Comparative Analysis of Companies' Financial Performance Before and After an Increase in Value-Added Tax Rate: Evidence from Indonesia

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ABSTRACT

This study aims to analyze the differences in the financial performance of companies in the consumer cyclicals sector before and after the implementation of the value-added tax rate increase policy to 11%. The strong protests from businesses and the public against this policy, coupled with the government's plan to raise the value-added tax rate again to 12%, as well as the lack of research addressing this topic, motivated this study to examine the differences in the financial performance of consumer cyclicals companies before and after the increase in the value-added tax rate. Financial performance in this study is represented by profitability, liquidity, and solvency. Profitability is proxied by return on equity, liquidity by the quick ratio, and solvency by the debt-to-equity ratio. The population of this study is 141 consumer cyclicals companies listed on the Indonesia Stock Exchange over eight quarters, from the 2nd quarter of 2021 to the 1st quarter of 2023. The sampling technique used is purposive, yielding a sample of 95 companies. The analysis method used is the paired-samples t-test in SPSS version 25. The results of this study indicate that there is no difference in return on equity before and after the increase in the value-added tax rate. However, there are differences in the quick ratio and debt-to-equity ratio before and after the increase in the value-added tax rate.

Keywords: Financial performance, liquidity, profitability, solvency, and value-added tax

INTRODUCTION

Every company has a goal from the moment it is founded. Companies generally aim to maximize profits for shareholders or owners through high profitability and sustainable profit growth (Hajar, 2019). To achieve these goals, the company, through its management, strives to adopt appropriate policies and measures in carrying out its business activities. The results of these policies and measures are then reflected in the company's financial performance (Suwadji et al., 2021). Financial performance can serve as a benchmark for management and external parties, such as stakeholders, investors, and the government, to evaluate policies and inform future decisions. Based on this, an analytical tool is needed to assess financial performance and company performance trends, that is, financial analysis. (Robinson et al., 2015). Brigham & Houston (2019) stated that financial analysis can be carried out using several financial ratios, namely profitability, liquidity, and solvency (debt management).

One ratio frequently used to assess financial performance is the profitability ratio. There are several profitability ratios available, one of which is earnings per share (EPS). EPS indicates how much income is available to common shareholders for each share (Robinson et al., 2015). EPS is often referred to as the 'bottom line', meaning that of all the items on the income statement, EPS is the most important item for shareholders (Brigham & Houston, 2019). Table 1 below presents EPS data from companies listed on the Indonesia Stock Exchange (IDX) based on sector categories, which came into effect in 2021.

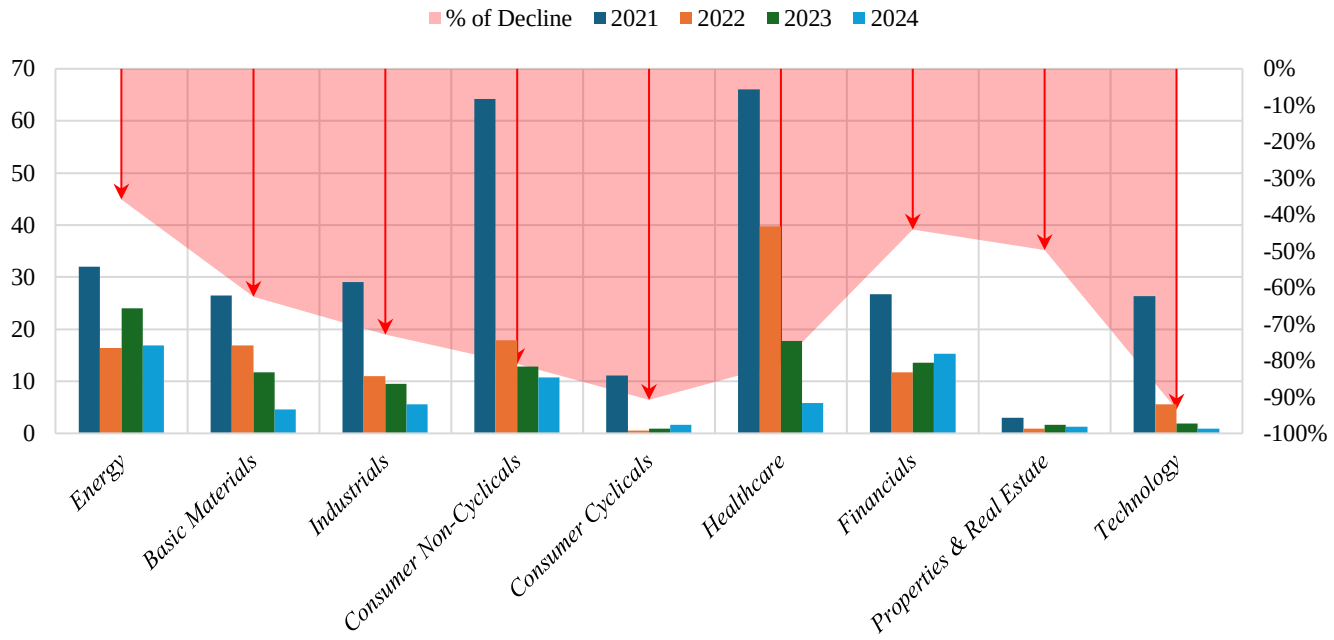
Table 1. EPS 2021-2024 by Company Sector

Sector	EPS (Rp)				Changes from 2021 (%)		
	2021	2022	2023	2024	2022	2023	2024
Energy	32	23,34	21,09	17,2	-8,66	-10,91	-14,8
Basic Materials	26,51	15,81	8,23	5,75	-10,7	-18,28	-20,76
Industrials	29,11	13,27	6,5	3,97	-15,84	-22,61	-25,14
Consumer Non-Cyclicals	64,2	15,54	13,39	7,75	-48,66	-50,81	-56,45
Consumer Cyclicals	11,12	0,57	0,89	1,62	-10,55	-10,23	-9,5
Healthcare	66,1	19,74	12,63	5,34	-46,36	-53,47	-60,76
Financials	26,74	14,11	13,09	17,61	-12,63	-13,65	-9,13
Properties & Real Estate	2,94	1,2	1,81	1,42	-1,74	-1,13	-1,52
Technology	26,4	3,34	0,91	0,91	-23,06	-25,49	-25,46
Infrastructures	2,49	9,68	13,52	11,67	7,19	11,03	9,18
Transportation & Logistic	7,5	9,65	9,18	7,5	2,15	1,68	0

Source: Indonesia Stock Exchange (n.d.), processed

Based on the data in Table 1 above, two sectors have experienced an increase in EPS since 2021: the infrastructure sector and the transportation & logistics sector. Unlike these two sectors, nine other sectors experienced a decrease in EPS, resulting in a general downward trend in EPS for companies listed on the IDX from 2021 to 2024. Tables 2 and 3 below present a graph of the downward trend in EPS for the nine sectors experiencing a decrease in EPS, along with the number of companies experiencing a downward trend in EPS from 2021 to 2024.

