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Influence of Loans on Total Assets, Return on Equity, and Inflation on Islamic Banks' Capital Buffer

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Abstract

Purpose – This study aims to examine the influence of Loans to Total Assets (LOTA), Return on Equity (ROE), and Inflation on the Capital Buffer

Methodology – This study employs a quantitative approach, utilizing a causal associative study and multiple linear regression as its analytical methods. The data used are secondary data sourced from Islamic banking statistics for the period from January 2020 to December 2024. The analytical tool used in this study is Eviews 10.

Findings – The results show that Loans to Total Assets (LOTA) has no significant effect on the Capital Buffer. Return on Equity (ROE) has no significant effect on the Capital Buffer. Inflation has no significant effect on the Capital Buffer.

Implications – The results of this study provide recommendations for each bank. They can be used by bank management to inform decisions on asset and capital management strategies to maintain financial stability amid fluctuating inflation.

Originality – Providing insight into the importance of financial management, this research is original because it combines factors that have not been widely discussed in the context of Islamic banks in Indonesia, thereby making a new contribution to the literature and practice of the Islamic banking industry.

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1. Introduction

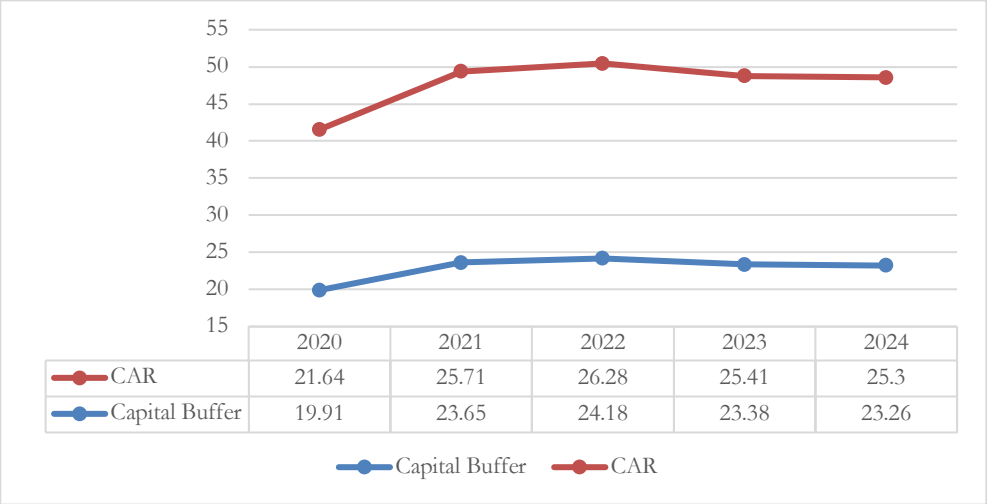
The financial supervisory body determines the minimum capital required by financial institutions to maintain a stable and healthy financial system. These capital adequacy regulations are derived from the Basel Committee on Banking Supervision, specifically Basel I, II, and III. In these agreements, Basel sets a minimum capital adequacy ratio (CAR) of 8%. Furthermore, Basel III requires banks to maintain additional capital to address potential risks. The presence of this additional capital across all banks indicates that banks have anticipated future uncertainty.

Furthermore, another factor thought to influence Capital Buffer is Return on Equity (ROE). ROE is used to assess a company's ability to generate profits from shareholder investments. A higher ROE indicates a more efficient use of shareholder capital to generate profits. This indicates

the company's ability to convert investments into higher profits, ultimately increasing its attractiveness to investors. ROE is a financial indicator that measures how effectively a company generates profits from its shareholders' capital. ROE also reflects a company's effectiveness in utilizing equity to generate profits, and is often used by investors to evaluate whether a company is a worthy investment (Agustuty & Ruslan, 2019).

