

The Behaviour Rate of Return on Banking Deposit During Covid-19 in Indonesia

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Abstract

The COVID-19 pandemic has generally affected financial performance, including the policy on the rate of return provided by banks. This study aims to analyse the behaviour of bank deposit returns during Covid-19 in Indonesia. Using time-series data for the period February 2020 – September 2021, analysed using the VECM approach, shows a long-term relationship between the returns on Islamic Rural Banks, Islamic commercial banks, rate of interest, and Deposit Insurance Agency (DIA) interest rates. Meanwhile, in the short-term relationship, only the DIA variable is significantly influenced by the DIA variable of the previous period. The study found that the DIA variable was proven to significantly affect the rate of return given by the Islamic Rural Bank and conventional bank deposit rates. This study shows that during the Covid-19 pandemic, banks provided a rate of return on deposits that did not exceed the DIA guarantee interest rate. Therefore, the banking industry and DIA need to mitigate risks during the Covid-19 pandemic, such as lowering the interest rate on deposits and tightening credit evaluations.

Keywords: Rate of return, interest rate, Deposit Insurance Agency, Covid-19, Islamic Banking

INTRODUCTION

The global community has been fighting the Covid-19 pandemic for more than two years. The community has experienced many behavioural changes, including investing in funds. Behaviour, an individual's response or reaction to environmental stimuli (Setiawan, 2022), also occurs in investment decisions during the pandemic. Bank deposits are among the investment instruments most often owned by the public. People who own funds rationally choose banks that provide the highest rate of return on deposits. The rate of return is one of the main factors in customer behaviour in choosing to invest money in banking (Adewuyi & Naim, 2016).

However, crises in the health sector, such as the current Covid-19 pandemic, have impacted banking financial performance (Seto & Septianti, 2021), which also affects the ability of banks to provide returns. The lack of religious and ethical motives causes depositors to require competitive returns, especially compared to market interest rates (Hamza & Saadaoui, 2013; Hussan & Masih,

2014). If the investment return is deemed insufficient, depositors can withdraw their funds at any time, affecting banks' financial performance.

The strategy and policy of bank management to maintain the rate of return on deposits is very important so that customers continue to entrust their funds to the bank. Considering that the largest proportion of banking funds comes from customer funds, it is only natural that management needs to pay close attention to the strategy for returning customer deposits. Even during the covid-19 pandemic, banks have reduced the return ratio, making bank management as optimal as possible to face these challenges (Rolianah et al., 2021). The rate of a return policy can be influenced by many factors, such as banking financial performance, bank deposit interest rates, guarantee rates, and the profit-sharing ratio for Islamic commercial banks (ICB).

Several previous studies have shown different results, where the relationship between deposit interest rates and *mudharabah* deposits at Indonesian Sharia Commercial Banks does not affect each other (Sholikha, 2018; Alfiani et al., 2021). Other studies also reveal that the interest rate does not differ from the rate of return of Islamic Commercial Banks (Relasari & Soediro, 2017). However, Handayani & Riduwan (2020) stated that interest rates have a negative effect on profit sharing on *mudharabah* deposits due to customer beliefs about an interest that is contrary to religion.

Competition between commercial bank interest rates and profit sharing for Islamic commercial banks. The existence of the Deposit Insurance Agency (DIA) also requires the maximum guaranteed deposit interest rate to be a separate consideration. Several priority customers have plenty of funds providing conditions for depositing interest according to the DIA interest rate. The guaranteed interest rate also positively affects the rate of return on bank deposits (Al-Harbi, 2020). The Deposit Insurance Agency (DIA) is important for preventing customer panic by convincing customers about the safety of their deposits, even if the bank's financial condition worsens (Susanto and Masri, 2020). In addition, the Deposit Insurance Agency has two main functions: guaranteeing customer deposits and carrying out settlements or handling if the bank fails to pay. (Aminullah, 2018).

