



## IMPACT OF LOAN TO DEPOSIT RATIO AND QUICK RATIO ON RETURN ON ASSETS WITH FIRM SIZE AS A MODERATING VARIABLE: A STUDY ON ASEAN BANKING SECTOR (2012-2020)

Sukirno<sup>1\*</sup>, Mega Rahayu<sup>2</sup>

<sup>1,2</sup>Universitas Serang Raya, Kota Serang, Indonesia

Corresponden Email: [Sukirno79@gmail.com](mailto:Sukirno79@gmail.com)<sup>1</sup>

### Abstract

The study aims to determine the effect of Loan to Deposit Ratio (LDR) and Quick Ratio (QR) on Return On Assets (ROA) moderated by Firm Size and their impact on Price Earning Ratio (PER). The study uses companies in the banking subsector listed on the Southeast Asian Stock Exchange from 2012 to 2020 as the object. The data are secondary, collected from company annual reports. Samples were chosen purposively, obtaining 25 companies with complete financial reporting, resulting in 225 samples. Analysis methods include descriptive analysis, classical assumptions testing, moderated regression analysis (MRA), multiple linear regression, partial testing (t-test), and simultaneous testing (F-test). Results show that LDR has a significant effect on ROA; QR has no significant effect on ROA; together LDR and QR significantly affect ROA simultaneously. Firm Size does not moderate the relationship between LDR and ROA, nor between QR and ROA. ROA has no significant effect on PER.

**Keywords:** Loan to Deposit Ratio, Quick Ratio, Firm Size, Return on Assets, Price Earning Ratio

---

### INTRODUCTION

The banking sector serves as a cornerstone in the economic development and stability of nations, particularly in emerging regions such as Southeast Asia. As financial intermediaries, banks facilitate the mobilization of funds from savers to borrowers, thereby driving productive investment and economic growth (Hafiza & Herwany, 2013; Ozili, 2019). However, the dynamic environment in which banks operate is fraught with risks, volatility, and regulatory complexities, making the performance and sustainability of banking institutions a subject of significant scholarly and practical concern (Gupta & Tyagi, 2016).

Among the paramount concerns in contemporary banking is the measurement and improvement of profitability, frequently proxied by Return on Assets (ROA), an indicator reflecting the bank's efficiency in utilizing assets to generate earnings (Khan & Ali, 2016). ROA is critically scrutinized by regulators, investors, and bank managers alike as it encapsulates both operational effectiveness and risk management efficacy. The regulatory framework established by Bank Indonesia, for instance, delineates explicit thresholds (e.g., minimum ROA at 1.5%) as benchmarks for financial soundness, reinforcing the agency's role in preserving systemic stability (Bank Indonesia Regulations, 2013).

Empirical observations spanning 2012 to 2020 exhibit fluctuating ROA levels among Southeast Asian banks, with a conspicuous decline during the pandemic period, reflecting the heightened credit risks, loan defaults, and macroeconomic shocks induced by COVID-19 (Indah & Rokhim, 2023; OJK Reports, 2021). According to statistical data extracted from regional exchanges and regulatory reports, the average ROA decreased from approximately 2.49% in 2019 to a nadir during 2020-21 (Rahayu, 2022). This downturn underscores the challenges banks face in maintaining profitability amid uncertain economic climates.

Liquidity management—an equally vital dimension—employs multiple financial ratios, chief among them the Loan to Deposit Ratio (LDR) and Quick Ratio (QR). LDR, quantifying the proportion of loans extended relative to deposits and equity, balances profitability aspirations against liquidity preservation (Menicucci & Paolucci, 2016). Normatively, regulators prescribe LDR target bands, commonly 78%-92% in the ASEAN region, aiming to mitigate liquidity risks while enabling active lending (Bank Indonesia, 2013). The region's banks have demonstrated volatile LDR trends, particularly during crises, as credit demand diminishes and deposit behaviors shift, culminating in a distorted liquidity landscape (Rahayu, 2022).