An external factor affecting the stability of the financial industry is inflation. The relationship between inflation and a bank's capital buffer is complex and multifaceted. In this study, we will examine the effect of inflation on the capital buffer (Indriyani, 2016). Inflation is an external factor that can alter a bank's financial condition. Inflation can increase operational costs and affect how banks manage their assets. As a result, there are changes in the bank's profits, which in turn affect the amount of capital it can raise. Banks need a capital buffer because the government-set minimum capital requirements may not be sufficient to cover potential losses. Therefore, banks must provide a capital buffer as collateral against costs that may arise if they experience a capital shock and have difficulty obtaining new capital. If a bank experiences a capital shock, it will be unable to meet the government-set minimum capital requirements, which could trigger supervisory intervention and even lead to the company's closure (Shim, 2013). Banks face several risks in carrying out their duties and roles, particularly during times of crisis. To carry out their duties effectively, banks need sufficient capital, high-quality assets, sound management grounded in prudent principles, and the ability to generate profits (Rahmatullah, 2024). The following is the development of capital buffers at the Indonesian Islamic Bank, as presented in Figure 1.

Figure 1. Percentage Growth of CAR and Capital Buffer



Source: OJK (2025)

Based on Figure 1 the percentage of Capital Adequacy Ratio (CAR) development, it shows that the Indonesian Islamic banking sector is growing rapidly with a market share of 7.2% in 2024, supported by a Muslim population of 200 million, but to face the challenges of stability after the COVID-19 pandemic where CAR and Islamic Commercial Banks fluctuate from 25.30% (2020) to 26.28% (2022) and then decrease in 2023 due to aggressive credit expansion. Capital buffers or capital reserves above the Basel III minimum of 8% listed in the OJK are crucial to absorb unexpected losses, However, it is influenced by internal factors such as Loans to Total Assets (LOTA) which decreased from 0.37 to 0.34 (2020-2024), Return on Equity (ROE) decreased from 0.007 to 0.002, and external inflation rose 1.68% to 2.31%. This fluctuation is triggered by systemic risk, in which inflation erodes asset values, low ROE hinders profit retention, and LOTA increases, thereby increasing the potential for NPLs. A study by Imsar et al. (2023) found that ROE has no significant effect on the influence of BUS Capital Buffer. For a deeper understanding, Sharia Commercial Banks are vulnerable to failure under POJK No. 11/POJK.03/2016, which threatens public trust and the growth of the Islamic economy. Therefore, the capital buffer is of great importance to study, yet many researchers still do not recognize its significance (Anggraeni, 2022).

Empirical evidence on the determinants of capital buffers in Indonesian Islamic commercial banks yields inconsistent findings, particularly regarding internal profitability measures. Tanjung et al. (2023) demonstrate that return on equity (ROE) has no significant influence on capital buffers, consistent with Islamic banks' tendency to prioritize profit-sharing distributions over the accumulation of retained earnings. Similarly, Cakhyaneu and Apriyani (2022) confirm ROE's insignificance, noting that larger Islamic banks maintain lower buffers due to adequate funding availability, suggesting that economies of scale reduce precautionary capital needs. In contrast, Kurnianingsih et al. (2021) identify a significant negative relationship between ROE and the capital buffer, implying that diminished profitability constrains the capacity to form reserves. This contradictory finding, namely, the insignificant effect of profitability on ROE in several studies (Cakhyaneu & Apriyani, 2022; Tanjung et al., 2023), contrasts with other findings showing a significant negative effect (Kurnianingsih et al., 2021). These differences in results likely stem from variations in the samples, observation periods, or model specifications used in each study, indicating a significant research gap. This gap concerns the role of profitability in Islamic bank capital management, particularly the relationship among the loan-to-asset ratio, profitability levels, and inflationary pressures in the national economy during Indonesia's post-pandemic recovery period (2020–2024), which has not been studied specifically.

A comparison of previous studies shows conflicting results. Tanjung et al. (2023) found no significant effect on ROE, supporting the hypothesis that the relationship between profitability and capital buffers in Islamic banks is weak. Similarly, Cakhyaneu and Apriyani (2022) found no significant effect, consistent with the finding that bank size is more influential than profitability. Conversely, Kurnianingsih et al. (2021) reported a significant negative effect, which contradicts findings from other studies and warrants retesting in the post-COVID-19 pandemic context. These inconsistencies in ROE findings, coupled with the limited examination of the interaction between the loan-to-asset ratio (LOTA) and inflation in Islamic banks after 2020, indicate a substantial gap in the literature. This study fills this gap by analyzing panel data from nine Islamic commercial banks in Indonesia (2020–2024). We examine the unique combination of LOTA, ROE, and inflation to provide insights for contemporary Islamic capital management strategies.

