THE EFFECT OF NON-PERFORMING FINANCING AND FINANCING TO DEPOSIT RATIO ON CAPITAL ADEQUACY RATIO IN SHARIA COMMERCIAL BANKS IN INDONESIA

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Abstract

This study aims to analyze the influence of Non-Performing Financing (NPF) and Financing to Deposit Ratio (FDR) on Capital Adequacy Ratio (CAR) in Sharia Commercial Banks in Indonesia, both in the short and long term. The main problem studied is how financing risks and the effectiveness of intermediation affect the capital resilience of Islamic banks in the midst of financial industry dynamics. This study uses a quantitative approach with an associative design and time series data for the 2018–2024 period sourced from the publication of the Financial Services Authority (OJK). The analysis methods used included ADF stationarity test, optimal lag test, VAR stability test, Granger causality test, Johansen cointegration test, and Vector Error Correction Model (VECM) estimation, which was complemented by Impulse Response Function (IRF) and Variance Decomposition (VD) analysis. The results showed that all variables were stationary at the first difference level and there were three cointegration relationships, which indicated a long-term relationship between variables. The VECM estimate shows that NPF has a negative and significant effect on CAR in the long term, while FDR has no significant effect on either the short or long term. Granger's causality test found a one-way relationship from CAR to NPF, while the relationship between FDR and CAR was insignificant. These findings indicate that the strengthening of Islamic banks' capital is more influenced by the quality of financing than the intermediation function. This research contributes empirically in enriching the literature on Islamic banking stability and provides policy implications for regulators and bank management in prioritizing financing risk control to maintain sustainable capital adequacy.

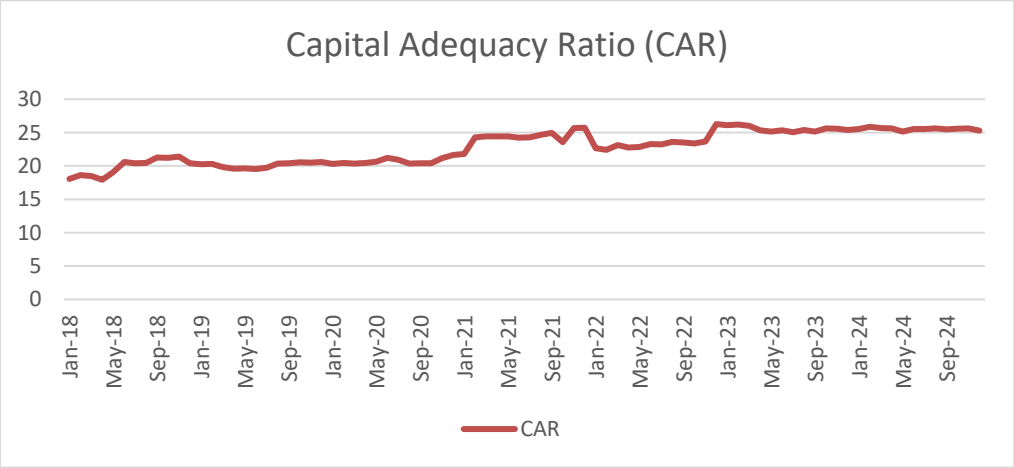
Keywords: Capital Adequacy Ratio, Non-Performing Financing, Financing to Deposit Ratio, Sharia Commercial Banks, VECM

INTRODUCTION

Islamic banking in Indonesia has shown significant development in the past decade, reflected in the increase in assets, expansion of the institutional network, and stronger regulatory support. Data from the Financial Services Authority (OJK) recorded that the market share of Islamic banking reached 6.7% in 2023, an increase from previous years. This growth underscores the strategic role of Islamic banks in the national financial system, although challenges related to capital stability, financing risk, and the effectiveness of intermediation remain important issues that need serious attention (Anwar, 2024; Fahmi, 2023; Hadi, 2025; Hudaefi, 2022; Finance, 2020; Nastiti & Kasri, 2019; Rusydiana & Sanrego, 2018).

One of the main indicators in assessing banking resilience is the Capital Adequacy Ratio (CAR), which shows the bank's ability to absorb the risk of loss and maintain financial stability (Pertiwi, 2021). National regulations set a higher CAR standard than international regulations, which is a minimum of 12% (Bank Indonesia, 2024). While a high CAR can reflect capital strength, an oversized value can also indicate suboptimal capital utilization (Amalia, 2024; Fazry, 2025; Karmila, 2025; KAROMAH, 2025). In practice, Islamic banks face pressure to keep CARs stable amid the dynamics of financing risks and fluctuations in intermediation activities.

