# Do Macroeconomic Variables Affect Deposits in Shariah Banks?

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## Abstract

Banks are intermediary institutions that collect funds from the public and channel them back in the form of credit and the funds collected are third party funds (TPF) which are the largest source of funds relied on by banks, including sharia banking. The challenge of sharia banking is to expand market share. Currently in Indonesia the banking market share is dominated by conventional banking. Increasing market share will increase savings in sharia banking and strengthen sharia banking as an intermediation institution. The research aims to identify the influence of macroeconomic variables on deposits in sharia banking. The research uses time-series data 2012: Q1 - 2022: Q1 and the ARDL method to estimate the short- and long-term influence of macroeconomic variables on TPF. The research results show that there are two variables that influence the short and long term, namely the GDP variable and the exchange rate. Meanwhile, inflation and interest rate variables only have an effect in the short term. The implications of the research show that increasing economic growth must be followed by increasing people's income and the stability of the rupiah exchange rate will increase people's deposits or savings in sharia banking.

Keywords: TPF, GDP, inflation, interest rates, exchange rate

#### Introduction

Generally, banks are institutions that carry out three main activities, namely collecting funds from the public, distributing them in the form of credit and providing money transfer services.<sup>1</sup> Banks play an important role in the economy because they can facilitate domestic and global trade.<sup>2</sup> This also applies to Islamic banks. Sharia banks were formed to protect Islamic communities from business activities prohibited by Islam, for example receiving profits in the form of interest rate.<sup>3</sup> This can be seen in the banking industry which runs its business based on sharia law.<sup>4</sup> Several factors in the growth of Islamic banks can be caused by internal and external factors. The development of Islamic banks also plays an important role in the financial system, several microeconomic and macroeconomic factors can influence the development of Islamic banks, for the macroeconomic factors can influence sharia banking, such

<sup>&</sup>lt;sup>1</sup> Rahmat Ilyas, "Manajemen Permodalan Bank Syariah," *BISNIS: Jurnal Bisnis dan Manajemen Islam*, Vol. 5, No. 2, (2017), p. 323.

<sup>&</sup>lt;sup>2</sup> M. R Marcu, "The Impact of the Covid-19 Pandemic on the Banking Sector," *Management Dynamics in the Knowledge Economy*, Vol. 9, No. 2 (2021), p. 205.

<sup>&</sup>lt;sup>3</sup> Putri Herma Syasya, *et. al.*, "Pengaruh Jumlah Kantor, Inflasi, Nilai Tukar, Suku Bunga, dan PDB terhadap DPK pada Bank Umum Syariah di Indonesia Periode 2017-2022", Vol. 2, No. 1, (2023), p. 94.

<sup>&</sup>lt;sup>4</sup> Choiriyah Choiriyah, Saprida, and Emilia Sari, "Development of Sharia Banking System in Indonesia," *Mizan: Journal of Islamic Law*, Vol. 5, No. 1, (2021), p. 17.

as economic growth<sup>5;6</sup>, inflation<sup>7</sup> and exchange rate.<sup>8</sup>

Banks are intermediary institutions that collect funds from the public and channel them back in the form of credit so that the funds collected are third party funds (TPF) which are the largest source of funds relied on by banks.<sup>9</sup> Apart from that, TPF aims to make a profit, keep risks low, and maintain public trust while protecting the bank's liquidity position. If deposits decrease, it can affect the costs distributed by the bank. Banks are greatly influenced by their ability to collect funds from the public.<sup>10</sup> Figure 1 shows a significant increase in the growth of third party funds in sharia banking, where in 2012-2022 there is always an increase, namely 429.029 billion. This increase can be caused by economic conditions which in the last 10 years have experienced conditions of high uncertainty so that putting money in banking is safer than using it in the form of consumption or speculation.<sup>11</sup>

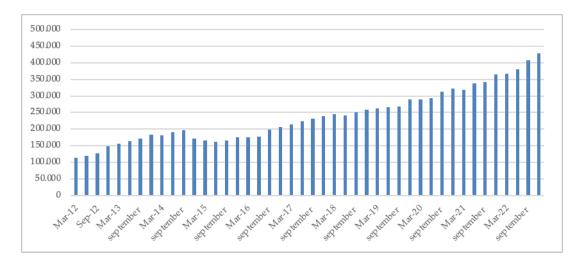


Figure 1. Third Party Funds in Shariah Banks (2012:Q1 - 2022:Q1) Source: www.ojk.go.id

TPF plays an important role in banking activities, according to Suyatno<sup>12</sup> stating that TPF is needed by banks to carry out operational banking activities.<sup>13</sup>

<sup>&</sup>lt;sup>5</sup> S. M Anwar, J Junaidi, S Salju, R Wicaksono, and M Mispiyanti, "Islamic Bank Contribution to Indonesian Economic Growth," *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 13, No. 3, (2020).

