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Murabaha Financing: Empirical Evidence in Indonesian Islamic Banking

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The purpose of this study was to determine and to analyze: (a) Is murabaha financing still influenced by conventional macroeconomic variables, especially the interest rate? (b) Which factors determine the most dominant of murabaha financing? and (c) How stable was murabaha financing in Indonesia between 2011-2018? Using the time series data test, the study concluded that in the long run that: (a) Murabaha financing is still significantly affected by the interest rate, economic growth and inflation rate, (b) The most dominant factor determining (influencing) murabaha financing is the rate of economic growth, followed by the interest rate, and (c) During the study period murabaha financing in the long run was stable. It means that the murabaha equation model did not experience structural changes.

Key words: *Murabaha financing, conventional macroeconomic variables, time series test, and stability test.*

Introduction

The Indonesian Financial Services Authority (OJK), published data related to sharia financing (Sharia Banking Statistics, 2016). It found that the highest allocation of sharia financing was murabaha financing, compared to other products (mudharabah, musyarakah, salam, istisna, etc.). In April 2016 murabaha financing reached 61% of the total financing of Rp 203.72 trillion. This fact is understandable, because the form of financing which is relatively low risk and much favoured by banks is murabaha financing (Minhat, M.Z. & Dzolkarnain N., 2016; Wahyu Jatniko, 2017). With this financing model, Islamic banks are positioned as sellers of goods for customers and services. Customers will pay off the loan after adding the agreed margin within the agreed time frame as well. Because of its complementary buying and selling nature, murabaha financing risks will be fully borne by the

borrower's customers (Shah, B.A., & Niazi, G.S., 2019). In addition to the relatively smaller financing risks for banks, murabaha financing is more flexible, enabling the purchase of consumer goods or services. This attracts customers to request financing under this model. This type of financing model is mostly carried out by Islamic banking (Haron, Ramli, Injas & Injas, 2015; Gundogdu, 2014; Wahyu Jatmico, 2017; Rifki Ismail, 2014), unlike mudharabah or musyarakah financing. There, Islamic banks must bear the risks that may occur and afflict project activities in the field. Islamic banking is therefore rather "reluctant" to provide finance in the form of mudaraba or musharaka, so that the financing is less popular in Islamic banking practices (Dinc, Y. & Saiti, B., 2019). These two products are heavily influenced by external economic situations and circumstances; for example the rate of economic growth, inflation rates, exchange rates, interest rates and other non-economic conditions (customer attitudes, policies, politics, security, religion, and culture) (Nahar, S. & Sarker, N., 2016; Handika & Ekananda, 2019). This situation is actually what makes Islamic banks extra careful when throwing finance in the form of mudaraba or musharaka.

When we look at data on economic growth rates in 2016, a figure of 5.25% is obtained (BI Report, 2018). This figure is relatively higher than the 2018 rate of economic growth; 5.17%. Nevertheless, the proportion of murabaha financing in 2016 still dominates other financing. Therefore the relatively better economic situation does not provide greater enthusiasm for channelling financing, in the form of mudharabah or musyarakah.

Other interesting macroeconomic data are the 7-day Repo Rate (BI Rate) and the inflation rate for 2016 to 2018. In the middle of the year from 2016 to 2018 each reference rate (BI Rate) is: 5, 25%, 4.75% and 5.25%, while the inflation rates were respectively: 3.45%, 4.37% and 3.12% (BI Report, 2018). In general, economic returns (BI Rate) on average are still higher than the level of inflation that occurs (cost of economy). This means that economic conditions are still normal, and still profitable, because real interest rates are still positive. That is especially so if the interest rate (economic returns) we use is the equivalent value of the profit sharing ratio (in percent) in 2014 and 2015; an average of around 13.00% (Islamic Banking Statistics, OJK, 2016). With such a benchmark, it is clear that sharia business activities are more profitable, because the real interest rates obtained will be even greater (the average is estimated around: 13.00% - 3.5% = 9.50%).

