



## DOES FINANCIAL RATIOS AND COMPANY SIZE AFFECT DEVIDEND PAYOUT RATIO?

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### ABSTRACT

*The purpose of this study was to determine whether the Loan to Deposit Ratio (LDR), Debt to Equity Ratio (DER), Growth, Return On Assets (ROA), and Firm Size have an effect on the Dividend Payout Ratio (DPR). The data used in this research is secondary data in the form of banking financial performance data, and is obtained from the Annual Financial Statements of Commercial Banks listed on the Indonesia Stock Exchange 2015-2018. Banking used is 30 companies with a total sample of 120. The data is pooled data. The data were analyzed by using the multiple linear regression method with the SPSS analysis tool. LDR has a significant positive effect on the DPR, DER has a significant negative effect on the DPR, Growth has a significant negative effect on the DPR, Return on Assets (ROA) has a significant positive effect on the DPR, Bank Size has a significant positive effect on the DPR. Overall, the independent variables together have a significant effect on the DPR.*

**Keyword:** *Loan to Deposit Ratio, Debt to Equity Ratio, Growth, Return On Assets, Firm Size, Deviden Payout Ratio*

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## **INTRODUCTION**

A successful company is a company that makes a profit or income. This income can be invested in operating assets, used to obtain securities, used to retire debt, or be distributed to shareholders. The income that is distributed to the shareholders is dividends. Problems that arise if a company decides to distribute its income to shareholders, including the proportion in which income will be distributed to shareholders; whether the distribution should be like cash dividends, or cash passed on to shareholders by buying back some shares; and how stable the distribution should be. Much controversy surrounds dividend policy. Black (1976) observes that "the harder we see the dividend image, the more it is like a puzzle, with the pieces that don't fit together". Since then, the amount of theoretical and empirical research on dividend policy has increased dramatically (Baker, 1999).

There are many reasons why a company should pay or not pay dividends. But figuring out why companies pay dividends and investors pay attention to those dividends is a "dividend puzzle" that remains problematic. Bernstein (1996), and Aivazian and Booth (2003) review the dividend puzzle and note that some important questions remain unanswered. Thus establishing the company's dividend policy remains controversial and involves judgment by the decision maker. There is an emerging consensus that there is no single explanation for dividends. According to Brook et al. (1998) have no reason to believe that corporate dividend policy is driven by a single goal.

Dividend payment has always been a debatable subject in corporate finance. Dividend policy is one of the company's financial decisions that is of concern to researchers and practitioners (Liu and Hu, 2005). Dividend decisions are important for investors and companies. It is the decision of the management of the organization about what proportion of income to invest and what proportion to share shareholders as dividends. When making this decision, management considers available investment opportunities that will increase future income and if those opportunities are not available management must distribute income to shareholders. In other words, dividend policy is a decision made by an organization to determine the amount of dividends to be paid and the level of profit that must be maintained. Dividends paid will be a form of return to shareholders who invest in the organization (Shah and Husnian, 2011), while the profit that will be retained is known as retained earnings which the company reinvest in business operations or growth (Thomas, 2007).

It is believed that dividend policy can help reduce agency costs associated with separation of ownership and control (Benjamin and Maramuthu, 2015, Rozeff, 1982). Separation of ownership and control occurs when owners who are shareholders of a company (the principal) appoint a manager (agent) to manage the company on their behalf. However, this principal-agent relationship has created a problem which is a conflict of interest between shareholders and

managers. The interests of managers may not always coincide with those of shareholders. And this conflict causes firms to incur agency costs (Jensen and Meckling, 1976) where more time and money is spent on monitoring management to prevent inappropriate behavior.

In addition, agency costs can also be explained by free cash flow theory in which excess cash flow can be used to finance all projects that have a positive net present value (NPV) when discounted at the relevant cost of capital (Jensen, 1986). This theory believes that insiders tend to take selfish actions when there is excess cash in the company (Rozeff, 1982). According to Jensen (1986), an insider with personal interest intends to invest excess cash in unnecessary investment activities that is of no benefit to shareholders. It also shows that the interest conflict between agent and principal is severe when there is favorable free cash flow. Therefore, the company has to pay dividends instead of retaining them so that the company will not have excess cash thereby reducing the costs incurred from agency problems.

The theoretical principles underlying corporate dividend policy can be explained either in terms of information asymmetry, tax adjustment theory, or the behavior of factors. Information asymmetry includes several aspects, including the signaling model, agency costs, and the free cash flow hypothesis. Akerlof (1970) defines the signaling effect as a unique and specific signaling balance in which a seeker's job signals its quality to a potential employer. Although the scenario developed is used in the labor market, researchers have used it in financial decisions. The signaling theory suggests that corporate dividend policies used as a tool for placing cross-quality messages have a lower cost than other alternatives. This means that the use of dividends as a signal implies that alternative signaling methods are not perfect substitutes (see Bhattacharya, 1980; Talmor, 1981; Miller and Rock, 1985; Asquith and Mullins, 1986; Ofer and Thakor, 1987; Rodriguez, 1992).

