The minimum value of FV is 86.34 while the maximum value is 10,024.82 with an average of 2,573,915 and a mean value of 1,838.54, while the standard deviation is 2,255,866. The average value of FV is not far from the standard deviation, this means that the fluctuation in firm value is relatively constant each year.

The return on assets (ROA) values ranged from - 6.4 to 30.02 with an average of 8.247625 and a median value of 6.755. The standard deviation of 6.984184 which is smaller than the average value means that ROA fluctuations are not too volatile, or relatively stable.

The dividend payout ratio (DPR) has a minimum value of 0.0 and a maximum value of 413.54 with an average value of 29.028 and a median value of 14.205. The standard deviation that occurs is 52.28065, which is much higher than the average of the DPR, indicating that the fluctuation of the DPR in the 4 years of observation is very high, exceeding the average.

The debt to equity ratio (DER) has a value between 0.15 to 3.15 with an average value of 0.882375 and a mean value of 0.74. The standard deviation that occurs is 0.646291 is still below the average value, so it can be said that the DER value tends to be stable.

The current ratio (CR) has a minimum value of 12.31357 and a maximum value of 656.74 with an average value of 243.3331 and a mean value of 211.8. The standard deviation of 129.7670 is far below the average value so that the CR value tends to be stable. Descriptive analysis of the variables examined in this study are as follows:

**TABLE 1.** Descriptive Analysis

	FV	ROA	DPR	DER	CR
Mean	2573.915	8.247625	29.02800	0.882375	243.3331
Median	1838.540	6.755000	14.20500	0.740000	211.8000
Maximum	10024.82	30.02000	413.5400	3.150000	656.7400
Minimum	86.34000	-6.400000	0.000000	0.150000	12.31357
Observations	80	80	80	80	80

### 3.2 Classical Assumption Test The A Model

Discussion of the research results begins with the classical assumption test the A model, namely the simultaneous effect of DER and CR on FV mediated by ROA. For this model using the Least

Square Panel method, it can be explained as follows:

**TABLE 2.** Model A Test

Dependent Variable: ROA Y1_				
Method: Panel Least Squares				
Periods included: 4				
Cross-sections included: 20				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER X1_	-3.584836	1.109131	-3.232113	0.0018
CR X2_	0.017494	0.005524	3.166920	0.0022
C	7.153979	2.036935	3.512129	0.0007
R-squared	0.292923	Mean dependent var		8.247625
Adjusted R-squared	0.274558	S.D. dependent var		6.984184
S.E. of regression	5.948633	Akaike info criterion		6.440979
Sum squared resid	2724.740	Schwarz criterion		6.530305
Log likelihood	-254.6391	Hannan-Quinn criter.		6.476792
F-statistic	15.94953	Durbin-Watson stat		0.507827
Prob(F-statistic)	0.000002			

The results of the classic assumption test for model A can be explained as follows:

### 3.3 Non Heteroscedasticity Test

**TABLE 3.** Non-Heteroscedasticity Test Results

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: M1			
Periods included: 4			
Cross-sections included: 20			
Total panel observations: 80			
Note: non-zero cross-section means detected in data			
Cross-section means were removed during computation of correlations			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	249.8864	190	0.0023
Pesaran scaled LM	2.046131		0.0407
Pesaran CD	2.075133		0.0380

$H_0$ : There is no Heteroscedasticity (Homoscedasticity)

$H_1$ : Heteroscedasticity problems occur

From table 3 it can be concluded that reject  $H_0$  because prob  $< 5\%$ , so there is a problem of heteroscedasticity or the variance of the error is not constant, so to overcome the violation of these

### 3.4 Non-Autocorrelation Test

From the Non-Autocorrelation Test result it can be seen that with  $N = 80$   $k = 3$  ( $k$  is the number of variables  $X + C$  so  $2 + 1$ ) it is obtained that  $dL = 1.58592$  and  $dU = 1.68823$  when viewed from the DW value of the model,  $0.507827$  has a value below

assumptions, the CEM model estimation using GLS Weight or residual weighting is done so that the variance will be constant. And this has been resolved by the table of significant test results for model A parameters below.