<sup>&</sup>lt;sup>6</sup> Irawati Junaeni, Dian Kurniawati, Ridarmelli, and Muhammad Iqbal, "Efforts to Increase the Growth of Islamic Bank Financing by Deversifying the Right Financing Types," *International Journal of Professional Business Review*, Vol. 8, No. 4, (2023).

<sup>&</sup>lt;sup>7</sup> N. D Nastiti and R. A Kasri, "The Role of Banking Regulation in the Development of Islamic Banking Financing in Indonesia," *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 12, No. 5, (2019), p. 643–62.

<sup>&</sup>lt;sup>8</sup> M Hafizh, N Hidayah, and P. R Silalahi, "Macroeconomics and Profit Sharing Financing in Islamic Banking in Indonesia: The Third Parties Fund as Intervening," *Jurnal Akuntansi dan Keuangan Islam*, Vol. 8, No. 2, (2020), p. 131–47.

<sup>&</sup>lt;sup>9</sup> Lukman Dendawijaya, Manajemen Perbankan (Jakarta: Ghalia Indonesia, 2009).

<sup>&</sup>lt;sup>10</sup> Iqbal Firdausi, "Analisis Pengaruh Kinerja Perbankan terhadap Dana Pihak Ketiga Bank Persero," Jurnal Keuangan dan Perbankan, Vol. 20, No. 3, (2016), p. 487–95.

<sup>&</sup>lt;sup>11</sup> Mahrus Lutfi Adi Kurniawan, Indanazulfa Qurrota A'yun, and Winny Perwithosuci, "Money Demand in Indonesia: Does Economic Uncertainty Matter?," *Jurnal Ekonomi dan Studi Pembangunan*, Vol. 23, No. 2, (2022), p. 231–44.

<sup>&</sup>lt;sup>12</sup> Thomas Suyatno, Kelembagaan Perbankan (Jakarta: PT. Gramedia Pustaka, 2007).

<sup>&</sup>lt;sup>13</sup> Kasmir, Analisis Laporan Keuangan (Jakarta: Rajawali Pers, 2012).

Stated that TPF can be used as a measure of banking success in carrying out its operations.<sup>14</sup> States that 80-90 percent of banking funding sources come from TPF, it can be concluded that TPF is the main source of funding for a bank. The success of a bank in increasing its deposits also shows the competition of a bank in collecting funds from the public.<sup>15</sup> The challenge for Islamic banking is to expand market share. If the market share is wider, then TPF will increase, thereby increasing the bank's ability as an intermediation institution. Currently the banking market share in Indonesia is dominated by conventional banking, however there has been quite significant market share growth in sharia banking. Important macroeconomic variables are applied to identify the link between macroeconomic variables and financial performance<sup>16</sup> this case TPF, according to Kapinos and Mitnik<sup>17</sup> as a top-down approach to stress-testing in banking, according to Areghan<sup>18</sup> as the connection and transmission of macroeconomic variables to banking, according to Gadou<sup>19</sup> as identification of banking performance risks from external factors, Widodo and Kurniawan<sup>20</sup> as sensitivity to external influences on banking performance.

The collection of fund plays important role as capital for bank. The number of depositor funds affect the distribution of lending from banks.<sup>21</sup> States that external and internal factors affect to depositor of funds, the external factor variables used the BI rate has negative effect to depositors, means that increase on interest rate will reduce the number of depositors to BPRS in Indonesia.<sup>22</sup> Argue that performance of depositor fund in the operation of banks has negative proficiency and Islamic bank has weaknesses to improve the ratio of productivity for depositor funds.<sup>23</sup> Highlighted that spin-off between conventional and shariah bank has positive affect on growth of third party funds in Indonesia.<sup>24</sup> States that liquidity has negative effect to growth of deposit, it means that excess liquidity, diminishes investor's confidence

<sup>&</sup>lt;sup>14</sup> Lukman Dendawijaya, Manajemen Perbankan (Jakarta: Ghalia Indonesia, 2009).

