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Financing of the Agricultural Business by Sharia Bank to Increase the Exchange Rate of Farmers in West Java Province

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ABSTRACT: This study aims to analyze the relationship between Islamic bank financing in agricultural businesses and farmer exchange rates in West Java Province between 2017 and 2021. The dependent variable of this study is farmer exchange rates, while the independent variable is total amount financing. , non-emerging financing (NPF), and the BI rate. This study uses a quantitative approach using secondary data from Islamic banks and other reliable sources. The data used covers five years, i.e., 2017-2021. The analytical method used is statistical regression which measures the effect of independent variables on farmers' exchange rates. The research results should lead to a better understanding of the impact of Islamic bank financing on agricultural businesses on farmers' exchange rates in West Java province during the study period. In addition, this study aimed to determine the effect of the funding level, non-current finance (NPF), and BI rate variables on farmers' rates. The results of this study are expected to help Islamic banks and local governments formulate more effective policies to increase farming financing and farmer exchange rates in West Java Province. In addition, this research can also contribute to the development of literature on agribusiness financing and the role of Islamic banks in the agricultural sector.

KEYWORDS: Total Amount Financing, Islamic Banks, farmer exchange rates, West Java, Non Performing Finance (NPF), BI Rate, 2017-2021.

INTRODUCTION

Agriculture is a sector that plays an important role in the Indonesian economy. However, developing the agricultural industry is challenging due to the lack of access to financial sources (Beik & Aprianti, 2013). Considering that financial sources or sources of funding are important in helping the development of the agricultural industry, it is necessary to maximize sources of financing in the financial sector. Funding sources are available from Islamic banking institutions. As intermediaries, Islamic banks play an important role in the wheels of the Indonesian economy, especially through lending to the agricultural sector. Islamic banking is an application of Islamic economics and must be based on Shariah principles when conducting economic business activities. Everything that is done in Islamic economics must be based on honesty between economic agents and prohibits usury (interest rate factor), gharar (anxiety), maisir (gambling), and tyranny (Wiroso, 2011). This fluctuation in the physical development of Islamic banking does not necessarily mean that Islamic banking lending will also decline. Over time, with the development of Islamic banking, the degree of distribution of funds has indeed increased. Among them, only As-Salam financial products have the smallest loan share. Table 1 shows how small a percentage of Assalaam Product Finance turnover is in Islamic Commercial Banks and Islamic Business Units. number of offices at BUS (Sharia Commercial Banks) increased from 1,745 units in 2012 to 2014, reaching 2,139 units, then decreased to 1824 units in 2018, as well as UUS (Sharia Business Units), which also reduced from 517 -units in 2012 to 346 units in 2018. However, the development of the number of offices at BPRS (Sharia People's Financing Bank) tends to increase, where in 2012, there were 401 units to 446 units in 2018 (Financial Services Authority, 2018). Islamic banks have many opportunities to provide financing to the agricultural sector because the main focus of the Islamic banking business is the real sector. In addition, Islamic banks are more appropriate for providing financing to the livestock industry because, according to Asaad (2017), Islamic banks do not recognize interest calculations but use the principle of profit sharing and profit sharing by buying and selling, the principle of profit sharing, the amount of profit sharing between fund owners or banks with business managers or farmers handed over to both parties according to the harvest period. For agricultural businesses with a small income, the agreed ratio is not the same as businesses with a larger income, considering that each agricultural business commodity has a different level of income and harvest periods vary, and Farmers are not burdened with loan interest. Still, the repayment is automatically adjusted according to the harvest period, which could use many alternative contracts to channel funds into the agricultural sector. According to them, these treaties