Graph 1. Development of Capital Adequacy Ratio (CAR) in Sharia Commercial Banks in 2018-2024



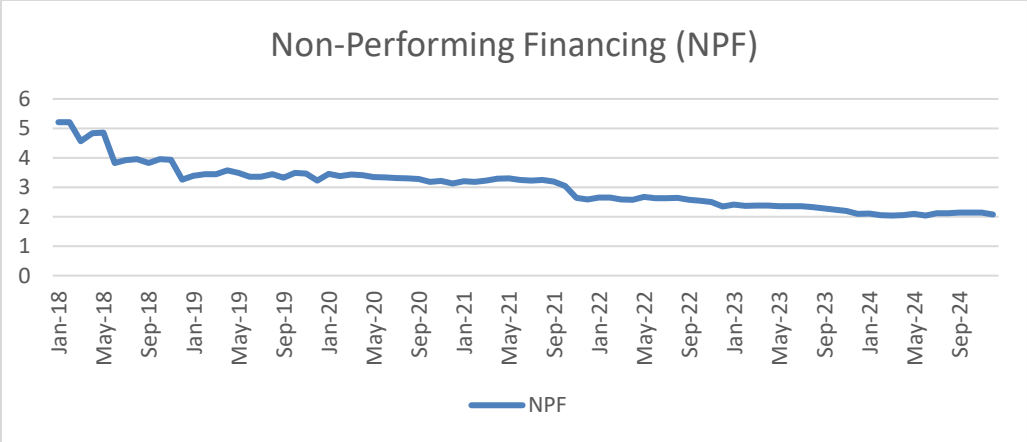
Source: Processed from Sharia Banking Statistics Report (OJK)

The graph of the Capital Adequacy Ratio (CAR) of Islamic Commercial Banks in Indonesia for the period January 2018 to September 2024 shows a gradual upward trend with relatively controlled fluctuations. At the beginning of the 2018 period, CAR was in the range of 17–18%, then experienced a gradual increase until it reached around 20–21% in 2019. Entering the period from 2020 to early 2021, CAR was relatively stable although it had experienced a slight decline, before then increasing quite sharply in mid-2021 to close to 25%. In 2022, there were moderate fluctuations, but the CAR remained at a high and safe level. Furthermore, from 2023 to 2024, CAR tends to be stable in the range of 25–26%, reflecting strong and consistent capital conditions of Islamic banks above the minimum

regulatory requirements, and showing increasing capital resilience in the face of financing risks and economic dynamics.

Non-Performing Financing (NPF) risk is one of the factors that has the potential to weaken CAR (Khasanah, 2022). NPF describes non-performing financing levels that can reduce banks' revenues and increase the burden of reserves (Hasanah & Nst, 2023). Although the NPF ratio of Islamic banks is in the safe range, around 2.5%–3.2% in 2023 (Bank Indonesia, 2024), its increase remains a threat to capital stability. Previous studies have confirmed that NPFs have a negative impact on the performance and resilience of Islamic banking, especially when the quality of risk management and macroeconomic conditions are unstable (Ahmed, 2021; A. Ali & Alharbi, 2020; Alzarooni, 2025; Disli, 2023; Fransiska & Siregar, 2023; Putri & Rohmah, 2024; Qadri & Bhatti, 2025).

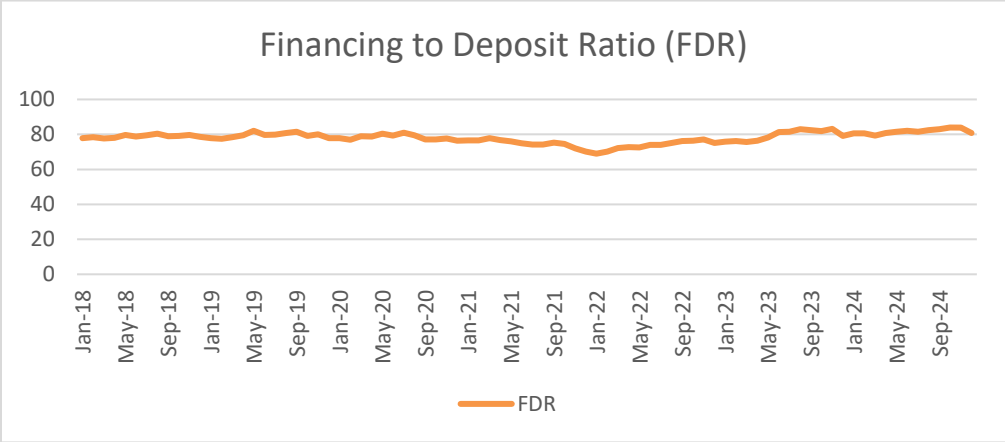
Graph 2. Development of Non-Performing Financing (NPF) in Sharia Commercial Banks 2018-2024



Source: Processed from Sharia Banking Statistics Report (OJK)

In addition to financing risks, the effectiveness of intermediation also affects capital resilience through the Financing to Deposit Ratio (FDR) (Abdul Karim, 2014). FDR shows the bank's ability to channel the funds raised to the financing sector (Sutrisno & Widarjono, 2024). An overly high FDR value increases liquidity risk, while an under-value indicates a lack of optimal fund-raising and disbursement (Ahmed, 2021; H. Ali, 2024; Faridatunnisa, 2024; Lufianda, 2023; Sari, 2024; Shukri). Previous research has shown that FDR can affect CAR directly or through interaction with NPF, but the findings are still mixed (Amalia, 2024; Febriana, 2024; Rohmah, 2018; Setiadi, 2024).