Theoretically, LDR's influence on ROA is ambivalent: on one hand, elevated LDR signifies proactive asset utilization enhancing income; on the other, excessively high LDR threatens liquidity and risk solvency (Bourkhis & Nabi, 2013). Empirical studies reveal mixed evidence, some confirming positive linkages (Dugar & Nathan, 2019), others noting insignificant or negative associations attributable to market or institutional variances (Gupta & Bonizzi, 2015). Similarly, the QR indicating the ability to meet short-term liabilities excluding inventories provides an incisive view of liquid asset management (Alimi & Olagunju, 2019). Optimal QR values highlight prudent liquidity buffers but may concurrently signal excess idle assets, adversely affecting profitability due to opportunity costs (Guevara-Valdés et al., 2020).

Firm Size emerges as a salient moderating construct, embodying the scale of banking operations commonly gauged through log-transformed total assets or market capitalization (Claessens et al., 2001; Khalid & Muhammad, 2015). Larger banks benefit from economies of scale, diversified portfolios, and robust capital bases but may confront managerial inefficiencies and augmented moral hazard problems explained through Agency Theory (Jensen & Meckling, 1976; Shleifer & Vishny, 1997). Agency Theory elucidates the principal-agent conflicts in banking, compounded by information asymmetry and risk-taking incentives that impact profitability and risk exposure (Laeven & Levine, 2009). Complementary, the Trade-Off Theory provides a framework understanding the balancing act between tax benefits of debt and bankruptcy costs, relevant to banks' capital and liquidity structures influencing ROA (Kraus & Litzenberger, 1973; Myers, 1984).

Another pivotal theoretical lens involves Signalling Theory which interprets financial ratios as market signals impacting investment decisions, stock valuation, and ultimately Price Earning Ratio (PER) (Spence, 1973; Healy & Palepu, 2001). PER captures market expectations on firm growth and risk, calculated as market price per share divided by earnings per share, serving as a key metric of bank valuation from an investor's perspective (Fama & French, 1992; Black & Scholes, 1973). Prior studies have highlighted ambiguous impacts of ROA on PER, often moderated or mediated by market, macroeconomic, and firm-specific factors (Almazari, 2014; Rosa et al., 2020).

A glaring research gap exists within ASEAN banking scholarship concerning integrated models assessing the simultaneous effect of liquidity ratios (LDR and QR) on profitability (ROA) with Firm

Size as a moderator, and subsequent impact on market valuation (PER), particularly under economic disruptions like the COVID-19 pandemic (Indah & Rokhim, 2023; Rahayu, 2022). While extant literature offers fragmented insights—such as Rahayu’s (2022) findings of significant LDR effects on ROA but non-significant QR and PER relations—there remains a deficit in comprehensive multivariate and longitudinal assessments incorporating moderating mechanisms. Furthermore, prevailing studies often omit context-specific factors unique to ASEAN capital markets and regulatory environments.

Motivated by this lacuna, the present study leverages a robust dataset encompassing 25 publicly listed banks in the Southeast Asia region over 2012-2020, employing purposive sampling and advanced moderated regression analysis (MRA) techniques to elucidate these relationships (Rahayu, 2022). The hypotheses anchored include: (H1) LDR positively affects ROA; (H2) QR positively influences ROA; (H3) Combined LDR and QR significantly impact ROA; (H4) Firm Size moderates LDR-ROA linkage; (H5) Firm Size moderates QR-ROA linkage; and (H6) ROA positively affects PER. Validation or rejection of these hypotheses offers critical theoretical and managerial contributions, particularly reinforcing or contesting Agency and Trade-Off theories and refining investor signaling on bank valuation.

The study’s novelty is underscored by its integrative approach—melding liquidity, profitability, firm size, and market valuation with contemporaneous pandemic-era data—and by situating findings within ASEAN’s evolving banking context. This holistic perspective informs strategic financial management, regulatory supervision, and investor decision-making, fostering resilient and profitable banking systems essential for regional economic stability and growth.

In conclusion, the research advances both normative and empirical discourse, bridging regulatory liquidity mandates with real-world performance metrics and investor perceptions. By addressing limitations in past works through methodological rigor and contextual depth, it paves the way for nuanced understanding and practical interventions optimizing liquidity management, profitability enhancement, and market valuation of banks in Southeast Asia.