The more competitive the rate of return on deposits offered by banks, the easier it will be to find funds and have more opportunities to maximise income from financing that can be distributed. Several studies have found that customer behaviour in choosing Islamic banks is driven by the factor of obtaining returns (Hamza, 2015; Hamza & Saadaoui, 2013). This means that the more competitive the rate of return offered, the more interested the public is in depositing funds (Yasin, 2021). Conventional and Sharia banks need to pay serious attention to the rate of return offered because a greater rate of return on deposits will attract the public's attention to investing their funds, especially during a pandemic like today. This study was conducted to examine the

relationship between the rate of return on deposits in Islamic Commercial Banks (ICB), the rate of return at the Islamic rural bank (IRB), Deposit Insurance Agency guarantees interest rate (DIA), and conventional bank (CB) deposit rates during Covid-19 in Indonesia. The results of this study can be used as evaluation material for customers and banking practitioners in setting the rate of return policy strategy carried out during the Covid-19 pandemic in Indonesia.

RESEARCH AND METHOD

This study uses a quantitative approach and aims to examine the relationship between four variables: the rate of return on deposits at the ICB, IRB, DIA, and CB. Monthly time-series data from February 2020 to September 2021 were used in this study during the emergence of the Covid-19 pandemic. Data on conventional commercial bank deposit rates and DIA guarantee rates were obtained from Bank Indonesia's website, whereas data on profit sharing for Islamic Commercial Banks and profit sharing for Islamic Rural Banks were obtained from the website of the Financial Services Authority.

The data analysis method used a Vector Error Correction Model (VECM). The VECM was chosen because the time series data held are stationary during data differentiation, and cointegration occurs (Widarjono, 2017). The VECM requires several steps to be performed to obtain a good estimate. Those stages are:

Stationarity Test

The initial stage tests the stationarity of the secondary data owned using the Phillips-Perron (PP) test. This test aims to ensure that the data are stationary and proceed to the analysis/estimation stage. The stationarity test is important to ensure that the regression results are not skewed (Widarjono, 2017).

Optimal Lag Determination

Tests to determine the optimal lag length are required to ensure that the estimated model can be interpreted dynamically, efficiently, and comprehensively. Using a lag that is too long makes the model inefficient in its measurement. However, if the lag is too short, the estimation model cannot be explained dynamically in terms of the measurement. After testing the optimal lag, the AIC, SC, and HQ values suggest a lag of one period in this study.

Stability Test

A stability test was conducted to determine whether the VECM model could use Impulse Response Function (IRF) and Variance Decomposition (VD) forecasting, where IRF and VD forecasting could be performed if the model was in a stable state.

Cointegration Test

The difference between the VECM and VAR models is that, in the VECM model, all variables must have a cointegration relationship. It is done using The Johansen Cointegration Test is performed to determine the cointegration of all variables. Cointegration decision-making by looking at the value of *the trace test* < 5%.

Vector Error Correction Model (VECM)

The VECM is a restricted VAR model, and the variables are restricted to a long-term relationship (cointegration) while considering the dynamics of the short-term relationship. The VECM model is developed by considering the relationship between each variable and whether cointegration occurs. If most of the variables were cointegrated, VECM was used as the model. However, in the absence of cointegration, the VAR model is used.

Forecasting

The VECM model has a forecasting stage using the Impulse Response Function (IRF), Variance Decomposition (VD), and Granger Causality techniques. The IRF estimates how shocks are caused from one variable to another. Using IRF, we can also see how long the effects of the shock will last until it disappears and balance occurs again. The magnitude of the contribution to all variables can be seen in forecasting using VD. Contributions that occur are those from the variable itself, as well as from other variables in each period. The Granger Causality technique was used to determine whether endogenous variables can also play a role as exogenous variables. In other words, these two variables influence each other.

RESULT AND DISCUSSION

Data Stationarity Test

The data stationarity test used the Phillips-Perron (PP) unit root test. The data were considered to have passed the PP test if the probability value of the variable was less than 5%. The results are shown in Table 1, indicating that all research variables are stationary in the first difference.

Table 1. The data stationarity test *In-Level* and *In-First Difference*

No	Variable	t-stat	t-kritis			Prob
			1%	5%	10%	
1	DIA <i>-in level</i>	-2,90675	-4,5326	-3,67362	-3,27736	0,1820
2	CB <i>-in level</i>	-1,835919	-4,5326	-3,67362	-3,27736	0,6469
3	ICB <i>-in level</i>	-3,430983	-4,5326	-3,67362	-3,27736	0,0769
4	IRB <i>-in level</i>	-3,242991	-4,5326	-3,67362	-3,27736	0,1060
5	DIA <i>-in first difference</i>	-4,470053	-4,57156	-3,69081	-3,28691	0,0121
6	CB <i>-in first difference</i>	-4,459725	-4,57156	-3,69081	-3,28691	0,0123

7	ICB <i>-in first difference</i>	-10,69412	-4,57156	-3,69081	-3,28691	0,0000
8	IRB <i>-in first difference</i>	-4,963954	-4,57156	-3,69081	-3,28691	0,0048

Source: Data processed Eviews 10, 2022

Stability Test

The results of the data stability tests are listed in Table 2. As shown in Table 2, the model is stable and passed the stability test. It can be observed from the modulus values that are still below.