Graph 3. Development of Financing to Deposit Ratio (FDR) in Sharia Commercial Banks 2018-



2024

Source: Processed from Sharia Banking Statistics Report (OJK)

Based on these research gaps, this article aims to comprehensively analyze the influence of NPF and FDR on CAR in Sharia Commercial Banks in Indonesia with a quarterly data approach and simultaneous analysis. This study contributes to enriching the literature on the stability of Islamic banking by offering the latest empirical perspectives on the relationship between financing risk, the effectiveness of intermediation, and capital resilience. In practical terms, the findings of the study are expected to provide important implications for regulators and the Islamic banking industry in formulating risk mitigation strategies and strengthening capital structures to maintain sustainable financial stability (Hidayat., 2024).

REVIEW OF LITERATURE

The literature on the relationship between financing quality, liquidity, and capital adequacy shows that the risk structure of Islamic banks has different characteristics from conventional banks. Studies such as (Louati, 2015; Mansour, 2022; Smaoui, 2020), emphasize that the Capital Adequacy Ratio (CAR) in Islamic banks is not only influenced by the bank's ability to absorb losses, but also by the Islamic financing contract model that has a unique risk profile. The comparative study underlines that non-performing financing (NPF) risks tend to have a more significant impact on the capital structure of Islamic banks because of the direct linkage with the underlying assets in the real sector. Thus, the NPF variable is seen as a critical indicator that can erode the CAR when a bank fails to maintain the quality of its assets.

In line with that, the literature shows that NPF is consistently a major determinant of capital stability. (Priyadi, 2021) and (Muhammad, 2020) proving that the increase in NPF in Islamic banks in Indonesia weakens capital capacity due to the increasing need for loss reserves. These findings are reinforced by international research such as (Shaheen, 2024) and (Alshubiri & Al Ani, 2023) which explains that the negative relationship between NPF and CAR is universal, both in Islamic and conventional banks. In the perspective of Financial Stability Theory, this condition reflects an increase in credit risk that can disrupt the resilience of the financial system, where the accumulation of non-performing financing will reduce the bank's ability to absorb losses and increase potential instability. Therefore, the effectiveness

of financing risk management is a key factor in maintaining the stability of capital and the banking system as a whole.

The liquidity dimension, represented through the Financing to Deposit Ratio (FDR), also plays an important role in the formation of a CAR. Studies from (Harkati, 2020) and various studies of sharia liquidity policies show that too high a level of financing intermediation can increase liquidity pressure and have an impact on capital needs. Research by (Abdul Karim, 2014) and (Trinugroho, 2018) emphasized that high FDRs increase the risk of fund disbursement so banks tend to need a larger capital buffer to meet prudential provisions. Empirically, several studies such as (Sutrisno & Widarjono, 2024) and (Roziq & Ilma Ahmad, 2024) shows a non-linear relationship between FDR and CAR, where aggressive financing can strengthen the CAR if asset quality is maintained, but instead decreases it when risk increases. Within the framework of the Financial Stability Theory, FDR reflects liquidity risks that if not managed properly can cause a mismatch between the source of funds and the distribution of financing, thus potentially disrupting the stability of banks.

The collection of research from various literature provides an idea that the relationship between NPF and FDR to CAR cannot be separated from the risk management mechanism run by Islamic banks. Financial stability studies from (Ledhem, 2022), as well as various analyses related to capital and banking risks, reinforce the view that CAR serves as a key indicator of a bank's resilience to volatility of financing and liquidity risks. In the perspective of Financial Stability Theory, as stated by Crockett (1996) and Schinasi (2004), financial system stability is achieved and financial institutions are able to absorb shocks without interfering with the intermediation function. In this case, the CAR acts as the main buffer, while NPF and FDR are the sources of risk that must be controlled.

Thus, the global and national literature consistently shows that deteriorating financing quality (NPF) and intermediation imbalances (FDRs) can reduce capital adequacy, while effective risk management will keep CARs strong. The integration between these three variables confirms that the stability of Islamic banking is not only determined by the strength of capital alone, but also by the ability of banks to manage financing and liquidity risks simultaneously. This pattern of findings is a strong academic foundation to re-examine how NPF and FDR affect CAR in Islamic commercial banks in Indonesia in recent periods.