Table 2. EPS Downward Trend 2021-2024 by Sector



Source: Indonesia Stock Exchange (n.d.), processed

Table 3. Number of Companies Experiencing a Downward Trend in EPS from 2021 to 2024

Sector	Number
Energy	45
Basic Materials	68

Industrials	36
Consumer Non-Cyclicals	68
Consumer Cyclicals	**98**
Healthcare	21
Financials	61
Properties & Real Estate	50
Technology	24

Source: Indonesia Stock Exchange (n.d.), processed

Based on Table 2 above, the largest nominal EPS decreases were seen in the consumer non-cyclicals and healthcare sectors, while the largest percentage EPS decreases were seen in the consumer cyclicals and technology sectors. Table 3 above shows that the largest EPS downward trend occurred in the consumer cyclicals sector, with 98 companies. Furthermore, the least EPS downward trend occurred in the healthcare sector, with 21 companies. The consumer cyclicals sector experienced a significant percentage decrease in EPS and had the largest number of companies experiencing a downward trend in EPS. Based on this, companies in the consumer cyclicals sector are selected for the scope of the analysis.

Robinson et al. (2015) stated that past performance analysis results require further interpretation; one way of doing this is by identifying the key factors that led to that performance. Several factors influence financial performance, namely internal and external factors. Internal factors such as management strategy and operational efficiency often determine the growth of a company's financial performance. However, a company's financial performance is also influenced by external factors, such as changes in government taxation policies (Qi et al., 2023). Qi et al. (2023) explain that changes in tax policy affect companies through several aspects, such as changes in investment and operational decisions, product prices, and company profit levels.

At the end of 2021, the Indonesian government issued Law Number 7 of 2021 a statement concerning the Harmonization of Tax Regulations as part of tax reform. One of the changes that caught the attention of businesses and the public was the increase in the Value Added Tax (VAT) rate. The VAT rate, which was originally 10%, increased to 11% on April 1, 2022, and then to 12% on January 1, 2025. Along with this policy change, companies listed on the IDX simultaneously experienced a downward trend in EPS. This phenomenon can be linked to the study of Rabani et. al (2024) which concludes that the increase in the VAT rate had a significant impact on increasing the prices of goods and services across various sectors, which led to a decrease in purchasing power particularly among low-income groups, and slow down the market conditions with a decline in sales volume and consumption levels. In addition, Al-Otaibi et al. (2024) argue that the increase in VAT rates has an impact on the financial performance of companies, especially in developing countries.

Previous researchers who have conducted comparative analyses of companies' financial performance before and after changes in VAT rates include Apriyanti et al. (2025), Ying & Mayburov (2025), Zawitri et al. (2024), Al-Otaibi et al. (2024), Arius et al. (2023), Mgammal et al. (2023), Mateus & Mateus (2021), Pisačić & Mladineo (2017), Bubić et al. (2016), dan Mladineo & Šušak (2015). In previous studies, financial performance was measured using the return on equity (ROE) ratio for profitability, the quick ratio (QR) for liquidity, and the debt-to-equity ratio (DER) for solvency. Based on the description above, it is evident that research on companies' financial performance before and after the VAT rate increase shows mixed results among researchers. Therefore, the company's financial performance in this study is measured using the ROE, QR, and DER.

THEORETICAL FRAMEWORK

This research uses the Laffer Curve Theory and the Pricing Theory as the theoretical basis. Oliveira & Costa (2015) developed the Laffer Curve Theory in the context of VAT. Oliveira & Costa (2015) explained that increasing VAT rates, whether in a recessionary or developing economy, can have two implications: overall reduced consumer purchasing power, particularly for goods and services subject to VAT, and consumers reducing consumption, particularly for secondary and tertiary goods and services. The Laffer Curve Theory

suggests that increasing VAT rates can reduce the goods/services consumed by the public, particularly secondary and tertiary goods/services. When the goods/services consumed decrease, the performance of companies providing consumer goods/services can be affected. Therefore, the government needs to set VAT rates wisely so as not to disrupt public purchasing power, the financial performance of companies that provide community needs, and the overall economic condition.

Mulyadi (2005) states that costs are the total sacrifice of resources to produce a product or service, so that all these sacrifices must be covered by the income obtained from the selling price of the product or service. Thus, the selling price must also generate adequate profits and be commensurate with the costs incurred to produce the product or service. Soemarsono (1990) states that pricing is very important, meaning that if the price of an item is too high, it can result in the item being less marketable, and conversely, if it is sold too cheaply, the profits obtained will be reduced. Pricing has a direct impact on the company's profitability because the price set by the seller will affect the income or sales that will be obtained, or even the losses that will be incurred. Pricing Theory proposes that costs are the most important factor in determining selling prices by companies. VAT can be an additional cost for companies because the increase in VAT burden along the supply chain causes a snowball effect, as cost increases continue to accumulate along the chain until they reach the end consumer. This causes the base purchase price before VAT for input goods/services to increase. Furthermore, while VAT is theoretically considered a pass-through burden to consumers, in practice, companies cannot necessarily charge the full VAT to consumers (Benedek et al., 2020). This is because the selling price after VAT is also a consideration for companies, especially in the consumer cyclical sector (providers of secondary and tertiary needs), where demand tends to be elastic. Even small price changes can influence consumer purchasing decisions.

Financial Performance

Financial performance measures a company's ability to generate profits within a specific period using all its resources (Fatihudin et al., 2018). Therefore, financial performance is considered a reflection of the policies and steps taken by company management regarding the company's business activities (Suwadji et al., 2021). Financial performance can be used as a benchmark by management and external parties such as stakeholders, investors, and the government to evaluate policies and make future decisions. In this study, financial performance is measured through three aspects: profitability, liquidity, and solvency, based on research relevance.

Profitability

Profitability is a term that describes how profitable a company is in its operations (Robinson et al., 2015). It also describes the level of success or failure of a company in generating sufficient revenue to cover operating costs and provide a profit to its owners (Kieso et al., 2020). Brigham & Houston (2019) state that profitability is a crucial element in a company's activities to ensure its future survival. According to Subramanyam (2014) profitability ratio analysis is the process of evaluating a company's return, using data sourced from the income statement and the statement of financial position. The higher a company's profitability, the greater its ability to generate profits. In this study, profitability is proxied by the ROE ratio, which measures the rate of return or profit earned by a company on its equity capital (including minority, preferred, and common equity).

