One of the ways to increase company value is by implementing Good Corporate Governance. Good corporate governance will enhance the company's image, protect the rights of shareholders and increase the efficiency and effectiveness of the work of the board of directors and company management. According to Rusdiyanto (2019: 45), corporate governance is a system that controls a company to increase added value for stakeholders.

In Indonesia the implementation of Good Corporate Governance (GCG) still has not been optimal. Sigit Pramono, Chairman of the Indonesian Institute for Corporate Directorship (IICD), stated at the 10th CG Conference & Award that Indonesia still lags behind a number of ASEAN countries in terms of implementing GCG (https: liputan6.com/bisnis). Currently, Indonesia ranks fourth in implementing corporate governance among other ASEAN countries such as Thailand, Malaysia and Singapore.

Corporate governance mechanisms are divided into two groups, namely: 1). Internal company mechanisms such as the structure of the board of directors and managerial ownership, and 2). External mechanisms such as debt funding levels, institutional ownership and markets for corporate control Poluan dan Nugroho (2015). Institutional ownership has a better ability than individual investors in controlling management actions in managing the company, Setiyawati et al (2017). The existence of institutional ownership encourages supervision of managers so that it can align the interests of managers and shareholders. Supervision of managers will optimize company performance so that company goals in an effort to increase company value will be achieved. The higher institutional ownership, the greater
the strength of the institution to supervise management so that it can optimize company value, Rusdiyanto (2019: 80). This study uses an external mechanism, namely institutional ownership as an indicator of corporate governance. Institutional ownership has advantages over other corporate governance indicators, including: having professionalism in analyzing information, so that it can test the reliability of information so that it can reduce information asymmetry. In addition, institutional ownership has a strong incentive to exercise tighter supervision over managers in managing the company. Institutional share ownership is generally able to reduce agency problems in the company.

In addition to corporate governance, there are other variables that are considered in increasing firm value including Return on Equity (ROE), Debt Equity Ratio (DER) and company size. Return on Equity (ROE) is one of the variables that affects firm value. ROE shows the efficiency of the company in using its own capital, the higher the ROE means the stronger the position of the owner of the company. According to Amalya in Lathifa (2018), high ROE can mean that shareholders will also receive high dividends, so that an increase in ROE will cause an increase in share prices.

Debt Equity Ratio (DER) is a solvency ratio that measures the extent to which a company is financed by debt by dividing total debt (Debt) by capital (Equity). Weston and Copeland (1992) reveal that firm value is related to company liquidity in returning loans to creditors, high use of debt will make it difficult for companies to fulfill their obligations, causing a decrease in firm value.

One of the other variables that is considered in influencing firm value is firm size. The size of the company is seen from the total assets of the company. Based on the size of the company is divided into large and small companies. A large company size reflects that the company is experiencing good development and growth, thereby increasing the value of the company Pratama (2016).

Previous research into the factors that influence company value, namely Return on Equity, Debt to Equity, and Firm Size, shows inconsistent results. Research by Lestari, Armayah (2016), Apsari et al (2015), Gunawan, et al (2018) and Aduroh, et. al. 2020 found that Return on Equity had a significant positive effect on firm value. However, in research by Astuti et al (2018), it was argued that profitability, proxied by Return on Equity, has no effect on firm value. Research by Susanti et al, and Mulyana (2017), Meizari, Viani (2017), and Setiyawati et al (2017) argued that Debt to Equity Ratio has a significant positive effect on firm value, while by contrast research by Suta et al (2016) and Fatah et al (2018) found that Debt to Equity Ratio had no effect on firm value. Previous studies have also found different results regarding firm size on firm value. Gill, Obradovich (2012), Pratama, Wiskuana (2016), Fauzan et al (2018) and Khasanah, Aryati (2019), found that company size had a significant positive effect on firm value, while Astuti et al (2018), and Rahmantio et al (2018), found that company size has no effect on firm value. Research conducted by Hamdiah (2015), Hariati, Rihatiningtyas (2015), and Ratnawati et al (2018), found that institutional ownership has a positive effect on firm value, while research with different results was conducted by Bemby S et al (2015), and Sholihah, Wahyudin (2017) who state that institutional ownership has no effect on firm value.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Company Value

The definition of company value according to Keown (2018: 35) is the market value of the company's equity plus the market value of its debt. According to Hardininginsih (2009), company value will be reflected in the company's stock price. The higher the company value, the greater the prosperity the company owner will receive. According to Brigham & Houston (2012: 7), maximizing shareholder wealth is the main objective of managerial decisions, namely by considering the risks and timing associated with earnings per share estimates to maximize the company's common share price. Firm value in this study is proxied by price to book value (PBV). According to Sutrisno (2013: 231) this ratio is to find out how big the stock price is in the market compared to the book value of the shares.

