



Research Paper

# Macroeconomics and Bank Specific Influence to Mudharabah Financing on Islamic Rural Banks In Indonesia

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**ABSTRACT:** The phenomenon of low mudharabah financing when compared to musyarakah and murabahah financing in the development of Islamic Rural Banks (IRB) financing in Indonesia, became the starting point of this research. What factors can drive the development of mudharabah financing and this study will more specifically discuss the factors that affect mudharabah financing using macroeconomic and internal bank variables (bank-specific). Macroeconomic variables used are Inflation, while internal bank variables are ROA, CAR and NPF. The data used is time-series data in the period January 2016 - December 2020 contained in the Sharia Banking Statistics (SPS) OJK. In testing the data on this study using the Error Correction Model. The results showed that inflation and NPF variables had a negative and significant effect. The ROA and CAR variables had no significant effect. Until it can be interpreted that inflation and NPF become factors that must be considered by BPR Syariah in Indonesia in the long term so as not to reduce the amount of mudharabah financing that can be channeled to the community.

**KEYWORDS:** Mudharabah, Internal Bank, ROA, CAR, NPF and Inflation

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## I. INTRODUCTION

Islamic banking has its differences from conventional banks. Islamic banking introduced the PLS (profit and loss sharing) model consisting of mudharabah and musyarakah financing (Azmat et al., 2015). However, in its development financing with this PLS model is not as fast as commercial financing (Murabahah). The phenomenon of high murabahah financing compared to mudharabah and musyarakah financing is a global phenomenon that does not only occur in Indonesia (Ali & Miftahurrohman, 2016).

The phenomenon of the high amount of murabahah financing compared to mudharabah and musyarakah financing does not only occur in large-scale banks such as Sharia Commercial Bank (BUS) and Sharia Business Unit. But it also happens to banks with a small scale such as the Islamic Rural Bank (IRB).

Table 1. Development of Islamic Rural Banks Financing

Year	Types of Financing (Billions)		
	Murabahah	Mudharabah	Musyarakah
2016	4.819.687	167.955	736.020
2017	5.964.912	147.294	791.256
2018	6.485.575	169.578	780.929
2019	7.380.506	204.606	941.690
2020	7.731.572	264.819	1.299.987

Source: Data Processed, SPS OJK (2021)

Table 1 shows that the amount of murabahah financing in IRB from 2016 - 2020 is higher than the financing of mudharabah and musyarakah. The financing of musyarakah is higher in number compared to mudharabah financing. Thus the amount of mudharabah financing is lower than the financing of musyarakah and murabahah.

Based on the above, this study will examine the factors that affect mudharabah financing in Sharia BPR. By knowing the factors that affect mudharabah financing, it can be used to encourage the development of mudharabah financing. Research on the factors that affect the financing of mudharabah at Islamic Banks has been done before.

Hutagalung (2020), uses several factors of Third Party Funds (DPK), NPF, and FDR. DPK variables have a negative and significant effect, while NPF and FDR variables do not have a significant influence on Mudharabah Financing. Nafis & Sudarsono (2021), use internal and external factors. Internal factors such as DPK, CAR, ROA, NPF, FDR, and BOPO. External factors are the BI rate and inflation. The study concluded that CAR, ROA, and BOPO have a negative and significant influence. NPF and FDR variables are insignificant. BI Rate has a negative and significant effect and Inflation has a positive and significant effect on Mudharabah financing.

Al Arif & Nurhikmah (2017), uses variables CAR, ROA, NPF, FDR, BOPO, INFLATION, DPK, Revenue Sharing Rate (TBH). The results showed that partially variables consisting of CAR, ROA, BOPO, DPK, and TBH had a significant influence on revenue sharing financing. While the variables NPF, FDR, and inflation do not have a significant influence on the financing of Islamic banking revenue sharing.

Ismail & Kadir (2020) uses variable NPF, FDR, and profit margins against murabahah financing. The study concluded that NPF had a positive effect. Variable FDR and profit margin negatively affect the amount of murabahah financing in Sharia BPR in Indonesia.

The research above shows different results. Therefore, it is important to do research again. This research will more specifically discuss the factors that affect mudharabah financing using macroeconomic and internal bank variables (bank-specific). Macroeconomic variables used are Inflation, while internal bank variables are ROA, CAR, and NPF.

## **II. RESEARCH METHODS**

This research is quantitative. The data used in this study is secondary data obtained from OJK's Islamic Banking Statistics (SPS). The data used is time-series data in the period January 2016 - December 2020.

The variables used in research consist of macroeconomic and internal variables. The macroeconomic variable used is inflation. Internal bank variables are ROA, CAR, and NPF.

Inflation is the occurrence of the price of goods and services that continue to increase every time, wherefrom the increase causes the value of the currency to fall so that inflation occurs. Inflation has a negative influence on financing channeled by banks. This can happen because inflation can reduce the value of the currency so that people are reluctant to save, then third party funds collected by banks decrease so that it affects the financing channeled (Al Arif & Nurhikmah, 2017; Nafis & Sudarsono, 2021). Therefore, the hypothesis proposed in this study is that inflation negatively affects mudharabah financing.