Liquidity

Liquidity refers to the amount of effort and time required for a company to convert an asset into cash (Brigham & Houston, 2019). The quicker or easier an asset can be converted into cash, the more liquid it is. Liquidity ratio analysis is the process of evaluating a company's credit risk in terms of debt maturing within one year (Subramanyam, 2014). The higher the liquidity, the greater the company's ability to repay its short-term debt. In this study, liquidity is proxied by the QR, which measures the extent to which current liabilities can be covered by current assets without relying on inventory sales.

Solvency

Solvency is a term that refers to a company's long-term financial ability to support business sustainability and

meet long-term obligations (Subramanyam, 2014). Subramanyam (2014) states that solvency ratio analysis focuses on evaluating a company's capital structure, which is derived from equity and debt. Capital structure describes a company's tendency to rely on equity or debt to support its operational activities. Subramanyam (2014) states that equity capital contributes significantly to a company's solvency because, unlike debt, equity does not require repayment and does not have interest obligations that increase the risk of default. The higher the proportion of debt, the lower the company's long-term financial capacity. In this study, solvency is proxied by the DER, which measures the extent of a company's debt compared to its equity capital.

Value-Added Tax

According to the General Explanation of Law Number 42 of 2009 concerning VAT and Luxury Goods Sales Tax, as last amended by Law Number 7 of 2021 VAT is "A tax on the consumption of goods and services in the Customs Area which is imposed in stages at every production and distribution channel". VAT is imposed at every stage in the production chain, from producers until it reaches consumers (Sukardji, 2015). The objects of VAT are regulated in Article 4 paragraph (1) of Law Number 42 of 2009 s.t.t.d. Law Number 7 of 2021, which can be grouped into (1) delivery, import, and export of taxable goods; (2) delivery, utilization, and export of taxable services; and (3) utilization and export of intangible taxable goods. In addition, certain taxable goods and taxable services are exempt from VAT, as stipulated in Chapter IV, Article 4a of Law Number 7 of 2021.

VAT is calculated by multiplying the VAT rate by the tax base, which includes the selling price, replacement, import value, export value, or other values. The VAT rate is the percentage rate based on Article 7 paragraph (1) of Law Number 7 of 2021, which is 11% which came into effect on April 1, 2022, and 12% on January 1, 2025. Before that regulation, Law Number 42 of 2009 stated that the VAT rate was 10%. In this study, the increase in the VAT rate referred to is the increase in the VAT rate from 10% to 11%. This is based on the fact that, although the 12% VAT rate has been implemented as of January 1, 2025, Regulation of the Minister of Finance Number 131 of 2024 replaces the general value-added tax base for goods and services with a value-added tax base using other values by multiplying the price of goods or services by 11/12, so that the amount of VAT to be paid is the same as when the VAT rate was 11%. VAT paid by companies is treated as VAT-In, while VAT paid by consumers is treated as VAT-Out. Companies must remit to the state the excess between VAT-Out and VAT-In.

Hypotheses

Based on the description of the Laffer Curve Theory, the Pricing Theory, and the results of previous research on comparative analysis of companies' financial performance before and after an increase in value-added tax rate, the following research hypotheses are as follows:

Ha1: There is a difference in the ROE ratio before and after the VAT rate increase
Ha2: There is a difference in the QR before and after the VAT rate increase
Ha3: There is a difference in the DER before and after the VAT rate increase

RESEARCH METHODS

The population in this study was 141 consumer cyclicals sector companies listed on the IDX between Q2 2021 and Q1 2022 (before the VAT rate increase) and Q2 2022 and Q1 2023 (after the VAT rate increase). The sample was selected using purposive sampling, a sampling technique with specific criteria, as listed in Table 4.

Table 4. Sample Selection Criteria

Population	Consumer cyclicals sector companies listed on the IDX in the periods Q2 2021 – Q1 2022 and Q2 2022 – Q1 2023	141
Not Included	Companies not listed since Q2 2021	(24)
	Companies suspended between Q2 2021 and Q1 2023	(6)

	Companies not listed on the main or development boards	(7)	
	Companies with negative equity	(9)	
	Observed samples	**95**	
	Outliers in Profitability Testing	(11)	
	Sample for Profitability Testing	**84**	
	Outliers in Liquidity Testing	(12)	
	Sample for Liquidity Testing	**83**	
	Outliers in Solvency Testing	(8)	
	Sample for Solvency Testing	**87**	

Source: Indonesia Stock Exchange (n.d.), processed

The data sources used in this study are secondary data. The secondary data used for this study are financial reports and quarterly financial ratios from consumer cyclicals companies from Q2 2021 to Q1 2023. The data was obtained from the official Stockbit website and the official IDX website. The data collection technique used in this study was archival research. Researchers collected data on companies' quarterly financial ratios and then documented the data needed for analysis. The data is tabulated in the form of numbers and tables, and then analyzed using statistical analysis.

Return on Equity (ROE)

ROE is stated as a percentage value calculated by comparing net profit with the average equity owned by the company. According to Robinson et al. (2015) the calculation of the ROE ratio is calculated as follows.

$$\text{ROE} = \frac{Net\ Income}{Average\ Equity}\ x\ 100\%$$

Quick Ratio (QR)

QR is calculated by comparing current assets other than inventory with current liabilities. According to Brigham & Houston (2019) the QR calculation is formulated as follows.

$$\text{QR} = \frac{Current\ Assets - Inventory}{Current\ Liabilities}$$

Debt-to-Equity Ratio (DER)

DER is calculated by comparing total liabilities with total equity. According to Subramanyam (2014) the calculation of the DER is formulated as follows.

$$\text{DER} = \frac{Total\ Liabilities}{Total\ Equity}$$

Data Analysis Methods

The testing method used to test the hypothesis in this study was a parametric paired samples t-test. The parametric paired samples t-test is used to determine whether there is a difference in the means of two paired samples, provided the data are normally distributed (Sujarweni & Utami, 2020). The paired samples t-test only compares the means of two (and only two) paired samples in each test (Kent State University, 2025), and therefore, sample sizes between tests can vary (IBM SPSS Statistics, 2025). The difference test was conducted using SPSS version 25 with a significance level (α) of 5%. The criteria for rejecting or failing to reject the null hypothesis (H_0) are based on the following criteria (Sujarweni & Utami, 2020).