<sup>&</sup>lt;sup>15</sup> Jaenal Effendi and Nurkholis Yasmin, "The Effect of Internal and External Factors of Banking to the SMEs Financing for BPRS in Indonesia," *Jurnal Keuangan dan Perbankan*, Vol. 21, No. 3, (2017), p. 498–514.

<sup>&</sup>lt;sup>16</sup> Isibor Areghan Akhanolu, *et. al.*, "The Impact of Credit Risk Management and Macroeconomic Variables on Bank Performance in Nigeria," *WSEAS Transaction on Business and Economics*, 17, (2020), p. 947–55.

<sup>&</sup>lt;sup>17</sup> Pavel Kapinos, and Oscar A Mitnik, "A Top-down Approach to Stress-Testing Banks," *Journal of Financial Services Research*, Vol. 49, No. 2–3, (2016).

<sup>&</sup>lt;sup>18</sup> Areghan, "The Impact of Credit Risk Management..."

<sup>&</sup>lt;sup>19</sup> Lamnya M A. Gadou, "Banking Risk in Selected MENA Countries," International Journal of Innovative Research and Scientific Studies, Vol. 5, No. 4, (2022).

<sup>&</sup>lt;sup>20</sup> Arief Widodo, and Mahrus Lutfi Adi Kurniawan, "Comparing Credit Procyclicality in Conventional and Islamic Rural Bank: Evidence from Indonesia," *Al-Tijary: Jurnal Ekonomi dan Bisnis Islam*, Vol. 3, No. 1, (2018).

<sup>&</sup>lt;sup>21</sup> Evi Grediani, Nanik Niandari, and Rahmawati Y Hanny, "Empirical Analysis of Depositor Funds Determinants in BPRS in Indonesia," *International Journal of Business Management and Economic Research (IJBMER)*, Vol. 9, No. 4, (2018), p. 1327–34.

<sup>&</sup>lt;sup>22</sup> Sayakhmad Olimov, Abdul Hamid, and Muhammad Arief Mufraini, "Performance of Depositor Fund: A Lesson from Indonesian Islamic Banking System," *Etikonomi Jurnal Ekonomi*, Vol. 16, No. 1, (2017), p. 53–70.

<sup>&</sup>lt;sup>23</sup> M Nur Rianto Al Arif, "Spin-off and Its Impact on the Third Party Funds of Indonesian Islamic Banking Industry," *Economic Journal of Emerging Markets*, Vol. 6, No. 1, (2014), p. 50–55.

<sup>&</sup>lt;sup>24</sup> Mulatu Fekadu Zerihun, "Internal Determinants of Bank Deposit Flows under Different Market Conditions in Ghana," *Banks and Bank Systems*, Vol. 19, No. 1, (2024), p. 221–30.

in a bank ability to gain more revenue to enhance more funds from depositors.<sup>25</sup> States external factors (inflation, GDP, interest rate) insignificant to third party funds in Sharia banks and the study conclude that macroeconomic factors not the most determined to third party funds than internal factors in line study from Ferdiansyah<sup>26</sup> that rate of profit sharing BPRS has the affect to third party funds than interest rate.

Research on sharia banking has been widely developed by previous researchers, but there is still little research that focuses on TPF. Study from Mumtazah<sup>27</sup> analyzed TPF using microeconomic variables with a panel data approach. The research results showed that profit sharing and bonuses had a positive effect on increasing TPF in sharia banking. Microeconomic variables on banking performance were also applied by Firdausi<sup>28</sup> with a regression approach. The research results showed that capital adequacy (CAR), banking operational costs (BOPO), banking assets (ROA) and the ratio of the amount of funds distributed to the public (LDR) had an influence. positive towards TPF in sharia banking in Indonesia, this shows that banking financial performance also plays an important role in increasing funds collected through third party banking. Another research fromPrasetya<sup>29</sup> analyzed sharia banking deposits using macroeconomic variables. The results of research using a multiple regression approach showed that Bank Indonesia interest rates had an effect on deposits in sharia banking in Indonesia. The novelty of this study is to estimate short and long term macroeconomic variables and analyze the balance in the long term of macroeconomic variables on TPF in Islamic banking in Indonesia. The research contribution to the literature is the application of time-series data and the application of dynamic time-series models to the TPF model in Islamic banking in Indonesia.