## **METHOD**

This study uses a quantitative method with a causality approach, aiming to examine the influence of independent variables on the dependent variable and the role of moderating variables in this relationship. The quantitative method was chosen because this study utilizes numerical data obtained from company financial reports, which are then statistically analyzed to test the proposed hypotheses (Sugiyono, 2017). The causality approach is used to examine the causal relationship between the Loan to Deposit Ratio (LDR) and Quick Ratio (QR) on Return on Assets (ROA), with Firm Size as a moderating variable, and its impact on the Price Earnings Ratio (PER) (Ghozali, 2018).

This study was conducted using secondary data sourced from the annual reports of banking sub-sector companies listed on the Southeast Asia Stock Exchange during the period 2012 to 2020. Data were collected through documentation methods, referring to company disclosures provided on the exchange's official website as well as each company's public reports (Sekaran & Bougie, 2016).

The subjects of this study were all banking sub-sector companies listed on the Southeast Asia Stock Exchange during that period. LDR and QR serve as independent variables, reflecting the company's liquidity level and ability to meet its short-term obligations. ROA is the primary dependent variable, measuring company profitability, while PER is a secondary dependent variable, reflecting company value in the stock market. Firm Size is included as a moderating variable, as it can influence the strength of the relationship between liquidity and profitability (Ghozali, 2018).

The study uses quantitative data in the form of financial ratios consistently processed across companies and periods, calculated and measured according to generally recognized accounting and financial standards, thereby ensuring high data validity and reliability (Kasmir, 2015).

The sampling technique employed is purposive sampling, with criteria being companies that had published complete financial reports during the study period. This approach was chosen to ensure data homogeneity and completeness, as recommended in financial research methodologies (Sekaran & Bougie, 2016). From the population of all banking sub-sector companies listed on the Southeast Asia Stock Exchange from 2012 to 2020, a total of 25 companies that met the criteria were selected, leading to 225 samples (25 companies  $\times$  9 years).

Data analysis was conducted in stages, beginning with descriptive analysis to summarize statistical characteristics (mean, standard deviation, distribution), followed by classical assumption tests—normality, multicollinearity, heteroscedasticity, and autocorrelation—to ensure regression assumptions are satisfied (Ghozali, 2018). These tests are crucial for validating the results of regression analysis.

The relationship between variables was tested using multiple linear regression analysis to examine the simultaneous effect of LDR and QR on ROA. To test the moderating effect of Firm Size on the relationship between LDR/QR and ROA, moderated regression analysis (MRA) was performed. Lastly, simple linear regression analysis was used to examine the effect of ROA on PER. Significance was tested using the t-test (partial effect) and F-test (simultaneous effect), following standard practices for empirical finance or accounting research (Ghozali, 2018; Kasmir, 2015).

The entire analytical process utilized IBM SPSS Statistics version 26 software to compute results, ensure accuracy, and validate reliability, consistent with accepted social science research standards (Pallant, 2020)

## RESULTS AND DISCUSSION

### RESULTS

#### *Classical Assumption Test Results*

##### *Data Normality Test Results*



Figure 1 Data Normality Test Results

The results of the probability-plot normality test show that the points are spread around the diagonal line and follow the direction of the diagonal line or the histogram line shows a normal distribution pattern, so the regression model meets the normality assumption.

##### *Autocorrelation Test Results*

Table 1 Autocorrelation Test Results

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.482 <sup>a</sup>	.233	.195	.44853	1.753
a. Predictors: (Constant), Z_FIRMSIZE, Y2_PER, X2_QR, X1_LDR					
b. Dependent Variable: Y1_ROA					

##### Durbin Watson Autocorrelation Test Results

N = 86  
 dW = 1,753  
 dL = 1,602  
 dU = 1,697  
 4-dL = 4 – 1,602 = 2,398  
 4-dU = 4 – 1,697 = 2,303  
 Hasil = dU < dW < 4-dU  
 = 1,697 < 1,753 < 2,303

The results of the autocorrelation test in this study can be seen in Table 4.4. Based on this table, it can be seen that there is no positive or negative autocorrelation. This can be proven by the du value  $(1.697) < \text{Durbin Watson } (1.753) < 4 - \text{du } (2.303)$ .