Return on Asset (ROA) is a ratio that can be used to measure and assess the level of efficiency, ability, quality, and performance of the company in generating income or profit from its asset and economic resources. ROA has a positive influence on islamic bank financing (Al Arif & Nurhikmah, 2017). Therefore, the hypothesis proposed in this study is that ROA has a positive effect on mudharabah financing.

Capital Adequacy Ratio (CAR) is a capital adequacy ratio owned by banks, where the capital ratio can later be used to accommodate losses or risks that may occur in banking. CAR has a positive influence on mudharabah financing (Nafis & Sudarsono, 2021). Where the higher the value of CAR will increase the amount of financing channeled by the bank. Therefore, the hypothesis proposed is that CAR has a positive effect on Mudharabah Financing.

Non Performing Financing (NPF) is a problematic financing ratio. NPF occurs because of conditions where customers have difficulty returning loans loaned by Islamic banking to him, so this is what often causes bad credit. NPF negatively affects the financing of mudharabah (Al Arif & Nurhikmah, 2017). Thus the hypothesis proposed is that NPF has a negatf effect on the financing of mudharabah.

**Table 2. Research Hypothesis**

Variable	Variables Used	Hipotesis	Source
Macroeconomics	Inflation	Negative	Al Arif & Nurhikmah (2017; Nafis & Sudarsono (2021))
Internal Variables	ROA	Positive	Al Arif & Nurhikmah (2017)
	CAR	Positive	Nafis & Sudarsono (2021)
	NPF	Negative	Al Arif & Nurhikmah (2017)

The method used in testing the data in this study used the Error Correction Model using the Eviews 10 application. The independent variables used in this study are Inflation, ROA, CAR, and NPF, while the dependent variable is Mudharabah Financing on Islamic Rural Banks (IRB) in Indonesia. The ECM model aims to address balance or disequilibrium problems in the short and long term, as well as address the problem of time-series data that is not stationary and regression (Ghazali & Ratmono, 2017). The ECM model can be used when all variables are stationary at the first different and integrated level which is a key requirement to see a balance in the long term. The study will also use a cointegration test. The forms of long-term equations are as follows:

$$\Delta Y_{1t} = \alpha_0 + \alpha_1 X_{1t} + \alpha_2 X_{2t} + \alpha_3 X_{3t} + \alpha_4 X_{4t} + e_{t1} \dots \dots \dots (1)$$

Where:

- $Y_t$  = Mudharabah Financing (PMD)
- $X_{1t}$  = ROA
- $X_{2t}$  = Inflation
- $X_{3t}$  = CAR
- $X_{4t}$  = NPF
- $\alpha$  = Variable coefficient
- $e_t$  = Residual

Furthermore, if the equation is formulated in the form of Error Correction Model (ECM) then the equation becomes:

$$\Delta Y_{1t} = \alpha_0 + \alpha_1 \Delta X_{1t} + \alpha_2 \Delta X_{2t} + \alpha_3 \Delta X_{3t} + \alpha_4 \Delta X_{4t} + \alpha_5 \Delta X_{5t} + \alpha_6 \Delta X_{6t} + ec_{t-1} \dots \dots \dots (2)$$

Where:

- $\Delta Y_{1t} = Y_{1t} - Y_{1t-1}$
- $\Delta X_{1t} = X_{1t} - X_{1t-1}$
- $\Delta X_{2t} = X_{2t} - X_{2t-1}$
- $\Delta X_{3t} = X_{3t} - X_{3t-1}$
- $\Delta X_{4t} = X_{4t} - X_{4t-1}$
- $ec_{t-1}$  = error-correction term.

### III. RESULTS AND DISCUSSIONS

#### Data Stationary Test

Based on the results of the stationary test in Table 3 it can be seen that the data is not yet stationary at the level, so it needs to be done at the first difference level.

**Table 3. Stationary Test**

Variables	Pro. Level	Prob. First Difference
ROA	0.0074	0.0000
<b>Inflation</b>	0.4169	0.0000
CAR	0.5632	0.0000
NPF	0.5213	0.0000
Ln_MDR	0.6330	0.0000

*Source: Eviews Processed Data 10*

In Table 3 it can be seen that all variables are stationary at the first difference level where the prob first difference is already below the sig. level 5%. Thus the model can be continued in the next stage, namely the cointegration test and ECM model estimation.

### Cointegration Test

The cointegration test is performed to see whether or not the regression is direct against the model. In Table 4. you can see the results of the cointegration test.

**Table 4. Cointegration Test**

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.360483	0.0166
Test critical values:		
1% level	-3.548208	
5% level	-2.912631	
10% level	-2.594027	

\*MacKinnon (1996) one-sided p-values.

The results of the above cointegration test show that the prob value is 0.01 and is below the significance level of 5%, which means that there is no spurious regression. Based on the results of stationary and cointegration tests show that this data can further be analyzed ECM.