Root	Modulus
0,158993	0,727873
0,158993	0,727873
0,254077	0,254077

Source: Data processed Eviews 10, 2022

Cointegration Test

After determining that the variables are not stationary at the level but stationary in the difference through the PP test, a cointegration test is carried out. The test results, as shown in Table 3, show that, based on the trace test value, there is cointegration between the profit-sharing variables for the Islamic Rural Bank (IRB), the profit-sharing for Islamic Commercial Banks (ICB), the interest rate of the deposit insurance agency (DIA), and the deposit interest rate of the conventional bank (CB) at = 5%. Therefore, the test was continued with the VECM.

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0,808536	66,44786	47,85613	0,0004
At most 1 *	0,731949	36,69289	29,79707	0,0069
At most 2	0,505327	12,99448	15,49471	0,1150
At most 3	0,017895	0,325032	3,841466	0,5686

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

Source: Data processed Eviews 10, 2022

Vector Error Correction Model

The VECM model is presented in Table 4, showing a long-term relationship between the four variables (IRB, ICB, CB, and DIA). Using the rule of thumb, the variable will have a significant effect if it has a t-test value exceeding 2; the estimation results show the t-test values of IRB, DIA, and CB of 14.6078, 5.38512, and -6.05168, respectively. In other words, IRB, DIA, and CB affect ICB long-term.

These results mean that every 1% increase in IRB will affect ICB by 0.208% in the long term. An increase in the DIA interest rate of 1% affects ICB by 0.539% in the long term. On the

other hand, the CB variable, which has a negative coefficient, means that every 1% increase in CB affects the decrease in ICB by -0.528%.

Table 4. Vector Error Correction Model

Cointegrating Eq:	CointEq1
ICB(-1)	1.000000
IRB(-1)	0.208266 (0.01426) [14.6078]
DIA(-1)	0.539087 (0.10011) [5.38512]
CB(-1)	-0.528472 (0.08733) [-6.05168]
C	-6.224555

Source: Data processed Eviews 10, 2022

Table 5 shows a short-term relationship between the four variables. The estimation results of the VECM model show that the DIA variable significantly influences the short-term relationship between the DIA variables in the previous period. At the same time, the other variables did not have a short-term relationship. In Table 5, it can also be seen that the largest R-square value is for the IRB variable, which is 0.465345 or 46.53%. This means that the effect of the rate of return given by the IRB in the short-term concerns the ICB in determining the rate of return. Although each has its market share, based on data analysis, the ICB still pays attention to the rate of return the IRB provides.

Table 5. Short-term Relationship VECM

Error Correction:	D(ICB)	D(IRB)	D(DIA)	D(CB)
CointEq1	-0.476968 (0.75165) [-0.63457]	-6.118706 (2.93631) [-2.08381]	1.249135 (0.58161) [2.14772]	-0.236024 (0.25718) [-0.91772]
D(ICB(-1))	-0.169183 (0.50168) [-0.33724]	2.685363 (1.95980) [1.37022]	-0.542218 (0.38819) [-1.39679]	0.073247 (0.17165) [0.42671]
D(IRB(-1))	-0.025359 (0.10607) [-0.23909]	0.652398 (0.41435) [1.57452]	-0.116864 (0.08207) [-1.42392]	0.037428 (0.03629) [1.03132]
D(DIA(-1))	0.103349 (0.50886) [0.20310]	0.056353 (1.98787) [0.02835]	-0.828122 (0.39375) [-2.10318]	0.197831 (0.17411) [1.13623]
D(CB(-1))	-1.081871 (0.86296) [-1.25367]	2.779935 (3.37116) [0.82462]	0.647662 (0.66774) [0.96993]	-0.234248 (0.29527) [-0.79333]
C	-0.166199 (0.12837) [-1.29468]	0.458623 (0.50148) [0.91454]	-0.141351 (0.09933) [-1.42303]	-0.133247 (0.04392) [-3.03363]