Investors use many different ratios and metrics to judge worthy candidates for their portfolios. One of these is the Dividend Payout Ratio (DPR), which looks at the dollar amount of dividends a company pays relative to its total net income. The DPR states what percentage of income the company pays to its owners or shareholders. Any money that is not paid by the company is usually used to pay off the company's debt or to reinvest in main operations. The DPR itself cannot define the health of a company but provides an understanding of how companies prioritize investment for future growth.

Loan to Deposit Ratio (LDR) or also known as loan to deposit ratio, is used to assess bank liquidity by comparing total bank loans with total deposits for the same period. LDR is expressed as a percentage. If the ratio is too high, it means that the bank may not have enough liquidity to meet unexpected funding requirements. Conversely, if the ratio is too low, the bank may not make as much

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as it should. Usually, the ideal loan-to-deposit ratio is 80% to 90%. A loan-to-deposit ratio of 100% means the bank lends one dollar to the customer for every dollar it receives in deposits it receives. It also means that the bank will not have any significant reserves available for expected or unexpected contingencies.

Debt to equity ratio is calculated by dividing the company's total liabilities by shareholder equity. These figures are available on the company's balance sheet. This ratio is used to evaluate the company's financial leverage. The D / E ratio is an important metric used in corporate finance. It is a measure of the extent to which a company finances its operations through debt versus wholly owned funds. More specifically, it reflects the ability of shareholder equity to cover all debt in the event of a business downturn. The debt to equity ratio is a particular type of gearing ratio.

A growing company is any company whose business generates significant positive cash flow or revenue, which is growing significantly faster than the economy as a whole. Companies that are growing tend to have very profitable reinvestment opportunities for their own retained earnings. So, it usually pays little or no dividends to shareholders choosing to return most or all of their profits to the growing business.

Return On Assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives managers, investors, or analysts an idea of how efficient a company's management is at using its assets to generate revenue. The return on assets is shown as a percentage. Return on Assets (ROA) is an indicator of how well a company uses its assets, by determining how profitable the company is relative to its total assets. ROA is best used when comparing peers or comparing companies with past performance. The ROA figure gives investors an idea of how effective the company is at converting the money invested into net income. The higher the ROA number, the better, because the company makes more money with less investment.

The size of the company is one of the determining factors in achieving efficiency in its operations. At present, large-scale production is thought to bring about the bulk of the economic output by means of lower costs and higher returns. Hence, there is a tendency of increasing the size of industrial units to regulate mass production and mass sales in diverse markets. Because of this, we see companies of different sizes, each trying to expand depending on their resources and business potential. However, all firms may not be able to operate at the same efficiency. Economists look at the size problem from a cost standpoint with respect to the expected return on a particular unit of investment.

Mehta (2012) examined the impact of risk, size, profitability, liquidity and firm leverage on dividend payments. The industries investigated including construction, real estate, energy, health care and telecommunications sector industries were listed on the Abu Dhabi Stock Exchange for a five year period

starting from 2005 to 2009. The findings reveal profitability and size are key factors in significant changes in dividend payout decisions. Nuhu (2014) analyzes the impact of profitability, investment opportunity sets, taxation, leverage, company size, board size, board independence and type of audit on dividend payout ratios. It is concluded that profitability, leverage, board independence, type of audit, and board size are the key factors that significantly influence dividend payouts in Ghana.

Maladjian & Khoury (2014) explored the impact of profitability, growth, liquidity and company size, leverage, risk, and previous year's dividends on dividend policy of Lebanese banks listed on the Beirut Stock Exchange. They conclude that of the seven variables studied, five variables are statistically significant while profitability and liquidity are not statistically significant. Rafique (2012) examines the effect of company size, income, leverage, growth, profitability and corporate taxes on dividend policies for non-financial companies listed on the KSE100 Index. He concluded that of the six variables studied, only two variables including company tax and firm size were found to be significant. The rest is insignificant in the context of the Pakistani market.

Gill, Biger, & Tibrewala (2010) studied the effects of profitability, growth, taxes, cash flow, risk and leverage on dividend payout ratios in the context of American service and manufacturing firms. They concluded that for service firms, dividend policy is influenced by growth, profitability and leverage. For manufacturing companies, dividend policy is influenced by taxes, profitability, and risk. Jozwiak (2014) investigates these factors affecting the non-financial dividend policy of listed companies on the Polish Exchange Warsaw Exchange. The factors studied include leverage, liquidity, profitability, size and risk. The findings reveal the negative impact of leverage and profitability on dividend payments, that is, companies with high profitability pay low dividends to retain capital for future investment. Companies with high leverage pay low dividends because of high interest payments.