### ***Heteroscedasticity Test Results***

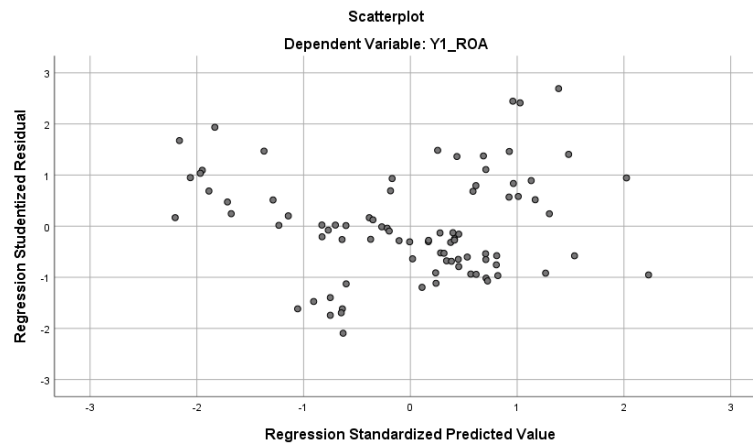


Figure 2 Heteroscedasticity Test Results

Heteroscedasticity is a condition where confounding variables do not have the same variance. This test is intended to determine whether there is a model deviation due to different disturbance variances from one observation to another. Testing for heteroscedasticity is carried out using residual plots, namely by examining the distribution of residuals for each observation against the predicted value Y. If the residual plot is found to form a certain pattern, heteroscedasticity is present.

### ***Multicollinearity Test Results***

Table 2 Multicollinearity Test Results

<b>Coefficients<sup>a</sup></b>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	X1_LDR	.516	1.937
	X2_QR	.634	1.578
	Y2_PER	.834	1.199
	Z_FIRMSIZE	.698	1.432
a. Dependent Variable: Y1_ROA			

The multicollinearity test aims to determine whether a regression model detects correlation between independent variables. A good regression model should not exhibit correlation between independent variables. If this is not the case, one of the variables must be replaced or removed (Saumi & Nasrullah, 2020:86). A good regression model should not exhibit correlation between independent variables. The criteria for data to be free of multicollinearity are a tolerance value  $> 0.1$  or a VIF  $< 10$ .

**Results of Multiple Linear Regression Analysis Test**

Table 3 Results of Multiple Linear Regression Analysis Test

		<b>Coefficients<sup>a</sup></b>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.144	.229		.629	.531
	X1_LDR	.014	.003	.488	4.331	.000
	X2_QR	-.013	.054	-.028	-.246	.806

a. Dependent Variable: Y1\_ROA

The multiple linear regression equation model obtained from the following:

$$Y = a + b_1.X_1 + b_2.X_2 + e$$

$$ROA = 0,144 + 0,014.LDR - 0,13.QR + e$$

**Partial Test Results (t-Statistic Test)**

**1) Hypothesis 1 Testing :**

$$T \text{ tabel} = t (a/2 ; n-k-1)$$

$$= t (0,025 ; 83)$$

$$= 1.988$$

Based on the partial test results above, the calculated t value is 4,331 and the t table value is 1,988, so it is known that the calculated  $t > t$  table. The significance value of the Loan To Deposit Ratio (X1) variable is smaller than 0.05, which is 0.000, so it is known that  $0.000 < 0.05$ , so it can be concluded that partially the Loan To Deposit Ratio (X1) variable has a significant effect on the Return On Assets (Y) variable.

**2) Hypothesis 2 Testing**

Based on the partial test results above, the calculated t-value is -0.246 and the t-table value is 1.988, indicating that the calculated t-value is less than the t-table value. The significance value of the Quick Ratio (X2) variable is greater than 0.05, namely 0.806, indicating that 0.806 is greater than 0.05. Therefore, it can be concluded that the Quick Ratio (X2) variable has no significant effect on Return on Assets (Y) partially.