### Methodology

This research uses Indonesian quarterly data regarding GDP, inflation, interest rates and the rupiah exchange rate against sharia bank deposits. With the data used, namely from 2012: Q1 - 2022: Q4. The data used in the model is obtained from relevant or official sources such as the Financial Services Authority (OJK), Bank Indonesia (BI), and the Central Statistics Agency (BPS). This research applies the ARDL model which uses the basic equation from Widodo and Kurniawan<sup>30</sup> as follows:

<sup>&</sup>lt;sup>25</sup> Diyas Indiastary, Noven Suprayogi, and Imam Wahyudi Indrawan, "A Meta-Analysis of the Determinant of Third Party Fund on Islamic Banking in Indonesia," *JEBIS: Jurnal Ekonomi dan Bisnis Islam*, Vol. 6, No. 2, (2020), p. 175–88.

<sup>&</sup>lt;sup>26</sup> Ferdiansyah, Nurazlina, and Eka Hariyani, "Pengaruh Rate Bagi Hasil dan BI Rate terhadap Dana Pihak Ketiga Perbankan Syariah (Studi pada Bank Pembiayaan Rakyat Syariah yang Terdaftar di Bank Indonesia)," *Jurnal Online Mahasiswa Fakultas Ekonomi*, Vol. 2, No. 1, (2015), p. 1–12.

<sup>&</sup>lt;sup>27</sup> Wardati Mumtazah and Dina Fitrisia Septiarini, "Analisis Faktor-Faktor yang Mempengaruhi Jumlah Dana Pihak Ketiga pada Bank Umum Syariah di Indonesia (Periode Triwulan I 2010 - Triwulan I 2015)," Jurnal Ekonomi Syariah Teori dan Terapan, Vol. 3, No. 10, (2016).

<sup>&</sup>lt;sup>28</sup> Firdausi (2016)

<sup>&</sup>lt;sup>29</sup> Bambang Prasetya, Syamsurijal Tan, and Arman Delis, "Faktor-Faktor yang Mempengaruhi Penghimpunan Dana Pihak Ketiga Perbankan Syariah di Indonesia," *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, Vol. 3, No. 2, (2015).

<sup>&</sup>lt;sup>30</sup> Widodo and Kurniawan, "Comparing Credit Procyclicality in Conventional...".

$$\Delta LnDPK_{t} = a_{0} + \sum_{i=1}^{n1} a_{1} \operatorname{LnTPF}_{t-1} + \sum_{i=1}^{n1} a_{2} \operatorname{LnGDP}_{t-1} + \sum_{i=1}^{n1} a_{3} \operatorname{INF}_{t-1} + \sum_{i=1}^{n1} a_{4} \operatorname{r}_{t-1} + \sum_{i=1}^{n1} a_{5} \operatorname{LnER}_{t-1} + \delta_{1} \operatorname{LnTPF}_{t-1} + \delta_{2} \operatorname{LnGDP}_{t-1} + \delta_{3} \operatorname{INF}_{t-1} + \delta_{4} \operatorname{r}_{t-1} + \delta_{5} \operatorname{LnER}_{t-1} + \mu_{t}$$

Where TPF is third party funds from sharia banks, GDP is gross domestic product, INF is inflation, r is the interest rate, and ER is the rupiah exchange rate and Ln is the logarithmic function in the model. Notation  $(a_1 - a_5)$  is a short-term estimate in the ARDL model and the notation  $(\delta_1 - \delta_5)$  is for long-term estimation in the ARDL model. According to Pesaran<sup>31</sup> the ARDL model applies a cointegration test using the Bound test approach. The cointegration test is applied to test the balance of long-term estimates of the ARDL model. The conclusion of the cointegration test is based on the results of the f-calculation test on the model which must be greater than the upper and lower limits of the model. There are several advantages using ARDL<sup>32</sup> states that ARDL model can analyze the short and long run estimation for the wariables used in the study. The aims of the ARDL used in this study to bridge the gap between all previous studies focusing on TPF and analyze the short-run and long-run for the macoreconomic variables on TPF.