R-squared	0.225864	0.465345	0.345334	0.201609
Adj. R-squared	-0.096693	0.242573	0.072557	-0.131055
Sum sq. residues	0.580871	8.864591	0.347791	0.068005
S.E. equation	0.220013	0.859486	0.170243	0.075280
F-statistic	0.700228	2.088880	1.265993	0.606044
S.D. dependent	0.210091	0.987571	0.176777	0.070785

Source: Data processed Eviews 10, 2022

Forecasting Result

In this study, the results of the VECM model were forecasted using IRF, VD, and Granger Causality. The results of IRF are shown in Figure 1. The first line in Figure 1 forecasts the impact of shocks on the IRB variable, the IRB variable itself, and other variables. The first line shows that in the early period, IRB tends to increase until the second period of the trend, except for the IRB response to DIA, which shows a decline at the beginning of the period. The increase in the initial period could have occurred because banks did not feel the impact of the Covid-19 pandemic at the beginning of the emergence period. This trend fluctuated only after the third period. In contrast to the impact of IRB on DIA, which responded to a downward trend at the beginning of the period, DIA, as a Deposit Insurance Agency for customers, responded earlier to the possible impact of the health crisis due to the Covid-19 pandemic.

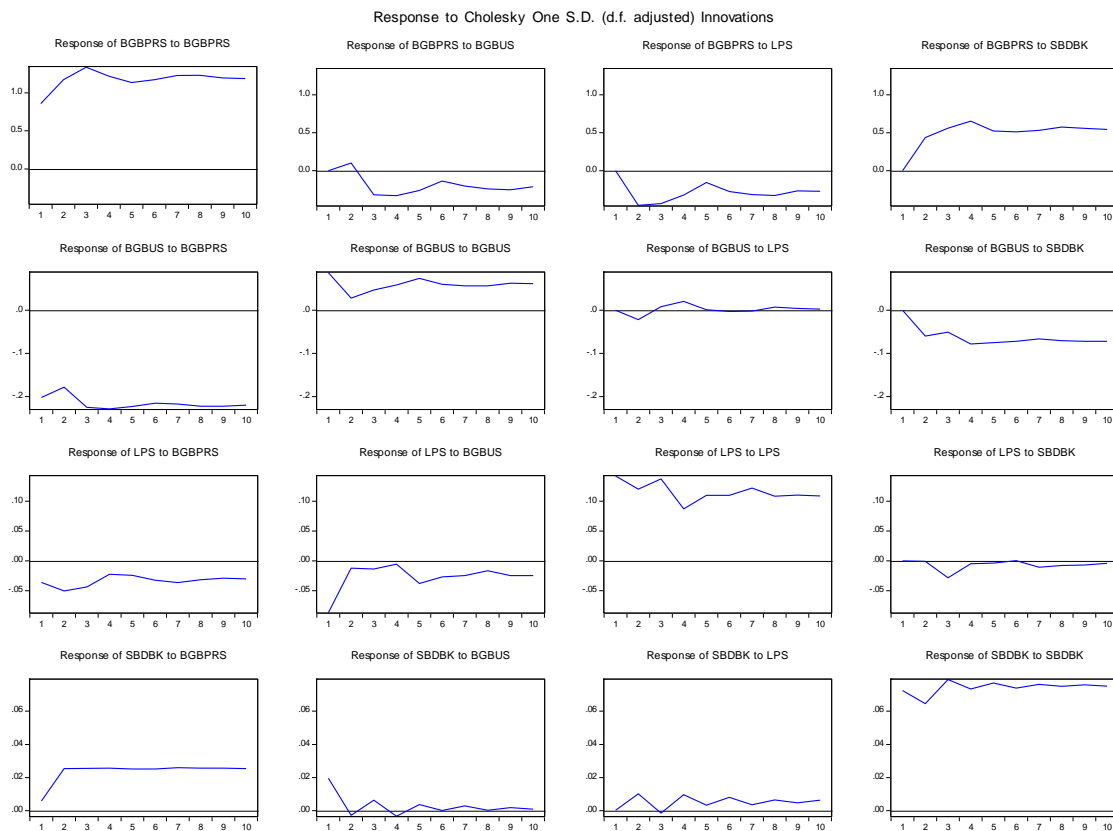


Figure 1. Impulse Response Result

The second line in Figure 1 shows the forecasting of the impact of shocks on the ICB variable, the ICB variable itself, and other variables. The second line shows that in the initial period, the ICB tended to decline until the second period. The decline in this initial period was the ICB's response to the Covid-19 pandemic as an anticipatory measure at the beginning. After the fourth period, this trend stabilised. Interestingly, the ICB response to the DIA tends to be stable, indicating that the profit-sharing set by Islamic Commercial Banks follows or is equivalent to the guaranteed interest rate set by the DIA during the pandemic.

Furthermore, in the third row of Figure 1, it can be seen that the impact of shocks caused by the determination of the DIA interest rate on other variables, although quite volatile, is still below the limit for setting the DIA interest rate. This means that during the Covid-19 pandemic, all banks were careful in determining the rate of return on their deposits to avoid exceeding the DIA interest rate set. The goal is for customers to still feel safe and secure with the funds deposited at the bank.

Finally, in Figure 1, the fourth row shows the response of conventional commercial bank interest rate shocks to other variables. The results show that the response of the CB variable to other variables is volatile in each period, except for the IRB variable. The fluctuating rate of return shows that the CB pays attention to external conditions, especially the profit-sharing applied by the ICB and DIA guarantee interest rate. In contrast, the IRB variable shows an uptrend response at the beginning of the period and remains constant until the end. This means that CB does not pay much attention to the IRB variable.