Another important macroeconomic challenge is the presently high level of economic activity. This is indicated by the still high Incremental Capital Output Ratio (ICOR) experienced by the Indonesian economy currently, which is still perched at 6.3 units (Kompas, January 2019). One unit of output produced requires a greater investment value, which is 6.3 units of investment. This figure is clearly still higher than the ICOR average of other ASEAN countries which reaches below 5. The high economic costs incurred today will be a tough task for anyone who will lead this nation. With high economic costs (high cost economy), of

course it will be rational when economic actors glance at business activities (business) based on sharia principles. One option that could be an alternative when investing is a murabaha financing scheme. This phenomenon appears in some countries (Malaysia, Egypt, Indonesia, Turkey, and Saudi Arabia). Murabaha financing is always the dominant choice of Islamic banking (Rifki Ismail, 2014; Gundogdu, U.S., 2014; Haron, M.S. et al., 2015). However, not many studies have examined which factors predominantly influence murabaha financing. This study intends to uncover these factors, by analyzing quarterly time series data related to murabaha financing during the period 2011-2018 in Islamic banking in Indonesia.

By looking at the above phenomena, we intend to look further: (a) Is murabaha financing in Indonesia influenced by conventional macroeconomic variables, specifically the interest rate? (b) Which factors dominantly influence murabaha financing in Indonesia, and (c) How stable was murabaha financing over the period 2011-2018?

Theoretical Foundation

Investment is an unstable variable because it is influenced by economic and non-economic variables. Economic factors include interest rates, changes in output (the rate of economic growth), the rate of return on investment (ROI), GDP, and others (Gordon, 1993: 538-539; Froyen, 1993: 401-401; Romer, 1996: 346-348; Dernburg-McDougall, 1983). While non-economic factors include the political situation, government policies, external factors (foreign), state security, religion, attitudes, norms and so on (Ali, M. et al., 2017; Aziz, S. et al., 2018). When formulated in the form of an equation, we obtain the equation, I = f (economic factors, non-economic factors). Whereas in the context of sharia, financing (sharia investment) is influenced by many factors as well, including the profit sharing ratio (mudharobah), the amount of margin, the risk of financing (Non Performance Finance / NPF), Returns on Assets (ROA), and the amount of party funds third (Umiyati-Ana, 2017; Muhammad LQ, 2013; Fauziyah-Sri Hartoyo-Ranti W., 2015; Elzalina-Fatin, 2017). If some of the variables that affect investment (Islamic financing) are combined in a model and used as a murabaha financing model, then an equation will be obtained as follows:

$$\text{Murabaha} = f(X_1, X_2, X_3, X_4, X_5, \ldots\ldots X_n) \quad (1)$$

where, X_1 is the interest rate; X_2 is the rate of economic growth; X_3 is the inflation rate; X_4 is the level of risk of murabaha financing; X_5 is the murabaha financing margin and X_n is the n-th variable that affects murabaha financing. The relationship of interest rates with murabaha financing can be positive or negative. This means that the interest rate can affect Islamic finance in Islamic banking (Yusoff, W.S.W & Dahalan, J., 2011). A positive relationship occurs when an increase in interest rates shifts conventional bank credit customers to the murabaha financing system (substitution effect occurs). Conversely, if a negative relationship

occurs, an increase in interest rates does not have a positive impact on increasing the demand for murabaha financing.

Theoretically the rate of economic growth will encourage high investment (Dernburg-McDougall, 1983; Jamalah, 2018), because increasingly lively business activities will provide more attractive economic incentives to business people. This is consistent with Froyen (1993: 399): "The level of investment spending depends on the rate of change in output". With the same logic, murabaha financing will normally be pushed upward, along with the increasing rate of economic growth. Thus, the rate of economic growth has a positive relationship to murabaha financing.

The inflation rate has a positive relationship with investment, as stated by Froyen (1993: 404). That is, inflation expectations relate to the future, providing a positive psychological impact for businesses, because they hope that their output will get more attractive rewards. With the same logic, murabaha financing will be pushed up when inflation expectations in the community increase.

The fourth variable used in this study is Non Performance Finance (NPF) or murabaha financing risk. Theoretically and empirically the relationship between NPF and murabaha financing is negative (Fauziyah et al., 2015; Umiyati-Leni TA, 2017; Elzalina et al., 2017). Therefore the high risk of financing, or increasingly problematic financing, will encourage caution in the banking sector when it distributes financing in existing economic sectors. That is, with economic rationality, the high problematic nature of financing will encourage more selectivity when the Islamic banking world is channelling financing.

The last variable used in this study is the murabaha financing margin. In fact, in murabaha financing, the bank sells goods to customers after adding a fixed margin with an agreed payment term, and there is also a shift in all risks from the bank to the customer (Shah-Niazi, 2019). Murabaha financing margins must be paid by customers, and will have a negative relationship with murabaha financing itself. The greater the margin paid by customers, the greater the decrease in requests from customers for murabaha financing.