If the -t table < t-value < t table, then fail to reject H_0.
If the t-value is negative and t-value < -t table, then H_0 is rejected, and H_a is accepted.
If the t-value is positive and t-value > t-table, then H_0 is rejected and H_a is accepted.

Before conducting a paired samples t-test, a normality test must first be carried out because normally distributed data is an assumption that must be met in a parametric test. (Cooper & Schindler, 2014). According to Field (2009), normality tests are performed before paired samples t-tests on the differences in the values of paired samples, not on the sample values themselves. This is because in paired samples t-tests, the differences between paired samples are analyzed, so the values of the differences must be normally distributed. Normality tests are performed using the Kolmogorov-Smirnov method using SPSS version 25 with a 95% confidence level. The normality of the data distribution is determined by the results of the Kolmogorov-Smirnov test with the following criteria (Sujarweni & Utami, 2020).

1. If the Sig value > 0,05 then the data is normally distributed
2. If the Sig value < 0,05 then the data is not normally distributed.

Research Model

The research model can be seen in Figure 1. below.

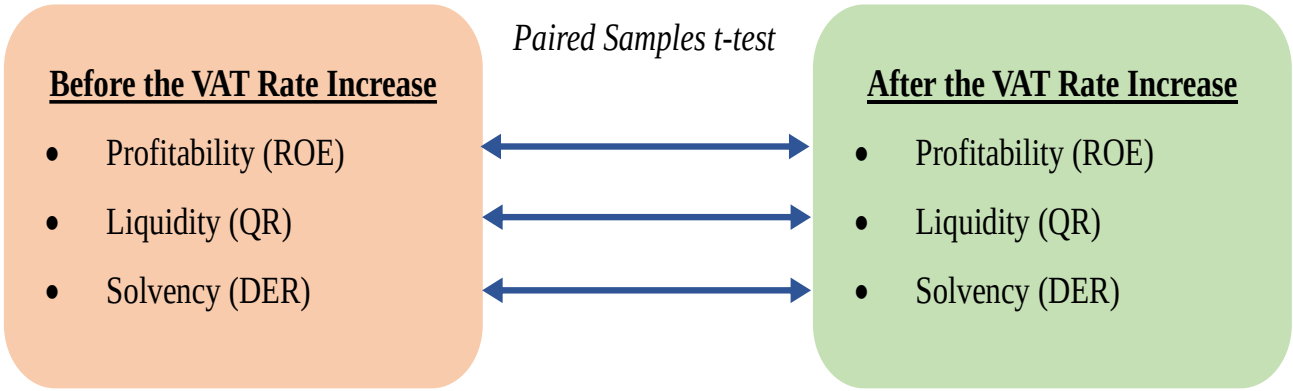


Figure 1. Research Model

RESEARCH RESULTS AND DISCUSSION

Descriptive Statistics of Research Variables

The variables in this study are the company's financial performance ratios, namely ROE, QR, and DER. The descriptive statistics for the ROE ratio are presented in Table 5 below.

Table 5. Descriptive Statistics of ROE Before and After VAT Rate Increase

	N	Min	Max	Mean	Std. Deviation
ROE_Before	84	-0,0627	0,0708	0,0115	0,0243
ROE_After	84	-0,0628	0,0745	0,0085	0,0251

Source: Data Processing Results from SPSS 25

Based on Table 5 above, the ROE before the VAT rate increase had a minimum value of -0,0627 or -6,27% obtained from Sejahtera Bintang Abadi Textile Tbk (SBAT) and a maximum value of 0,0708 or 7,08% obtained from Mitra Adiperkasa Tbk (MAPI). The ROE before the VAT rate increase had an average value of 0,0115 or 1,15%. The standard deviation value of 0,0243 is greater than the average value, indicating that the ROE ratio before the VAT rate increase has a large data spread. After the VAT rate increase, the ROE ratio had a minimum value of -0,0628 or -6,28% obtained from Mahaka Radio Integra Tbk (MARI), and a maximum value of 0,0745 or 7,45% obtained from Map Aktif Adiperkasa Tbk (MAPA). The ROE ratio after the VAT rate increase had an

average value of 0,0085 or 0,85%. The standard deviation value of 0,0251 is greater than the average, indicating a wide spread in the ROE ratio after the VAT rate increase. Next, the descriptive statistics of QR are presented in Table 6 below.

Table 6. Descriptive Statistics of QR Before and After VAT Rate Increase

	N	Min	Max	Mean	Std. Deviation
QR_Before	83	0,0875	8,2233	1,5946	1,7749
QR_After	83	0,0400	9,7400	1,5292	1,8399

Source: Data Processing Results from SPSS 25

Based on Table 6 above, the QR before the VAT rate increase has a minimum value of 0,0875 obtained from Sunson Textile Manufacture Tbk (SSTM) and a maximum value of 8,2233 obtained from Bali Bintang Sejahtera Tbk (BOLA). The QR before the VAT rate increase has an average value of 1,5946. The standard deviation value of 1,7749 is greater than the average value, indicating that the QR before the VAT rate increase has a large data spread. After the VAT rate increase, the QR has a minimum value of 0,0400 obtained from SSTM and a maximum value of 9,7400 obtained from BOLA. The QR after the VAT rate increase has an average value of 1,5292. The standard deviation value of 1,8399 is greater than the average value, indicating that the QR after the VAT rate increase has a large data spread. Next, the results of descriptive statistics of DER are presented in Table 7 as follows.

Table 7. Descriptive Statistics of DER Before and After VAT Rate Increase

	N	Min	Max	Mean	Std. Deviation
DER_Before	87	0,0022	4,8900	1,0939	1,0187
DER_After	87	0,0025	5,7600	1,1835	1,1973

Source: Data Processing Results from SPSS 25

Based on Table 7 above, the DER before the VAT rate increase has a minimum value of 0,0022 obtained from Surya Permata Andalan Tbk (NATO) and a maximum value of 4,8900 obtained from Cipta Selera Murni Tbk (CSMI). The DER before the VAT rate increase has an average value of 1,0939. The standard deviation value of 1,0187 is smaller than the average value, indicating that the DER before the VAT rate increase has a small data spread. After the VAT rate increase, the DER has a minimum value of 0,0025 obtained from NATO and a maximum value of 5,7600 obtained from Ricky Putra Globalindo Tbk (RICY). The DER after the VAT rate increase has an average value of 1,1835. The standard deviation value of 1,1973 is larger than the average value, indicating that the DER after the VAT rate increase has a large data spread.

The Results of Normality and Hypothesis Test

The results show that the data passes the normality test. The results of the normality test can be seen in Appendix 2. The results of the hypothesis test using a paired samples t-test on ROE can be seen in Table 8 as follows.