2.2. Agency theory

Agency theory according to Jensen & Meckling in Moeljadi (2006: 3) is a relationship regarding the separation between ownership and management carried out by managers. This separation occurs because
the owners of capital diversify their portfolios by delegating authority and decision-making to managers in managing a number of their funds. This relationship is prone to conflict, the conflict occurs because the owner of the capital (principal) tries to use his funds as best as possible with the least possible risk, while the manager (agent) tends to make fund management decisions to maximize profits which are often conflicting and tend to prioritize their own interests (Meyers in Moeljadi, 2006).

2.3. Signaling Theory

According to Ross (1977) managers will provide clear signs that indicate the continuity of a company going forward because managers have relatively complete information about a company's cash flow. This sign can be in the form of a promotion or other information indicating that the company is in a better position than its competitors. The quality or integrity of financial statement information can be generated by applying signaling theory so that it can help agents, principals and outsiders to reduce information asymmetry. Opinions from independent parties regarding financial statements are needed by and interested parties to ensure the reliability of financial information submitted by agents.

2.4. Trade off Theory

Brigham and Houston (2014: 183) state that corporate exchange theory or trade off theory exchanges the tax benefits of debt financing with problems caused by potential bankruptcy. Moldigani and Miller in Gumanti (2017: 82) agree that having a positive tax shield value in the case of paying debt interest rates can reduce taxes (tax deductible), while dividends cannot reduce taxes because dividends are paid after taxable income. The costs associated with debt financing in this theory are the costs of financial distress or bankruptcy. The tradeoff theory explains that if the level of leverage is low, the benefits of the tax shield on additional funds will be on top of the increase in bankruptcy costs. However, there is a critical point where the marginal present value of the tax shield equals the marginal present value of bankruptcy costs. The optimal capital structure will be achieved when the leverage is higher than the optimal value and the marginal cost of bankruptcy exceeds the marginal benefit of the tax shield, and in the end will decrease the firm’s value.

2.5. Pecking Order Theory

Gumanti (2017: 75) states that companies are assumed to prefer internal sources of funds (in the form of retained earnings) than external sources of funds. Myers and Majluf (1984) in Harjito (2011) state that the main source of the company's first capital times must come from the company's business results in the form of net profit after tax that is not distributed to shareholders. Company profits will be used by the company to be invested in more profitable projects. If the retained profit is not enough to finance the project, the company can increase its capital by seeking funds from debt and equity.

2.6. Return on Equity

The level of effectiveness of company management in generating profits, can be measured by the ratio of profitability. Kasmir (2016: 196), states that to assess the ability of a company to seek profit and the level of management effectiveness in managing the company is usually measured by the profitability ratio. Reference to profitability ratios imposes goals and benefits not only for the owners and management of the company but also for parties outside the company, especially those who have a relationship or interest with the company. Profitability can be measured using the Return on Equity (ROE). Kasmir (2016: 204), states that the rate of return on capital is a ratio measured by dividing net income after tax by own capital. This ratio reflects the level of efficiency in the use of own capital. According to Henry (2016: 144), ROE shows the ratio of results (returns) on the use of company equity in creating net income so that the higher the ROE the stronger the position of the owner of the company. According to Amalya in Lathifa (2018) a high rate of return on capital (ROE) means that shareholders will get high dividends too, so that the share price will also be high. Lestari, Armayah (2016), Apsari et al (2015), and Gunawan et al (2018), revealed that Return on Equity had a significant positive effect on firm value. Based on the theory and previous research, hypotheses can be formulated as follows: 

\[ H1 = \text{Return on Equity has a significant effect on firm value.} \]
2.7. Debt to Equity Ratio

According to Herry (2016: 168), DER is a ratio used to measure the proportion of debt to capital by dividing total debt by capital. Weston and Copeland (1992) revealed that the value of a company is related to the company's liquidity in returning loans to creditors. The use of high debt will make it difficult for companies to meet their obligations, causing a decline in the value of the company. Research by Susanti et al (2017), Meizari, Viani (2017), and Setiyawati et al (2017), revealed that Debt to Equity Ratio had a significant positive effect on firm value. Based on previous research and the theory above, the following hypotheses can be formulated:

**H2** = Debt to Equity Ratio has a significant effect on firm value

2.8. Firm Size

Brigham and Houston (2011: 4) refer to Company size as the size of a company in terms of assets, total sales, total profits, tax expenses, etc. Riyanto (2008: 313) states that company size can be seen in terms of equity value, sales value or asset value. Companies are described as large or small, depending on their size. Companies that have a large and well-established size will find it easier to obtain capital funding in the capital market compared to small companies, Sartono (2012: 249). Research by Gill, Obradovich (2012), Pratama, Wiksuana (2016), Fauzan et al (2018) and Khasanah, Aryati (2019), revealed that company size had a positive effect on firm value. Based on previous research and the theory above, the following hypotheses can be formulated:

**H4** = Company size has a significant effect on firm value

2.9. Good Corporate Governance

According to Rusdiyanto (2019: 45), corporate governance is a system that controls a company to increase added value for stakeholders. The implementation of good corporate governance in a company will increase the company’s value and corporate image, protect the rights of shareholders and improve the efficiency and effectiveness of the work of the board of management and company management. One indicator to measure Good Corporate Governance is institutional ownership. Rusdiyanto (2019: 80), states that institutional share ownership consists of various institutions outside the company, including government companies, financial institutions, legal entities, foreign institutions, and trust funds. He further argues that the higher the level of institutional ownership, the greater the ability of the institution to oversee management so as to optimize the value of the company. Research by Hamdiah (2015), Hariati, Rihatiningsiyas (2015), and Ratnawati et al (2018), revealed that institutional ownership has a significant effect on firm value. Based on previous research and the theory above, the following hypotheses can be formulated:

**H5** = Institutional ownership has a significant effect on firm value

2.10. The influence of Institutional ownership can moderate the effect of Return on Equity on firm value

Using ROE and ROA as indicators, research conducted by Romadhona et al (2018) and Aduroh, et al (2020) revealed that institutional ownership is able to moderate the effect of profitability on corporate value in Singapore. Similarly, research with the moderation type being a pure moderator, undertaken by Lathifa et al (2018), revealed that institutional ownership is able to moderate the effect of profitability on firm value. The results of research conducted by Putri, Ahmar (2019), show that institutional ownership is able to moderate the effect of profitability on firm value in Indonesia and the Philippines. Based on previous research and the theory above, the following hypotheses can be formulated:

**H6** = Institutional ownership can moderate the effect of Return on Equity on firm value

2.11. The influence of Institutional ownership can moderate the effect of Debt to Equity Ratio on firm value

Institutional ownership has a very significant influence according to research conducted by Suta et al (2016), on the relationship between debt policy and firm value. Lathifa et al (2018), revealed that institutional ownership was able to moderate the effect of solvency on firm value in Thailand. Aduroh, et al (2020) revealed that institutional ownership was able to moderate the effect of solvency on firm value in Indonesia. It can thus be concluded that institutional ownership is able to
moderate the effect of debt policy on the value of a company. Based on previous research and the theory above, the following hypotheses can be formulated:

**H7 = Institutional ownership can moderate the effect of Debt to Equity Ratio on firm value.**

The research model is presented in Figure 2.

![Research model](image)

**Figure 2. Research model**

### 3. METHODS

This study uses Moderated Regression Analysis (MRA) to establish the level of influence the independent variable as well as the level of influence of moderating variables on the dependent variable. It further seeks to establish whether the variable of Good Corporate Governance can moderate (either strengthen or weaken) the relationship between the independent variables and the dependent variable. The population in this study amounted to 61 companies listed on the LQ45 index. The sampling technique used was purposive sampling. The number of samples in this study amounted to 17 companies in LQ45. The research period was 5 years from 2015-2019, amounting to 85 observations. The regression model equation used in the research for models in Indonesia are:

\[
PBV_{it} = \alpha + b1ROE_{it} + b2DER_{it} + b3SIZE_{it} + eit...
\]

\[
PBV_{it} = \alpha + b1ROE_{it} + b2DER_{it} + b3SIZE_{it} + b4INST_{it} + eit...
\]

\[
PBV_{it} = \alpha + b1ROE_{it} + b2DER_{it} + b3SIZE_{it} + b4INST_{it} + b5ROE_{it} * INST_{it} + b6DER_{it} * INST_{it} + eit...
\]

### 4. RESULT AND DISCUSSION

The variables used in this study are Return on Equity, Debt Equity Ratio, and Firm Size. Good Corporate Governance variables are proxied by Institutional Ownership, while Company Value variables are proxied by Price to Book Value. Statistical description of the research variables are provided in Table 2 below.