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are Mudharabah, Musyarakah, Muzara'ah, Bai' al Murabahah, Bai' as-salam, Bai' al Ishtina, and Rahn (Ashari & Saptana, 2005). According to Nasution (2016), agricultural sector funds can be used to purchase inputs such as seeds, fertilizers, pesticides, labor, water, and electricity needs. The number of Islamic finance alternatives is sufficient to give agribusinesses the flexibility to choose their financing model depending on the nature of their activities and the economic scale of their business. Since the enactment of Law No. 21 of 2008 on Islamic Banking, it has been expected to enable people's well-being. We can learn about common interests. This is because the operation of Islamic banks in Indonesia aims to support the implementation of national development within a framework that promotes justice, unity and equal distribution of people's welfare (Act 2008 on Islamic banking). Article 3 of No. 21). Based on this goal, Islamic banks in Indonesia should achieve at least an equitable distribution of welfare through their fundraising activities that comply with Shariah principles in their operations. Data from the Islamic Banking Statistics show that Islamic bank assets continued to grow until April 2017. From the above data, we can see that according to the Global Islamic Finance Report 2017, Indonesia ranks 7th as a country with the potential to develop the Islamic finance industry. It has the potential for industrial development. In 2016 she was 6th, but in 2017 she dropped to 7th. However, Indonesia is still in the top ten. The development of the Islamic financial industry, especially the banking sector, should improve the well-being of people, including Sumatran farmers. Farmers typically require capital to run their agricultural production processes. A study by the IPB's Center for Agriculture and Rural Development Studies (Syaukat, 2011) concluded that capital factors are the variables that significantly affect farmer productivity. This means that the farmer's scale of production is controlled by the capital or funds received from the farmer. In this context, Islamic banks can play a role in providing capital to farmers. Syaukat (2011) states that Islamic banks can develop various systems for financing the agricultural sector. Financing of the agricultural sector by Islamic banks can be adapted to the characteristics of communal agricultural production. For example, when financing agricultural machinery, the contract may be in the form of his Ijarah, Mudharabah, or Musyarakah. On the other hand, Muravaha and Istishna financing schemes can be used to purchase cows in Islamic banks to obtain milk storage tanks. This means that there are many ways for Islamic banks to finance the agricultural sector. According to data compiled by Sharia Banking Statistics, loans to the agricultural sector by Islamic commercial banks and Shariah entities in West Java are on average the largest among Java provinces excluding DKI Jakarta. Financing the agricultural sector is not only about increasing agricultural production. NTP (Farmer Exchange Rate) is an indicator of farmer welfare. This is the opinion of Machfudz (2007) that the financial transaction tax is an indicator of the level of welfare of farmers. Therefore, the higher the NTP value, the richer the farmer's life. The data above shows that financial transaction taxes in Java fluctuated nationally from January 2016 to August 2018. Of the five provinces in Java, West Java was the only province whose NTP did not experience significant changes compared to other provinces. This shows that the level of welfare of West Java farmers is relatively stable. The availability of adequate credit from Islamic banks can provide easier access to financing for agricultural business actors. This can help farmers and agricultural entrepreneurs to obtain the necessary capital to increase production, expand their business, or buy modern equipment. The agricultural sector can grow and develop better with better access to financial resources. Suppose it is associated with the credit level of the agricultural sector by Islamic banks, especially in West Java. In that case, there is a positive correlation between the credit level of the agricultural sector and financial transaction taxes. The presence of Islamic banks in the agricultural sector can also assist in diversifying funding sources for farmers and agricultural entrepreneurs. They depend on loans from conventional financial institutions and can obtain financing from Islamic banks that operate based on Islamic principles. This provides additional options that better suit their needs.

BUSINESS ISSUES

This research aims to help business owners and policymakers better understand the factors influencing exchange rates in the agricultural sector Agriculture is a vital economic sector for developing countries, including Indonesia. However, the agricultural industry is also very vulnerable to exchange rate fluctuations, which can affect the welfare of farmers and the sustainability of farming businesses.

Several factors have been identified as the cause of exchange rate fluctuations, including the amount of financing, non-performing finance, and the BI rate. The amount of funding can affect the competitiveness of farmers and agricultural production, while non-performing finance can give a negative signal to the market. In addition, the BI rate also plays a vital role in determining the exchange rate. In addition to the macro phenomena above, there are also several related problems which are the main problems which today are an obstacle to the development of the agricultural sector in Indonesia, including: Limited financial access.Farmers in West Java

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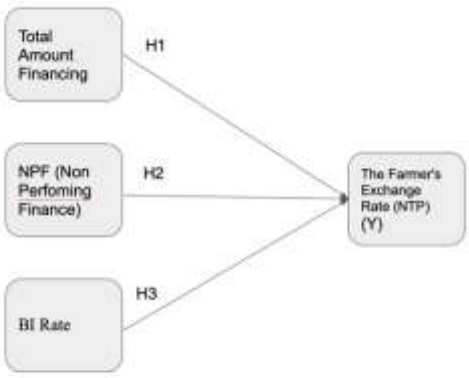
find it difficult to obtain the financing they need for their farming activities. This limitation can be caused by strict requirements from financial institutions, lack of adequate guarantees or lack of available financial mechanisms. This access limitation can affect the ability of farmers to increase production, improve agricultural infrastructure or adopt modern technology. High-interest rates for problem loans (NPF). High NPF rates for agricultural financing can create serious problems. A high NPF ratio indicates a high risk of default and can limit smallholder farmers' access to finance. This can affect the sustainability of farming and farmer exchange rates in West Java. BI Exchange Rate Variants. Fluctuations in the benchmark (BI interest rate) can affect borrowing costs and farmers' profits. Changes in the BI rate can affect interest rates for farming financing, which in turn can affect the ability of farmers to repay and manage their finances. This can affect the exchange rate of farmers in West Java. However, there are still gaps in the literature regarding how these variables affect farmer exchange rates. Therefore, this study aims to fill this gap by providing a better understanding of the impact of these variables on farmer exchange rates. By knowing the effect of these variables on farmers' exchange rates, business owners and policymakers can gain better insight to develop better business strategies in the agricultural sector to be able to carry out several business accelerations and positive developments for agricultural actors. To begin this research, I overviewed the existing literature on the topic. It reviews studies that have explored the impact of these variables on exchange rates in general and identify gaps in the literature that its research can fill. Next, I collected data regarding the financing provided to farmers, the level of non-performing finance, and the BI rate from several reliable sources. After that, the data were analyzed using the VAR Analysis technique to test the hypotheses formulated in the study.