RESEARCH METHOD

This study uses a quantitative approach with an associative design to examine the relationship between NPF, FDR, and CAR in Islamic banking in Indonesia. The data used is secondary data from OJK publications with coverage of the period January 2018-December 2024. Data analysis used a time series approach with VAR or VECM models, adjusted to the results of the ADF stationarity test and the Johansen cointegration test. The selection of optimal lag followed information criteria such as SIC, while dynamic relationships and causality between variables were analyzed through IRF and Variance Decomposition based on methodological guidelines from Sims, Widarjono, Enders, and Gujarati.

The model used in this study to observe the causal relationship between NPF, FDR, and CAR in Sharia Commercial Banks in Indonesia refers to the analytical framework that has been developed in the previous research literature, but adjusted to the following research variables:

$$CAR_t = \alpha 10 + \sum_{i=1}^{P} \alpha 11, i\, CAR_{t-i} + \sum_{i=1}^{p} \alpha 12, iNPF_{t-i} + \sum_{i=1}^{p} \alpha 13, iFDR_{t-i} + \mu_1$$

$$NPF_t = \alpha 20 + \sum_{i=1}^{P} \alpha 21, i\, CAR_{t-i} + \sum_{i=1}^{p} \alpha 22, iNPF_{t-i} + \sum_{i=1}^{p} \alpha 23, iFDR_{t-i} + \mu_{2t}$$

$$FDR_t = \alpha 30 + \sum_{i=1}^{P} \alpha 31, i\, CAR_{t-i} + \sum_{i=1}^{p} \alpha 32, iNPF_{t-i} + \sum_{i=1}^{p} \alpha 33, iFDR_{t-i} + \mu_3$$

Where:
X1 = Non-Performing Financing (NPF)
X2 = Financing to Deposit ratio (FDR)
Y = Capital Adequacy Ratio (CAR)

RESULTS AND DISCUSSION

Uji Stations

The stationarity test was carried out to determine whether the data used was stationary using the probability value criterion of less than 0.05. Initial testing is done at the level level. If at the variable level the probability value shows a probability value greater than 0.05, then the data is declared non-stationary and it is necessary to carry out further testing at the first difference level. First-difference testing aims to eliminate elements of long-term trends and fluctuations so that the data meets stationariness assumptions before being used in advanced analysis.

Table 1.
Stationer Test Results

	Level	First difference	Information
Variabel	Prob.	Prob.	
CAR	0.3671	0.0000	Stationary
NPF	0.0517	0.0001	Stationary
FDR	0.3773	0.0000	Stationary

Source: Data processed with Eviews 13, 2025

Based on the results of the stationarity test in Table 1, it can be concluded that all variables, namely Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Financing to Deposit Ratio (FDR), are not stationary at the level. This is indicated by the probability value of CAR of 0.3671, NPF of 0.0517, and FDR of 0.3773, which is generally greater than the significance limit of 0.05. This condition indicates that the data still contains trends so it has the potential to cause pseudo-regression problems if directly used in model estimation. After the transformation at the first difference level, all variables showed a probability value much smaller than 0.05, namely CAR of 0.0000, NPF of 0.0001, and FDR of 0.0000. This result indicates that all three variables have become stationary at the first degree of integration. Thus, the variables CAR, NPF, and FDR need to be used in the form of first differences, namely D(CAR), D(NPF), and D(FDR), in subsequent analyses such as VAR or VECM.

Optimal Lag Test

The determination of the optimal lag length is carried out using several information criteria, namely the Akaike Information Criterion (AIC), Schwarz Criterion (SC), and Hannan–Quinn Criterion (HQ). The optimal lag is determined based on the value of the lowest information criterion, as it indicates the most efficient model with the best balance between goodness of fit and model complexity.

Table 2.
Optimal Lag Test Results

Lag	AIC	SC	HQ
1.	22.44577*	22.53777*	22.48254*
2.	22.52502	22.89303	22.67209
3.	22.55197	23.19599	22.80935
4.	22.68423	23.60426	23.05192
5.	22.79168	23.98771	23.26967
6.	22.96326	24.43530	23.55156
7.	22.82683	24.57488	23.52543
8.	22.95265	24.97671	23.76156

Source: Data processed with Eviews 13, 2025

Based on the results of the optimal lag test in Table 2, all information criteria, namely AIC, SC, and HQ, show the lowest value at lag 1 which is marked with an asterisk (*). This indicates that lag 1 is the most optimal lag to use in the model. Thus, the VECM model built using a single lag is considered the most appropriate, as it is able to efficiently capture the dynamics of relationships between variables. These results also indicate the relationship and interdependence between variables in the short and long term.