$dL$  so there is an autocorrelation problem. To overcome this problem, estimation with coefficient covariances is used. And this has been resolved by the table of significant test results for model A parameters below.

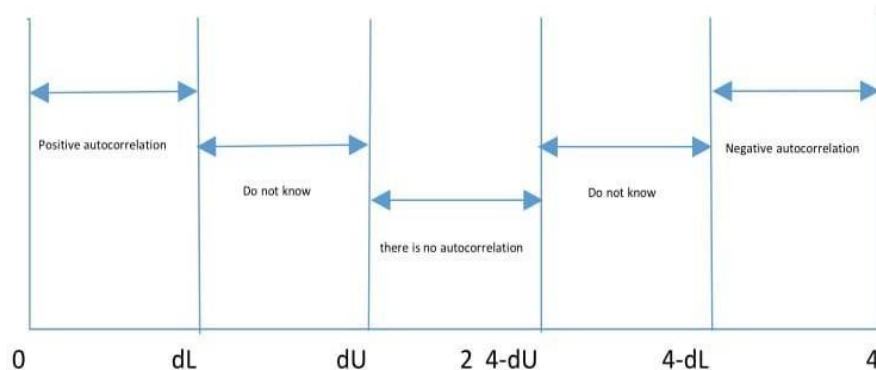


FIGURE 2. Non-Autocorrelation Test Results

### 3.5 Non-Multicollinearity Test

From table 4 below, it can be seen that if there is a VIF value that is smaller than 10 then multicollinearity occurs. Based on the results

above, there is no multicollinearity problem. So that the non-multicollinearity assumption is fulfilled.

TABLE 4. Non-Multicolineari Tests

Variance Inflation Factors			
Sample: 2015 2018			
Included observations: 80			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
DER_X1_	0.155155	6.432466	1.050893
CR_X2_	2.44E-06	5.534462	1.050893
C	0.343977	8.703196	NA

### NORMALITY TEST

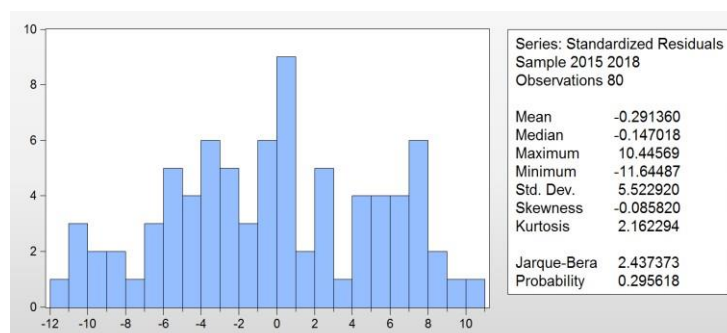


FIGURE 3. Normality Test

H0: Residuals with Normal Distribution

H1: Residuals do not have a normal distribution

From FIGURE 3 the Normality Test above can be seen that it fails to reject  $H_0$  because prob> 5% and the diagram image meets the normal distribution so that the Normality Assumption is

Fulfilled.

### 3.6 Classical Assumption Test Of B Model

The discussion of the research results begins with the classical assumption test the B model, namely the simultaneous effect of DER and CR on FV mediated by the DPR. For this model using the Least Square Panel method, it can be explained as follows:

TABLE 5. TEST MODEL B

Dependent Variable: DPR_Y2_				
Method: Panel Least Squares				
Sample: 2015 2018				
Periods included: 4				
Cross-sections included: 20				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER_X1_	-12.15068	9.597650	-1.266005	0.2093
CR_X2_	0.054176	0.047800	1.133390	0.2606
C	26.56661	17.62623	1.507220	0.1358
R-squared	0.055112	Mean dependent var		29.02800
Adjusted R-squared	0.030570	S.D. dependent var		52.28065
S.E. of regression	51.47535	Akaike info criterion		10.75686
Sum squared resid	204027.8	Schwarz criterion		10.84619
Log likelihood	-427.2745	Hannan-Quinn criter.		10.79268
F-statistic	2.245577	Durbin-Watson stat		2.292605
Prob(F-statistic)	0.112756			