METHODOLGY

The research objective is to obtain information to solve Sekaran & Bougie's (2016) problems. Based on the research objectives, the type of research used is explanatory. Explanatory research determines the relationship between one variable and another by using a framework that is then arranged in the form of a hypothesis (Suryana, 2010). The type of data in this study is secondary data and time series. Secondary data is sourced from company records or documents, industry analysis, government publications, media, websites, etc. (Sekran & Bougie, 2016). According to Hanke & Wichern (2005), time series data is observation data arranged in a time series. Using data obtained for 60 months from January 2017 to December 2021. Data sources come from government institutions in the economic and non-economic fields, such as Bank Indonesia, OJK and BPS. Sims explained that there are no intrinsic or extrinsic variables because if there is a simultaneous or causal relationship between the observed variables, all variables must experience the same treatment. In the VAR concept, all variables are endogenous.

Meanwhile, in 1987 Engle and Granger developed the concepts of cointegration and error correction. In addition, Johansen and Juselius, in 1990, developed the concept of the Vector Error Correction Model (VECM). VECM has a simple process for identifying long-term and short-term components (Sinay, 2014). What will analyze the processing of this research data with VAR/VECM? VAR analysis is used when the observed data is stationary but has no cointegration. VECM analysis is used when cointegration and stationarity exist in known data. Data processing and analysis using e-views software.

Table 1. Research Model (Author, 2023)



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Hypothesis 1 (H1): **The total amount of funds positively impact the farmers' exchange rate (NTP).** Theories of investment and economic growth support the above claims. This theory states that sufficient investment in the agricultural sector can improve farmers' productivity and income. With enough money, farmers can get the money they need to buy modern equipment, better seeds, fertilizers, and other farming techniques. In this situation, the more credit available to farmers, the higher their exchange rate. (Building a Social Business: A New Kind of Capitalism to Meet Humanity's Urgent Needs, Muhammad Yunus, 2008). Hypothesis 2 (H2): **The NPF (NPL) level affects the Farmer's Exchange Rate**. The theory behind this is the credit risk theory. This theory suggests that lower NPF levels indicate a higher quality funding portfolio and lower credit risk. In this context, low NPF levels indicate a high repayment capacity of borrowed farmers. Related to the relationship between NPF levels and farmers' exchange rates, low NPF levels may suggest that farmers are better at managing risk and gaining credit. This could increase the confidence of financial institutions in lending to farmers, which could boost farmers' exchange rates. In this situation, it is assumed that the higher his NPF level of farmer loans, the lower the farmer's exchange rate. (Stewart C. Myers, Principles of Corporate Finance. 2003). Hypothesis 3 (H3): **The Bank of Indonesia Policy Rate (BI RATE) affects the Farmer's Exchange Rate (NTP).** Monetary Policy Theory. This theory suggests that changes in currency interest rates can affect macroeconomic conditions, including farmers' exchange rates. When BI rates are cut, bank loan rates tend to fall. This allows farmers to obtain loans at lower interest rates, encouraging investment and farm development. In this case, lower interest rates may contribute to a higher exchange rate for farmers. (Federal Funds Rates, BI, Business Cycles, Dr. Yellen, 2016) . The results of data analysis become findings related to research problems and research questions. Strategies are formulated from findings that can be implemented related to those being analyzed. Lastly, Research will provide conclusions and recommendations about the topic.

RESULT AND DISCUSSION

A. Statistical Analysis

1) Descriptive Statistics

Descriptive statistics are statistics that provide an overview or description of a data seen from the average value, standard deviation, maximum, minimum, sum, range, kurtosis and skewness (distribution skewedness). Descriptive statistics describe data as information that is clearer and easier to understand (Ghozali, 2018).

Table 2. Descriptive Analysis Result (Eviews-11,2023)

	NTP	TAF	NPF	BIRATE (%)
Mean	5348.168	12304.19	423.4627	4.612500
Median	5254.220	12175.00	329.5500	4.500000
Maximum	6706.450	16034.00	868.0000	6.000000
Minimum	4780.600	1358.000	267.0000	3.500000
Std. Dev.	430.9065	2574.321	168.2207	0.837957

Based on the results of the descriptive analysis above, the mean, median, maximum, minimum and standard deviation values for all research variables were obtained.

B. Vector Error Correction Model Estimation

1) Data Stationarity Test

Before forming a VECM (Vector Error Correction Model), the thing that must be done is to test the stationarity of the data to avoid spurious regression or spurious regression. This is because spurious regression can make the statistical test for each coefficient invalid and difficult to use as a guideline. If the dependent variable is not stationary at the level, then the VECM can be formed. To test whether the time series data is stationary or not, a unit roots test is used. Stationarity Test results are as follows :

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Table 3. Unit Root Test (Eviews-11,2023)

Variabel	*Unit root test*			
	Level		1st Difference	
	ADF	Prob	ADF	Prob
BI Rate	-0.661	0.848	-4.706	0.0003
NTP	-3.286	0.020	-6.476	0.0000
TAF	-6.338	0.000	-8.978	0.0000
NPF	-2.858	0.057	-8.054	0.0000

Based on the results of the unit root test (Unit Root Test) listed in Table 4.2. shows if at the level of the BI Rate variable, and NPF is not stationary. This indicates that the BI Rate and NPF variables at the level have a unit root. To prove whether the data is stationary, a degree of integration test is then carried out, namely at the 1st Difference level. In Table 4.2, all variables from the test, it was found that all variables were stationary with a significant probability level at $\alpha = 5\%$. The two variables were stationary, meaning they did not show a clear trend or temporal pattern in the data. If both variables are present, this indicates a possible long-term relationship.