Methodology

This study uses quarterly time series data for the period 2011-2018. Data was obtained from the OJK Sharia Banking Statistics Report, the Bank Indonesia Report (BI) and the Central Statistics Bureau (BPS) of the Republic of Indonesia (secondary data). The research model is in the form of the same semilog as follows:

$$\text{Log } Y = a_o + a_1X_1 + a_2 X_2 + a_3 X_3 + a_4 X_4 + a_5 X_5 + e \quad (2)$$

Notes:
Y is murabaha financing provided by Islamic Commercial Banks in Indonesia during the period 2011-2018 (data in billions of rupiah); X_1 is the three-month Indonesian reference interest rate (BI rates); X_2 is the rate of economic growth using real GDP (data in percent); X_3 is the quarterly inflation rate using the Consumer Price Index (CPI), data in percent; X_4 is Non Performance Finance (NPF) or the level of non-performing financing risk that may occur at Islamic Commercial Banks (data in percent); X_5 is murabaha financing margin and e relates to the error terms (disturbance variables). The parameters a_1, a_2, a_3, a_4 and a_5 are regression coefficients of the murabaha equation model, or the elasticity coefficient of murabaha financing to the interest rate, economic growth rate, inflation rate, risk of problem financing and murabaha financing margins respectively.

Before the data is used in the model, a number of tests are performed, namely: a unit root test, cointegration test, Classical Assumption test (BLUE-test) and model stability test. These tests are to see the consistency and validity of the data used in the study. The next step is to analyze the parameters obtained from the model, namely: analysis of the significance of parameters, analysis of influence and meaning.

Time Series Data Analysis

Many problems might arise when classical regression techniques apply to time series data. One is spurious regression; an inconsistent, biased, inefficient regression which cannot be used for predictions. To see indications of spurious regression, a stationary test of the time series data must be performed.

Time series data (X_t) is said to be stationary if it meets three requirements; namely, having a constant, constant variance and covariance, or E (X_t) = μ; var (X_t) = σ2 and cov (X_t, X_{t+k}) = δ_k (Thomas, 1997: 374). If the three conditions are not met, then the data is automatically non-stationary. The stationary data testing method will be described technically below:

a. Unit Root Tests (Unit Root Tests)

To see whether there are stationary properties in the data (variables) to be analyzed, a unit root test can be used as developed by Dickey-Fuller (DF), or as the Augmented Dickey-Fuller test (ADF). There are three alternative DF tests, namely: (i) without intercept and trend; (ii) using intercepts, and (iii) using intercepts and trends. The stationarity test model used in this study follows the third model (iii). This test model is more complete because it will produce more parameters. The next step is the statistical test. If the absolute value of t-statistic is greater than the McKinnon Critical Values at the real level of 1%, 5% and 10%, then the data

tested passes from the root unit; i.e. the data is stationary. If the data has not reached stationarity at its level value, then the test is continued with the stationarity test at the first difference level, so that finally the stationary data is obtained.

b. Cointegration Test

The cointegration test requirement is that the degree of integration of the dependent and independent variables must be the same. If these requirements are met, then at the unit root testing stage above, the degree of integration between murabaha financing and the independent variable will be known.

After the degree of integration of the basic equation is known, the next step is to estimate the long-run equilibrium relationship function used in this study (murabaha equation). The next step is cointegration testing of the above model (unit root test of the long-term residual value of the model). The formula that can be used is a model developed by Dickey-Fuller (ADF test) (Enders, 1995: 375; Hamilton, 1994: 592-600), which is as follows:

$$\Delta\hat{e}_{yt} = a_1\hat{e}_{yt-1} \sum_{i=1}^{n} a_{t+1}\Delta\hat{e}_{yt-i} + \in \quad (3)$$

Influence Test (t-test) and Classical Assumption Test

To see the effect of conventional and sharia macroeconomic variables on murabaha financing variables, the t-test (Student Test) and F-test (Fisher Test) will be used. Student-test (regression coefficient testing) analysis is carried out to see the partial effect of all the independent variables on murabaha financing. The F-test was conducted to see the effect simultaneously of the independent variables used on murabaha variables. To analyze the closeness of the relationship and the percentage of variation in the dependent variable that can be explained by the independent variable, we will use a correlation analysis and the coefficient of determination.