From table 5 the results of the classical model B assumption test can be explained as follows:



### 3.7 Non-Heteroscedasticity Test

**TABEL 6. NON HETEROSCEDASTICITY TEST**

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: M2			
Periods included: 4			
Cross-sections included: 20			
Total panel observations: 80			
Note: non-zero cross-section means detected in data			
Cross-section means were removed during computation of correlations			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	266.8097	190	0.0002
Pesaran scaled LM	2.914278		0.0036
Pesaran CD	6.242351		0.0000

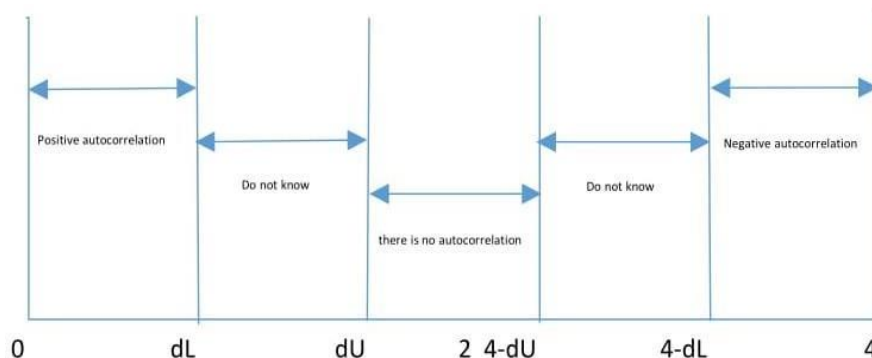
H0: There is no Heteroscedasticity (Homoscedasticity)

H1: Heteroscedasticity problems occur

From Table 6 it can be concluded that reject  $H_0$  because prob < 5%, so there is a problem of heteroscedasticity or the variance of the error is not constant, so to overcome the violation of these assumptions, the CEM model estimation using GLS Weight or residual weighting is carried out so that the variance will be constant. And this has been resolved by the table of the results of the significant test parameters for model B below.

### 3.8 Non-Autocorrelation Test

From FIGURE 4 below it can be concluded that with  $N = 80$   $k = 3$  ( $k$  is the number of variables  $X + C$  so  $2 + 1$ ) it is obtained that  $dL = 1.58592$  and  $dU = 1.68823$  while  $4 - dU = 6.75292$ . When viewed from the DW value of the model, 2.292605 has a value between  $dU$  and  $4 - dU$  so there is no autocorrelation problem.



**FIGURE 4. Non-Autocorrelation Test Results**

### 3.9 Non-Multicollinearity Test

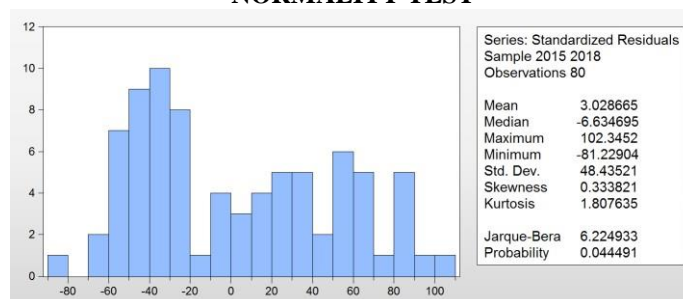
From table 7 it can be concluded that if there is a VIF value that is smaller than 10 then

multicollinearity occurs. Based on the results above, there is no multicollinearity problem. So that the non-multicollinearity assumption is fulfilled.

**TABLE 7. NON-MULTICOLLINEARITY TEST**

Variance Inflation Factors			
Date: 08/28/20 Time: 21:30			
Sample: 2015 2018			
Included observations: 80			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
DER_X1_	1.749203	13.39839	1.108189
CR_X2_	0.000404	13.35446	1.108189
C	31.71259	33.20297	NA

**NORMALITY TEST**



**FIGURE 5. Nomality Test Results**

H<sub>0</sub>: Residuals with Normal Distribution

H<sub>1</sub>: Residuals do not have a normal distribution

From the picture 5 above it can be seen that H<sub>0</sub> rejects because prob < 5% so that the Normality Assumption is Not Fulfilled. Since N has a large number (> 30), according to the central limit theorem (CLT), large samples will follow a normal distribution. Thus, based on this theory, the assumption of normality can be ignored in this case because of the large sample size [26].