2) Optimal Lag Test

Optimal lag test to overcome autocorrelation problems in research model systems. The selection of delays is based on the Akaike Information Criterion (AIC), Schwartz Information Criterion (SC), and Hannan Quinn (HQ) criteria. The delay is determined by the minimum AIC and SC values and the maximum HQ value.

Table 4. Optimal Lag Test (Eviews-11,2023)

VAR Lag Order Selection Criteria
Endogenous variables: D(BIRATE) D(NPF) D(NTP) D(TAF)
Exogenous variables: C
Date: 05/13/23 Time: 13:21
Sample: 2017M01 2021M12
Included observations: 54

Lag	LogL	LR	FPE	AIC	SC	HQ
0	153.8085	NA	4.58e-08	-5.548464	-5.401132*	-5.491644*
1	174.1752	36.96170*	3.90e-08*	-5.710192*	-4.973531	-5.426091
2	188.3866	23.68576	4.21e-08	-5.643950	-4.317960	-5.132568
3	200.9882	19.13564	4.90e-08	-5.518080	-3.602762	-4.779417
4	212.8863	16.30480	6.00e-08	-5.366158	-2.861511	-4.400214
5	218.1645	6.451227	9.71e-08	-4.969057	-1.875082	-3.775832

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

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Determination of the optimal lag length can be seen from the minimum Akaike Information Criteria (AIC) value. Based on table 4.3, the optimal lag length results are obtained The results of the optimal lag test show that lag 5 gives the lowest AIC value of -4.969. AIC is one of the information criteria used when comparing statistical models. A lower AIC value indicates that the model with lag five better explains the data than the models with other lags.

3) Var Stabilty Test

Stability test by considering the value of the reciprocal root property of the AR polynomial. This can be seen from the module value in the AR Roots table. If less than 1, the research model is stable

Table 5. Var Stabilty Test (Eviews-11,2023)

Roots of Characteristic Polynomial
Endogenous variables: D(BIRATE) D(NPF) D(NTP) D(TAF)
Exogenous variables: C
Lag specification: 1 5
Date: 05/13/23 Time: 13:47

Root	Modulus
0.871915	0.871915
0.395018 + 0.751886i	0.849336
0.395018 - 0.751886i	0.849336
-0.462613 - 0.656583i	0.803188
-0.462613 + 0.656583i	0.803188
0.685600 - 0.411339i	0.799530
0.685600 + 0.411339i	0.799530
-0.086049 - 0.753357i	0.758255
-0.086049 + 0.753357i	0.758255
-0.464390 + 0.584516i	0.746537
-0.464390 - 0.584516i	0.746537
0.179420 - 0.688962i	0.711941
0.179420 + 0.688962i	0.711941
-0.345901 + 0.571713i	0.668209
-0.345901 - 0.571713i	0.668209
-0.656795	0.656795
0.362110 - 0.521502i	0.634892
0.362110 + 0.521502i	0.634892
-0.520932 + 0.215629i	0.563797
-0.520932 - 0.215629i	0.563797

No root lies outside the unit circle.
VAR satisfies the stability condition.

Based on Table 5 In this context, if the modulus values of all eigenroots are less than 1, the VAR system is stable. This means that the VAR model variables do not vary uncontrollably or deviate from each other in the long run. In this case, it is important to ensure the stability of the VAR model because if there are roots with a modulus

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value greater than 1, the VAR model can produce results that cannot be interpreted or are insufficient to express the relationship between analytical variables.

4) Granger Causilty Test

Engle-Granger Causality Test, which aims to see the relationship between the variables contained in the model. In addition, the test was carried out to determine whether an independent variable increases the forecasting of a dependent variable.

Table 6. Granger Causilty Test (Eviews-11,2023)

Pairwise Granger Causality Tests
Date: 05/13/23 Time: 13:58
Sample: 2017M01 2021M12
Lags: 5

Null Hypothesis:	Obs	F-Statistic	Prob.
TAF does not Granger Cause NTP	55	0.72975	0.6049
NTP does not Granger Cause TAF		0.89267	0.4943
NPF does not Granger Cause NTP	55	0.56307	0.7277
NTP does not Granger Cause NPF		0.72227	0.6103
BIRATE does not Granger Cause NTP	55	0.63205	0.6763
NTP does not Granger Cause BIRATE		1.58489	0.1842
NPF does not Granger Cause TAF	55	3.07382	0.0183
TAF does not Granger Cause NPF		0.24830	0.9385
BIRATE does not Granger Cause TAF	55	0.95267	0.4570
TAF does not Granger Cause BIRATE		0.71569	0.6150
BIRATE does not Granger Cause NPF	55	0.73705	0.5997
NPF does not Granger Cause BIRATE		0.99230	0.4335

The causality test was conducted to find out whether an endogenous variable can be treated as an exogenous variable. This stems from ignorance of the influence between variables. If the prob value <0.05, there is no causality relationship. Table 6. shows only NPF to TAF which shows a causal relationship with a prob value of 0.018 <0.05.

5) Cointegration Test

Cointegration Test, which aims to determine whether there is an error correction model in the research model, represents a long-term balance relationship, indicating that the data are cointegrated. Suppose the value of the trace statistic or the max eigen statistic is greater than the critical values. In that case, the data is not cointegrated, so what can continue with VAR analysis.