#### **Result and Discussion**

This research applies the augmented dickey-fuller (ADF) and Philips-Perron (PP) approaches as unit root tests to identify whether time series data has a constant or non-constant variance value. The unit root test applies two equations between trend and no trend. Table 1 shows that at the ADF approach level there are no stationary variables, whereas for the PP level there are two stationary variables in the form I(0), namely gross domestic product (GDP) and the rupiah exchange rate (ER). At the first difference level in the form I(1), both in the trend equations of the ADF and PP approaches show one variable that is not stationary, namely the interest rate (TSB), but in the no-trend equation all the variables used in the model are stationary, so it can be concluded that all stationary variable in I(1). This research does not use the unit root test in the form I(2) because it can produce false regressions.<sup>34</sup> The next step is to test the cointegration bound test approach on the model.

<sup>&</sup>lt;sup>31</sup> M. Hashem Pesaran, Yongcheol Shin and Richard J. Smith, "Bounds Testing Approaches to the Analysis of Level Relationships," *Journal of Applied Econometrics*, Vol. 16, No. 3, (2001).

<sup>&</sup>lt;sup>32</sup> Chenny Seftarita, et. al., "Fiscal and Monetary Policy, Trade Openness, and Its Impact on Indonesian Exchange Rate," in 2020 International Conference on Decision Aid Sciences and Application, DASA 2020, (2020), p. 1064–67.

<sup>&</sup>lt;sup>33</sup> Pesaran, Shin, and Smith, "Bounds Testing Approaches...".

<sup>&</sup>lt;sup>34</sup> Mahrus Lutfi Adi Kurniawan and Uswatun Khasanah, "Determinant of Property Price through the Monetary Variables: An ARDL Approach," *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi dan Pembangunan*, Vol. 24, No. 1, (2023), p. 12–23.

	Tuber	1. Stationer	y iest	
X7	ADF		PP	
Variable	Trend	No Trend	Trend	No Trend
	Level			
LnTPF	-2,146	-0,718	-2,595	-0,770
LnGDP	-1,530	-1,105	-3,475*	-1,775
INF	-2,378	-1,957	-2,511	-1,981
R	-2,736	-1,797	-2,061	-1,492
LnER	-2,708	-2,321	-2,504	-3,080**
	First Difference			
LnTPF	-6.995***	-5.212***	-5.189***	-5.251***
LnGDP	-10.613***	-10.626***	-9.030***	-9.180***
INF	-8.289***	-8.352***	-8.184***	-8.243***
R	-3.324	-3.416**	-3.383	-3.479**
LNER	-8.704***	-8.551***	-10.243***	-8.787***

**Tabel 1. Stationery Test** 

Source: Data Processed

The bound approach cointegration test is used to estimate the long term. The model of macroeconomic variables such as GDP, inflation, interest rates and the Rupiah exchange rate on sharia banking deposits uses the Schwarz-Bayesian Criterion (SBC) approach to obtain the optimal lag in the model. The optimum lag results in the model are (1,4,5,4,6). Table 2 shows that the calculated f value is greater than the critical value for both the lower and upper limits, which means that there is cointegration between the variables used in the model.

	Tabel 2. Doulid Test for Contegration					
<b>F-Statistics</b>	%	Lower bound I(0)	Upper bound I(1)			
	Distributed lag (1,4,5,4,6)					
	10%	2.2	3.09			
5.200***	5%	2.56	3.49			
5.200***	2.5%	2.88	3.87			
	1%	3.29	4.37			

Tabel 2. Bound Test for Cointegration

Source: Data Processed

Table 3 shows that the coefficient value is negative (-0.213) for the error correction term (ECT) and has a probability below 5 percent, which indicates that if there is an error in the short term, the model will be corrected and regain long-term balance, taking 2.1 quarters. The ARDL estimation results show that the GDP variable has a positive effect in both the short and long term. This shows that an increase in the GDP variable of 1 percent will increase TPF in sharia banking by 2.7 percent in the short term and 8.5 percent in the long term. The GDP variable can be used as a proxy for people's income<sup>35</sup>, in this case showing that increasing people's income will increase deposits in sharia banking, so that there is excess funds available to the public to become savings instruments in sharia banking. GDP can also be used as the total value of goods and services produced in a certain country and at a certain time, in this case an increase in GDP can increase the income of society and corporations so that it will affect the amount of investment and savings.<sup>36</sup>

<sup>&</sup>lt;sup>35</sup> Widodo and Kurniawan, "Comparing Credit Procyclicality ...".

<sup>&</sup>lt;sup>36</sup> Sadono Sukirno, Ekonomi Pembangunan: Proses, Masalah, dan Dasar Kebijakan (Jakarta: Kencana

These findings are in line with research by Haron and Azmi<sup>37</sup> that increasing GDP in Malaysia increases people's income so that deposits in sharia banking also increase and periods of high economic growth increase people's savings in sharia banking compared to conventional banking because there are demands on the Muslim community not to wasteful.