### 3.10 Significance Test of Model A Parameters

Based on the hypothesis testing above, the final model A after overcoming the assumptions, namely the FEM

- GLS Heteros and Autoregressive models is as follows:

**TABLE 8. PARAMETER SIGNIFICANCE TEST**

Dependent Variable: ROA\_Y1\_

Method: Panel EGLS (Cross-section weights)

Sample: 2015 2018

Periods included: 4

Cross-sections included: 20

Total panel (balanced) observations: 80

Linear estimation after one-step weighting matrix

White diagonal standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER_X1_	-4.654225	0.393898	-11.81583	0.0000 *** H1 dan H3.1
CR_X2_	0.013910	0.001561	8.911066	0.0000 ***
C	9.375951	0.586496	15.98639	0.0000 ***

	Weighted Statistics		
R-squared	0.684600	Mean dependent var	16.79882
Adjusted R-squared	0.676408	S.D. dependent var	14.43123
S.E. of regression	5.602064	Sum squared resid	2416.500
F-statistic	83.56733	Durbin-Watson stat	1.348063
Prob(F-statistic)	0.000000	-> H 6.1	
	Unweighted Statistics		
R-squared	0.279989	Mean dependent var	8.247625
Sum squared resid	2774.581	Durbin-Watson stat	0.476909

\* prob < 10% (quite significant)

\*\* prob < 5% (significant)

\*\*\* prob < 1% (very significant)

### 3.11 Simultaneous Significance Test

From table 8 above the development of the hypothesis that has been stated above, it is known that:

H06.1: DER and CR variables do not affect simultaneously on the ROA variable

Ha6.1: The DER and CR variables have a simultaneous/joint effect on the ROA variable or at least one DER or CR variable influences the ROA variable

From Table 8 above, the simultaneous significance test is rejected H0 because prob <1% (very significant), it can be concluded that the DER and CR variables have a simultaneous/joint effect on the ROA variable. To find out which independent variables influence the dependent variable, it is followed by a partial tes.

### 3.12 Partial Significance Test

From table 8 above the development of the hypothesis that has been stated above, it is known that:

H01: The DER variable does not affect the ROA variable

Ha1: The DER variable influences the ROA variable

From table 8 above, it can be concluded that H01 is rejected because of prob <1% (very significant). Likewise, for H3.1 the effect of CR on ROA where H03 is rejected because it is prob <1% (very significant)

### 3.13 Significance Test of Model B Parameters

Based on the hypothesis testing above, the final model B after overcoming the assumptions, namely the FEM

- GLS Heteros and Autoregressive models is as follows:

**TABLE 9.** Significance Test Results Of Model B Parameters

Dependent Variable: DPR_Y2_		
Method: Panel EGLS (Cross-section weights)		
Sample: 2015 2018		
Periods included: 4		
Cross-sections included: 20		
Total panel (balanced) observations: 80		
Linear estimation after one-step weighting matrix		
Variable	Coefficient	Std. Error
DER_X1_	-9.038738	1.322574
CR_X2_	0.049884	0.020088
C	18.30905	5.631393
Weighted Statistics		

R-squared	0.477418	Mean dependent var
Adjusted R-squared	0.463844	S.D. dependent var
S.E. of regression	49.15724	Sum squared residual
F-statistic	35.17263	Durbin-Watson statistic
Prob(F-statistic)	0.000000	-> H 5.1
Unweighted Statistics		
R-squared	0.037300	Mean dependent var
Sum squared resid	207873.9	Durbin-Watson stat

\* prob < 10% (quite significant)

\*\* prob < 5% (significant)

\*\*\* prob < 1% (very significant)

### 3.14 Simultaneous Significance Test

From table 9 the development of the hypothesis that has been stated above, it is known that: H05.1:DER and CR variables do not affect simultaneously the same for the variable DPR  
Ha5.1:The variables DER and CR affect simultaneously for the DPR variable or at least one DER or CR variable which influences the DPR variable

From Table 9, the simultaneous test is rejected H0 because prob <1% (very significant), it can be concluded that the DER and CR variables have a simultaneous/joint effect on the DPR variable. To find out which independent variables influence the dependent variable, it is followed by a partial test.