Alzomaia & AlKhadhiri (2013) examined the factors that influence the dividend policy of Saudi non-financial listed companies on the Saudi Stock Exchange (TASI). The factors studied include past dividends, earnings per share, growth, leverage and company size. They found a positive relationship between profitability and last year's dividends with dividend payout decisions. Companies pay more dividends when they experience an increase in their profitability. Last year's dividend payment is also considered important in deciding the dividend payment.

Zameer et al (2013) examined the effect of selected variables on dividend policies of foreign and domestic banks listed on various Pakistani stock exchanges. The factors studied include profitability, company size, leverage, growth, and liquidity, agency costs, past dividends, risk, and ownership of the

bank structure. There are only four factors found to have a significant impact on a bank's dividend policy. Profitability, past dividends and ownership structure have a positive relationship with dividend payments, while liquidity has a negative relationship with dividend payments in the banking sector. The remaining factors studied were found to be insignificant and had no impact on dividend decisions.

There has been extensive research on dividend policy, but to date, there has been no general consensus on what factors influence dividend policy and how these factors interact (Patran, 2012). The reasons why companies still pay dividends remain unsolved (Kinkki, 2001). Previous studies also acknowledge that a company's dividend policy is influenced by many factors (Gul and Bukhori, 2012). However, there are limited studies that focus on the determinants of dividend policy, especially in developing countries. Additionally, it is important to understand how these determinants relate to dividend decisions and can help reduce agency costs. Thus, this study was conducted to examine the factors that influence dividend policy in Indonesian companies. This study extends and contributes to the literature related to dividends especially in Indonesia. The results can be used as a comparison or as a support for views with other research in other countries. In addition, the results also provide shareholders and managers with an understanding of the factors that can influence their dividend decisions.

Previous empirical studies have focused primarily on developed economies. This study examines the relationship between the determinants of dividend payout ratios from a developing country context. This study looks at the problem from a developing country perspective with a particular focus on companies listed on the Indonesia Stock Exchange (IDX). This study defines the dividend payout ratio as the percentage of profit paid as dividends. It uses the percentage of the company's common stock institutional ownership as a proxy for agency costs. The growth in sales and market value to books is also used as a proxy for future prospects and investment opportunities. Other variables include profitability, risk, cash flow, growth and firm size.

Based on the descriptions in the theoretical study and previous research, the following is the formulation of the hypothesis in this study:

*H1:* Loan to Deposit Ratio has a significant effect on the Dividend Payout Ratio.

*H2:* Debt to Equity Ratio has a significant effect on the Dividend Payout Ratio.

*H3:* Growth has a significant effect on the Dividend Payout Ratio.

*H4:* Return On Assets has a significant effect on the Dividend Payout Ratio.

*H5:* Firm Size has a significant effect on the Dividend Payout Ratio.

*H6:* Loan to Deposit Ratio, Debt to Equity Ratio, Growth, Return On Assets, and Firm Size simultaneously have a significant effect on the dividend payout ratio.

Based on the description above, the authors compile a frame of mind as follows:

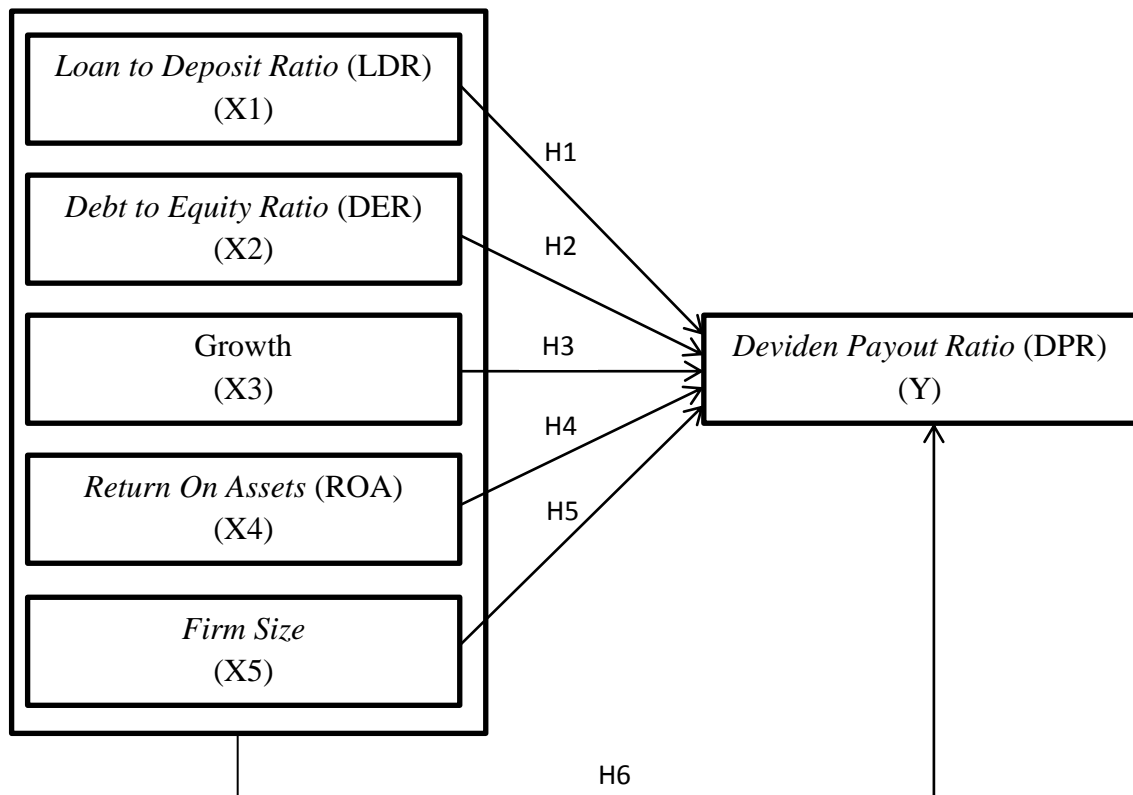


Figure 1  
Research Frame Work

**METHODOLOGY**

The data used in this study is secondary data in the form of bank financial performance data which includes data on Bank Size, Loan to Deposit Ratio (LDR), Growth, Return On Assets (ROA), Debt to Equity Ratio, and Dividend Payout Ratio. The data used in this study were obtained from the Annual Financial Statements of Commercial Banks listed on the Indonesia Stock Exchange 2015-2018 which were obtained from [www.idx.co.id](http://www.idx.co.id). Banking used is 30 companies with a total sample of 120. The data is pooled data, namely a combination of time series and cross section data. The dependent variable in this study is the Dividend Payout Ratio. Calculate the dividend payout ratio by dividing dividends per share by the company's earnings per share:

$$\text{Dividen Payout Ratio} = \frac{\text{Dividends Per Share}}{\text{Earning Per Share}} \times 100\%$$

Loan to Deposit Ratio or also known as loan to deposit ratio, is used to assess bank liquidity by comparing total bank loans with total deposits for the same period. Formula and Calculation for Loan to Deposit Ratio:

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$$\text{Loan to Deposit Ratio} = \frac{\text{Total Loans}}{\text{Total Deposits}} \times 100\%$$

The ratio of debt to equity or also known as the Debt to Equity Ratio is calculated by dividing the total liabilities of the company by the equity of its shareholders. Formula and calculation of Debt to Equity Ratio:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Shareholder's Equity}} \times 100\%$$

Growing company is any company whose business generates significant positive cash flow or revenue, which is growing significantly faster than the economy as a whole. Growth is measured by the percentage increase in assets each year:

$$\text{Growth} = \frac{(\text{Total Asset } t) - (\text{Total Assets } t-1)}{\text{Total Assets } t-1} \times 100\%$$

Return On Assets is an indicator of how profitable a company is relative to its total assets. The formula is:

$$\text{Return On Assets} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

Firm Size is one of the determining factors in achieving efficiency in its operations. It will be easier to see from the value of the company's assets, so the company size formula:

$$\text{Firm Size} = \ln \text{Total Assets}$$

This study uses a quantitative approach. The data in this study will be processed and analyzed with the SPSS test tool by fulfilling the Classical Assumption test, t test, f test, and the coefficient of determination test.