### Long-Term Estimates

Long-term ECM model estimates are performed to look at the effect of long-term independent variables on dependent variables. The results of the long-term estimate of the ECM model can be seen in Table 5.

**Table 5. Long-Term Estimation Results**

Variables	Coefficient	Std. Error	t-statistic	Prob.
C	13.26263	0.343710	38.58675	0.0000
ROA	-0.046481	0.094130	-0.493799	0.6234
<b>Inflation</b>	-0.181432	0.031583	-5.744549	0.0000*
CAR	0.005565	0.006280	0.885998	0.3795
NPF	-0.059684	0.015629	-3.818918	0.0003*

\*Sig. 5%

*Source: Eviews Processed Data 10*

Based on the results of the long-term ECM model estimates above it can be seen that the ROA variable has a negative effect with a t-stat of -0.49, but not significant with a prob of 0.62 (>5%). Inflation variables have a negative and significant effect with t-stat of -5.74 and prob 0.00 (<0.05). That means if the value of Inflation rises by one unit it will decrease the value of mudharabah financing by 5.74. CAR variables have a positive effect with t-stat of 0.88 remain insignificant with prob. of 0.37 (>5%). NPF variables negatively affect t-stat of 0.00 and prob. 0.00. Thus if the NPF value rises by one unit, it will decrease the value of mudharabah financing by 3.81.

Based on the results of long-term regression above, the following long-term equations can be made:

$$PMD_t = 13.26 - 0.04ROA - 0.18Inflation + 0.00CAR - 0.05NPF + e$$

### Short-Term Estimation Results

The results of short-term ECM model estimates are performed to look at the effect of short-term independent variables on dependent variables. The results of the short-term estimate of the ECM model can be seen in Table 6.

**Table 6. Short-Term Estimation Results**

Variables	Coefficient	Std. Error	t-statistic	Prob.
C	0.009523	0.007267	1.310558	0.1957
D(ROA)	-0.037678	0.039216	-0.960772	0.3410
D(CAR)	-0.014078	0.004408	-3.193641	0.0024*
<b>D(Inflation)</b>	-0.023106	0.027921	-0.827563	0.4116
D(NPF)	0.025395	0.014318	1.773612	0.0819

RES(-1)	-0.013133	0.063365	-0.207258	0.8366
*Sig. 5%				

*Source: Eviews Processed Data 10*

Based on the results of the short-term ECM Model estimates above, it can be seen that only CAR variables affect Mudharabah Financing. CAR variables negatively and significantly affect t-stat of -3.19 and prob. 0.00. Thus the short-term ECM model results that if the value of CAR rises one unit of food will reduce the value of Mudharabah Financing by 3.19. The short-term ECM model is as follows:

$$\Delta\text{PMD}_t = 0,009 - 0,037\Delta\text{ROA}_1 - 0.014\Delta\text{CAR}_2 - 0.023\Delta\text{Inflation}_3 + 0.025\Delta\text{NPF}_4 - 0.13\text{RES}(-1)_t + e$$

### Discussion

The results of the above estimates show that the long-term ECM Model of ROA Variables has a negative but insignificant effect on Mudharabah Financing. This research is in line with the research of Dyatama & Yuliadi (2015), thus the hypothesis is rejected. This is not in line with the theory that there is a positive influence on revenue-sharing financing, the greater the ROA indicates the better the bank's management ability in terms of managing assets to increase revenue. So that the smaller this ratio the less financing channeled by banks (Al Arif & Nurhikmah, 2017).

Inflation variables in the long term have a negative and significant effect on mudharabah financing. This is in line with the theory that there is a negative influence on revenue-sharing financing, the smaller the inflation, the smaller the revenue-sharing financing channeled to the public because of the impact of inflation, namely the decrease in the value of the currency so that people are reluctant to save, then third-party funds collected by banks decrease so that it affects the financing channeled (Al Arif & Nurhikmah, 2017).

CAR variables in the long term have a positive and insignificant effect. These results are in line with research by Gianini (2013) which concluded that CAR variables have a positive effect on mudharabah financing. However, in this study, the CAR variable has no significant effect so reject the hypothesis that the CAR variable has a positive effect. This result does not fit the theory that if the CAR variable is higher it will increase the amount of Mudharabah financing.

NPF variables in the long term have a negative and significant effect on mudharabah financing. This is in line with the theory that NPF variables negatively affect Mudharabah financing (Al Arif & Nurhikmah, 2017). Thus in the long term changes in NPF variables will affect the reduced amount of mudharabah financing. The high value of NPF in Sharia BPR that exceeds bank Indonesia's provisions of 5% must be managed properly so as not to reduce revenue which will ultimately also reduce the amount of mudharabah financing channeled to the community.

### IV. CONCLUSION

Based on the results and discussion above it can be concluded that inflation and NPF variables have a negative and significant effect. The ROA and CAR variables had no significant effect. These results show that inflation and NPF are factors that must be considered by Islamic Rural Banks in the long term so as not to reduce the amount of mudharabah financing that can be distributed to the community.

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