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Table 7. Cointegration Test (Eviews-11,2023)

Date: 05/13/23 Time: 14:50
Sample (adjusted): 2017M06 2021M12
Included observations: 55 after adjustments
Trend assumption: Linear deterministic trend
Series: D(NTP) D(TAF) D(NPF) D(BIRATE)
Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.513075	86.55469	47.85613	0.0000
At most 1 *	0.396514	46.97420	29.79707	0.0002
At most 2 *	0.231727	19.19744	15.49471	0.0132
At most 3 *	0.081887	4.698885	3.841466	0.0302

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The cointegration test is used to find out whether there will be a balance in the long term, namely whether there is a similarity in movement and stability of the relationship between the variables in this study or not. The cointegration test was carried out using the Johansen's Cointegration Test method. If the probability value is <0.05, it means that there is a cointegration equation, which means it has a long-term balance. Table 4.6 shows a probability value of 0.000 <0.05, so the model has a long-term balance. Because the formed model has cointegration, the model used is VECM.

6) VECM Model (Vector Error Correction Model)

A good and valid VECM model must have a significant ECT. The significant ECT (Error Corretion Term) can be seen from the t-statistic value which is then compared with the t-table, can also be seen from the probability. If the t-statistic value is greater than the t-table, it means that the coefficient is significant. If the ECT probability is smaller than $\propto$, it means that the ECT coefficient is significant.

Table 8. VECM Results (Long Term Effect) (Eviews-11,2023)

Vector Error Correction Estimates
Date: 05/13/23 Time: 14:52
Sample (adjusted): 2017M08 2021M12
Included observations: 53 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
D(NTP(-1))	1.000000
D(TAF(-1))	-1.324515
	(0.24720)
	[-5.35803]

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D(NPF(-1))	-0.767756
	(0.21787)
	[-3.52391]
D(BIRATE(-1))	-0.320561
	(0.63737)
	[-0.50294]
C	0.016158

Based on Table 8, the results of the long-term influence are obtained, namely the TAF variable with a t-count value of -5.3585 > the t-table value of 2.003 (α = 0.05: df = -56) so that there is an influence of the TAF variable on NTP. The NPF variable with a t-count value of -3,523 > a t-table value of 2,003 (α = 0.05 : df = -56) so that there is an influence of the NPF variable on NTP. The BI RATE variable with a t-count value of 0.503 < a t-table value of 2.003 (α = 0.05 : df = -56) so that there is no influence of the BI RATE variable on NTP.

Table 9. Regression Result of Vector Error Correction Model (Short Term Estimation) (Eviews-11,2023)

Error Correction:	D(NTP,2)	D(TAF,2)	D(NPF,2)	D(BIRATE,2)
CointEq1	-0.116651	2.389406	1.431675	-0.010922
	(0.10565)	(0.54695)	(0.38645)	(0.04816)
	[-1.10415]	[4.36862]	[3.70466]	[-0.22680]
D(NTP(-1),2)	-0.450408	-4.165164	-0.789460	0.001124
	(0.21039)	(1.08923)	(0.76961)	(0.09590)
	[-2.14079]	[-3.82395]	[-1.02579]	[0.01172]
D(NTP(-2),2)	-0.526232	-3.101010	-0.128837	-0.220839
	(0.24886)	(1.28836)	(0.91030)	(0.11344)
	[-2.11461]	[-2.40695]	[-0.14153]	[-1.94683]
D(NTP(-3),2)	-0.210487	-4.866304	0.390277	-0.096919
	(0.28372)	(1.46885)	(1.03784)	(0.12933)
	[-0.74188]	[-3.31300]	[0.37605]	[-0.74941]
D(NTP(-4),2)	-0.021003	-2.459537	-0.116272	-0.037666
	(0.25568)	(1.32368)	(0.93527)	(0.11655)
	[-0.08215]	[-1.85810]	[-0.12432]	[-0.32318]
D(NTP(-5),2)	0.076424	-2.767421	-0.003701	0.021486
	(0.21070)	(1.09083)	(0.77074)	(0.09604)
	[0.36271]	[-2.53700]	[-0.00480]	[0.22371]
D(TAF(-1),2)	-0.156648	1.511864	1.763303	-0.016740
	(0.12520)	(0.64818)	(0.45798)	(0.05707)