Analysis of the diagnosis of regression disease, namely a normality test, serial correlation test, heteroscedasticity test and multicollinearity test, is still being conducted. The aim is to see the suitability of the model used in the study with the classical regression assumptions (BLUE Regression).

Stability Test

The purpose of stability testing is to see the structural stability of a model over a certain period. Are the regression parameters (murabaha financing equation model) still consistent or have they changed? The stability testing model used in this study is the Cumulative Sum of

Squares of Recursive Residuals Test (CUSUMSQ Test), often called the CUSUM of Squares Test. Its advantage compared to the Chow's Test is that it is not necessary to know in advance when or at what point in time a function (the model to be tested for stability) shifts or changes. The formula used to determine test statistics is the ratio between sum squares residuals (SSR = $\sum w_r^2$), results of observational predictions starting from K + 1 to period t, with sum squares residuals from observational prediction results starting from K + 1 to period T (Greene, 1997 : 355-359; Simorangkir, 2002: 9-14):

$$S_t = \frac{\sum_{r=K+1}^{r=t} w_r^2}{\sum_{r=K+1}^{r=T} w_r^2}, \quad (4)$$

Where :
w_r = is residual regression;
r = K + 1, ... T;
K = number of independent variables;
T = sample size (total sample size); and
t = time (T - K - 1) = degrees of freedom.

The regression equation (model) is tested by plotting the value of St on the vertical axis and time (t) on the horizontal axis. The regression equation or model being observed is stable (meaning null hypothesis is accepted, i.e. β1 = β2 = β3 = ... = βt = β; where β is the regression coefficient) if the expected value of St or E (St) lies between two lines confidence bounds at a certain level of significance (for example 5%). Conversely, regression is unstable if E (St) or the CUSUMSQ curve exits the two boundary lines. For stable regression the value of E (St) will approach the value (t - K) / (T - K).

Through the EVIEWS 9.1 program, confidence bounds and CUSUMSQ curves will appear automatically, if the regression equation has been obtained. Thus, the model can be immediately known as stable or unstable.

Results and Discussion

Unit root test results used the Augmented Dickey-Fuller (ADF) test on all variables, which in this research model turned out to be stationary at the second difference level. The test results can be seen in Table 4.1:

Table 4.1: Unit Root Test Results (P Value)

Variable	t-Statistic	Prob (P-Value)
Y	-5.259261**	0.0013
X_1	-7.460035**	0.0000
X_2	-5.453954**	0.0009
X_3	-4.462815**	0.0086
X_4	-9.684611**	0.0000
X_5	-6.390125**	0.0001

Note: **) significance at the level of 1%

To see the long-term relationship between murabaha financing (Y) and interest rate (X_1), economic growth rate (X_2), inflation rate (X_3), Non Performance Finance (NPF) (X_4) and murabaha financing margin (X_5), a test cointegration was applied. Cointegration test results, using the ADF-test, showed that dependent variables and the independent variable have the same degree of cointegration (in the second difference degree). The long-term equation obtained is as follows:

Table 4.2: Long-term Regression Results of Murabaha Financing (Log Y)

Variable	Coefficient
a_o	8.283**
X_1	-0.085**
X_2	-0.466**
X_3	0.045**
X_4 *(-1)*	-0.082**
X_5	-0.040^{ns}
	$R^2 = 0.910$ F = 46.732**

Notes: **) Significance at the level 1%; ns = not significance;

The results of tests with a normality test, multicollinearity, serial correlation and heteroscedasticity turned out to give satisfactory results, according to classical assumptions (no regression disease). So, the regression equation obtained gives an unbiased meaning (Best Linear Unlimited Estimator / BLUE) and has a rational economic meaning.

From Table 4.2, almost all independent variables used in the model significantly affect murabaha financing, except murabaha margins where the effect is not significant. Interest rates have a significant negative effect at 1% level. This means that rising interest rates will affect the reduction in murabaha financing. Every 1% increase in the interest rate results in a decrease in murabaha financing by 0.085%, inelastic (ceteris paribus). The real influence of

the interest rate gives the meaning that murabaha financing is still influenced by the interest rate (conventional variables). This is in line with the findings of Yusoff-Dahalan (2011) in Malaysia and Ergec-Arslan (2013) in Turkey. Thus, the Islamic banking system is still not free from the interest system. This finding can also be interpreted as that the increase in the reference interest rate (BI Rate) does not encourage entrepreneurs to switch to murabaha financing. On the contrary, they shift murabaha financing to other investment portfolios that are more profitable (higher yields), because they are driven by increases in the reference interest rate.