**Simultaneous Test Results (F Test)**

Table 4 F Test

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.779	2	2.390	12.050	.000 <sup>b</sup>
	Residual	16.459	83	.198		
	Total	21.238	85			

a. Dependent Variable: Y1_ROA
b. Predictors: (Constant), X2_QR, X1_LDR

**f tabel** = F (k ; n-k)  
 = F (2 ; 84)  
 = 3.11

df1 value  $3 - 1 = 2$  and df2  $86 - 2 - 1 = 116$ , the F significance value is 0.000 and the F count value is 12,050 with the F table value of 3.11. Because the F significance  $< 0.05$  or  $0.000 < 0.05$  and the F count value  $> F$  table or  $9.242 > 2.67$  which means that simultaneously the Loan To Deposit Ratio and Quick Ratio have a significant effect on Return On Assets simultaneously

**Moderated Regression Analysis Test Results**

- 1) The Effect of Loan to Deposit Ratio on Return on Assets with Firm Size as a moderating variable

Table 5 MRA Phase 1 Test Results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.037	.487		-.076	.939
	X1_LDR	.014	.003	.500	4.457	.000
	Z_FIRMSIZE	.007	.016	.052	.460	.647

a. Dependent Variable: Y1\_ROA

Table 6 Results of the Moderation Test of the LDR Variable on ROA

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.207	1.362		-1.620	.109
	X1_LDR	.050	.021	1.768	2.349	.021
	Z_FIRMSIZE	.107	.061	.771	1.765	.081
	X1Z	-.002	.001	-1.105	-1.703	.092

a. Dependent Variable: Y1\_ROA

The SPSS output results above show that the influence of Firm Size on Return on Assets in the first output has a significant value of  $0.647 < 0.05$  and the influence of X1Z in the second output has a significant value of  $0.092 < 0.05$ . Therefore, it can be said that company size is not moderating. Then, if seen from the t table X1Z of -1.703 proves that Firm Size weakens the relationship between LDR and Return on Assets

- 2) The effect of Quick Ratio on Return on Assets with Firm Size as a moderating variable.

**Results of Phase 2 Moderation Test**



Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.619	.306		5.291	.000
	X2_QR	.098	.050	.206	1.953	.054
	Z_FIRMSIZE	-.026	.015	-.184	-1.743	.085
a. Dependent Variable: Y1_ROA						

**Results of the Moderation Test of the QR Variable on ROA**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.800	.356		2.248	.027
	X2_QR	6.442	1.663	13.522	3.875	.000
	Z_FIRMSIZE	.016	.017	.115	.918	.361
	X2Z	-.324	.085	-13.297	-3.817	.000
a. Dependent Variable: Y1_ROA						

The SPSS output results above show that the influence of company size on ROA in the first output has a significant value of  $0.085 > 0.05$ , and the influence of X2Z in the second output has a significant value of  $0.000 < 0.05$ . Therefore, it can be said that company size is a pure moderator. Furthermore, if seen from the t table X2Z of -3.817 proves that Firm Size strengthens the relationship between Quick Ratio and Return on Assets.

**Simple Linear Regression Test**

Table 7 Simple Linear Regression Test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients	Standardized Coefficients		t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.742	1.490		5.197	.000
	Y1_ROA	1.959	1.155	.182	1.695	.094
a. Dependent Variable: Y2_PER						

**1) Hypothesis Testing 6 :**

$$\begin{aligned} \mathbf{T\ table} &= t (a/2 ; n-k-1) \\ &= t (0,025 ; 83) \\ &= 1.988 \end{aligned}$$

Based on the partial test results above, the calculated t value is 1.695 and the t table value is 1.988, so it is known that the calculated  $t < t$  table. The significance value of the Return On Assets (Y1) variable is greater than 0.05, which is 0.094, so it is known that  $0.094 < 0.05$ , so it can be concluded that partially the Price Earning Ratio (Y2) variable does not have a significant effect on the Return On Assets (Y1) variable. This means that  $H_0$  is accepted while  $H_a$  is rejected, so the sixth hypothesis is rejected.