VAR Stability Test

The results of the VAR stability test show that the analyzed system meets the stability requirements, where all the modulus values of the characteristic polynomial root are below one. The results of the VAR stability test in Table 3 show that the entire value of the characteristic root modulus is well below one. The highest modulus value is 0.218262, while the other value is 0.091647. These results show that the VAR system used is stable, so the variable response to the shock will subside over time and do not cause divergence. Thus, the VAR/VECM model used is feasible and valid to analyze the dynamic relationship between variables in this study.

Table 3.
VAR Stability Test

Root	Modulus	Information
0.218262	0.218262	Stable
0.218262	0.218262	Stable
0.091647	0.091647	Stable

Source: Data processed with Eviews 13, 2025

Granger's Causality Test

The results of Granger's causality test in Table 4 found no causal relationship between the Financing to Deposit Ratio (FDR) and the Capital Adequacy Ratio (CAR). This is shown by a probability value of 0.6014 for the FDR not causing CAR hypothesis and 0.8812 for the

CAR not causing FDR hypothesis, both of which are greater than 0.05. These findings indicate that FDR's changes do not significantly affect CAR, nor vice versa.

Furthermore, in the relationship between Non-Performing Financing (NPF) and CAR, the test results showed the existence of one-way causality. The hypothesis that NPF does not cause CAR cannot be rejected with a probability value of 0.5411. However, on the contrary, the hypothesis that CAR does not cause NPF is rejected at a significance level of 5 percent, which is indicated by an F-statistic value of 5.56515 and a probability of 0.0208. This shows that CAR Granger causes NPF, so the level of capital adequacy has a role in influencing the quality of Islamic commercial bank financing.

Meanwhile, the relationship between the NPF and FDR does not indicate a bidirectional causality. A probability value of 0.5728 for the NPF hypothesis does not cause FDR and 0.4732 for the FDR hypothesis does not cause NPF indicates that the two variables do not significantly affect each other. Overall, the results of the Granger causality test showed that a significant causality relationship was found in only one direction, i.e., from CAR to NPF, while the other relationship was insignificant.

Table 4.
Granger's Causality Results

Null Hypothesis	obs	F-Statistic	Prob.
FDR does not Granger Cause CAR	83	0.27507	0.6014
CAR does not Granger Cause FDR		0.02249	0.8812
NPF does not Granger Cause CAR	83	0.37681	0.5411
CAR does not Granger Cause NPF		5.56515	0.0208
NPF does not Granger Cause FDR	83	0.32064	0.5728
FDR does not Granger Cause NPF		0.51940	0.4732

Source: Data processed with Eviews 13, 2025

Cointegration Test

The results of the Johansen cointegration test in Table 5, the trace statistical values for the None, At most 1, and At most 2 hypotheses were 142.4379, 78.38646, and 29.86999, respectively, which were greater than the critical value of 0.05. In addition, the entire probability value also shows the number 0.0000, which is smaller than 0.05. These results indicate that the zero hypothesis is rejected at every level of testing. It can be concluded that there are three cointegration equations in the model used. These findings suggest a strong long-term relationship between CAR, NPF, and FDR. The existence of this cointegration confirms that although these variables fluctuate in the short term, in the long term they move towards the same equilibrium, so the use of the Vector Error Correction Model (VECM) model is appropriate and relevant to analyze the dynamics of the relationship between variables in this study.

Table 5.
Johansen Cointegration Test

Hypothesized No. of CE(s)	Self-esteem	Trace Statistic	0.05 Critical Value	Prob.** Critical Value

None *	0.546499	142.4379	29.79707	0.0000
At most 1 *	0.450622	78.38646	15.49471	0.0000
At most 2 *	0.308412	29.86999	3.841465	0.0000
Trace test indicates 3 cointegrating equation(s) at the 0.05 level				

Source: Data processed with Eviews 13, 2025

Estimasi VECM

The analysis using the Vector Error Correction Model (VECM) aims to identify short-term and long-term relationships between the variables involved. In this case, we analyzed three variables: Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Financing to Deposit Ratio (FDR). The following table describes the results of the VECM estimate

Table 6.
VECM Estimation Results

Variables	Coefficient	T Statistic	Information
Long-term			
CAR (-1)	1.000000	-	-
NPF(-1)	-2179.138	-8.81129	Signifikan
FDR (-1)	0.179826	0.58349	Insignificant
Short-term			
D(CAR(-1))	-0.349832	-3.44618	Influential
D(MFN(-1))	-86.53624	-1.46990	No effect
D(FDR(-1))	0.009423	0.17402	No effect

Source: Data processed with Eviews 13, 2025

The results of the long-term VECM estimation showed that NPF had a significant influence on CAR with a coefficient of –2179.138 and a t-statistical value of -8.81129. This suggests that the increase in NPF significantly negatively impacts CARs, reflecting that deteriorating financing quality can weaken the capital adequacy of Islamic commercial banks. Meanwhile, FDR does not show a significant effect on CAR in the long term, as shown by a t-statistic value of 0.58349 which is below the critical value. In the short term, the estimation results show that the change in the previous period CAR has a significant effect on the current CAR with a coefficient of –0.349832 and a t-statistical value of –3.44618. In contrast, changes in NPF and FDR in the short term have no significant effect on CAR, as they have t-statistical values of –1.46990 and 0.17402, respectively.