Table 6. Variance Decomposition of ICB

Period	S.E.	IRB	ICB	DIA	CB
1	0.220013	84.43733	15.56267	0.000000	0.000000
2	0.291460	85.39420	9.778261	0.572003	4.255531
3	0.374506	87.75233	7.450728	0.392528	4.404419
4	0.449919	86.60676	6.840635	0.476367	6.076235
5	0.512841	85.51487	7.302502	0.366816	6.815815
6	0.563919	85.26838	7.156852	0.306236	7.268529
7	0.610542	85.41242	6.942923	0.262489	7.382169
8	0.655889	85.46409	6.747691	0.237877	7.550344
9	0.698988	85.34501	6.734471	0.212784	7.707731
10	0.738856	85.24219	6.713017	0.191326	7.853469

Source: Data processed Eviews 10, 2022

The next forecast can be seen from the Variance Decomposition results, as shown in Tables 6, 7, 8, and 9. Table 6 shows that the first period of the ICB contributed only 15.56% to the rate of return on ICB deposits. In comparison, the variance component of the IRB variable affected ICB variance by 84.43%. The DIA and CB variance components did not affect the ICB variance. In the second period, the contribution of ICB fell to 9.77%, while IRB increased by 85.39%, DIA

by 0.57%, and CB by 4.25%. Changes in the value of this contribution continued to shift until the tenth period of the ICB, as shown in Table 6.

Table 7 shows that the first period of IRB contributed 100% to the rate of return on deposits of the IRB itself, whereas other variables did not contribute. In the second period, the contribution of IRB was 83.73%, ICB was 0.40%, DIA was 8.33%, and CB was 7.52%. Changes in the value of this contribution continued to shift until the tenth period of the IRB, as shown in Table 7.

Table 7. Variance Decomposition of IRB

Period	S.E.	IRB	ICB	DIA	CB
1	0.859486	100.0000	0.000000	0.000000	0.000000
2	1.588235	83.73601	0.403609	8.334065	7.526311
3	2.217828	79.39816	2.254339	8.096901	10.25060
4	2.653807	76.57030	3.110645	7.131369	13.18769
5	2.948904	76.80677	3.292782	6.061384	13.83907
6	3.228907	77.24305	2.924251	5.775020	14.05768
7	3.514798	77.38750	2.800526	5.673003	14.13898
8	3.789628	77.09780	2.812577	5.625152	14.46447
9	4.029729	77.01036	2.879275	5.406951	14.70342
10	4.250360	77.04648	2.834493	5.266050	14.85297

Source: Data processed Eviews 10, 2022

Table 8 shows that the DIA variance in the first period contributed 69.48%, whereas the variance components of the IRB and ICB variables affected the DIA variance by 4.55% and 25.95%, respectively. In contrast, the CB variance component did not affect the DIA variance. In the second period, DIA contribution rose to 74.93%, IRB rose by 8.41%, and ICB rose by 16.64%. Changes in the value of this contribution continued to shift until the tenth period of the DIA, as shown in Table 8.