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	[-1.25117]	[2.33247]	[3.85017]	[-0.29332]
D(TAF(-2),2)	-0.140536	0.889764	1.625426	-0.006793
	(0.10438)	(0.54039)	(0.38182)	(0.04758)
	[-1.34639]	[1.64653]	[4.25707]	[-0.14277]
D(TAF(-3),2)	-0.104337	0.686692	1.303730	-0.018909
	(0.08280)	(0.42866)	(0.30288)	(0.03774)
	[-1.26011]	[1.60193]	[4.30447]	[-0.50100]
D(TAF(-4),2)	-0.061727	0.415814	0.942369	-0.033262
	(0.05746)	(0.29748)	(0.21019)	(0.02619)
	[-1.07424]	[1.39779]	[4.48345]	[-1.26993]
D(TAF(-5),2)	-0.018150	0.199251	0.476634	-0.021800
	(0.02781)	(0.14396)	(0.10172)	(0.01268)
	[-0.65270]	[1.38403]	[4.68575]	[-1.71982]
D(NPF(-1),2)	-0.081015	0.870383	0.064291	-0.010562
	(0.08005)	(0.41445)	(0.29283)	(0.03649)
	[-1.01200]	[2.10010]	[0.21955]	[-0.28945]
D(NPF(-2),2)	-0.067764	0.866473	-0.043336	-0.038351
	(0.06598)	(0.34157)	(0.24134)	(0.03007)
	[-1.02708]	[2.53671]	[-0.17956]	[-1.27519]
D(NPF(-3),2)	-0.040030	0.338684	0.016739	-0.004727
	(0.05742)	(0.29726)	(0.21003)	(0.02617)
	[-0.69717]	[1.13936]	[0.07970]	[-0.18061]
D(NPF(-4),2)	-0.023832	0.419583	-0.297797	-0.015247
	(0.04667)	(0.24164)	(0.17073)	(0.02128)
	[-0.51061]	[1.73643]	[-1.74424]	[-0.71667]
D(NPF(-5),2)	-0.026736	-0.019051	-0.190113	-0.005958
	(0.04168)	(0.21576)	(0.15245)	(0.01900)
	[-0.64151]	[-0.08830]	[-1.24705]	[-0.31363]
D(BIRATE(-1),2)	-0.216773	-2.307301	1.106424	-0.382029
	(0.38797)	(2.00854)	(1.41916)	(0.17685)
	[-0.55874]	[-1.14874]	[0.77963]	[-2.16024]
D(BIRATE(-2),2)	0.096905	-3.206421	0.526194	-0.494536
	(0.42565)	(2.20364)	(1.55701)	(0.19402)
	[0.22766]	[-1.45505]	[0.33795]	[-2.54885]
D(BIRATE(-3),2)	-0.027649	-1.061247	1.413331	-0.140508

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	(0.46148)	(2.38912)	(1.68806)	(0.21035)
	[-0.05992]	[-0.44420]	[0.83725]	[-0.66796]
D(BIRATE(-4),2)	0.110654	0.704587	1.051466	-0.197395
	(0.37180)	(1.92485)	(1.36003)	(0.16948)
	[0.29762]	[0.36605]	[0.77312]	[-1.16473]
D(BIRATE(-5),2)	-0.173042	0.958893	-0.062947	0.069838
	(0.34100)	(1.76539)	(1.24736)	(0.15544)
	[-0.50745]	[0.54316]	[-0.05046]	[0.44930]
C	0.000296	0.004514	0.004164	-5.23E-05
	(0.00933)	(0.04829)	(0.03412)	(0.00425)
	[0.03169]	[0.09348]	[0.12205]	[-0.01229]
R-squared	0.424866	0.880770	0.755203	0.582583
Adj. R-squared	0.035260	0.800002	0.589373	0.299816
Sum sq. resids	0.142736	3.825703	1.909913	0.029658
S.E. equation	0.067856	0.351297	0.248214	0.030931
F-statistic	1.090501	10.90489	4.554076	2.060296
Log likelihood	81.59802	-5.547174	12.86196	123.2369
Akaike AIC	-2.248982	1.039516	0.344832	-3.820261
Schwarz SC	-1.431125	1.857373	1.162689	-3.002404
Mean dependent	0.000717	0.001570	0.000117	0.000000
S.D. dependent	0.069085	0.785529	0.387349	0.036964

Determinant resid covariance (dof adj.)	2.55E-08
Determinant resid covariance	2.98E-09
Log likelihood	219.3926
Akaike information criterion	-4.807270
Schwarz criterion	-1.387140

Based on Table 9, the results of the short-term effect are obtained, namely where all variables have a t-count value < t-table value of 2.003 (α = 0.05: df = -56) so that there is no influence of the TAF, NPF and BI Rate variables on NTP.

7) Impulse Respons

Impulse response function (IRF). This aims to ascertain the response of endogenous variables to specific shocks.

Table 10. Impulse Respons (Eviews-11,2023)

Response of D(NTP): Period	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.067856	0.000000	0.000000	0.000000
2	0.029850	0.000275	0.000714	-0.005094
3	0.006694	0.003460	0.005501	0.003881
4	0.023365	0.008253	0.005672	0.001561

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5	0.029797	0.010338	-0.001851	-0.002300
6	0.025558	0.011543	-0.006080	-0.007929
7	0.014033	0.000425	0.001321	-0.003417
8	0.020428	-0.003898	0.005614	0.004386
9	0.027267	0.007547	0.001869	0.001013
10	0.023349	0.007753	-0.001268	-0.002379
11	0.022116	0.003606	-0.000433	-0.003277
12	0.023546	0.002799	0.000509	-0.001749

Response of D(TAF):

Period	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.013554	0.351036	0.000000	0.000000
2	-0.057370	-0.154259	-0.249822	-0.087280
3	0.026945	-0.044469	0.145512	-0.031470
4	-0.087746	0.073291	-0.054415	0.080436
5	0.100397	-0.002346	-0.010622	-0.005310
6	-0.061676	0.038975	-0.051229	-0.050649
7	0.052966	0.045222	-0.022838	0.006564
8	0.017609	0.067881	-0.040981	-0.042404
9	-0.073388	-0.080950	-0.038117	0.007098
10	0.050071	0.119714	0.054909	0.007925
11	-0.031757	0.023934	-0.116991	-0.021487
12	0.029118	-0.000435	0.001397	-0.027873

