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# Analysis of the Influence of Gearing rasio on Company Value, with Return on Assets as Intervening

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**Abstract:** This research aims to determine the effect of gearing ratio on company value, with ROA as an intervening, at Gail Ltd. Quantitative approach using path analysis. The sample used in this research is the financial report of the company Gail Ltd. 2019-2022 period. Financial report data is obtained from the company website. The results of this research show that the Gearing ratio has a negative influence on ROA and Tobins' Q, and ROA has a positive influence on Tobins' Q.

**Keywords:** Gearing ratio; ROA; Tobins' Q; Path Analysis

**JEL Classification:**

## 1. INTRODUCTION

The Covid-19 pandemic has had a broad impact on various industrial sectors, both nationally and internationally. One of the sectors affected is the oil and gas industry, which is also influenced by various factors, especially the long-term impact of the pandemic. A study shows that oil and gas risk factors are correlated with the average stock return of the oil and gas industry (Hoque et al., 2020). In the context of the oil and gas industry, it is necessary to consider the impact of leverage and Tobin's Q value as a representation of company value, especially with return on assets as an intervening variable. The various relationships observed in previous research emphasize the need for a differentiated understanding of these dynamics, especially in the oil and gas industry.

The pecking order theory states that companies should use orders when deciding to raise funds; the order should be as follows: utilize retained earnings first, choose debt and if these two sources are not available or the conditions and circumstances that apply to these sources are available, then the company can choose to issue new shares to generate capital. The pecking order theory shows that profitability has a negative relationship with leverage. The relationship between leverage and Tobin's Q value, with return on assets as an intervening variable, in the oil and gas industry is complex and varies based on different empirical studies. This is in line with previous research, where the research supports the pecking order theory by finding a negative relationship between leverage and Tobin's Q value (Irawati & Marlina, 2022), although other research reports a positive relationship (Akben-Selcuk, 2016). Additionally, the impact of leverage on firm performance, such as return on assets and Tobin's Q, was found to be insignificant in some cases (Chadha & Sharma, 2015). Other research also shows that the relationship between corporate governance structure and company performance based on Tobin's Q can be significantly negative in some cases (Haniffa & Hudaib, 2006).

Another financial theory view states that the use of leverage can increase company value, which is measured by Tobin's Q. This is due to the potential for increased profits for shareholders when the rate of return on investment is higher than the cost of debt. However, this strategy also carries increased financial risks for the company. This finding is consistent with research results which show that the impact of using leverage on company investment has a negative correlation with leverage in companies that have high growth opportunities (shown by high Tobin's Q) and has a positive correlation with leverage in companies that have low growth opportunities. (or low Tobin's Q) (Aivazian et al., 2005). Based on the description that has been explained, a problem formulation can

be prepared in this research, namely:
1. Does the Gearing ratio have an effect on the company's Return on Assets?
2. Does the Gearing ratio have an effect on the company's Tobins Q?
3. Does Return on Assets affect the company's Tobins Q?
The objectives of the research carried out are:
1. Analyze the effect of Gearing ratio on Return on Assets
2. Analyze the effect of Gearing ratio on Tobins Q
3. Analyze the effect of Return on Assets on Tobins Q

## 2. LITERATURE REVIEW

The gearing or leverage ratio is measured as the percentage of total debt to total capital and is integrated into the calculation of company risk in accounting. A high leverage ratio reflects a possible decline in the company's profitability due to debt interest expenses, while a low ratio indicates a cautious attitude towards risk or tight operating margins (Haniffa and Hudaib, 2006). Leverage refers to the use of debt by a company to fund operations or investments, with two main types, namely operational leverage (related to the company's operations) and financial leverage (related to the capital structure, namely the debt to equity ratio).