Table 8. Paired Samples t-test Results for ROE Ratio

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	ROE_ Before - ROE_ After	,0027364	,0194754	,0021249	-,0014900	,0069629	1,288	83	,201

Source: Data Processing Results from SPSS 25

Based on the results of the paired samples t-test in Table 8 above, the calculated t-value is 1,288. The t-table value with a degree of freedom (df) of 83 and (α/2) of 2,5% is 1,989. Because the calculated t-value is between the -t table value and the t table value (-1,989 < 1,288 < 1,989), then it fails to reject H_0, and H_{a1} is rejected. Thus, it is concluded that there is no difference in the ROE ratio before and after the VAT rate increase. The ROE ratio is a proxy for profitability, so it means there is no difference in company profitability before and after the VAT rate increase. A positive mean value indicates that the average ROE ratio before the VAT rate increase is greater than after the VAT rate increase. Furthermore, the results of the paired samples t-test of the QR ratio are presented in Table 9 as follows.

Table 9. Paired Samples t-test Results for QR

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Log_QR _ Before - Log_QR _ After	,0296902	,1298092	,0142484	,0013456	,0580348	2,084	82	,040

Source: Data Processing Results from SPSS 25

Based on the results of the paired samples t-test in Table 9 above, the calculated t-value is 2,084. The t table value with a degree of freedom (df) of 82 and (α/2) of 2.5% is 1,989. Because the calculated t-value is greater than the t-table value (2.084 > 1.989), then H_0 is rejected, and H_{a2} is accepted. Thus, it is concluded that there is a difference in the QR before and after the VAT rate increase.

The QR ratio is a proxy for liquidity, so it means there is a difference in company liquidity before and after the VAT rate increase. A positive mean value indicates that the average QR before the VAT rate increase is greater than after the VAT rate increase. Furthermore, the results of the paired samples t-test of the DER are presented in Table 10 as follows.

Table 10. Paired Samples t-test Results for DER

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Log_DER_ Before - Log_DER_ After	-,0217931	,0990022	,0106141	-,0428933	-,0006929	-2,053	86	,043

Source: Data Processing Results from SPSS 25

Based on the results of the paired samples t-test in Table 10 above, the calculated t-value is -2,053. The t table value with a degree of freedom (df) of 86 and (α/2) of 2,5% is 1,988. Because the calculated t-value is smaller than the -t table value (-2,053 < -1,988), then H_0 is rejected and H_{a3} is accepted. Thus, it is concluded that there is a difference in the DER before and after the VAT rate increase. The DER is a proxy for solvency, so it means there is a difference in the company's solvency before and after the VAT rate increase. The negative mean value indicates that the average DER before the VAT rate increase is smaller than after the VAT rate increase.

Differences in Profitability Before and After the VAT Rate Increase

The results of the hypothesis testing on the ROE ratio concluded that there was no difference in the ROE ratio before and after the VAT rate increase. Therefore, in general, company profitability was perceived to be the same before and after the VAT rate increase. However, a positive mean differences value (,0027364) indicates there is a slightly decrease in average ROE after the VAT rate increase.

This situation can arise because the increase in VAT rates burdens companies in several ways. First, companies cannot fully charge or pass on VAT to consumers, especially companies with elastic demand, such as consumer cyclicals. Policymakers often assume that increases in consumption tax rates, such as VAT, will be fully passed on to consumers and thus have no impact on companies (Jacob et al., 2019). In reality, companies cannot charge or pass on all VAT to consumers (Benedek et al. (2020); Hundsdoerfer (2023)). Shiraishi (2022) states that demand elasticity and market concentration determine a company's ability to shift the VAT burden. Second, several types of VAT-In cannot be credited by companies. With the increase in VAT rates, if a company has non-creditable VAT-In, it will increase the company's expense on the income statement. Third, when a company in the supply chain is not a VAT-registered business entity or a company that, according to regulations, collects VAT at a specific rate, it cannot credit the VAT-In, forcing it to increase its selling price to other companies in the chain. The accumulated cost increases along the supply chain further burden the company.

The combination of the above factors increases costs and squeezes companies' profit margins. Companies then face the dilemma of having to raise selling prices, potentially resulting in lower sales, or maintaining prices, which would squeeze profit margins. Therefore, companies tend to choose to bear some of the burden of the VAT increase, which should be passed on to consumers. However, the price of goods/services will still increase because companies cannot bear the entire burden of the VAT increase, especially in the elastic-demand market sector. Ultimately, rising prices of goods/services lead to a decline in purchasing power and consumption levels, leading to a decline in company sales. This will reduce the company's net income or profits, which will then reduce the company's profitability.

However, companies in this sector were generally able to maintain profitability levels, while on the other hand, liquidity and solvency experienced a significant decline. This finding indicates that there is a managerial priority in maintaining the performance indicators that investors pay most attention to (profitability), so that companies take steps to minimize the decline in profitability. As a business entity, the company has an orientation to generate profits for its business continuity. The company's goal is to make as much money as possible, which is in the best interest of the company's owners (Soemarsono et al., 2024). Furthermore, according to Insirat et al. (2025), the VAT hike increases stock market volatility and reduces short-term profitability. These dynamics complicate corporate valuation and financial forecasting, particularly for companies in the retail, manufacturing, and consumer goods sectors, where sales volume and profit margins are highly sensitive to price changes. As a result, investors may face elevated risks and greater uncertainty in their portfolio decisions. Therefore, when a company is under pressure from changes in tax regulations, management will do everything possible to maintain profitability, even though such decisions may worsen its liquidity and solvency. This pattern aligns with the previous argument that companies in sectors with elastic demand are less likely to raise prices fully to offset VAT increases, so cost pressures are absorbed more through financial structural adjustments. Consequently, long-term financial risk may increase even if profitability appears stable.

A further finding in this study is that, although there was no overall difference in profitability following the VAT rate increase, the results of a partial paired samples t-test indicate differences in the implications of the VAT rate increase on the profitability of main board and development board companies, presented in Table 11 as follows.