The research gap in this study is that there remains little research examining the influence of loans-to-asset ratios, return on equity, and inflation on capital buffers, particularly in Islamic commercial banks. Therefore, the researcher aims to identify the problems by analyzing the independent and dependent variables. Therefore, the novelty of this study lies in examining the influence of loan-to-asset ratios, return on equity, and inflation on the capital buffers of Islamic commercial banks in Indonesia. Using a causal-associative approach, this study provides a new perspective on Islamic banking while also identifying and analyzing the existing literature. Furthermore, this study links the pecking order and too-big-to-fail theories to explain managerial decisions regarding capital management. The results are expected to provide recommendations and policies to strengthen capital buffers.

Although previous studies have examined the determinants of capital buffers in Indonesian Islamic commercial banks, there are three critical gaps that this study fills: the variable combination gap because no study has simultaneously tested Loans to Total Assets (LOTA), Return on Equity (ROE), and inflation as predictors where existing studies such as Tanjung et al. (2023), Cakhyaneu and Apriyani (2022), and Kurnianingsih et al. (2021) only analyzed these factors individually or partially; the temporal context gap because all previous studies used pre-2020 data (2015-2020) which missed Indonesia's post-COVID economic recovery with BI's loose monetary policy (inflation of 1.68%-2.31%), OJK financing restructuring (POJK 11/2020), and accelerated digitalization of Islamic banks; and methodological gaps because previous studies mostly used static OLS models on pooled data, while this study applies Random Effects (REM) panel regression to capture bank-specific heterogeneity across nine BUS during the volatile period of 2020-2024. This study uniquely integrates Pecking Order theory (internal financing preference under inflation) with Too Big to Fail (moral hazard in systemic sharia banks), providing a hybrid framework that explains why LOTA/ROE/inflation may exhibit insignificant effects during Indonesia's post-pandemic period. Practical Novelty, First empirical evidence on capital buffer dynamics amid BI's 225 bps

rate cuts (2020-2022) and OJK's relaxed CAR requirements, informing contemporary sharia capital policy when BUS market share reached 7.2% (Akmal et al., 2025).

This study explores the highly relevant topic of Capital Buffers, given their close relationship to Indonesia's economic situation and the Islamic banking sector. By analyzing factors such as LOTA, ROE, and inflation, this study aims to provide a deeper understanding of the conditions in the Islamic banking industry. It is hoped that the results of this research will significantly contribute to the formulation of Islamic banking policies and practices in Indonesia. By understanding how certain factors influence capital buffers, Islamic banks can make better decisions about risk and capital management. Capital buffers are crucial to maintaining the sustainability and stability of the banking sector. This study also offers a deeper understanding of the correlation between these elements and capital buffers. It also examines the extent to which various factors affect the size of capital buffers, which are crucial for protecting financial institutions against financial threats. This research will take place between 2020 and 2024. This study fills identified gaps by examining the combined influence of LOTA, ROE, and inflation on capital buffers across nine Indonesian Islamic commercial banks (2020-2024) using Random Effects panel analysis, generating novel insights for OJK regulatory design and BUS capital strategy amid post-pandemic economic volatility (Syah, 2018).

2. Literature Review

2.1 Pecking Order Theory

The pecking order theory explains that company managers are anxious about investors' reactions when financial managers decide to issue new shares. The Pecking Order Theory is a financial theory that describes how companies select sources of funds to meet their financial needs. The theoretical relationship with loans-to-total Assets (LOTA) reflects the proportion of credit to total assets, which increases credit risk and the need for larger buffers. According to the pecking order theory, an increase in LOTA encourages Islamic banks to rely on internal funds to strengthen their buffers rather than on external debt, thereby avoiding the high costs of information asymmetry in the Islamic sector. The pecking order theory's relationship with return on equity (ROE) demonstrates equity profitability, with a high ROE resulting in more retained earnings as the primary internal source. The pecking order predicts a positive impact of ROE on capital buffers because Islamic banks tend to increase their buffers using internal profits rather than issuing expensive new shares (Hidayati et al., 2021). The pecking order theory posits that inflation is an external factor that erodes asset values and increases funding costs, prompting banks to increase capital buffers to maintain stability. In the pecking order, high inflation reinforces the preference for internal funds for buffers, as new debt becomes less attractive due to rising real interest rates in Indonesia's sharia environment (Azhari & Erdkhadifa, 2025).