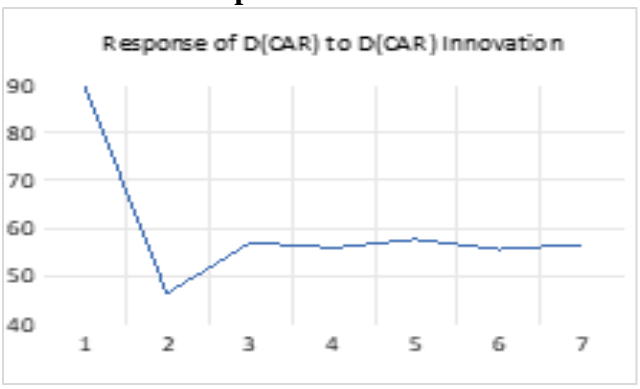
Overall, the results of the VECM estimate indicate that in the long term, the financing quality factor reflected through NPF is the main determinant that affects the capital adequacy of Islamic commercial banks in Indonesia. Meanwhile, in the short term, the adjustment of the CAR is more influenced by the internal dynamics of the CAR itself, while the NPF and FDR have not shown a significant influence. These findings affirm the importance of financing risk control to maintain the stability of Islamic banking capital.

Impulse Response Function Analysis (IRF)

Impulse Response Function (IRF) analysis aims to evaluate the short-term and long-term response of a variable to shocks originating from the variables themselves as well as other variables in the system. In this study, IRF was used to look at how the Capital Adequacy Ratio (CAR) responds to the CAR shock, as well as how the Non-Performing Financing

(NPF) and Financing to Deposit Ratio (FDR) respond to the shock to the CAR. This analysis is important to understand the dynamics of adjustment and stability of the Islamic banking system.

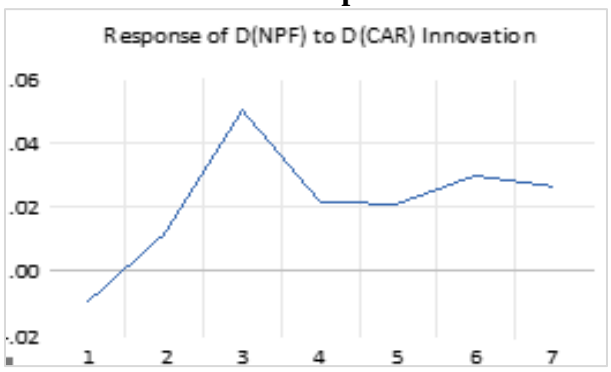
Figure 1.
CAR Response to CAR Results



Source: Data processed with Eviews 13, 2025

The IRF results showed that CAR responded to shock from itself quite strongly in the initial period, which was characterized by a relatively large positive response. However, the response declined in the following period and then moved steadily. This pattern indicates that the shock in the CAR is temporary and will subside over time, so the CAR tends to return to long-term equilibrium. This reflects the existence of an internal adjustment mechanism in the capital of Islamic banks.

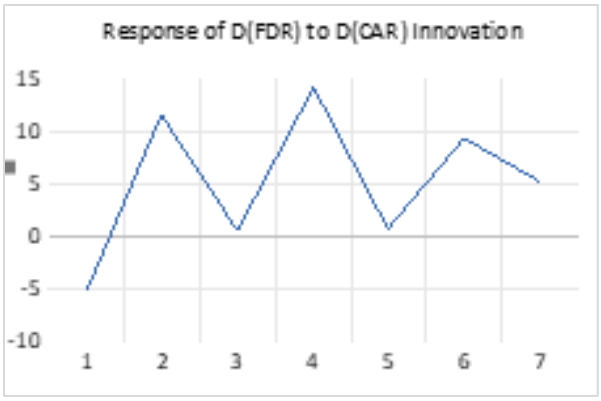
Figure 2.
Results of NPF Response to CAR



Source: Data processed with Eviews 13, 2025

The NPF response to CAR shocks showed an increasing pattern in the early to intermediate period, before finally decreasing and stabilizing. The increase in NPF due to the CAR shock indicates that changes in capital adequacy may affect the quality of financing in the short term. However, over time, the response weakened, suggesting that the impact of CAR shock on NPF is not permanent.