The rate of economic growth has a significant negative effect on murabaha financing. This finding corroborates the results of research conducted by Yusof, R.M. et al., (2018), which states that GDP has a causal relationship with home financing. However, this finding contradicts the conclusion of Nahar-Sarker (2016), that the rate of economic growth positively affects Islamic financing. The regression coefficient obtained is -0.466 (inelastic / insensitive). That is, assuming other factors are fixed, an increase in the rate of economic growth of 1%, decreases murabaha financing by 0.466%. These findings indicate that the improved rate of economic growth does not encourage increased murabaha financing. Investment choices are still financed with conventional financing, and even there murabaha financing reduces when there is an increase in the rate of economic growth.

The last conventional macroeconomic variable used in the model is the inflation rate. Its effect on murabaha financing is significantly positive at the 5% significance level. This finding is in line with the conclusion of Nahar-Sarker (2016), that the inflation rate has a positive effect on Islamic financing. That is, a 1% increase in the inflation rate results in an increase in murabaha financing by 0.04% (inelastic / insensitive). This relationship means that rising inflation does not reduce enthusiasm for murabaha financing activities. He considered that murabaha financing will still provide a decent profit even under inflation conditions.

The previous quarter's Non Performance Finance (NPF) had a significant negative effect on murabaha financing. This finding is different from the conclusions of a study conducted by Uus Ahamd Husaini (2016) on The Islamic Commercial Bank in Indonesia during the 2014-2016 period. The coefficient of murabaha financing elasticity to NPF in the previous quarter was 0.08 (inelastic). This means that the NPF increase of the previous quarter by 1% decreased the current quarter murabaha financing by 0.08% (*ceteris paribus*). The relationship found in the study is in accordance with the hypothesis (theory), that the higher the NPF level causes the lower murabaha financing requested by entrepreneurs.

The study found that the murabaha financing margin variable did not significantly influence murabaha financing. This conclusion differs from the conclusions of the study conducted by

Muhammad Z.A.S. (2018) who researched financing margins in relation to murabaha financing, at BNI Syariah Micro Bank Praya Branch Office, in Indonesia. The findings of this study indicate that murabaha financing is more influenced by other variables besides the financing margin itself. The consideration of customers asking for murabaha financing is not only because of the financing margins that must be paid, but is more determined by external factors namely interest rates, economic growth rates and inflation rates.

Simultaneously, the influence of the interest rate, economic growth rate, inflation rate, customer profit sharing ratio, and NPF of the previous quarter on murabaha financing is very significant. Its magnitude of influence is 91.04%, while the remaining 8.96% is the influence of other factors (*ceteris paribus*). High coefficient number determination shows the correct use of independent variables in the model, in explaining fluctuations (variations) murabaha financing.

The results of the model stability test using the CUSUMSQ-test show that the murabaha equation model in the long run is stable (no significant structural changes occur). That is because the expected value of S_t or E (S_t) obtained is located between two boundary lines (confidence bounds) on a significance level of 5%. Thus, during the research period (2011-2018), there was no significant fluctuation in murabaha financing carried out by Islamic banking in Indonesia. This finding is in line with the conclusions of a study conducted by Karim, B.A. et al., (2017) in Malaysia. It states that banks using profit-sharing systems are able to survive economic turmoil, and at the same time are able to reduce the risk of financial volatility. However, the findings of this study differ from the conclusions of the study conducted by Abrar et al., (2018), in Pakistan, which states that conventional banking is more stable than Islamic banking, when measured using z-score and CAR indicators.

Conclusions and Recommendations

Conclusions

This study provides several important conclusions, namely: *First*, murabaha financing carried out by Islamic banking in Indonesia is apparently still influenced by conventional macroeconomic variables (interest rates, economic growth rates, and inflation rates). This conclusion has the implication that, at the operational level, murabaha financing cannot be free from the interest system. *Second*, the dominant influence affecting murabaha financing is the rate of economic growth, followed by the interest rate. *Third*, the study found that the murabaha equation model used in the study was stable. This means that during the span of research (2011-2018) murabaha financing did not experience significant fluctuations or fluctuations.