2.1 Too Big to Fail

Too Big to Fail is a term coined by Congressman McKinney. This term was then used as a policy under which the government provided payment guarantees to large creditors who lacked risk guarantees from large banks. The relationship between the too-big-to-fail theory and high LOTA indicates significant credit expansion, thereby increasing banks' size and systemic risk, consistent with the theory. Islamic banks with high LOTA tend to suppress capital buffers in anticipation of regulatory intervention, reducing the need for buffers to absorb credit losses during the pandemic and recovery period from 2020 to 2024 (Subakti et al., 2023). The theoretical association between too big to fail and high ROE reflects strong profitability. However, in large Islamic banks, this weakens capital buffers because management chooses profit distribution over retention, driven by the belief that the government will rescue them from failure. The 2020-2024 period showed fluctuating ROE due to financing restructuring, reinforcing this moral hazard mechanism. The too-big-to-fail theory's relationship with inflation: asset value erosion drives higher buffer requirements, but it predicts a negative impact on large Islamic banks because expectations of external support reduce their sensitivity to inflationary pressures from 2020 to

2024. High inflation actually encourages banks to optimize operational assets rather than excessive buffers (Sobarsyah, 2017).

2.2 Capital Buffer

A capital buffer is the difference between the capital set by regulators and the bank's own capital. The capital buffer serves as a buffer for future risks.

Capital Buffer = CAR Actual - CAR Minimum (8%)

2.3 Loans to Total Assets (LOTA)

Loans to Total Assets is a financial ratio that measures the extent to which a bank's loans are relative to its total assets. This ratio provides an overview of how much a bank uses its assets to generate income through lending activities. The Loans-to-Total Assets ratio can reflect the extent of a bank's credit expansion and its ability to provide loans (Kurnianingsih et al., 2021).

$$\text{LOTA} = \frac{\text{Total Liability}}{\text{Total Assets}} \times 100\%$$

2.4 Return on Equity (ROE)

Return on Equity (ROE) is a financial ratio that measures how well a company generates net profit from its shareholders' funds. This ratio indicates a company's ability to use shareholder funds to generate profits effectively. ROE is often used to assess how well management manages the funds provided by shareholders (Indura et al., 2019).

$$\text{ROE} = \frac{\text{Profit Before Tax}}{\text{Total Assets}} \times 100\%$$

2.5 Inflation

Inflation, in general, is a widespread and persistent increase in the prices of goods and services over time. It indicates an increase in the cost of goods, commodities, or services. Inflation is used as an indicator of price changes and is considered to be occurring when price increases persist and influence one another (Sutanto, 2021).

$$\text{Inflation} = \frac{\text{IHK now} - \text{IHK then}}{\text{IHK then}}$$

2.6 Hypotheses

2.6.1 The Influence of Loans to Total Assets (LOTA) on Capital Buffer

Based on the pecking order theory, an increase in LOTA, reflecting credit expansion relative to total assets, increases credit risk, leading banks to reduce capital reserves due to limited internal funding priorities and reliance on external liquidity to meet operational needs. This theory explains the negative relationship because a high proportion of loans reduces capital retention, a buffer against asymmetric information costs in managing risky assets. Research by Kurnianingsih et al. (2021) found that LOTA had a significant negative effect on capital buffers in Indonesian Islamic commercial banks from 2015 to 2020, as high loan ratios increased liquidity needs and reduced capital reserves.