### 3.15 Partial Significance Test

From the development of the hypothesis that has been stated above, it is known that: H02: The

CR variable does not affect the DPR variable

Ha2: The CR variable influences the DPR variable

From table 9 above, it can be concluded that H01 is rejected because of prob <5% (significant). Likewise, for H4 the effect of CR on ROA where H04.1 rejects because of prob <5% (significant).

### 3.16 Classical Assumption Test C Model

From the development of the hypothesis, the C model is the final relationship between DER and CR simultaneously to FV mediated by ROA and DPR. So for this C model, the classical assumption test is performed again to fulfill the model estimation test. This test is carried out between the ROA and DPR variables against FV. Then the model estimation results can be explained as follows:

TABLE 10. Test C Model

Dependent Variable: FV_Z_				
Method: Panel Least Squares				
Sample: 2015 2018				
Periods included: 4				
Cross-sections included: 20				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA_Y1_	0.070078	37.84048	0.001852	0.9985
DPR_Y2_	-2.461559	5.055118	-0.486944	0.6277

C	2644.791	402.6751	6.568052	0.0000
R-squared	0.003249	Mean dependent var		2573.915
Adjusted R-squared	-0.022641	S.D. dependent var		2255.866
S.E. of regression	2281.261	Akaike info criterion		18.33962
Sum squared resid	4.01E+08	Schwarz criterion		18.42895
Log likelihood	-730.5849	Hannan-Quinn criter.		18.37544
F-statistic	0.125478	Durbin-Watson stat		0.325563
Prob(F-statistic)	0.882255			

The results of the classic model C assumption test can be explained as follows :

### 3.17 Non-Heteroscedasticity Test

TABLE 11. Test Results-Heteroscedacity

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: M3			
Periods included: 4			
Cross-sections included: 20			
Total panel observations: 80			
Note: non-zero cross-section means detected in data			
Cross-section means were removed during computation of correlations			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	387.3211	190	0.0000
Pesaran scaled LM	9.096380		0.0000
Pesaran CD	2.864244		0.0042

H<sub>0</sub>: There is no Heteroscedasticity (Homoscedasticity)

H<sub>1</sub>: Heteroscedasticity problems occur

From table 11 above, it can be concluded that H<sub>0</sub> is rejected because prob <5%, so there is a problem of heteroscedasticity or the variance of the error is not constant, so to overcome the violation of these assumptions, the CEM model estimation using GLS Weight or residual weighting is carried out so that the variance will be constant.

### 3.18 Non-Autocorrelation Test

From FIGURE 5 below with N = 80 k = 3 (k is the number of variables X + C so 2 + 1) it is obtained that dL = 1.58592 and dU = 1.68823 when viewed from the DW value of the model, 0.325563 has a value below dL so there is an autocorrelation problem. To overcome this problem, estimation with coefficient covariances is used. And this has been resolved by the table of the results of the significant test parameter model C below.