**Summary of Research Results**

Table 8 Summary of Research Results

No	Hypothesis	Results	Conclusion
1	<i>The Loan to Deposit Ratio has a significant positive effect on Return on Assets.</i>	The calculated t value is $4.931 > t$ table 1.988 with a significance value of $0.000 < 0.05$	Accepted
2	<i>The Quick Ratio does not have a significant effect on Return on Assets.</i>	The calculated t value is $-0.246 > t$ table 1.988 with a significance value of $0.039 < 0.05$	Rejected
3	<i>The Loan to Deposit Ratio and the Quick Ratio simultaneously influence Return on Assets.</i>	The calculated f value is $12.050 > f$ table 3.11 with a significance value of $0.000 < 0.05$	Accepted
4	<i>Firm Size does not moderate the relationship between the Loan to Deposit Ratio and Return on Assets.</i>	The significant value of Z against Y is $0.647 < 0.05$ and the significant value of $X1*Z$ is $0.092 < 0.05$	Rejected
5	<i>Firm Size does not moderate the relationship between the Quick Ratio and Return on Assets.</i>	The significant value of Z against Y is $0.085 > 0.05$ and the significant value of $X2*Z$ is $0.000 < 0.05$	Accepted
6	<i>Return on Assets has no effect on the Price Earnings Ratio.</i>	The calculated t value is $1.695 < t$ table 1.988 with a significance value of $0.094 > 0.05$	Rejected

**Discussion**

***Loan to Deposit Ratio affects Return on Assets***

The first hypothesis is to determine whether the Loan to Deposit Ratio has an effect on Return on Assets. Table 4.8 yields a calculated t of 4.331 and a ttable value of 1.988. The significance value is 0.000, indicating that the Loan to Deposit Ratio has a partial and significant effect on Return on Assets. The Loan to Deposit Ratio is used to measure a bank's ability to repay loans, which can lead to liquidity risk due to the bank's inability to meet all maturing obligations. This indicates that an increase or decrease in Return on Assets can be influenced by the Loan to Deposit Ratio. The Loan to

Deposit Ratio is a crucial component of a company's sustainability in increasing Return on Assets. This study has the same research results as previous studies, namely research from (Mohanty & Sarkar, 2020), (Yildirim & Ildokuz, 2020), (Abbas et al., 2019), and (Adelopo et al., 2018), (Karamoy & Tulung, 2020) which stated that ROA has a significant positive correlation with LDR.

#### ***Quick Ratio has no effect on Return On Assets***

The second hypothesis is to determine whether the Quick Ratio has an effect on Return on Assets. Table 4.8 yields a calculated  $t$  of -0.246 and a  $t$ -table value of 1.988. The significance value is 0.039, indicating that the Quick Ratio has no significant partial effect on Return on Assets. Dendawijaya's (2005) theory states that an increase in this ratio will also increase a bank's liquidity, which in practice will impact profitability. Liquid assets include cash plus checking accounts held at Bank Indonesia, which confirms that the research results comply with Bank Indonesia regulations. According to this theory, an increase in liquidity (the quick ratio) will increase a company's fixed costs, which means the company is at risk of being unable to repay its debts. If revenue forecasts are inaccurate, there is the potential for the banking company to experience financial difficulties in managing profits (return on assets). This study has the same research results as previous studies, namely research from (Mohanty & Mehrotra, 2018) (Hidayati, n.d.), (Siregar et al., 2021) which stated that ROA does not have a significant effect on the Quick Ratio.

#### ***Loan to Deposit Ratio and Quick Ratio simultaneously affect Return on Assets***

The third hypothesis is to determine whether the Loan to Deposit Ratio and Quick Ratio influence Return on Assets. Table 4.9 shows that the Loan to Deposit Ratio and Quick Ratio simultaneously significantly influence Return on Assets. This confirms the third hypothesis, that the Loan to Deposit Ratio and Quick Ratio simultaneously significantly influence Return on Assets. This is supported by signaling theory, which states that increasing levels of profitability and liquidity lead to an increase in profitability. Research conducted by Roy et al. (2019) shows that bank size and CRAR are positively related to profitability, while liquidity is negatively related to profitability. Similar to the research findings of Atika P (2019) and Husin & Purnamasari (2021), the Loan to Deposit Ratio and Firm Size significantly influence Return on Assets.

#### ***Firm Size does not moderate the relationship between Loan to Deposit Ratio and Return on Assets***

The fourth hypothesis is to determine whether firm size moderates the relationship between the Loan-to-Deposit Ratio and Return on Assets. Tables 4.10 and 4.11 show significant values of 0.647 and 0.094, respectively, indicating that firm size does not moderate the relationship between the Loan-to-Deposit Ratio and Return on Assets.