Response of D(NPF):

Period	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	-0.057078	-0.051646	0.235976	0.000000
2	0.040197	-0.050176	-0.003530	0.018389
3	0.075108	-0.019390	0.006780	0.002642
4	0.036256	-0.082519	0.034744	0.033396
5	0.031829	-0.062952	0.005102	0.031341
6	0.016824	-0.059019	0.067601	-0.006006
7	0.044955	-0.090290	0.128095	0.019800
8	0.066389	0.076144	0.063456	0.019162
9	0.036201	-0.022486	-0.026894	-0.015980
10	0.030217	-0.065421	0.063262	8.32E-05
11	-0.008726	-0.041479	0.015469	0.027923
12	0.046234	-0.083841	0.063530	0.015758

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Response of D(BIRATE):

Period	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	-0.005514	-0.008185	0.007262	0.028400
2	-0.003998	-0.005773	0.003999	0.017650
3	-0.015455	0.002718	-0.004320	0.007982
4	-0.013385	-0.006641	0.004426	0.012809
5	-0.000923	-0.011029	0.004784	0.011221
6	-0.004604	0.000845	0.004928	0.016144
7	-0.009571	0.001182	0.004339	0.015242
8	-0.010397	-0.006858	-0.001732	0.010828
9	-0.007608	-0.003166	0.002471	0.012853
10	-0.006538	-0.005582	0.003792	0.013928
11	-0.008858	-0.005160	0.003809	0.014214
12	-0.008951	-0.002656	0.003501	0.014028

Cholesky Ordering:
D(NTP)
D(TAF)
D(NPF)
D(BIRATE)

Estimation of the impulse response function is carried out to examine the shock response of the NTP variable to the TAF, NPF, and BI Rate variables. The estimation uses the assumptions that each NTP variable is not correlated with each other so that tracing the effect of a shock can be direct. Table 10 shows the fluctuating responses of TAF, NPF, and BI Rate to NTP.

8) Forecast Error Variance Decomposition (FEVD)

Forecast Error Variance Decomposition (FEVD) aims to predict changes in one variable indicated by changes in the error variance influenced by other variables.

Table 11. Forecast Error Variance Decomposition (FEVD) (Eviews-11,2023)

Variance Decomposition of D(NTP):

Period	S.E.	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.067856	100.0000	0.000000	0.000000	0.000000
2	0.074310	99.51942	0.001369	0.009224	0.469988
3	0.074994	98.50933	0.214212	0.547188	0.729269
4	0.079200	97.02599	1.277873	1.003425	0.692714
5	0.085300	95.84755	2.570481	0.912103	0.669869
6	0.090346	93.44300	3.923835	1.265897	1.367272
7	0.091504	93.44542	3.827339	1.254925	1.472316
8	0.094107	93.05839	3.790110	1.542310	1.609189
9	0.098291	93.00039	4.063924	1.449951	1.485739

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10	0.101359	92.76185	4.406752	1.379145	1.452253
11	0.103859	92.88426	4.317728	1.315284	1.482731
12	0.106547	93.14054	4.171607	1.252036	1.435814

Variance Decomposition of D(TAF):

Period	S.E.	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.351297	0.148859	99.85114	0.000000	0.000000
2	0.469602	1.575769	66.66876	28.30107	3.454405
3	0.495372	1.711958	60.71849	34.06162	3.507933
4	0.517586	4.442187	57.62353	32.30588	5.628402
5	0.527372	7.903027	55.50677	31.15861	5.431591
6	0.537247	8.933098	54.01138	30.93299	6.122529
7	0.542263	9.722651	53.71220	30.54071	6.024430
8	0.549950	9.555282	53.74475	30.24824	6.451722
9	0.562038	10.85364	53.53221	29.42102	6.193130
10	0.579485	10.95650	54.62505	28.57392	5.844522
11	0.592902	10.75313	52.34373	31.18880	5.714337
12	0.594273	10.94367	52.10265	31.04567	5.908005

Variance Decomposition of D(NPF):

Period	S.E.	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.248214	5.287975	4.329353	90.38267	0.000000
2	0.257088	7.373862	7.844817	84.26972	0.511604
3	0.268634	14.57086	7.705958	77.24494	0.478244
4	0.287421	14.31954	14.97431	68.93830	1.767852
5	0.297649	14.49582	18.43597	64.31107	2.757138
6	0.311396	13.53612	20.43640	63.47120	2.556275
7	0.352053	12.22082	22.56632	62.89660	2.316253
8	0.372210	14.11437	24.37326	59.17516	2.337211
9	0.375945	14.76250	24.24905	58.51679	2.471669
10	0.387982	14.46732	25.61102	57.60096	2.320693
11	0.391594	14.25134	26.26274	56.69939	2.786534
12	0.408408	14.38362	28.35911	54.54658	2.710693

Variance Decomposition of D(BIRATE):

Period	S.E.	D(NTP)	D(TAF)	D(NPF)	D(BIRATE)
1	0.030931	3.178257	7.002961	5.512258	84.30652
2	0.036517	3.479002	7.522956	5.154104	83.84394