Figure 3.
Results of FDR's Response to CAR



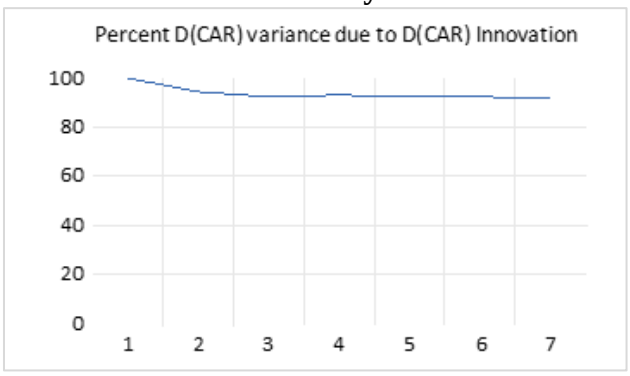
Source: Data processed with Eviews 13, 2025

FDR's response to the CAR shock tended to fluctuate in some early periods, both positively and negatively, before finally moving toward stability. This fluctuating pattern suggests that the shock to the CAR affects the intermediation function of Islamic banks in the short term, but the effect does not last long. In the long run, FDR returned to his balance track.

Variance Decomposition

Forecast Error Variance Decomposition (FEVD) analysis is used to decipher the proportion of variance in a variable's forecast error caused by shocks from the variable itself as well as from other variables in the system. This analysis provides an overview of how much the relative contribution of each variable in explaining the dynamics of changes in certain variables, both in the short and long term.

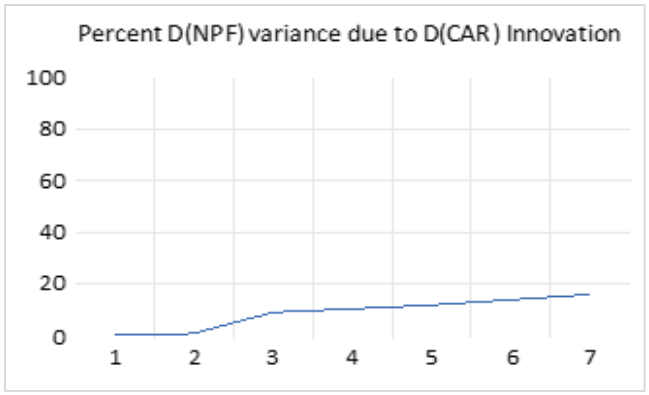
Figure 4.
CAR to CAR Analysis Results



Source: Data processed with Eviews 13, 2025

The results of the analysis show that the variation in CAR is largely explained by the shock of the CAR itself. In the initial period to the later period, the contribution of CAR to CAR variance remained very dominant and relatively stable. This indicates that changes in the capital adequacy of Islamic commercial banks are more influenced by internal capital dynamics than by other variables in the model.

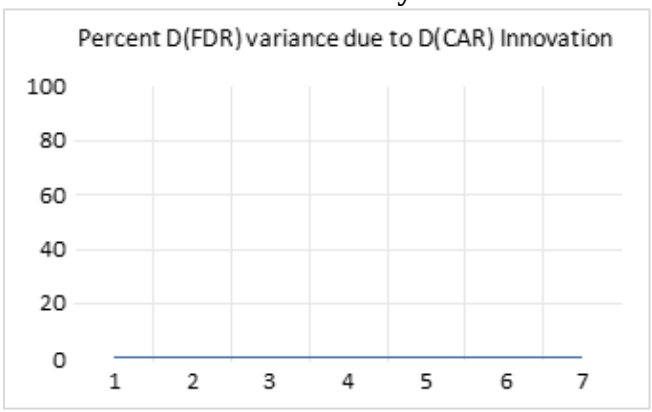
Figure 5.
Results of NPF to CAR Analysis



Source: Data processed with Eviews 13, 2025

NPF variance decomposition indicates that the contribution of CAR shocks to NPF variation is relatively small in the initial period, but increases gradually as the time horizon increases. However, the proportion remains lower than the influence of the variable itself. These findings indicate that CAR has a role in changes in the quality of financing in the long term, but the effect is not dominant.

Figure 6.
Results of FDR's Analysis to CAR



Source: Data processed with Eviews 13, 2025

The results of the analysis on FDR show that the CAR shock contributes only a very small amount to FDR variation, both in the short and long term. FDR variation is more determined by its own internal factors. This condition shows that changes in capital adequacy do not significantly affect the intermediation function of Islamic banks as reflected through FDR.

The Effect of Non-Performing Financing on Capital Adequacy Ratio in Sharia Commercial Banks in Indonesia

The results of the study show that Non-Performing Financing (NPF) has a strong influence on the Capital Adequacy Ratio (CAR), especially in the long term. These findings are in line with the Financial Stability Theory, which emphasizes that bank capital serves as the main buffer in dealing with various risks, particularly financing risks. In the context of Islamic banking, NPFs reflect the level of failure of customers to meet their obligations, so the increase in NPF directly illustrates the deterioration in the quality of bank assets.