Recommendations

Based on the research results obtained, we submit the following suggestions:

a. From the results of the study the most dominant influence on murabaha financing is the economic growth rate (i.e. negative significant effect). That is, an increase in the rate of economic growth does not excite increases to murabaha financing. Instead murabaha financing declines. It is to be expected that improved economic development has encouraged customers to look for investments other than murabaha financing. In this connection, further researchers can conduct a deeper study of these findings. Why did this happen?
b. The study also found that the interest rate had a significant negative effect on murabaha financing. That negative influence means that an increase in the interest rate on the one hand, does not shift consumers to murabaha financing. On the contrary they leaving murabaha financing. This is the same as the effect of the rate of economic growth: The increase does not encourage customers to move to murabaha financing. In-depth research on this could still very possibly be carried out by other researchers.
c. The equation model used in this study turned out to be in a stable condition during the period 2011-2018 (quarterly data). This indicates that the sharia monetary authority and sharia financial implementers during that period of turmoil were quite successful in maintaining murabaha financing. That means murabaha financing remains in a stable, controlled and growing condition. This is an achievement that must be maintained forever by the monetary authority and also the implementers of Islamic finance.

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Appendix

Raw Data of Murabahah Financing in Indonesia During the Period Of 2011-2018

Years	X1	X2	X3	X4	X5	Y
2011-1	6.75	6.4	6.65	3.6	15.23	40.877
2	6.75	6.5	5.54	3.55	15.15	46.161
3	6.75	6.5	4.61	3.50	15.04	49.883
4	6.0	6.5	3.79	2.52	14.72	58.365
2012-1	5.75	6.3	3.97	2.76	14.63	59.165
2	5.75	6.4	4.53	2.88	14.21	67.752
3	5.75	6.2	4.31	2.74	13.94	77.153
4	5.75	6.1	4.3	2.22	13.69	88.004
2013-1	5.75	6.0	5.9	2.75	13.57	97.415
2	6.0	5.8	5.9	2.64	13.56	102.588
3	7.25	5.6	8.4	2.8	17.15	106.779
4	7.5	5.7	8.38	2.62	13.18	110.565
2014-1	7.5	5.1	7.32	3.22	13.3	111.727
2	7.5	5.0	6.7	3.48	14.45	114.322
3	7.5	4.9	4.53	4.67	14.6	114.891
4	7.75	5.0	8.36	4.33	15.43	117.371
2015-1	7.5	4.73	6.38	4.81	13.61	117.358
2	7.5	4.66	7.26	4.73	13.73	112.203
3	7.5	4.74	6.83	3.4	14.12	112.013
4	7.5	5.04	3.35	3.19	13.36	115.605
2016-1	6.75	4.94	4.45	3.02	13.35	116.429
2	6.5	5.21	3.45	3.73	13.01	120.600
3	5.0	5.03	3.07	2.4	12.66	131.126
4	4.75	4.94	3.02	2.17	12.67	133.956
2017-1	4.75	5.01	3.61	2.57	12.61	135.309
2	4.75	5.01	4.37	2.83	12.8	139.904
3	4.25	5.06	3.72	2.74	12.44	141.268
4	4.25	5.19	3.61	4.77	12.27	145.301
2018-1	4.25	5.06	3.4	1.5	12.18	145.536
2	5.25	5.27	3.12	1.53	12.05	146.211

Notes:

X_1 = Interest Rate/BI-Rate (%)
X_2 = Economic Growth (%)
X_3 = Inflation Rate (%)

X_4 = Non Performance Finance (NPF) (%)
X_5 = Murabahah Margin (%)
Y = Murabahah Financing (Billion IDR)

EVIEWS RESULT FOR REGRESSION:

Dependent Variable: LOG(Y)
Method: Least Squares
Date: 10/06/19 Time: 17:05
Sample (adjusted): 2011Q2 2018Q2
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.283120	0.276791	29.92551	0.0000
X1	-0.085215	0.028410	-2.999499	0.0064
X2	-0.465910	0.044207	-10.53941	0.0000
X3	0.044767	0.017687	2.531009	0.0187
X4(-1)	-0.082196	0.028051	-2.930198	0.0075
X5	-0.040223	0.029338	-1.371007	0.1836

R-squared	0.910389	Mean dependent var	4.637916
Adjusted R-squared	0.890908	S.D. dependent var	0.326223
S.E. of regression	0.107748	Akaike info criterion	-1.436046
Sum squared resid	0.267023	Schwarz criterion	-1.153157
Log likelihood	26.82267	Hannan-Quinn criter.	-1.347449
F-statistic	46.73291	Durbin-Watson stat	1.334253
Prob(F-statistic)	0.000000		