H_1: *Loans to total assets have a negative and significant effect on the capital buffer*

2.6.2 The Influence of Return on Equity (ROE) on Capital Buffer

The pecking order theory supports a positive relationship between ROE and capital buffers, as a high ROE makes retained earnings the primary source of internal funds, allowing banks to

strengthen capital reserves above minimum requirements without relying on costly external financing. This approach emphasizes the efficient use of equity to build buffers to absorb future risks, particularly in Islamic banks that prioritize profit retention. Research by Kurnianingsih et al. (2021) found that ROE had a significant positive effect on capital buffers in Indonesian Islamic commercial banks from 2015 to 2020, as increased profitability enabled the accumulation of reserves from retained earnings.

H_2: *Return on equity has a positive and significant effect on the capital buffer*

2.6.3 The Effect of Inflation on Capital Buffer

The pecking order theory explains the negative relationship between inflation and capital buffers. High inflation erodes the value of real assets and increases the cost of external funding, forcing Islamic banks to prioritize limited internal funding over increasing capital reserves above regulatory minimums. Inflation also exacerbates credit risk by reducing borrowers' purchasing power, thereby suppressing their ability to retain profits as a buffer against financial instability. Sabirina et al. (2021) found that inflation had a significant negative effect on capital buffers at Indonesian banks, as rising prices reduced asset competitiveness and forced reductions in capital reserves.

H_3: *Inflation has a negative and significant effect on the capital buffer*

3. Research Methods

The data sources used in this study are secondary data. Secondary data refers to information not directly provided by the source to the researcher (Sugiono, 2016). This means that the data used in this study comes from the annual financial reports of Islamic Commercial Banks registered with the Financial Services Authority (OJK) (Sangadah, 2022). The method used in this study is a causal associative study with a quantitative approach. This causal-associative study focuses on the cause-and-effect relationship among one or more variables. By applying this method, a theory can be developed to explain, predict, and control certain phenomena (Kusumatuti & Mutamil, 2020). Therefore, this study aims to determine the effect of LOTA, ROE, and inflation as independent variables on the Capital Buffer as the dependent variable.

This study employed multiple regression analysis. This method is used to analyze and evaluate the relationships between influencing factors, namely independent variables. The primary objective of this method is to estimate or predict the value of the dependent variable based on existing independent variable data. The multiple linear regression formula used in this study is:

$$Capital\ Buffer_{i,t} = a + \beta_1 LOTA_{i,t} + \beta_2 ROE_{i,t} + \beta_3\ Inflation_{i,t} + e$$

The panel data regression estimation method employs three approaches: the Common Effects Model (CEM), the Fixed Effects Model (FEM), and the Random Effects Model (REM). Panel data is used because it combines time-series (2020-2024) and cross-sectional data (9 Islamic commercial banks in Indonesia), thereby capturing interbank heterogeneity and post-COVID-19 dynamics that affect variables such as LOTA, ROE, and inflation. This approach is superior to pooled OLS because it controls for bank- and time-specific effects, improving estimation efficiency across a sample of 45 observations.

The panel data testing method uses three tests: the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test. Model selection is done hierarchically through three main tests to determine the most appropriate of CEM, FEM, or REM, where the Chow Test compares CEM vs FEM; probability $0.0007 < 0.05$ rejects CEM, chooses FEM because there is a significant difference between cross sections (banks). Then the Hausman test comparing FEM vs REM; probability $0.9869 > 0.05$ rejects FEM, chooses REM because random effects are more efficient, and there is no systematic correlation, and finally the Lagrange Multiplier (LM) Test: Confirmation of REM vs CEM; low probabilities (e.g., 0.0015 for LOTA) favor REM. Classical assumption tests include the

Normality Test, the Multicollinearity Test, the Heteroscedasticity Test, and the Autocorrelation Test. Descriptive statistical analysis is also performed.

4. Results and Discussion

The results of this study determine whether the hypothesis is accepted or rejected, thus indicating whether the variables have a significant influence. Before conducting multiple linear regression analysis and panel data regression analysis, the first step is to determine the estimation model that best fits the data. This process is carried out through three testing methods: the Chow test, the Hausman test, and the Lagrange multiplier test. The Chow test is used to determine whether the best model is CEM or FEM. Then, the Hausman test is used to determine whether the best model is FEM or REM. Meanwhile, the Lagrange multiplier test helps determine whether the CEM or REM model is most appropriate.