Table 8. Variance Decomposition of DIA

Period	S.E.	IRB	ICB	DIA	CB
1	0.170243	4.559418	25.95406	69.48652	0.000000
2	0.214655	8.416335	16.64816	74.93373	0.001772
3	0.260522	8.563780	11.57460	78.65815	1.203473
4	0.275618	8.313080	10.38452	80.19688	1.105527
5	0.300124	7.674414	10.36494	81.01316	0.947482
6	0.322305	7.668919	9.694696	81.81479	0.821594
7	0.347571	7.700879	8.847123	82.65114	0.800856
8	0.365915	7.701154	8.191761	83.33869	0.768394
9	0.384120	7.572736	7.851872	83.84320	0.732195
10	0.401175	7.509773	7.583766	84.22448	0.681980

Source: Data processed Eviews 10, 2022

Table 9 shows that the CB variance for the first period contributed 92.63%, whereas the variance components of the IRB, ICB, and DIA variables affected the CB variance by 0.599%, 6.76%, and 0.001%, respectively. In the second period, the contribution of CB decreased to

88.87%, IRB increased by 6.43%, ICB decreased to 3.69%, and DIA increased by 0.99%. The change in the value of this contribution continued to shift until the tenth period of the CB, as shown in Table 9.

Table 9. Variance Decomposition of CB

Period	S.E.	IRB	ICB	DIA	CB
1	0.075280	0.599143	6.760089	0.001245	92.63952
2	0.102913	6.437039	3.692375	0.993554	88.87703
3	0.132406	7.601820	2.457191	0.612182	89.32881
4	0.153891	8.402816	1.862852	0.844758	88.88957
5	0.173996	8.666369	1.503643	0.696964	89.13302
6	0.190874	8.941209	1.249580	0.759106	89.05011
7	0.207200	9.159588	1.080074	0.673741	89.08660
8	0.221964	9.325048	0.941301	0.672625	89.06103
9	0.236063	9.426797	0.838198	0.636262	89.09874
10	0.249106	9.508532	0.754237	0.636338	89.10089

Source: Data processed Eviews 10, 2022

Furthermore, a Granger causality test was performed, as shown in Table 10. The results show that a causal relationship occurs in the DIA variable that affects IRB with a probability value of 0.031%, CB affects IRB with a probability value of 0.063%, CB affects ICB with a probability value of 0.018%, and DIA affects CB with a probability value of 0.015%

Table 10. Hasil Uji Granger Causality

Null Hypothesis:	Obs	F-Statistic	Prob.
ICB does not Granger Cause IRB	18	2.00639	0.1740
IRB does not Granger Cause ICB		0.46889	0.6359
DIA does not Granger Cause IRB	18	4.54875	0.0318
IRB does not Granger Cause DIA		0.07214	0.9308
CB does not Granger Cause IRB	18	3.44305	0.0631
IRB does not Granger Cause CB		1.28897	0.3085
DIA does not Granger Cause ICB	18	2.29205	0.1404
ICB does not Granger Cause DIA		1.00452	0.3930
CB does not Granger Cause ICB	18	5.54763	0.0181
ICB does not Granger Cause CB		0.58286	0.5722
CB does not Granger Cause DIA	18	1.39914	0.2816
DIA does not Granger Cause CB		5.88897	0.0151

Source: Data processed Eviews 10, 2022

DISCUSSION

The estimation results of the VECM model show that the DIA variable significantly influences the short-term relationship between the DIA variables in the previous period. The results of this study are supported by previous research that states that the guaranteed interest rate positively affects the rate of return on bank deposits (Al-Harbi, 2020). The existence of rules regarding the maximum limit of interest rates that DIA can guarantee can prevent customer panic

and provide customers with confidence in the safety of deposits, even though the bank's financial condition is not as good as it is today.