## **RESULT**

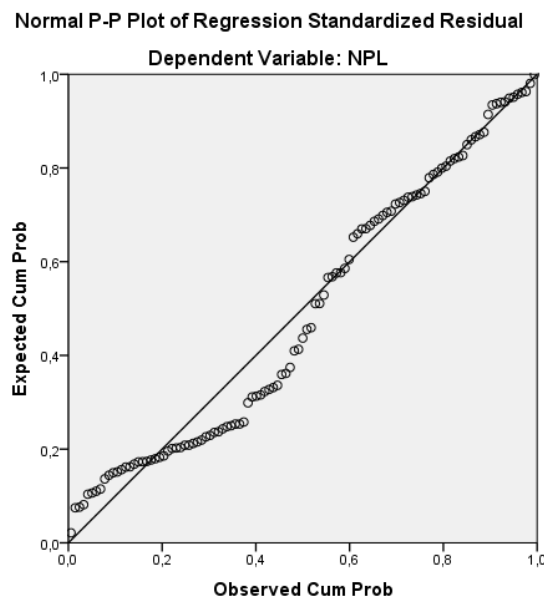
The data used in this study is secondary data in the form of bank financial performance data which includes data on Bank Size, Loan to Deposit Ratio (LDR), Growth, Return On Assets (ROA), Debt to Equity Ratio, and Dividend Payout Ratio. The data used in this study were obtained from the Annual Financial Statements of Commercial Banks listed on the Indonesia Stock Exchange 2015-2018 which were obtained from [www.idx.co.id](http://www.idx.co.id). The number of samples used was 111 samples with details in the table below. Data is pooled data, namely a combination of time series and cross section data.

### **Normality test**

The normality test aims to test whether in the regression model, confounding or residual variables have a normal distribution. To test the normality of the data



in this study, graph analysis was used, namely by analyzing the normal probability plot graph. If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, the regression model fulfills the assumption of normality, but if the data spreads far and does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution pattern then the distribution model does not fulfill assumption of normality. Based on the test results above, the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, so the regression model fulfills the assumption of normality.



Source: SPSS results, 2020

Figure 1  
Probability Plot

Table 1  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		120
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	,78638297
Most Extreme Differences	Absolute	,123
	Positive	,123
	Negative	-,061
Test Statistic		,228
Asymp. Sig. (2-tailed)		,145 <sup>c</sup>

Sumber: Data SPSS, 2020

The normality test can be strengthened using the Kolmogorov-Smirnov test. Kolmogorov Smirnov test is that if the significance is below 0.05, it means that the data to be tested has a significant difference with standard normal data, it means that the data is not normal. Conversely, if the significance is above 0.05, it means that there is no significant difference between the data to be tested and the standard normal data, meaning that the data tested is normal. Based on the test results above, it can be seen that the significance is 0.145. Significance above 0.05 means that there is no significant difference between the data to be tested and the standard normal data, meaning that the data tested is normal.

### **Multicollinearity Test**

Multicollinearity test to test the correlation between independent variables in regression. A good regression model should not have correlation between independent variables. Multicollinearity can be seen from the tolerance value and Variance Inflation Factor (VIF). These two measures indicate which independent variable is explained by the other independent variables. All variables that will be included in the regression calculation must have a tolerance above 10%. In general, if VIF is greater than 10, then the variable has a multicollinearity problem with other independent variables. The following are the results of the Multicollinearity test:

Table 2  
Multicollinearity Test

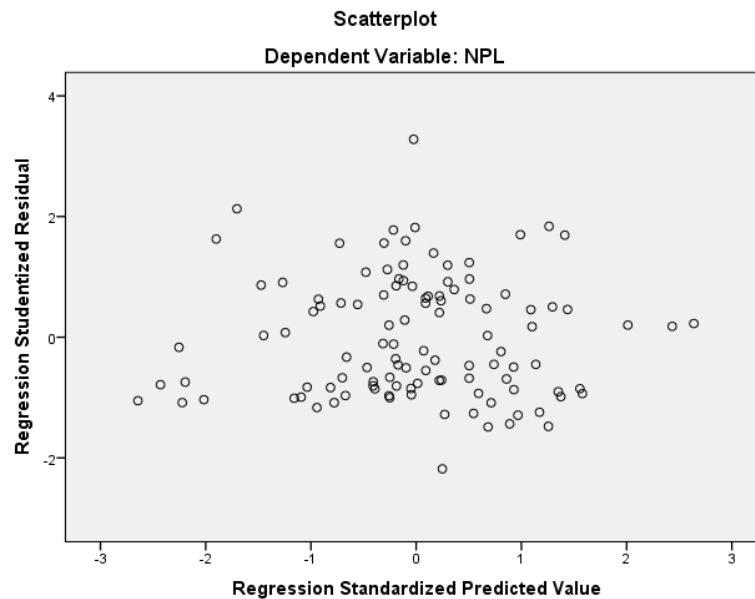
	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
	B	Std. Error	Beta	Tolerance	VIF
(Constant)	,065	53,425			
LDR	,100	,063	-,185	,659	1,518
DER	-,001	,007	-,008	,748	1,336
Growth	-,003	,018	,016	,752	1,331
ROA	,043	3,765	,016	,132	1,423
Size	,011	,105	,028	,134	1,340

Source: SPSS results, 2020

Based on the test results above, it can be seen in the VIF column that the bank size variable has a value of 1.518, the LDR variable has a value of 1.336, the CAR variable has a value of 1.046, the ROA variable has a value of 1.423, the BOPO variable has a value of 1.340, the GDP variable has a value of 2.583, and the inflation variable has a value of 2.452. So it can be concluded that all variables have a VIF value of less than 10, so these variables do not have multicollinearity problems with other independent variables. In addition, the Tolerance value of all variables is more than 10%.