4.1 Chow Test

Based on the results of the Chow test in Table 1, the p-value of 0.0007 is smaller than the significance level of 0.05. This indicates that the Fixed Effects Model (FEM) is a better or more appropriate choice than the Common Effects Model (CEM). At this stage, the FEM model has been successfully obtained, so the next step is to proceed with the Hausman test.

Table 1. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.410686	(8,33)	0.0058
Cross-section Chi-square	27.116275	8	0.0007

Source: Data processed (2025)

4.2 Hausman Test

Based on the results of the Hausman test in Table 2, the probability value = 0.9869 < a = 0.05, indicating that the Random Effects Model (REM) is a better or more appropriate choice than the Fixed Effects Model (FEM). At this stage, the FEM model has been obtained, so there is no need to continue with the Lagrange multiplier (LM) test.

Table 2. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.137785	3	0.9869

Source: Data processed (2025)

Based on the Chow, Hausman, and LM tests in Table 3, the output selection indicates that the selected model is the Random Effects Model (REM)

Table 3. Model Selection Output

Test	LOTA	ROE	Inflation	Results		
				LOTA	ROE	Inflasion
Chow test	0.4035	0.8831	0.3265	FEM	FEM	FEM
Hausman test	0.7343	0.9147	0.7536	REM	REM	REM
LM test	0.0015	0.0015	0.0047	REM	REM	REM

Source: Data processed (2025)

Based on Table 3, the approach applied to LOTA, ROE, and Inflation is the Random Effects Model (REM). The next steps include Multiple Linear Regression Equations, Hypothesis Testing, and then Classical Assumption Testing. However, due to the characteristics of panel data

regression, not all types of assumption testing were performed; only tests for multicollinearity and heteroscedasticity were conducted.

4.3 Panel Data Regression Equation Random Effect Model (REM)

The panel data regression results with the Random Effect Model (REM) table 4 is as follows:

Table 4. Panel Data Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	23.80767	7.332583	3.246833	0.0023
Loans To Total Assets	-5.334396	12.43431	-0.429006	0.6702
Return On Equity	-0.004828	0.115276	-0.041885	0.9668
Inflation	26.78629	22.66928	1.181611	0.2442

Source: Data processed (2025)

Based on Table 4, Loans to Total (LOTA) Assets has a t-statistic of -0.429 with a significance level of 0.6702, which is greater than 0.05. Therefore, H_0 is accepted, and H_1 is rejected. This indicates that the LOTA ratio does not significantly influence the capital buffer. Return on Equity (ROE) has a t-statistic of -0.418 and a significance level of 0.9668, which is greater than 0.05. Therefore, H_0 is accepted, and H_2 is rejected. This shows that variable ROE does not significantly influence the capital buffer. Inflation has a t-statistic value of 1.181 with a significance probability of 0.2442, which is greater than 0.05. Therefore, H_0 is accepted, and H_3 is rejected. This indicates that variable inflation has no significant influence on the capital buffer.

4.4 Multicollinearity Test

The multicollinearity table 5 is as follows:

Table 5. Multicollinearity Test

Variable	Coefficient Uncentered		Centered
	Variance	VIF	VIF
Loans To Total Assets	50005.21	4.720765	2.736676
Return On Equity	2249.392	233.0448	2.470916
Inflation	233261.9	1.630956	1.436826

Source: Data processed (2025)

The results of the Multicollinearity test using VIF (Variance Inflation Factor) show that there are no VIF values exceeding 10. Therefore, the regression model in this study is confirmed to be free of multicollinearity.

4.5 Heteroscedasticity Test

The heteroscedasticity table 6 is as follows:

Table 6. Heteroscedasticity Test

F-statistic	33.75342	Prob. F (3,1)	0.1257
Obs*R-squared	4.951105	Prob. Chi-Square (3)	0.1754
Scaled explained SS	0.726490	Prob. Chi-Square (3)	0.8670

Source: Data processed (2025)

The heteroscedasticity test results show a p-value of 0.1754, which is higher than α (0.05). Therefore, this indicates that the variance is uniform or there are no signs of heteroscedasticity.