Theoretically, when the quality of financing declines, banks will face greater potential losses, so they will have to allocate loss reserves that ultimately reduce capital strength. This explains why in the long run NPF has a negative effect on CAR. This impact does not appear instantly, but through the process of risk accumulation, so in the short term the effect has not been seen significantly. Thus, these findings reinforce the concept that financing risks are latent but have a systemic impact on the financial stability of banks.

On the other hand, the causality relationship that suggests that CAR affects NPFs provides an additional perspective that capital plays a role not only as a risk "shield", but also as a control instrument. Within the framework of intermediation and risk management theory, banks with strong capital levels tend to be more cautious in distributing financing, have a better monitoring system, and are able to absorb potential losses without disrupting operations. This has an impact on decreasing the level of non-performing financing, thus creating a reciprocal relationship between capital stability and asset quality.

Furthermore, the existence of a long-term relationship between variables shows that the Islamic banking system has an adjustment mechanism towards balance. In the perspective of the VECM model, this condition reflects that any shocks that occur to non-performing financing or capital will be responded to gradually until they return to a stable condition. This means that banking stability is not only determined by momentary conditions, but also by long-term fundamentals, especially the quality of financing.

In terms of impact, these findings confirm that increasing NPF can threaten the stability of Islamic banks' capital, which ultimately has the potential to reduce public confidence and disrupt the intermediation function. On the other hand, strengthening capital will provide room for banks to manage risks more effectively, improve financing quality, and maintain operational sustainability. Therefore, NPF control is a key factor in maintaining the resilience of the Islamic banking system.

The Effect of Financing to Deposit Ratio on Capital Adequacy Ratio in Sharia Commercial Banks in Indonesia

In contrast to NPF, the results of the study show that the Financing to Deposit Ratio (FDR) does not have a significant influence on the Capital Adequacy Ratio (CAR), both in the short and long term. These findings are consistent with the Theory of Financial Stability, which states that capital stability is more influenced by the risk of asset loss than by the level of fund disbursement or the intermediation function.

Conceptually, FDR reflects the bank's ability to channel the funds raised to the public. However, this ratio does not directly describe the level of risk that banks face. As long as the financing disbursed remains of good quality, the increase in FDR will not put pressure on capital. This explains why FDR was not shown to have a significant effect on CAR in this study. This finding can also be explained through the concept of risk-based capital, where capital adequacy is determined by the level of risk of the assets owned, not by the volume of financing. Thus, banks with a high level of financing disbursement do not necessarily have high risk, as long as the financing is in the current category. On the contrary, risks arise when the quality of financing decreases, as reflected in the NPF variable.

In terms of dynamics, FDR's response to changes in CAR, which tends to fluctuate but quickly stabilizes, shows that financing liquidity does not have a strong structural linkage with capital. This indicates that changes in the FDR are more influenced by their own internal factors, such as financing distribution strategies and market conditions, than by changes in

capital adequacy. The impact of these findings is that the improvement of the intermediation function of Islamic banks does not necessarily strengthen or weaken capital stability. In other words, the focus of policy is not enough only on increasing the distribution of financing, but must be accompanied by good risk management. Banks that are aggressive in distributing financing without paying attention to quality have the potential to increase NPF, which will ultimately have a negative impact on CAR.

Overall, these results confirm that the stability of Islamic banks' capital is determined more by the quality of financing than its quantity. Therefore, the strategy to strengthen Islamic banking should be directed at improving risk management, financing supervision, and maintaining asset quality, so that the intermediation function can run optimally without sacrificing financial stability.

CONCLUSION

This study analyzes the influence of Non-Performing Financing (NPF) and Financing to Deposit Ratio (FDR) on Capital Adequacy Ratio (CAR) in Sharia Commercial Banks in Indonesia using the VECM approach. The results of the stationarity test showed that all variables were not stationary at the level, but became stationary at the first difference. The Johansen cointegration test confirmed the existence of a long-term relationship between CAR, NPF, and FDR, making the VECM model feasible. The main results of the study showed that NPF had a negative and significant effect on CAR in the long term, with a coefficient of –2179.138 and a t-statistical value of –8.81129. These findings support the hypothesis that the increase in non-performing financing weakens the capital adequacy of Islamic banks. However, in the short term, NPF has no significant effect on CAR. The Granger causality test also showed a one-way relationship from CAR to NPF, indicating that capital strength also influences the quality of financing.

In contrast, FDR was not shown to have a significant effect on CAR, either in the short or long term, and no causal relationship was found between the two variables. Analysis of IRF and Variance Decomposition corroborates these results by showing the contribution of CAR shock to very small FDR variations. In practical terms, these findings confirm that strengthening the capital of Islamic banks needs to be focused on controlling financing risks and reducing NPFs, while FDR's role in CAR is relatively limited. The limitation of this study lies in the limited use of aggregate data and variables. Further research is suggested adding internal and macroeconomic variables and using interbank panel data to obtain more comprehensive results.

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