### **Heteroscedasticity Test**

The heteroscedasticity test aims to test the variance inequality of the residuals of another observation. A good regression model is a regression that is free from heteroscedasticity. Testing is done by looking at the plot image between the predicted value of the independent variable (ZPRED) and its residual (SRESID). If there is no regular pattern in the graph and the data is randomly distributed above and below the number 0 on the Y axis, it is identified that there is no heteroscedasticity. The following are the results of the heteroscedasticity test:



Source: SPSS results, 2020

**Picture 2 Scatterplot**

Based on the results above, it can be seen in the graph that there is no certain regular pattern and the data is randomly distributed above and below the number 0 on the Y axis so it is identified that there is no heteroscedasticity.

### **Autocorrelation Test**

A good regression model is a regression that is free from autocorrelation. The method used to detect the presence or absence of autocorrelation is the Durbin Watson model (dw test). Autocorrelation is a condition in which the error-term variable in a certain period is correlated with the error-term variable in another period, which means that the error-term variable is not random. Violation of this assumption will result in the confidence interval for the estimation results being widened so that the significance test is not strong. Here are the test results:

Table 3  
Autocorrelation Test

Model	R Square	Adjusted R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	,090	,028	,090	1,454	7	113	,192	1,975

Source: SPSS results, 2020

Based on the output above, the Durbin Watson value is 1.975, then this value will be compared with the table value using a significance of 5% (0.05). The number of samples is  $N = 120$  and the number of independent variables is 7 ( $K = 3$ ), the value of  $dU = 1.8262$  and  $dL = 1.5591$  is obtained. The autocorrelation detection method, namely the Durbin Watson value = 1.975, is between  $dU = 1.8262$  and  $4-dU = 2.1738$  so it can be concluded that there is no positive or negative auto correlation.

### Multiple Linear Regression Analysis

Multiple regression is done to determine the extent to which the independent variable affects the dependent variable. In multiple regression there is one dependent variable and more than one independent variable. The statistical method used to test the hypothesis is multiple regression, this is in accordance with the formulation of the problem, objectives and hypothesis of this study. Multiple regression method connects one dependent variable with several independent variables in a single predictive model. Multiple regression tests are used to examine the effect of economic growth, local revenue and general allocation funds on capital expenditures.

Statistically, the accuracy of the sample regression function in estimating actual can be measured from the t statistical value, the F statistical value and the coefficient of determination. A statistical calculation is called statistically significant if the statistical test value is in a critical area (the area where  $H_0$  is rejected). Conversely, it is said to be insignificant if the statistical test value is in the area where  $H_0$  is accepted. Hypothesis testing uses time series data analysis which aims to see the effect of independent variables on the dependent variable and the ability of the model to explain the DPR in Bank Size, Loan to Deposit Ratio (LDR), LDR, Return On Assets (ROA), Growth. The results of the multiple regression test are as follows:

**Table 3**  
**Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,065	53,425		,001	,999
LDR	,100	,063	-,185	1,596	,003
DER	-,001	,007	-,008	2,070	,004
Growth	-,003	,018	,016	,544	,000
ROA	,043	3,765	,016	1,060	,001
Size	,011	,105	,028	1,296	,013

Source: SPSS results, 2020

**Correlation Coefficient Analysis (R)**

Correlation coefficient (R) is to determine the strength of the influence between the independent variable and the dependent variable. As a guideline to provide interpretation of the resulting correlation coefficient as follows:

**Table 4**  
**Coefficient Relationship**

Coefficient Interval	Relationship Level
0,000 - 0,199	Very low
0,200 - 0,399	Low
0,400 - 0,599	Moderate
0,600 - 0,799	Strong
0,800 - 1,000	Very strong

Source: SPSS results, 2020

Following are the results of the correlation coefficient analysis between variables based on the results of multiple regression tests:

**Table 5**  
**Variabele Relationship Level**

Variables	Coefficient	Relationship Level
X1	0,100	Very strong
X2	0,001	Very low
X3	0,003	Very low
X4	0,043	Low
X5	0,011	Low
X6	0,226	Very low
X7	0,020	Very low

Source: Data processed, 2020

From the test results above, it shows that the correlation coefficient for the variables X1, X2, X3, X4, X5, X6 and X7 to Y is 0.100, 0.001, 0.003, 0.043, 0.011, 0.226, and 0.020, respectively. The variable X6 or GDP has the strongest relationship among other variables with a correlation coefficient value of 0.226. The variable that has the lowest relationship with variable Y is X2 or Loan to Deposit Ratio (LDR) with a correlation coefficient value of 0.001.