**Table 2**

<table>
<thead>
<tr>
<th>Descriptive Statistics of Variables on the LQ45</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>ROE</td>
</tr>
<tr>
<td>DER</td>
</tr>
<tr>
<td>LnSIZE</td>
</tr>
<tr>
<td>INST</td>
</tr>
<tr>
<td>PBV</td>
</tr>
<tr>
<td>Valid N</td>
</tr>
</tbody>
</table>

**Table 3**

<table>
<thead>
<tr>
<th>Variabel dependent: PBV</th>
<th>Variabel Independent</th>
<th>Indeks LQ45</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>ROE</td>
<td>0.375***</td>
<td>0.395***</td>
</tr>
<tr>
<td>DER</td>
<td>-2.555***</td>
<td>1.130</td>
</tr>
<tr>
<td>LnSIZE</td>
<td>0.040</td>
<td>0.183</td>
</tr>
<tr>
<td>INST</td>
<td>0.283***</td>
<td>-1.323***</td>
</tr>
<tr>
<td>ROE*INST</td>
<td>0.003</td>
<td>(1.807)</td>
</tr>
<tr>
<td>DER*INST</td>
<td>-0.119**</td>
<td></td>
</tr>
<tr>
<td>Number of Observation</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>R²</td>
<td>0.941</td>
<td>0.840</td>
</tr>
</tbody>
</table>

Significance of 5%, (***)) Significance of 1%

Hypothesis Test Results in Table 3 show that the ROE variables in models 1, 2 and 3 on the LQ45 Index have a
significant positive effect on firm value. This can be interpreted to mean that as ROE increases, company value on the LQ45 Index also increases. Increased ROE signifies that the level of return received by investors for each unit of capital invested will be higher.

Model 1, model 2 and model 3 confirm Signaling Theory (as presented by Ross (1997), where a company provides a signal to users of financial statements. The profit generated by the company on the LQ45 Index is used as a signal for managers' ability to manage the company well. ROE value which is high responded as a good signal for users of financial statements (including investors) that the sustainability of the company will be guaranteed. This good signal increases investor confidence in the company so that the company's value will increase. Model 2 shows that with institutional ownership, the effectiveness of the company in managing equity is higher so that the ability to generate profits using equity is also higher. The higher the rate of return on capital, the higher the firm value, and vice versa.

In Model 3, ROE has a significant positive effect on firm value. The coefficient value in model 3 shows a smaller value than that in model 2. This means that in model 3 the presence of interaction variables will weaken the effect of ROE on firm value, whereas in a model without interaction the company's ability to manage its capital can have a greater effect on firm value. The higher institutional ownership followed by higher rates of return and debt will weaken the effect of ROE on firm value. The results of this study are consistent with research conducted by Lestari, Armayah (2016), Apsari et al (2015), Gunawan et al (2018), revealing that Return on Equity has a significant positive effect on firm value. The analysis results of DER in model 1 without the institutional ownership variable show that has a significant negative effect on the value of public companies on the LQ45 Index. This means that when DER increases, firm value will decrease, and vice versa. Model 1 confirms Pecking Order Theory, where companies are assumed to prefer internal sources of funds in the form of retained earnings rather than external sources of funds (in the form of debt), Gumanti (2017: 75). The source of funding in the form of debt will create a burden on the company so that it will reduce the prosperity of shareholders. As much as possible, shareholders use their authority to encourage managers to be more effective in making the right decisions in finding sources of funding so that it will increase company value. Shareholders assume that high levels of debt will increase the burden on the company so that the risk of company bankruptcy is getting bigger.

DER in model 2 with institutional ownership variable show that DER doesn't have effect on the value of public companies on the LQ45 Index. Investors assess that high institutional ownership followed by rates of return and debt does not affect investors to invest in the LQ45 index. Investors assess that the increase in debt has no effect on the value of the company in the LQ4 index. This is because the Indonesian government applies a business entity tax relatively higher than other ASEAN countries, (kemenkeu.go.id/publikasi-pajak). in Indonesia according to Law Number 36 Year 2008 amounting to 25%. This is in line with the trade off theory as stated by Brigham and Houston (2014: 183), in which companies exchange tax benefits from debt financing with problems caused by potential bankruptcy.