4.6 Discussion

The upshot of the discussion is something obtained through observation or inquiry. These results can be both objective and subjective. In addition, the upshots of the discussion also became the basis for the development of new theories. This study comprises 4 variables: LOTA, ROE, Inflation, and Capital Buffer for Islamic commercial banks in Indonesia during 2020-2024.

4.6.1 The Influence of Loans to Total Assets (LOTA) on Capital Buffer

The results of this study indicate that LOTA has no significant effect on the capital buffer (t-statistic = -0.429, p = 0.6702> 0.05), although the negative coefficient (-5.334) is consistent with theoretical predictions. This result contradicts the initial hypothesis based on the pecking order theory, which predicts a significant negative effect because an increase in LOTA increases credit risk, thus requiring a reduction in the buffer to fund asset expansion. This finding aligns with Tanjung et al. (2023), who found that the loan-to-asset (LOTA) ratio had no significant effect on capital buffers in Indonesian Islamic commercial banks. This contrasts with Kurnianingsih et al. (2021), who reported a significant negative effect in the 2015–2020 period. The lack of effect in the 2020–2024 period can be explained by the Financial Services Authority (OJK)'s post-pandemic credit restructuring policy (POJK 11/2020). This policy reduced the LOTA from 0.37 to 0.34, thereby reducing asset risk and allowing banks to conserve capital without proportionally increasing the buffer. Theoretically, this aligns with managerial behavior theory, which states that capital decisions in Islamic banks are more influenced by manager preferences and Sharia targets (DSN-MUI fatwas) than by fluctuations in LOTA alone. Consequently, credit expansion does not necessarily trigger a systematic increase in the buffer during Indonesia's post-COVID-19 economic recovery.

However, managerial behavior theory emphasizes that managerial decisions are not always fully rational and are driven not solely by financial variables but also by personal preferences, short-term goals, and psychological biases. In this context, bank management may be more focused on financing growth targets, market share, or short-term incentives, and thus may not consistently adjust capital buffers when the LOTA changes. This means that even though the LOTA increases and, theoretically, increases risk, management may not systematically adjust the buffer. This conceptually explains why LOTA has no significant effect on capital buffers empirically.

4.6.2 The Effect of Return on Assets (ROE) on Capital Buffer

ROE has no significant effect on capital buffer (t-statistic = -0.042, p = 0.9668 > 0.05), with a negative coefficient (-0.004), which contradicts the initial hypothesis. This result is inconsistent with pecking order theory, which predicts a positive relationship because high ROE results in retained earnings as the main internal funding source to strengthen the capital buffer above the Basel III regulatory minimum of 8% Myers et al. (1984) Pecking order theory, which predicts a positive relationship because high ROE results in retained earnings as the main internal funding source to strengthen the capital buffer above the Basel III regulatory minimum of 8%. This finding is consistent with Tanjung et al. (2023) and Cakhyaneu and Apriyani (2022), who showed that ROE has a significant positive effect on capital buffers in Indonesian Islamic commercial banks. In contrast, Kurnianingsih et al. (2021) reported a significant negative effect from 2015 to 2020. The insignificance from 2020 to 2024 can be explained by Islamic banks' preference for distributing profits as profit sharing to customers (mudharabah principle) rather than retaining them for buffers, coupled with the OJK policy POJK 11/2020, which reduced ROE from 0.007 to 0.002 but did not force the accumulation of additional reserves. Based on theoretical implications that support agency cost theory, where Islamic bank managers prioritize profit distribution to maintain the trust of Islamic customers rather than building excessive buffers, especially when low ROE post-pandemic reduces capital retention incentives.

Meanwhile, according to the theory of managerial behavior, it explains why the influence is insignificant managerial decisions are influenced by non-financial motives such as short-term incentives, agency problems, or market share targets, so that low ROE does not force profit retention systematically, how the mechanism occurs through prioritizing dividend distribution or

asset expansion rather than buffers, especially in Islamic banks where management prioritizes Islamic ROE targets via the DSN-MUI fatwa, sacrificing buffers during the volatile economy of 2020-2024.