### **Analysis of the Coefficient of Determination R<sup>2</sup>**

The coefficient of determination (R<sup>2</sup>) analysis is used to determine how much the percentage contribution of the influence of the independent variables simultaneously to the dependent variable. In this multiple regression model, it will be seen the amount of contribution for the independent variables together to the dependent variable by looking at the total coefficient of determination (R<sup>2</sup>). If (R<sup>2</sup>) is obtained close to 1 (one), it can be said that the stronger the model explains the relationship of the independent variable to the dependent variable. Conversely, if (R<sup>2</sup>) gets closer to 0 (zero), the weaker the impact of the independent variables on the dependent variable. Following are the results of the coefficient of determination R<sup>2</sup> test:

Table 6  
Analysis of the Coefficient of Determination R<sup>2</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,825 <sup>a</sup>	,680	,643	,33195773	1,902

Source: SPSS results, 2020

The table above shows that the R<sup>2</sup> value is 0.680, meaning that the independent variable's contribution to the dependent variable is 0.680 or 68%. Thus, it can be concluded that the value of R<sup>2</sup> is close to 1 (one) and it can be said that the stronger the model explains the relationship of the independent variable to the dependent variable. Meanwhile, the remaining 32% is explained by other factors not included in the model.

### **F Test**

The t test is known as the simultaneous test, which is to test how all the independent variables simultaneously influence the dependent variable. This test can be done by comparing f count with f table or by looking at the significance column on f arithmetic. The test criteria are as follows:

Ho:  $\beta_1 = \beta_2 = \dots \beta_k = 0$  means that there is no significant influence between all independent variables and the dependent variable.

H<sub>o</sub> :  $\beta_1 \neq \beta_2 \neq \dots \beta_k = 0$  means that there is a significant influence between all independent variables on the dependent variable.

If F count <level of significant 5% then Ho is accepted and H1 is rejected  
 If F count > 5% level of significant then H1 is accepted and Ho is rejected

Table 7  
 F Test ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6,091	7	2,030	18,423	,000 <sup>b</sup>
Residual	2,865	113	,110		
Total	8,956	120			

Source: SPSS results, 2020

The results of the f-test analysis in the table above show that the calculated f value is 18.423 and the significance / probability value is 0.000 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value <0.05. The results of the f-test analysis show that the probability value is 0.000 <0.05, it can be concluded that the independent variables together have a significant effect on the DPR.

**T Test**

T test is known as the partial test, which is to test how the influence of each independent variable individually on the dependent variable. This test can be done by comparing t count with t table or by looking at the significance column in each t count. The t test is carried out to test the significance of the independent variable on the dependent variable individually, this is done by comparing the t count with the table at the 5% level of significance with the following test criteria:

Ho:  $\beta = 0$  means that there is no significant effect of the independent variable on the dependent variable.

H o :  $\beta \neq 0$  means that there is a significant effect of the independent variable on the dependent variable.

If t count <level of significant 5% then Ho is accepted and H1 is rejected

If t count > 5% level of significant then H1 is accepted and Ho is rejected

The following are the results of the t test or partial test:

1) LDR (X1)

The results of the t test analysis in the table above indicate that the LDR coefficient (X1) is 0.100 and the probability value is 0.003 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value <0.05. The results of the t-test analysis show that the probability value is 0.003 <0.05, it can be concluded that LDR (X1) has a significant positive effect on DPR (Y). With this significant positive effect, it can be interpreted that every 1% increase or addition of LDR (X1), the DPR (Y) increases by

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0.100 or 10%. This is because the effect of LDR (X1) on the DPR (Y) is positive, so the addition of LDR (X1) will increase the DPL (Y).

Table 5  
T Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	,065	53,425		,001	,999
	LDR	,100	,063	-,185	1,596	,003
	DER	-,001	,007	-,008	2,070	,004
	Growth	-,003	,018	,016	,544	,000
	ROA	,043	3,765	,016	1,060	,001
	Size	,011	,105	,028	1,296	,013

Source: SPSS results, 2020

2) DER (X2)

The results of t test analysis in the table above show that the DER coefficient (X2) is -0.001 and the probability value is 0.004 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value  $<0.05$ . The results of the regression analysis show that the probability value is 0.004  $<0.05$ , it can be concluded that DER (X2) has a significant effect on DPR (Y). With this significant negative effect, it can be interpreted that every 1% increase or addition of DER (X2), the DPR (Y) decreases by 0.001 or 0.1%. This is because the effect of DER (X2) on DPR (Y) is negative, so the addition of DER (X2) will reduce DPR (Y).