According to signaling theory, the liquidity ratio and firm size can send negative signals to investors, creditors, and other stakeholders. If a company experiences a decline in its future prospects, this can lead to investor doubts about its investment in the banking subsector (return on assets). An increasing loan-to-deposit ratio can lead to a low return on assets in banking, and a high firm size can also lead to a low return on assets in banking.

This study has similar results to previous studies, namely research by (Saleh & Abu Afifa, 2020b) (Giriyani & Diyani, 2019) which stated that Firm Size does not have a significant effect on Return on Assets. This is inconsistent with research by (Doğan, 2013) (Hariyanto & Juniarti, n.d.) (Hariyanto & Juniarti, n.d.) which stated there is a positive relationship between firm size and profitability. This is due to differences in the company sector or research period.

#### ***Firm Size moderates the relationship between Quick Ratio and Return on Assets***

The fifth hypothesis is to determine whether firm size moderates the relationship between the Quick Ratio and Return on Assets. Tables 4.12 and 4.13 show significant values of 0.085 and 0.000, respectively, indicating that firm size moderates the relationship between the Quick Ratio and Return on Assets.

Firm size reflects a company's ability to generate profits. The negative trend in this study indicates that higher firm size leads to lower profitability. This is because a larger firm size automatically increases costs, such as building maintenance, vehicles, equipment, labor, and administrative costs that support the company's operations. This leads to idle assets, creating a burden, and making it difficult for the company to repay debts that must be immediately covered with more liquid current assets, which in turn reduces company profits.

Firm size is proxied by the company's total assets each year. Large companies can absorb substantial capital resources. Large capital resources facilitate the company's ability to purchase inventory for sale. A large number of sales will naturally increase the company's profits. Several researchers have stated that the quick ratio has a positive and significant effect on return on assets (Nidya, 2014). According to research (Doğan, 2013), the analysis results show a positive relationship between company size and profitability indicators.

#### ***Return On Assets has no effect on the Price Earning Ratio***

The sixth hypothesis is to determine whether Return on Assets (ROA) influences the Price Earnings Ratio (P/E) (R/A). Table 4.8 shows a t-test of 1.695 and a t-table of 1.988. The significance value is 0.000, indicating that ROA has no significant partial effect on the P/E ratio. According to signaling theory, the P/E ratio can send a negative signal to investors, creditors, and other stakeholders that a company's weakening ability to generate profits is causing investors to hesitate to pay every rupiah of profit earned by companies in the banking subsector. Therefore, it is reasonable to

suspect that the P/E ratio has a positive effect on R/E. These results also support research conducted by Oktary et al., n.d., Nurul Hayati (2010), Sukamdani (2011), and Ehcان Adam (2015), which concluded that ROA has a negative and significant effect on PER.

## CONCLUSION

The findings of this study reveal a nuanced understanding of how financial ratios and firm size interplay to influence bank profitability and valuation in the Southeast Asian banking sub-sector over the period 2012–2020. The results indicate that the Loan to Deposit Ratio (LDR) exerts a significant positive impact on Return on Assets (ROA), suggesting that banks capable of effectively channeling third-party funds into productive loans can enhance their profitability. In contrast, the Quick Ratio (QR) does not have a significant direct effect on ROA, implying that, for banking institutions within this context, liquidity as measured by QR alone does not drive improvements in profitability.

Furthermore, when analyzed together, LDR and QR collectively demonstrate a significant relationship with ROA, underscoring the importance of managing both loan allocation and liquidity in tandem to achieve better financial performance. However, the role of firm size as a moderating variable emerges as statistically insignificant; firm size neither strengthens nor weakens the effect of LDR or QR on ROA. This finding indicates that, irrespective of scale, the relationship between these financial ratios and profitability remains consistent across banks of varying sizes.