4.8.3 The Effect of Inflation on Capital Buffer

Inflation does not have a significant effect on the capital buffer (t-statistic = 1.182, p = 0.2442 > 0.05), although the positive coefficient (26.78629) contradicts the initial hypothesis of a negative relationship. This result is inconsistent with Myers' pecking order theory (1984), which predicts that high inflation encourages internal capital retention because the cost of external funds increases, so Islamic banks should increase the buffer to protect the value of real assets from inflation erosion (1.68% in 2020 to 2.31% in 2024). Sabirina et al. (2021) found a significant negative impact on conventional banks. This insignificance can be explained by Bank Indonesia's post-pandemic monetary policy mix, where controlled inflation (target 1-3%) and a low-interest rate policy (BI 7-Day RR 2.25%) allowed Islamic banks to optimize operational assets rather than accumulate excess buffers, coupled with the flexibility of OJK POJK 11/2020, which reduced capital pressures. Inflation as a broad monetary phenomenon affects the entire economy in a complex manner, so Islamic banks adjust their overall strategy (diversification of murabahah/musyarakah financing from stable depositors via DSN-MUI fatwa) that neutralizes erosion; how the mechanism occurs through the transmission of BI policy (systemic liquidity) that increases public savings and real income, compensating for the decline in asset values without systematic buffer adjustments.

5. Conclusion

The main findings of this study highlight the mechanisms by which independent variables affect the capital buffer. Loans to total assets (LOTA) are insignificant because the pecking order mechanism is disrupted by stable external funding from sharia depositors (murabahah/musyarakah via DSN-MUI fatwas), allowing aggressive credit expansion without excess internal capital retention, so that LOTA fluctuations do not trigger systematic buffer adjustments. Return on equity (ROE) is driven by managerial behavior, where managers prioritize short-term Sharia-compliant profitability targets (no riba/gharar) over profit retention as a buffer, despite post-pandemic ROE fluctuations, with dividend distribution dominating capital decisions. Inflation is insignificant because macroeconomic theory suggests compensatory BI policy transmission increases public savings and real income, neutralizing asset value erosion without requiring additional buffer strengthening. Simultaneously, the three variables interact in ways that counteract one another due to the equilibrium trade-off in OJK regulations (POJK No. 11/POJK.03/2016), where the optimal buffer is achieved without a direct response to internal/external shocks.

The practical implications of this research for Islamic commercial bank management include strengthening the diversification of non-debt financing (such as mudharabah) and the use of Sharia-based stress testing to anticipate variable interactions. Meanwhile, the Financial Services Authority (OJK)/Bank Indonesia (BI) regulators can revise the supervisory focus from LOTA/ROE/inflation to alternative indicators such as non-performing financing (NPF) or bank size for early detection of systemic risk. Theoretically, these findings enrich the literature by validating the hybrid trade-off/market-timing model of pecking order/too-big-to-fail in the post-pandemic Islamic banking context and encouraging the development of an integrative buffer prediction framework based on Indonesian Islamic panel data. Policy implications underscore the need to harmonize DSN-MUI fatwas with conventional regulations to ensure inclusive stability.

The main limitations of this study are the 2020-2024 timeframe, which was dominated by the external shock of COVID-19 and the OJK's credit restructuring, limiting generalizability to normal periods. The use of annual aggregate data from OJK financial reports overlooks quarterly or intraday variations that are crucial to buffer dynamics. The multiple linear regression model does not fully account for simultaneous endogeneity among variables or heteroscedasticity. It also

excludes unobserved factors, such as the quality of Sharia governance (the Sharia Supervisory Board) and waqf investor sentiment.

For further research, it is expected to apply the generalized method of moments (GMM) model to daily/quarterly panel data to address endogeneity and temporal dynamics; include moderator/control variables such as (FDR), total assets (bank size), BI-rate, or Shariah Supervisory Board effectiveness; expand the scope of the pre-pandemic period (2015-2019) or a comparative conventional vs. sharia; explore the moderating effect of POJK regulations on variable interactions, as well as qualitative analysis of interviews with sharia managers to reveal non-financial behavior; robustness test with machine learning (random forest) to identify non-linear variables that are more predictive of buffers.

Author Contributions

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