3) Growth (X3)

The results of the t test analysis in the table above show that the value of the Growth coefficient (X3) is -0.003 and the probability value is 0.000 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value  $<0.05$ . The results of the regression analysis show that the probability value is 0.000  $<0.05$ , it can be concluded that Growth (X3) has a significant effect on DPR (Y). With this significant negative effect, it can be interpreted that every increase or addition of 1% Growth (X3), the DPR (Y) decreases by 0.003 or 0.3%. This is because the influence of Growth (X3) on DPR (Y) is negative, so the addition of Growth (X3) will reduce the DPR (Y).

4) Return On Assets (ROA) (X4)

The results of the t-test analysis in the table above show that the ROA coefficient (X4) is 0.043 and the probability value is 0.001 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value  $<0.05$ . The results of the regression analysis show that the probability value is 0.001  $<0.05$ , it can be concluded that ROA (X4) has a significant effect on



DPR (Y). With this significant positive effect, it can be interpreted that for every increase or addition of 1% ROA (X4), the DPR (Y) increases by 0.043 or 4.3%. This is because the effect of ROA (X4) on DPR (Y) is positive, so the addition of ROA (X4) will increase the DPR (Y).

5) Firm Size (X5)

The results of the t test analysis in the table above show that the coefficient value of Firm Size (X5) is 0.011 and the probability value is 0.013 with a significance level of 5% ( $\alpha = 0.05$ ). The hypothesis is accepted if the probability value  $< 0.05$ . The results of the regression analysis show that the probability value is  $0.013 < 0.05$ , it can be concluded that Firm Size (X5) has a significant effect on DPR (Y). With this significant positive effect, it can be interpreted that every increase or addition of 1% Firm Size (X5), the DPR (Y) increases by 0.011 or 1.1%. This is because the influence of Firm Size (X5) on DPR (Y) is positive, so adding Firm Size (X5) will increase the DPR (Y).

## CONCLUSION

Based on the results of research and discussion in advance, it can be concluded that:

1. LDR has a significant positive effect on the DPR. This is indicated by a significance value of  $0.003 < \alpha = 0.05$  and a correlation coefficient of 0.100. So it can be concluded that the LDR has a significant effect on the DPR. The LDR coefficient is 0.100 (positive sign), so the effect of the LDR on the DPR is positive, so the addition of the LDR will increase the DPR.
2. DER has a significant negative effect on the DPR. This is indicated by a significance value of  $0.004 < \alpha = 0.05$  and a correlation coefficient of -0.001. So it can be concluded that DER has a significant effect on the DPR. The DER coefficient is -0.001 (negative sign), so the effect of DER on DPR is negative, so adding DER will reduce the DPR.
3. Growth has a significant negative effect on the DPR. This is indicated by a significance value of  $0.000 < \alpha = 0.05$  and a correlation coefficient of -0.003. So it can be concluded that Growth (X3) has a significant effect on the DPR. The coefficient of Growth is -0.003 (negative sign), so the influence of Growth on DPR is negative, so the addition of Growth will reduce the DPR.
4. Return on assets (ROA) has a significant positive effect on the DPR. This is indicated by a significance value of  $0.001 < \alpha = 0.05$  and a correlation coefficient of 0.043. So it can be concluded that Return On Assets (ROA) (X4) has a significant effect on DPR. The Return On Assets coefficient is 0.043 (positive sign), so the effect of Return On Assets on the DPR is positive, so the addition of Return On Assets will increase the DPR.
5. Bank Size has a significant positive effect on the DPR. This is indicated by a significance value of  $0.013 < \alpha = 0.05$  and a correlation coefficient of 0.011.

So it can be concluded that the Bank Size (X5) has a significant effect on the DPR. The Bank Size coefficient is 0.011 (positive sign), so the effect of Bank Size on DPR is positive, so adding Bank Size will increase the DPR.

Theoretically, this research has implications for the development of previous research findings. In the case study of commercial banks in Indonesia which are listed on the Indonesia Stock Exchange, the research findings develop with the positive influence of Bank Size and ROA on the DPR of commercial banks. Meanwhile, other findings prove that LDR, DER, and Growth have a negative effect on commercial banks in this study. Results that are inconsistent with previous studies are the growth variable according to the results of this study has no effect on the DPR of commercial banks. The results of this study will indirectly have implications for further research as the basis for problem formulation or the development of research hypotheses.

The research implication for managerial is that it can become an early warning system to maintain the stability of the DPR, so that commercial banks in Indonesia can continue to explore sources of income both intensifying and extending to increase bank profitability. The results of this study also have implications for commercial banks to improve their ability to manage existing resources in order to improve company performance.

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