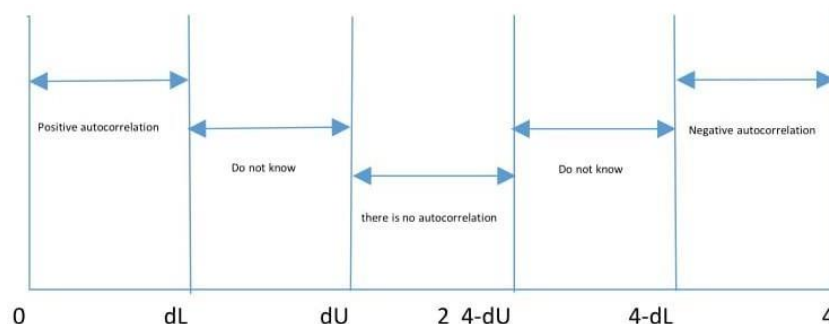


FIGURE 5. Non-Autocorrelation Test

### 3.19 Non-Multicollinearity Test

TABLE 12. NON-MULTICOLLINEARITY TEST TABLE

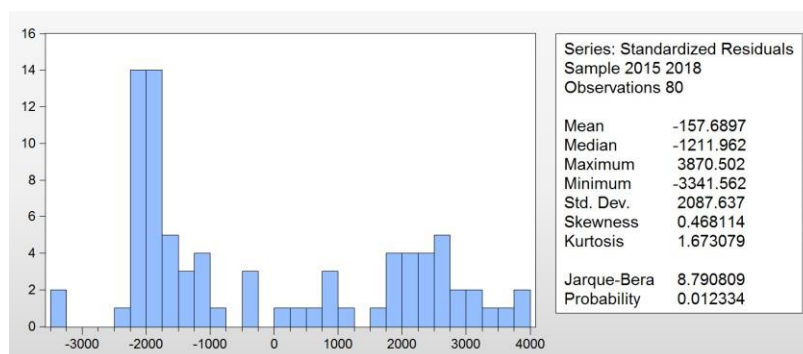
Variance Inflation Factors			
Date: 08/28/20 Time: 21:40			
Sample: 2015 2018			
Included observations: 80			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
ROA_Y1_	242.5012	1.692502	1.434041
DPR_Y2_	3.875948	1.824007	1.434041
C	2631.681	1.299105	NA

From Table 12 above, if there is a VIF value greater than 10 then multicollinearity occurs. Based on the results above, there is no multicollinearity problem. So that the non-multicollinearity assumption is fulfilled.

### 3.20 Normality Test

As a picture below, the result is rejected H0 because prob <5% so that the assumption of

normality is not fulfilled. Since N has a large number (> 30), according to the central limit theorem (CLT), large samples will follow a normal distribution. Thus, based on this theory, the assumption of normality can be ignored in this case because of the large sample size [26].



H<sub>0</sub>: Residuals with Normal Distribution

H<sub>1</sub>: Residuals do not have a normal distribution

FIGURE 6. Normality Test

### 3.21 Significance Test of Model C Parameters

Based on the hypothesis testing above, the final

model C after overcoming the assumptions, namely the FEM-GLS Heteros and Autoregressive models is as follows:

**TABLE 13. SIGNIFICANCE TEST OF MODEL C PARAMETERS**

Dependent Variable: FV\_Z\_  
Method: Panel EGLS (Cross-section weights) Sample: 2015 2018  
Periods included: 4  
Cross-sections included: 20  
Total panel (balanced) observations: 80  
Linear estimation after one-step weighting matrix  
White diagonal standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA__Y1_	3.391322	15.57245	0.217777	0.8282
DPR__Y2_	-7.386070	1.968743	-3.751668	0.0003 ***
C	2508.936	51.29991	48.90721	0.0000 ***
Weighted Statistics				
R-squared	0.095786	Mean dependent var		5735.348
Adjusted R-squared	0.072300	S.D. dependent var		8846.225
S.E. of regression	2120.675	Sum squared resid		3.46E+08
		F-statistic		4.078420
		Durbin-Watson stat		0.692080
Prob(F-statistic)	0.020722			
Unweighted Statistics				
R-squared	-0.021901	Mean dependent var		2573.915
Sum squared resid	4.11E+08	Durbin-Watson stat		0.341704

\* prob < 10% (quite significant)

\*\* prob < 5% (significant)

\*\*\* prob < 1% (very significant)

### 3.22 Simultaneous Significance Test

From the development of the hypothesis that has been stated above, it is known that:

H06.2: The variables ROA and DPR simultaneously do not influence the FV variable (from the DER variable) Ha6.2: The variables ROA and DPR simultaneously influence the FV variable (from the DER variable) H05.2: The variables ROA and DPR simultaneously do not influence the FV variable (from the CR variable) Ha5.2: The variables ROA and DPR simultaneously influence the FV variable (from the CR variable)

From table 13 above, the simultaneous test results are rejected H0 because prob < 5% (significant), it can be concluded that the ROA and DPR variables simultaneously have an influence on the FV variable. To find out which independent

variables have an influence on the dependent variable, it is followed by a partial test

### 3.23 Test of Partial Significance

From the development of the hypothesis that has been stated above, it is known that: H03.2: The ROA variable has no influence on the FV variable

Ha3.2: The ROA variable has an influence on the FV variable H04.2: The variable DPR has no influence on the variable FV Ha4.2: The variable DPR has an influence on the variable FV

From table 13 above, it can be concluded that it failed to reject H03.2 because of prob > 5%. However, rejecting H04.2 because of prob < 1% (very significant).