In this research, financial performance is measured using return on assets (ROA) as an indicator of company profitability. ROA is widely used in previous literature as a company performance metric (as seen in research by Lin et al., 2019; de Azevedo Rezende et al., 2019; Xie et al., 2019). Especially in oil and gas companies which generally have large capital, ROA is considered more appropriate as a measure of profitability than return on equity, because it highlights how assets or resources are used to generate income, not for investment purposes (Merrow, 2012).

The pecking order theory confirms that there is a negative relationship between profitability and leverage, a view that is in line with findings in previous studies by Rouf (2015), Pratheepkanth (2011), San and Heng (2011), Saeedi and Mahmoodi (2011), and Zeitun and Tian (2007), who have confirmed the negative relationship between capital structure and company performance. On the other hand, trade-off theory states that there is a positive relationship between leverage and company profitability, as found in previous studies by Bauer (2004), Chen (2004), Huang and Song (2006), Jong et al. (2008), Serrasqueiro and Rogao (2009), Viviani (2008), and Zou and Xiao (2006). This research uses return on assets (ROA) as a measure of profitability, and several specific hypotheses have been tested related to company profitability.

Tobin's Q is the ratio between a company's market value and the book value of its assets, calculated by dividing the market value (market capitalization) by the total book value of assets. Several financial theories state that the use of leverage can increase company value (Tobin's Q) by increasing the potential profits for shareholders when the rate of return on investment is higher than the cost of debt. However, the use of leverage also carries financial risks to the company.

There is a view that too much debt can increase financial risk and reduce the value of Tobin's Q. High debt interest rates or the company's difficulty in meeting debt repayment obligations can have a negative impact on the company's value. The concept of optimal leverage suggests that there is a level of debt that can increase the value of the company up to a certain point, after that point, an increase in debt can be detrimental to the value of the company.

Research by Wang et al. (2009) and Ganda (2022) show that corporate philanthropy can improve financial performance, measured by ROA and Tobin's Q. Positive findings were also found by Oraka (2021) who showed that environmental compliance and remediation costs influence the Tobin's Q of oil and gas companies. Aminah et al. (2022) found a significant positive relationship between financial performance (ROA) and company value (Tobin's Q), in line with other research that shows Tobin's Q as a significant variable that influences company financial policy (Senan et al., 2021). In addition, research by Setiyawati et al. (2018) aim to examine the impact of dividend policy, debt policy, and institutional ownership on Tobin's Q, highlighting the relevance of financial metrics in determining firm value. Thus, there is a significant relationship between ROA and Tobin's Q, in

accordance with the context of previous research.

## 3. MATERIALS AND METHODS

Research methods are scientific ways to obtain data with specific purposes and uses (Sugiyono, 2017: 2). The type of research used is associative research with a quantitative approach. Data analysis is quantitative or statistical in nature, with the aim of testing predetermined hypotheses (Sugiyono, 2017: 35).

The type of research in this research is empirical research in the form of hypothesis testing using the causality method, namely by measuring the influence and relationship between one variable and another variable. The variables in this research consist of gearing ratio, ROA, Tobins' Q.

The type of data used in this research is quantitative. The data source used in this research is secondary data. Secondary data is a source of research data obtained by researchers indirectly through intermediary media (Indriantoro and Supomo, 2013: 147). The secondary data used is in the form of financial reports for the Gail Ltd company, for the 2018-2022 period.

Data collection was carried out through the documentation method, namely the process of collecting data used for research obtained from financial reports published via the company's official website at https://gail.gas.com/. The variables in this study consist of exogenous latent variables, namely gearing (X), and endogenous latent variables, namely Z=ROA and Y=Tobins Q.

The analysis method uses path analysis using SPSS software. The econometric equations in this research can be arranged as follows:

$Z=p.xz.X + e1$

$Y=p.xy.X + p.zy.Z + e2$

## 4. RESULTS

This research was conducted at the oil and gas company, Gail Ltd., with an observation period of 2018-2022. The results of the regression equation obtained are, Z = 15.1 + (-0.1) Z=15.1 + (-0.1)X the constant value 15.1 can be interpreted, if the variable X value is zero (X=gearing ratio), then the value of the Z variable (Z=ROA) is 15.1.