Table 11. Paired Samples t-test of ROE by Listing Board Category

Pair	Mean	t-value	t table	Sig. (2-tailed)	Explanation
ROE_Main_ Before - ROE_Main_ After	-,0026182	-,538	2,080 (df = 21)	,596	• -t table < t-value < t table, there is no difference

					• Negative mean value, there is an increase in average ROE
ROE_Dev_ Before - ROE_Dev_ After	,00463645	2,032	1,999 (df = 61)	,046	• t-value > t table, there is difference • Positive mean value, there is a decrease in average ROE

Source: Data Processing Results from SPSS 25

Companies listed on the main board (large companies) experienced no difference in profitability, while companies listed on the development board (developing companies) experienced a difference in profitability, in the form of a decline. This finding can be linked to Shiraishi (2022) who states that demand elasticity and market concentration determine a company's ability to shift the VAT burden. The consumer cyclical sector has an elastic demand sector and also has a moderate to high market concentration where only few companies dominate the market share within its subsector. Dedola et al. (2022) states that market concentration allows larger firms to choose to shift the tax incidence to their consumers more than smaller firms. Therefore, it allowing them to pass on a larger VAT burden to consumers without significantly impacting sales volume. This condition allows large companies to maintain their profitability. Developing companies, on the other hand have less market share. When the VAT rate increases, the elastic demand for secondary and tertiary goods/services and the less market share prevent companies from increasing prices proportionally. The additional burden due to the increase in VAT rates, which is partly borne by the company, as well as the decline in sales, which puts pressure on net profit, will lead to a decrease in profitability.

Differences in Liquidity Before and After the VAT Rate Increase

The results of the hypothesis testing on the QR concluded that there was a difference in the QR ratio before and after the VAT rate increase. A positive mean value indicates a decrease in the QR ratio after the VAT rate increase. The QR ratio is a proxy for a company's liquidity, concluding that there was a decrease in the company's liquidity after the VAT rate increase.

This situation can arise because the increase in VAT rates burdens companies in several ways. First, companies cannot fully charge or pass on VAT to consumers, especially companies with elastic demand, such as consumer cyclicals. Policymakers often assume that increases in consumption tax rates, such as VAT, will be fully passed on to consumers and thus have no impact on companies (Jacob et al., 2019). In reality, companies cannot charge or pass on all VAT to consumers (Benedek et al. (2020); Hundsdoerfer (2023)). Shiraishi (2022) states that demand elasticity and market concentration determine a company's ability to shift the VAT burden. Second, several types of VAT-In cannot be credited by companies. With the increase in VAT rates, if a company has non-creditable VAT-In, it will increase the company's expense on the income statement. Third, when a company in the supply chain is not a VAT-registered business entity or a company that, according to regulations, collects VAT at a specific rate, it cannot credit the VAT-In, forcing it to increase its selling price to other companies in the chain. The accumulated cost increases along the supply chain further burden the company.

The combination of the above factors increases costs and squeezes companies' profit margins. Companies then face the dilemma of having to raise selling prices, potentially resulting in lower sales, or maintaining prices, which would squeeze profit margins. Therefore, companies tend to choose to bear some of the burden of the VAT increase, which should be passed on to consumers. However, the price of goods/services will still increase because companies cannot bear the entire burden of the VAT increase. Ultimately, rising prices of goods and services lead to a decline in purchasing power and consumption levels, leading to a decline in company sales. The decline in sales, coupled with rising costs, leads to a decline in cash and cash equivalent growth, distorting the company's cash flow. Companies require cash and cash equivalents to pay off current liabilities and finance operational activities. When cash flows decline, a company's liquidity declines, and its credit risk increases. Consequently, companies tend to take on current debt to obtain additional funds to finance operational activities

or delay business expansion by paying off debt. The decline in sales, coupled with the addition or repayment of current debt, significantly reduces a company's liquidity.

Further findings in this study include the partial paired samples t-test, showing differences in the implications of the VAT rate increase on the liquidity of main board and development board companies, presented in Table 12 as follows.

Table 12. Paired Samples t-test of QR by Listing Board Category

Pair	Mean	t-value	t table	Sig. (2-tailed)	Explanation
Log_QR_Main_ Before - Log_QR_Main_ After	-,0011542	-,042	2,069 (df = 23)	,967	• -t table < t-value < t table, there is no difference • Negative mean value, there is an increase in average QR
Log_QR_Dev_ Before - Log_QR_Dev_ After	,0427136	2,567	2,002 (df = 58)	,013	• t-value > t table, there is difference • Positive mean value, there is a decrease in average QR

Source: Data Processing Results from SPSS 25

Companies listed on the main board did not experience any difference in liquidity, while companies listed on the development board experienced a difference in liquidity in the form of a decline. Large companies generally dominate the market share within its subsector, allowing them to pass on a larger VAT burden to consumers without significantly impacting sales. Thus, these companies can maintain their sales levels and cash inflows. Large companies also generally have a more established capital structure, due to the rigid requirements of main board list. Despite a decline in sales, large companies may not need to raise funds from current liabilities. This condition maintains their liquidity. Developing companies, on the other hand, have less market share and also less established capital structure compared to large companies. They cannot pass on the VAT burden to the selling price as much as large companies. If companies pass on a large proportion of the VAT burden to consumers, selling prices will increase, resulting in decreased sales due to reduced consumer purchasing power and less market share. This reduces the company's cash inflow. If a company chooses to cover the majority of the VAT burden, it may be able to maintain sales and cash flow levels, but its profit margins will be squeezed or even suffer losses. Both of these conditions mean the company will likely require additional debt financing to sustain its operations. This significantly reduces the developing company's liquidity.

Differences in Solvency Before and After the VAT Rate Increase

The results of the hypothesis testing on the DER concluded that there was a difference in the DER ratio before and after the VAT rate increase. A negative mean value indicates an increase in the DER ratio after the VAT rate increase. The DER ratio is a proxy for a company's solvency, concluding that there was a decrease in the company's solvency after the VAT rate increase.

This situation can arise because the increase in VAT rates burdens companies in several ways. First, companies cannot fully charge or pass on VAT to consumers, especially companies with elastic demand, such as consumer cyclicals. Policymakers often assume that increases in consumption tax rates, such as VAT, will be fully passed on to consumers and thus have no impact on companies (Jacob et al., 2019). In reality, companies cannot charge or pass on all VAT to consumers (Benedek et al. (2020); Hundsdoerfer (2023)). Shiraishi (2022) states that demand elasticity and market concentration determine a company's ability to shift the VAT burden. Second, several types of VAT-In cannot be credited by companies. With the increase in VAT rates, if a company has non-creditable VAT-In, it will increase the company's expense on the income statement. Third, when a company in the supply chain is not a VAT-registered business entity or a company that, according to regulations, collects

VAT at a specific rate, it cannot credit the VAT-In, forcing it to increase its selling price to other companies in the chain. The accumulated cost increases along the supply chain further burden the company.