### 3.24 The Coefficient of Determination (R<sup>2</sup>) Interpretation of Model A

Based on the R<sup>2</sup> value of 0.676408, it can be concluded that the independent variable in model A can explain 67.64% of the variation of the dependent variable, and the rest is explained by other variables not included in the model.

#### INTERPRETATION OF MODEL B

Based on the R<sup>2</sup> value of 0.463844, it can be concluded that the independent variable in the model can explain 46.38% of the variation of the dependent variable, and the rest is explained by other variables not included in the model.

#### INTERPRETATION OF MODEL C

Based on the R<sup>2</sup> value of 0.072300, it can be concluded that the independent variable in the model can explain 7.23% of the variation of the dependent variable, and the rest is explained by other variables not included in the model.

## 4. CONCLUSIONS

The results of this study are as:

H1: The effect of DER on ROA is fulfilled because the prob DER in Model A < 0.05

H2: The effect of CR on DPR Fulfilled because the CR prob in Model B < 0.05

H3: The effect of DER on Firm Value is mediated by ROA Not fulfilled because H3.2 is not significant. It is said to mediate when both the hypotheses for H3.1 and H3.2 are significant.

H4: The effect of CR on FV is mediated by DPR Fulfilled because the CR prob in Model 2 (H4.1) and DPR in Model C (H4.2) < 0.05

H5: The simultaneous effect of DER and CR on FV is mediated by DPR Fulfilled because of the simultaneous probabilities of DER and CR in Model B (H5.1) and DPR in Model C (H5.2) < 0.05.

H6: The simultaneous effect of DER and CR on FV mediated by ROA is not met, because H6.2 is not significant. It is said to mediate when both the hypotheses for H6.1 and H6.2 are significant.

## ACKNOWLEDGMENT

LQ45 companies must balance between leverage and liquidity in obtaining optimal profitability. The function of maximizing firm value accompanied by an increase in the dividend payout ratio needs to be considered so that company owners or investors are interested in continuing to develop LQ45 companies even better. Further research can further explore other variables that can affect firm value and add to a wider object of research.

## REFERENCES

- [1] Phillips, Paul, and Luiz Moutinho 2017 Contemporary Issues in Strategic Management *Contemporary Issues in Strategic Management*
- [2] Morris, R. D. 1987 Signalling, agency theory and accounting policy choice *Accounting and business Research* **18(69)** 47-56
- [3] Wahjudi, E. (2019). Factors affecting dividend policy in manufacturing companies in Indonesia Stock Exchange. *Journal of Management Development*
- [4] Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, *48*(3), 261-297
- [5] Fama, E. F. (1978). The effects of a firm's investment and financing decisions on the welfare of its security holders. *The American Economic Review*, *68*(3), 272-284
- [6] Frankfurter, G. M., & Philippatos, G. C. (1992). Financial theory and the growth of scientific knowledge: From Modigliani and Miller to "an organizational theory of capital structure". *International Review of Financial Analysis*, *1*(1), 1-15
- [7] Brigham, E. F., & Houston, J. F. (2014). Fundamentals of management. *Jakarta: Salemba Empat*
- [8] Harjito, D. A. (2011). Teori Pecking Order dan Trade-Off dalam Analisis Struktur Modal di Bursa Efek Indonesia. *Jurnal Siasat Bisnis*, *15*(2)
- [9] Meissner, C. A., & Brigham, J. C. (2001). A meta-analysis of the verbal overshadowing effect in face identification. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, *15*(6), 603-616
- [10] Myers. S and Majluf. 1984. Corporate Financing and Investment Decision When Firms have information Investors Do not Have. *Journal of Finance Economics* *13*: 187-221
- [11] Meckling, W. H., & Jensen, M. C. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360
- [12] Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, *26*(2), 301-325
- [13] Ruback, R. S., & Jensen, M. C. (1983). The