Then the next regression equation is, Y= 4.9 + (-0.01)X + (-0.17) Z , The constant value of 4.9 can be interpreted, if the gearing rasio and ROA are equal to zero, then the Tobins Q value is 4.9.

The results of testing the first hypothesis show that the Gearing ratio has no influence on ROA. Where the calculated –t value > -t table (-1.98 > -1.99) with a significance of 0.05. So H0 is accepted, namely gearing has no effect on ROA. This is in line with the pecking order theory and is also in line with Rouf's (2015) research. This condition can be interpreted as meaning that the company can manage its debt well, including paying interest and principal on time, so financial risks can be minimized. Thus, the gearing ratio does not have a significant impact on ROA. This is in line with research by Chava & Roberts (2008) which highlights that violations of financial covenants can cause a sharp decline in capital investment, which shows the importance of managing debt to avoid such bad consequences. Gao (2019) emphasized that analysis of a company's debt repayment capacity is very important for internal managers to ascertain the financial situation and make appropriate lending decisions, which further supports the idea that effective debt management is essential for financial stability. Additionally, Lau (2022) states that companies tend to structure their debt issuance to manage earnings and avoid breaching debt covenants, indicating proactive steps taken by companies to ensure good debt management. In accordance with previous research (Chava & Roberts, 2008; Eleje et al., 2020; Gao, 2019; Lau, 2022; Dichev & Skinner, 2002) effective debt management, including the ability to pay interest and principal on time, it is critical to minimize financial risk and potentially mitigate the impact of gearing ratios on ROA.

The results of testing the second hypothesis show that the gearing ratio has no influence on Tobins'Q. Where the calculated –t value > -t table (-1.7 > -1.99) with a significance of 0.05. So H0 is accepted, namely gearing has no effect on Tobin's Q. This is in line with previous research, namely that a negative relationship was found between leverage and the value of Tobin's Q (Irawati &

Marlina, 2022). Furthermore, Alarussi & Alhaderi (2018) found evidence of a negative relationship between size, gearing ratio, and profitability (Alarussi & Alhaderi, 2018). Similarly, Goddard et al. (2005) report a negative relationship between a company's gearing ratio and its profitability. Furthermore, Bevan & Danbolt (2004) found an insignificant negative correlation between gearing and company size (Bevan & Danbolt, 2004). These studies provide evidence supporting a negative relationship between gearing ratios and firm value. In addition, other studies mention agency problems, which show a negative relationship between capital structure and firm growth (Gill et al., 2009; Pienaar & Shotter, 2000). A higher gearing ratio, indicating a higher level of debt, is associated with lower profitability and a decrease in firm value.

The results of testing the third hypothesis show that ROA has an influence on Tobins'Q. Where the calculated –t value > -t table (-9.8 > -1.99) with a significance of 0.00. So H1 is accepted, namely ROA has an effect on Tobins Q. This is in line with the results of previous research, namely, Wang et al. Lev et al. (2009) found that corporate philanthropy improves financial performance, as measured by ROA and Tobin's Q. Ganda (2022) also supports this, showing a positive and significant relationship between carbon performance and ROA and Tobin's Q. The value of ROA has a significant positive influence on company value, indicating that a higher ROA reflects better company performance, thereby increasing company value. Other research also supports the positive influence of ROA on company value (Uriawan & Permana, 2023), and Gursida & Sasongko (2021) emphasizes that increasing ROA can increase the level of company value thereby increasing investor confidence.

## 5. CONCLUSIONS

The results of this research show that the gearing ratio has a negative influence on ROA and Tobins' Q, and ROA has a positive influence on company value. The ROA variable mediates the relationship between the gearing ratio and Tobins' Q, this can be seen from the magnitude of the coefficient of the direct influence of the gearing ratio on Tobins' Q which is smaller than the indirect influence of the gearing ratio on Tobins'Q through ROA.

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