Furthermore, the impulse response function (IRF) shows that the response of IRB to shocks from DIA has a downward trend at the beginning of the period. In other words, the IRB strives to remain compliant with the DIA-guaranteed rate of return. As a customer Deposit Insurance Corporation, DIA responded early to the possible impact of the health crisis due to the Covid-19 pandemic by lowering the guaranteed interest rate. These results follow Al-Harbi (2020), who states that the guaranteed interest rate positively affects the rate of return on bank deposits. When a bank's financial condition worsens, such as when a crisis occurs, DIA becomes important to prevent customer panic by convincing customers about the safety of their deposits (Susanto and Masri, 2020).

The IRF results also show that the impact of shocks caused by the determination of the DIA interest rate on the banking return rate during the Covid-19 crisis was quite volatile but still below the limit for setting the DIA to guarantee an interest rate. This shows that during the Covid-19 pandemic, all banks were careful in determining the rate of return on their deposits to avoid exceeding the DIA interest rate set. The goal is for customers to still feel safe and secure with the funds deposited at the bank.

Forecasting using Variance Decomposition showed various patterns for each of the variables studied. One period shows an increase, but the next period again shows a decline. These results confirm Wirawan's (2016) research, which states that a positive correlation exists between the rate of return on *Mudharabah* Deposits for Islamic Commercial Banks (ICB). Ferdiansyah et al. (2015) state that the greater the profit-sharing given to customers, the greater the number of funds raised by Islamic banks. Furthermore, if the profit-sharing given to customers decreases, the funds raised by Islamic banks will decrease.

Furthermore, the CB's contribution value change continues to shift until the tenth period, because conventional bank interest rates significantly affect the profit-sharing margin variable for Islamic banking *Murabaha* deposits in Indonesia. These results support Affandi's (2016) finding that when the variable interest rates for conventional banks increase, the percentage of the variable margin for profit-sharing on Islamic banking *muarabah* deposits in Indonesia will increase.

This study finds a causal relationship between DIA variables that affect the rate of profit sharing in IRB and conventional bank deposit rates. Thus, Law No. 24 of 2004 concerning the Deposit Insurance Agency stipulates that all banks in Indonesia must guarantee their customers' deposits at the Deposit Insurance Corporation, including the IRB. During the Covid-19 pandemic, IRB and conventional banks were proven to be careful in determining their yields following DIA

regulations. The DIA's call for banks to pay more attention to the provisions on deposit insurance interest rates in the context of raising funds is enough to be considered by bankers.

Other results also show a causal relationship between the CB variables affecting IRB and ICB. Macroeconomic factors equally affect deposit rates in conventional banks and profit-sharing on deposits from the IRB and ICB. Research proves that during the Covid-19 pandemic, conventional bank deposit interest rates positively correlate with Islamic bank deposit profit sharing. Each bank strives to maintain customer trust by providing competitive and safe returns.

CONCLUSION

This study showed that during the Covid-19 pandemic, there was a long-term relationship between the rate of return on deposits provided by Islamic commercial banks, Islamic rural banks, DIA interest rates, and conventional bank rates. Meanwhile, in the short-term relationship, only the DIA variable is significantly influenced by the DIA variable of the previous period. By contrast, the other variables do not have a short-term relationship. The DIA, which responded to the downward trend at the beginning of the period, showed that the DIA, as the Deposit Insurance Agency for customers, responded earlier to the possible impact of the health crisis due to the Covid-19 pandemic.

The causality test shows that the DIA variable significantly affects the yields given by the IRB and conventional bank deposit rates, with probability values of 0.031% and 0.015%, respectively. Conventional bank deposit rates also significantly affect profit-sharing provided by IRB and ICB, with probability values of 0.063% and 0.018%, respectively. The DIA guaranteed interest rate variance in the first period contributed 69.48%, while the variance components of the IRB, ICB, and CB variables affected the DIA variance by 4.55%, 25.95%, and 0%, respectively. The contribution value from the first period to the following periods decreased for this variable, whereas the contribution of the other variables tended to increase in the next period.

These results indicate that during the Covid-19 pandemic, all banks were careful in determining the rate of return on their deposits to avoid exceeding the stipulated DIA interest rate. When there is an increase or decrease in one of the variables, policies must be implemented by the banking industry and DIA in anticipation of problems that have arisen, especially since the pandemic. Further research can complement the results of this study by comparing the behaviour of returns before and after the Covid-19 crisis.

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