- market for corporate control: The scientific evidence. *Journal of Financial economics*, 11, 5-50
- [14] Abor, J. (2005). The effect of capital structure
- [15] Adita, A., & Mawardi, W. (2018). *Pengaruh Struktur Modal, Total Assets Turnover, Dan Likuiditas Terhadap Nilai Perusahaan Dengan Profitabilitas Sebagai Variabel Intervening (Studi Empiris pada Perusahaan Real Estate dan Properti yang Terdaftar di BEI Periode 2013-2016)* (Doctoral dissertation, Fakultas Ekonomika dan Bisnis)
- [16] Rahmasari, D. R., Suryani, E., & Oktaryani, S. (2019). Pengaruh leverage dan likuiditas terhadap nilai perusahaan dengan kebijakan dividen sebagai variabel intervening. *Jurnal sosial ekonomi dan humaniora*, 5(1), 66-83
- [17] Ahmad, G. N., & Siahaan, M. E. (2015). Analysis Of Financing Decision, Investment Decision, Dividend Policy And Value Of The Firm That Listed On Kompas 100 Index
- [18] Nurhayati, M. (2013). *Jurnal Keuangan & Bisnis Program Studi Magister Manajemen Sekolah Tinggi Ilmu Ekonomi Harapan*, 5(2), 144-153
- [19] Wahjudi, E. (2019). Factors affecting dividend policy in manufacturing companies in Indonesia Stock Exchange. *Journal of Management Development*
- [20] Yulianto, H. (2018). *Pengaruh Profitabilitas, Likuiditas, Ukuran Perusahaan, dan Keputusan Investasi terhadap Nilai Perusahaan dengan Struktur Modal sebagai Variabel Intervening (Studi Empiris pada Bank Umum Syariah yang Terdaftar di BEI)* (Doctoral dissertation, IAIN SALATIGA)
- [21] Desryadi Rahmatullah, D. I. N. I. (2019). Pengaruh Profitabilitas Dan Likuiditas Terhadap Nilai Perusahaan Dengan Struktur Modal Sebagai Variabel Intervening. *Jurnal Akuntansi Unesa*, 7(2)
- [22] Luthfiana, A. (2018). Pengaruh Solvabilitas, Profitabilitas, Dan Likuiditas Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Properti Dan Real Estate Yang Terdaftar Di Bursa Efek Indonesia Periode 2014-2017
- [23] Awulle, I. D., Murni, S., & Rondonuwu, C. N. (2018). Pengaruh Profitabilitas Likuiditas Solvabilitas Dan Kepemilikan Institusional Terhadap Nilai Perusahaan Food And Beverage Yang Terdaftar Di Bursa Efek Indonesia Periode 2012- 2016. *Jurnal*
- on profitability: an empirical analysis of listed firms in Ghana. *The journal of risk finance*.
- EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 6(4)
- [24] Adita, A., & Mawardi, W. (2018). *Pengaruh Struktur Modal, Total Assets Turnover, Dan Likuiditas Terhadap Nilai Perusahaan Dengan Profitabilitas Sebagai Variabel Intervening (Studi Empiris pada Perusahaan Real Estate dan Properti yang Terdaftar di BEI Periode 2013-2016)* (Doctoral dissertation, Fakultas Ekonomika dan Bisnis
- [25] Rizqia, D. A., & Sumiati, S. A. (2013). Effect of managerial ownership, financial leverage, profitability, firm size, and investment opportunity on dividend policy and firm value. *Research Journal of Finance and Accounting*, 4(11), 120- 130
- [26] Nuraina, E. (2010). *Pengaruh kepemilikan institusional dan ukuran perusahaan terhadap kebijakan hutang dan nilai perusahaan (Studi Pada Perusahaan Manufaktur yang Tercatat di BEI)* (Doctoral dissertation, UNS (Sebelas Maret University))