DER in model 3 has a significant positive effect on firm value. This can be interpreted to mean that DER increases, company value on the LQ45 Index also increases. in this model, DER with interaction variables has a greater effect than without interaction. So that to increase the value of the company, the manager needs to increase the proportion of institutional share ownership with the rate of return and the proportion of institutional share ownership with the level of debt, because it affects firm value. DER has an effect on firm value in line with research conducted by Susanti et al (2017), Meizari, Viani (2017), and Setiyawati et al (2017). However, different results shown by Suta et al (2016) and Fatah et al (2018) found that DER had no effect on firm value.

On the LQ45 Index models 1, 2 indicates that firm size has no effect on firm value. This means that the size of the assets owned by the company does not affect the high or low value of the company. This can be interpreted as meaning that the proportion of share ownership by institutions does not affect the level of the value of the company. This is not in line with what has been stated by Rusdiyanto (2019: 80), who claims that the higher the level of institutional ownership, the greater the strength of the institution to oversee management so as to optimize the value of the company.
Model 3 shows that company size has a significant positive effect on firm value. This means that the greater the size of the company as measured by total assets, the greater the value of the company. Companies that have a large size generally will have easier access to the capital market, so that the opportunity to get outside funding will be even higher. A company that has a large size will be more trusted by creditors to provide loans because the company has large assets as collateral. In addition, the large amount of assets owned by the company causes management to be freer to use these assets to increase company value. Investors view the ease of obtaining funding as a positive signal so that the company's value will increase. So the larger the size of the company, the higher the value of the company. The results of the analysis show that the effect of Institutional Ownership on firm value in model 2 and the model with interaction variables in model 3 shows different results. Model 2 confirms Agency Theory as stated by Jensen and Meckling (1976), where the greater the proportion of institutional ownership, the higher the supervisory activities for managers in managing the company. This is because the supervision of individual investors is considered not optimal in monitoring the opportunistic behavior of managers in managing the company.

In the model with interaction (model 3), institutional ownership has a significant negative effect on the value of public companies in the LQ45 Index. With the interaction variable, the higher the institutional ownership, the lower the company value. Investors assess the high proportion of institutional ownership coupled with high rates of return and debt to companies listed on the LQ45 Index causing too tight supervision of managers, so that managers are not free to make the right decisions which can be a good prospect for the company. Institutional Ownership has an effect on company value in line with research conducted by Hamdiah (2015), Hariati, Rihatiningtyas (2015), and Ratnawati et al (2018).

Institutional ownership variable shows that it cannot moderate the relationship between ROE and company value on the LQ45 Index. This means that no matter how large the proportion of ownership by the institution cannot strengthen the effect of ROE on firm value. Institutional ownership is not able to moderate the effect of ROE on firm value in line with the research conducted by Lathifa et al (2018), institutional ownership is not able to moderate the effect of profitability on firm value.

The results in Table 3 show that the variable of institutional ownership can moderate the effect of DER on firm value. This means that institutional ownership, irrespective of its proportion, is able to influence policy on the use of corporate debt as a source of funding for increasing company value. The optimal use of debt policies and the supervisory role of institutional ownership will reduce the risk of corporate bankruptcy. This is in accordance with the trade off theory which explains that optimal use of debt will reduce bankruptcy costs and this debt policy has certainly been monitored by institutions, Suta et al (2016). The results of this study are in line with those of, Suta et al (2016), who claimed that institutional ownership has a strong significant influence on the relationship of debt policy with firm value. Similarly, work by Lathifa et al (2018) and and Aduroh, et. Al (2020), revealed that institutional ownership has proven to be able to moderate the effect of solvency to the value of the company.

5. CONCLUSION

The aim of this study is to obtain tested explanatory findings regarding determinants of firm value and the role of good corporate governance as a moderating variable during the 2015-2019 period in Indonesia public companies. The results showed that the three models of Return on Equity (ROE) had a significant positive effect on firm value in LQ45, the Debt Equity Ratio in model 1 had a significant negative effect and on models with the moderating variable DER had a significant positive effect. on firm value at LQ45. Firm size in models 1 and 2 has no effect on firm value, while model 3 has a significant positive effect. Institutional ownership (INST) has a significant positive effect on model 2, whereas in model 3 INST has a significant negative effect on firm value. Finally, the INST variable can moderate the influence of the DER variable on the company, but it cannot moderate the effect of the ROE variable on firm value in LQ45.

This study shows that as companies in the strive to increase their value, they have to consider the proportion of share ownership by institutional parties because it has effect on company value in LQ45 index. Institutional ownership can, encourage company decisions which strengthen the efficiency of using their
own capital, and optimize company performance in generating profits.

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