Lastly, the study finds that higher profitability, as reflected by ROA, does not automatically translate into a higher Price Earning Ratio (PER), which represents investor confidence and market valuation. This suggests that other factors outside of profitability likely influence market perception and valuation in the banking sector. Collectively, these conclusions highlight the pivotal role of lending activity in driving bank profitability, the limited moderating impact of firm size, and the complex relationship between financial performance and market valuation in the context studied

## REFERENCES

- Alimi, S. R., & Olagunju, T. M. (2019). Liquidity and profitability nexus in Nigerian banks: A panel data analysis. *Journal of Economics and Sustainable Development*, 10(5), 121-133.
- Almazari, A. A. H. (2014). Determinants of share price: Evidence from Saudi Arabia stock market. *Asian Journal of Research in Banking and Finance*, 4(1), 35-43.
- Bank Indonesia Regulations. (2013). *Regulation No.15/15/PBI on Loan to Deposit Ratio*. Bank Indonesia Publication.
- Black, F., & Scholes, M. (1973). The pricing of options and corporate liabilities. *Journal of Political Economy*, 81(3), 637-654.
- Bourkhis, K., & Nabi, M. S. (2013). Bank liquidity risk and performance: An empirical investigation from GCC countries. *International Journal of Economics and Financial Issues*, 3(1), 212-217.
- Claessens, S., Djankov, S., & Klingebiel, D. (2001). *Stock markets in transition economies*. World Bank Policy Research Working Paper No. 2334.
- Dugar, A., & Nathan, S. (2019). The influence of liquidity on banking profitability in India. *Indian Journal of Economics and Business*, 18(1), 89-98.

- Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *Journal of Finance*, 47(2), 427-465.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.
- Gupta, A., & Bonizzi, B. (2015). Profitability and liquidity nexus for Chinese banking sector: A panel data approach. *Journal of Chinese Economic and Foreign Trade Studies*, 8(1), 14-24.
- Gupta, N., & Tyagi, R. (2016). Determinants of banking sector performance: Evidence from Indian banks. *International Journal of Economics and Financial Research*, 2(4), 106-111.
- Hafiza, N., & Herwany, A. (2013). Banking profitability: a panel data study of selected Indonesian banks. *Asian Journal of Finance and Accounting*, 5(1), 1-15.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3), 405-440.
- Indah, C., & Rokhim, R. (2023). The impact of COVID-19 and risk management on bank profitability: Evidence from ASEAN banks. *Journal of Economics and Finance*, 47(1), 53-65.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kasmir. (2015). *Analisis Laporan Keuangan*. Rajawali Pers.
- Khalid, M., & Muhammad, S. (2015). Impact of firm size and profitability on bank performance in Pakistan. *Asian Economic and Financial Review*, 5(5), 762-772.
- Khan, T., & Ali, S. (2016). Analyzing profitability in banking sector: The roles of liquidity ratios. *International Journal of Business and Management Invention*, 5(1), 60-67.
- Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance*, 28(4), 911-922.
- Laeven, L., & Levine, R. (2009). Bank governance, regulation, and risk taking. *Journal of Financial Economics*, 93(2), 259-275.
- Menicucci, E., & Nabi, M. S. (2016). The relationship between liquidity risk and financial performance: Evidence from European banks. *Journal of Financial Management Markets and Institutions*, 4(1), 77-86.
- Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 575-592.
- Ozili, P. K. (2019). Banking sector stability and economic growth. *Journal of Economic and Financial Studies*, 7(3), 168-177.
- Pallant, J. (2020). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using IBM SPSS* (7th ed.). Routledge.
- Rahayu, M. (2022). Pengaruh Loan to Deposit Ratio dan Quick Ratio terhadap Return on Assets yang Dimoderasi oleh Firm Size serta Dampak pada Price Earning Ratio: Studi pada Perbankan ASEAN. [Unpublished Undergraduate Thesis]. Universitas Serang Raya.
- Rosa, R. D., Soares, A. M., & Ferreira, P. (2020). Return on assets and its relationship with market valuation: Evidence from Brazilian banks. *Brazilian Journal of Management*, 13(2), 210-225.
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). Wiley.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance*, 52(2), 737-783.
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355-374.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.
- Valdimarsdottir, G., & Wong, W. (2018). Impact of firm size on financial performance: Empirical Evidence. *International Journal of Financial Studies*, 6(3), 42-56.