The combination of the above factors increases costs and squeezes companies' profit margins. Companies then face the dilemma of having to raise selling prices, potentially resulting in lower sales, or maintaining prices, which would squeeze profit margins. Therefore, companies tend to choose to bear some of the burden of the VAT increase, which should be passed on to consumers. However, the price of goods/services will still increase because companies cannot bear the entire burden of the VAT increase. Ultimately, rising prices of goods and services lead to a decline in purchasing power and consumption levels, leading to a decline in company sales. The decline in sales, coupled with rising costs, leads to a decline in cash and cash equivalent growth, distorting the company's cash flow. Furthermore, this situation also disrupts the company's equity growth, as reduced profits lead to a reduction in net income converted into retained earnings. Companies then face the potential for working capital deficiencies, leading to the need for additional debt financing. Meanwhile, declining profits hinder equity growth or even reduce equity if the company experiences losses. This further degrades the company's solvency.

Further findings in this study include the partial paired samples t-test results, indicating differences in the implications of the VAT rate increase on the solvency of of main board and development board companies, presented in Table 13 as follows.

Table 13. Paired Samples t-test of DER by Listing Board Category

Pair	Mean	t-value	t table	Sig. (2-tailed)	Explanation
Log_DER_Main_ Before - Log_DER_Main_ After	,0118250	,517	2,069 (df = 23)	,610	• -t table < t-value < t table, there is no difference • Positive mean value, there is a decrease in average DER
Log_DER_Dev_ Before - Log_DER_Dev_ After	-,0346000	-3,007	1,999 (df = 62)	,004	• t-value > t table, there is difference • Negative mean value, there is an increase in average QR

Source: Data Processing Results from SPSS 25

Companies listed on the main board experienced no difference in solvency, while companies listed on the development board experienced a difference in solvency under declining conditions. Large companies tend to have a strong capital structure, due to the rigid requirements of main board list. They can rely on available capital and implement operational efficiency and cash flow management rather than increasing debt. A stable capital structure allows companies to make internal adjustments without making drastic changes to their financial structure. This condition allows large companies to maintain their solvency levels. Developing companies, on the other hand, tend to have limited capital and liquidity compared to large companies. The increase in the VAT rate results in a decrease in sales and cash inflow, thus encouraging companies to increase debt financing to maintain their business activities. Furthermore, the decline in sales leads to a decrease in profits, which hinders equity growth or even reduces equity when the company experiences losses. The combination of the above factors leads to a significant decline in developing companies' solvency.

CONCLUSION

The conclusions that can be obtained from this research are as follows:

1. There was no difference in company profitability before and after the VAT rate increase. However, the result also indicated there is a slight decrease in the value of the average ROE.

2. There is a difference in company liquidity before and after the VAT rate increase. The decrease in the average QR ratio value means that there is a decrease in liquidity after the VAT rate increase.
3. There is a difference in company solvency before and after the VAT rate increase. An increase in the average DER ratio indicates a decrease in solvency after the VAT rate increase.

Based on the above conclusions, the government and the House of Representatives (DPR) need to review the policy of increasing the VAT rate to 11%. The government should revise the VAT rate back to 10% as previously and also not implement the planned VAT rate of 12% in the coming years, considering that the VAT rate increase has implications for declining purchasing power and corporate financial performance. To optimize state revenue, the Minister of Finance should encourage tax extensification to target large tax subjects and objects that are currently untouchable, rather than simply raising the VAT rate which is like 'hunting in a zoo'.

Limitations

This study has several limitations that should be considered when interpreting the results. First, the relatively short observation period of eight quarters limits the ability to capture the long-term dynamics of companies' adjustments to the VAT rate increase. Second, this study focuses only on one sector, consumer cyclicals, so generalizations to other sectors require caution. Third, this study does not directly observe adjustment mechanisms (such as pricing strategies, cost efficiencies, or changes in operational structure) at the company level; instead, the study is based on financial indicators. Fourth, the study period (Q2 2021 – Q1 2023) coincides with the pandemic and post-pandemic recovery periods, thus allowing for other macroeconomic factors that could influence company financial performance.

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Appendix:

Appendix 1: Selected Sample of Consumer Cyclicals Sector Companies

No	Code	Company	Listing Board As of Q1 2023
1	ACES	Aspirasi Hidup Indonesia Tbk.	Main
2	AUTO	Astra Otoparts Tbk.	Main
3	BAYU	Bayu Buana Tbk.	Main
4	BMTR	Global Mediacom Tbk.	Main
5	BOLA	Bali Bintang Sejahtera Tbk.	Main
6	CARS	Industri dan Perdagangan Bintraco Dharma Tbk.	Main
7	ERAA	Erajaya Swasembada Tbk.	Main
8	FILM	MD Entertainment Tbk.	Main
9	GJTL	Gajah Tunggal Tbk.	Main
10	HRTA	Hartadinata Abadi Tbk.	Main
11	IMAS	Indomobil Sukses Internasional Tbk.	Main
12	IPTV	MNC Vision Networks Tbk.	Main
13	LPPF	Matahari Department Store Tbk.	Main
14	MAPA	Map Aktif Adiperkasa Tbk.	Main
15	MAPI	Mitra Adiperkasa Tbk.	Main
16	MNCN	Media Nusantara Citra Tbk.	Main
17	MPMX	Mitra Pinasthika Mustika Tbk.	Main
18	MSIN	MNC Digital Entertainment Tbk.	Main
19	PANR	Panorama Sentrawisata Tbk.	Main
20	PBRX	Pan Brothers Tbk.	Main
21	PRAS	Prima Alloy Steel Universal Tbk.	Main
22	RALS	Ramayana Lestari Sentosa Tbk.	Main
23	RICY	Ricky Putra Globalindo Tbk.	Main
24	SCMA	Surya Citra Media Tbk.	Main
25	SMSM	Selamat Sempurna Tbk.	Main
26	WOOD	Integra Indocabinet Tbk.	Main
27	ABBA	Mahaka Media Tbk.	Development
28	ARTA	Arthavest Tbk.	Development
29	BATA	Sepatu Bata Tbk.	Development
30	BELL	Trisula Textile Industries Tbk.	Development
31	BLTZ	Graha Layar Prima Tbk.	Development
32	BOGA	Bintang Oto Global Tbk.	Development