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3	0.040769	17.16091	6.479992	5.258029	71.10106
4	0.045487	22.44515	7.337112	5.170563	65.04717
5	0.048377	19.87968	11.68446	5.549052	62.88681
6	0.051451	18.37628	10.35710	5.823302	65.44332
7	0.054693	19.32444	9.212232	5.782769	65.68056
8	0.057155	21.00444	9.875410	5.387110	63.73304
9	0.059210	21.22220	9.487471	5.193684	64.09665
10	0.061548	20.76912	9.603167	5.186193	64.44152
11	0.064107	21.05307	9.499503	5.133299	64.31413
12	0.066377	21.45631	9.020943	5.066312	64.45644

Cholesky Ordering:
D(NTP)
D(TAF)
D(NPF)
D(BIRATE)

Based on Table 11, the results show that the higher the period, the fluctuation count for Periods 1 - 12 in the Variance Decomposition (FEVD) calculation. Analysis can be carried out; the TAF variable has a greater influence on the NTP variable and the NPF and BI Rate variables, indicating that the higher the period, the NPF and BI Rate variables tend to have a greater influence on the NTP variable. The TAF variable also shows the greatest influence on NPT compared to the NPF and BI Rate variables.

CONCLUSION

The long-term effects of TAF variables on NTP are determined. However, in the short term, TAF and NTP have no significant impact. Agricultural finance gives farmers the capital they need to increase their production. The funds can purchase seeds, fertilizers, pesticides, equipment, and other agricultural infrastructure. With sufficient capital, farmers can increase their production, income, and bargaining power in the market. This could contribute to an increase in farmers' exchange rates. In addition, agricultural finance can facilitate innovation and technology adoption in the agricultural sector. However, overall agricultural funding is unlikely to impact farmers' exchange rates in the short term significantly. Farmers' exchange rates tend to be affected by market supply and demand, commodity price fluctuations, weather factors, government policies, and general economic conditions in a short time. NPFs themselves may not directly impact farmers' exchange rates in the short term, but there are short-term financial implications associated with NPFs, such as when there are many NPFs. Several factors can give Agricultural financial institutions need to be more cautious. Be careful when giving new money to farmers. This can limit farmers' access to funds required for agricultural activities. In the short term, this access restriction will affect farmers' ability to purchase agricultural inputs such as seeds, fertilizers, and pesticides, which may affect production and yields. Additionally, financial insecurity can arise when farmers struggle to meet their financial obligations. This uncertainty can pressure farmers' finances in the short term, limiting their ability to invest and build better farms. BI rates have a more direct impact on the financial sector than on farmers, but there are several reasons why BI rates affect farmers' exchange rates. For example, as the BI rate increases, we observe the following trends: Bank interest rates rise. There is also above. This may affect interest rates on agricultural finance to farmers. Higher lending rates can increase financing costs for farmers and affect exchange rates. Rising prices can reduce farmers' net income and farm development capacity. Moreover, the increase in BI rates may be aimed at curbing inflation. Higher interest rates could affect borrowing costs in the corporate sector, including agriculture. Farmers may face pressure on profits if rising interest rates raise production costs, affecting farmers' exchange rates. However, these impacts depend on how much higher interest rates increase production costs and how much farmers can retain or transfer these costs. Based on the above conclusions, it can be concluded that Islamic banks' loans to agricultural enterprises have played an essential role in increasing the exchange rate of farmers in West Java. Factors such as the level of funds, non-performing loans, and the Bank of Indonesia interest rate (BI rate) also affect farmers' exchange rates.

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RECOMMENDATION

A. Use field research.

Primary data can be collected by conducting surveys and direct interviews with farmers in West Java. The study can analyze Islamic bank loans for farmers, nonperforming loan interest rates, BI interest rates, and farmers' exchange rates. This provides greater insight into the flow from agricultural finance to farmer exchange rates.

B. Other factors that affect farmers' exchange rate conditions.

Apart from the variables you mentioned, other factors may affect the exchange rate situation farmers in West Java face. For example, environmental factors, government policies, socio-cultural factors, etc. To get a complete picture of the factors influencing farmers' exchange rates, consider including these additional variables in your research.

C. Comparative studies.

Conduct a comparative study of Islamic bank farm loans versus other traditional financial institutions if possible. This will help you understand the advantages and disadvantages of Islamic bank loans in boosting the exchange rate for farmers in West Java.

D. Policy Recommendations.

After analyzing the data and testing the hypotheses, we will make concrete policy recommendations to raise the exchange rate of farmers in West Java through Islamic bank loans to agricultural enterprises. For example, we recommend developing loan products that are better suited to farmers' needs, training and financial education for farmers, and setting more optimal interest rates.

REFERENCES

1. Sugiyono. 2014 Metode Penelitian Pendidikan Pendekatan Kuantitatif,. Kualitatif, dan R&D. Alfabeta.
2. Sugiyono. 2009 Metode Penelitian Kuantitatif, Kualitatif dan R&D. Alfabeta.
3. Bryman, A. and Bell, E. 2019 Business Research Methods. Oxford University Press.
4. Ghozali, I. 2011 Aplikasi Analisis Multivariate dengan Program E-Views 19. Badan Penerbit Universitas Diponegoro.

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