33	BOLT	Garuda Metalindo Tbk.	Development
34	BRAM	Indo Kordsa Tbk.	Development
35	BUVA	Bukit Uluwatu Villa Tbk.	Development
36	CBMF	Cahaya Bintang Medan Tbk.	Development
37	CINT	Chitose International Tbk.	Development
38	CLAY	Citra Putra Realty Tbk.	Development
39	CSAP	Catur Sentosa Adiprana Tbk.	Development
40	CSMI	Cipta Selera Murni Tbk.	Development
41	DFAM	Dafam Property Indonesia Tbk.	Development
42	EAST	Eastparc Hotel Tbk.	Development
43	ECII	Electronic City Indonesia Tbk.	Development
44	ERTX	Eratex Djaja Tbk.	Development
45	ESTA	Esta Multi Usaha Tbk.	Development
46	ESTI	Ever Shine Tex Tbk.	Development
47	FAST	Fast Food Indonesia Tbk.	Development
48	FITT	Hotel Fitra International Tbk.	Development
49	FORU	Fortune Indonesia Tbk.	Development
50	GDYR	Goodyear Indonesia Tbk.	Development
51	GEMA	Gema Grahasarana Tbk.	Development
52	GWSA	Greenwood Sejahtera Tbk.	Development
53	HRME	Menteng Heritage Realty Tbk.	Development
54	INDR	Indorama Synthetics Tbk.	Development
55	INDS	Indospring Tbk.	Development
56	INOV	Inocycle Technology Group Tbk.	Development
57	JIHD	Jakarta International Hotels & Development Tbk.	Development
58	JSPT	Jakarta Setiabudi Internasional Tbk.	Development
59	KICI	Kedaung Indah Can Tbk.	Development
60	KPIG	MNC Land Tbk.	Development
61	LMPI	Langgeng Makmur Industri Tbk.	Development
62	LPIN	Multi Prima Sejahtera Tbk.	Development
63	MAPB	Map Boga Adiperkasa Tbk.	Development
64	MARI	Mahaka Radio Integra Tbk.	Development
65	MASA	Multistrada Arah Sarana Tbk.	Development
66	MDIA	Intermedia Capital Tbk.	Development
67	MICE	Multi Indocitra Tbk.	Development
68	MINA	Sanurhasta Mitra Tbk.	Development
69	MKNT	Mitra Komunikasi Nusantara Tbk.	Development
70	MSKY	MNC Sky Vision Tbk.	Development
71	NATO	Surya Permata Andalan Tbk.	Development
72	PDES	Destinasi Tirta Nusantara Tbk.	Development
73	PGLI	Pembangunan Graha Lestari Indah Tbk.	Development
74	PJAA	Pembangunan Jaya Ancol Tbk.	Development
75	PMJS	Putra Mandiri Jembar Tbk.	Development
76	PNSE	Pudjiadi & Sons Tbk.	Development
77	POLU	Golden Flower Tbk.	Development
78	PSKT	Red Planet Indonesia Tbk.	Development
79	PTSP	Pioneerindo Gourmet International Tbk.	Development
80	PZZA	Sarimelati Kencana Tbk.	Development
81	SBAT	Sejahtera Bintang Abadi Textile Tbk.	Development

82	SCNP	Selaras Citra Nusantara Perkasa Tbk.	Development
83	SHID	Hotel Sahid Jaya International Tbk.	Development
84	SLIS	Gaya Abadi Sempurna Tbk.	Development
85	SNLK	Sunter Lakeside Hotel Tbk.	Development
86	SONA	Sona Topas Tourism Industry Tbk.	Development
87	SOTS	Satria Mega Kencana Tbk.	Development
88	SSTM	Sunson Textile Manufacture Tbk.	Development
89	TFCO	Tifico Fiber Indonesia Tbk.	Development
90	TMPO	Tempo Inti Media Tbk.	Development
91	TOYS	Sunindo Adipersada Tbk.	Development
92	TRIS	Trisula International Tbk.	Development
93	UFOE	PT Damai Sejahtera Abadi Tbk.	Development
94	YELO	Yelooo Integra Datanet Tbk.	Development
95	ZONE	Mega Perintis Tbk.	Development

Appendix 2: Normality Test

One-Sample Kolmogorov-Smirnov Test

		Selisih_ROE
N		84
Normal Parameters[a,b]	Mean	-,002736
	Std. Deviation	,0194754
Most Extreme Differences	Absolute	,090
	Positive	,066
	Negative	-,090
Test Statistic		,090
Asymp. Sig. (2-tailed)		,090[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

One-Sample Kolmogorov-Smirnov Test

		Selisih_Log_QR
N		83
Normal Parameters[a,b]	Mean	-,029690
	Std. Deviation	,1298092
Most Extreme Differences	Absolute	,092
	Positive	,050
	Negative	-,092
Test Statistic		,092
Asymp. Sig. (2-tailed)		,077[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

One-Sample Kolmogorov-Smirnov Test

		Selisih_Log_DER
N		87
Normal Parameters[a,b]	Mean	,021793
	Std. Deviation	,0990022
Most Extreme Differences	Absolute	,081
	Positive	,081
	Negative	-,050
Test Statistic		,081
Asymp. Sig. (2-tailed)		,200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Appendix 3: Paired Samples t-test of ROE

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	ROE_Sebelum - ROE_Setelah	,0027364	,0194754	,0021249	-,0014900	,0069629	1,288	83	,201

Appendix 4: Paired Samples t-test of QR

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Log_QR_Sebelum - Log_QR_Setelah	,0296902	,1298092	,0142484	,0013456	,0580348	2,084	82	,040

Appendix 5: Paired Samples t-test of DER

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Log_DER_Sebelum - Log_DER_Setelah	-,0217931	,0990022	,0106141	-,0428933	-,0006929	-2,053	86	,043

Appendix 6: Paired Samples t-test of ROE by listing board category

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	ROE_Utama_Sebelum - ROE_Utama_Setelah	-,0026182	,0228275	,0048668	-,0127393	,0075030	-,538	21	,596
Pair 2	ROE_Pengemb_Sebelum - ROE_Pengemb_Setelah	,00463645	,01796336	,00228135	,00007461	,00919829	2,032	61	,046

Appendix 7: Paired Samples t-test of QR by listing board category

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Log_QR_Utama_Sebelum - Log_QR_Utama_Setelah	-,0011542	,1340181	,0273563	-,0577450	,0554367	-,042	23	,967
Pair 2	Log_QR_Pengemb_Sebelum - Log_QR_Pengemb_Setelah	,0427136	,1278150	,0166401	,0094048	,0760223	2,567	58	,013

Appendix 8: Paired Samples t-test of DER by listing board category

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Log_DER_Utama_Sebelum - Log_DER_Utama_Setelah	,0118250	,1119588	,0228535	-,0354511	,0591011	,517	23	,610
Pair 2	Log_DER_Pengemb_Sebelum - Log_DER_Pengemb_Setelah	-,0346000	,0913312	,0115066	-,0576015	-,0115985	-3,007	62	,004