Inflation only has an effect in the short term and has no effect in the long term. The coefficient value on the inflation variable shows a (-) sign, which means that an increase in inflation will reduce the level of savings or deposits in sharia banking so that deposits in sharia banking will fall. Continuous increases in the price of goods will reduce people's purchasing power which will encourage greater spending on necessities, assuming that income remains constant, increasing the price of goods will increase spending which can reduce the level of deposits or savings in sharia banking so that deposits will decrease. These findings are in line with Nastiti and Kasri<sup>38</sup> who state that inflation has a negative effect on TPF. The interest rate variable shows a negative influence in the short term and interest rates have no effect on deposits in the long term. The use of variable interest rates is implemented as a response to monetary policy determined by Bank Indonesia regarding domestic and global economic conditions, so that changes in interest rates will change deposit and credit interest rates applied by banks in response to changes in Bank Indonesia interest rates.<sup>39</sup> In the last two years, Bank Indonesia implemented a contractionary monetary policy, namely by increasing interest rates in response to domestic and global economic conditions. The increase in interest rates prompted changes in deposit and credit interest rates in conventional banking. This was responded by the public by withdrawing savings or deposits. in sharia banking to be transferred to conventional banking because it has a higher deposit interest rate so it has a greater rate of return in conventional banking compared to sharia banking, these findings are in line with research Haron and Azmi.<sup>40</sup>

Variable	Coefficient	Variables	Coefficient
Short-run Est	Long-run	Estimation	
D(LnGDP)	2.714 (3.820)**	LnGDP	8.513 (3.181)**
D(LnGDP(-1))	1.272 (2.220)**	INF	-0.198 (-1.588)
D(LnGDP(-2))	1.890 (3.094)**	r	-0.001 (-0.010)
D(LnGDP(-3))	1.419 (2.566)**	LnER	-6.338 (-2.581)**
D(INF)	-0.019 (-2.822)**	С	-52.723 (-3.032)**

**Table 3. ARDL Estimation** 

Prenada Media Group, 2006).

<sup>&</sup>lt;sup>37</sup> Haron and Azmi, "Determinants of Islamic...".

<sup>&</sup>lt;sup>38</sup> Nastiti and Kasri, "The Role of Banking Regulation...".

<sup>&</sup>lt;sup>39</sup> Y Afrida and R Iskandar, "Pengaruh Inflasi, Kurs, Tingkat Suku Bunga, Pertumbuhan Ekonomi, dan Jumlah Uang Beredar terhadap Jumlah DPK Bank Syari'ah," *Maqdis: Jurnal Kajian Ekonomi Islam*, Vol. 3, No. 2, (2018), p. 221–30.

<sup>&</sup>lt;sup>40</sup> Haron and Azmi, "Determinants of Islamic...".

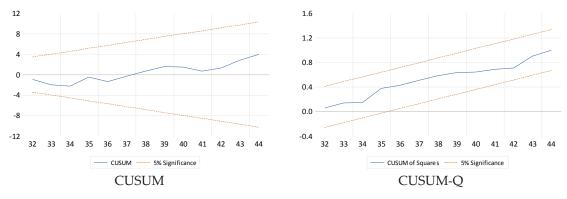
D(INF(-1))	0.044			
	(2.742)**			
D(INF(-2))	0.017			
	(1.257)			
D(INF(-3))	-0.023			
	(-1.777)			
D(INF(-4))	-0.038			
	(-3.269)**			
D(r)	-0.009			
	(-0.536)			
D(r(-1))	-0.097			
	(-3.087)**			
D(r(-2))	-0.161			
D(1(-2))	(-4.730)**			
D(r(-3))	-0,029			
D(I(-3))	(-1.517)			
D(I = ER)	-0.212			
D(LnER)	(-1.168)			
D(I = ED(1))	2.320			
D(LnER(-1))	(3.799)**			
D(I = ED(2))	2.872			
D(LnER(-2))	(4.141)**			
D(I = ED(2))	2.829			
D(LnER(-3))	(4.453)**			
D(I = ED(A))	2.048			
D(LnER(-4))	(4.070)**			
	0.742			
D(LnER(-5))	(3.453)**			
	-0.213			
ECT	(-6.573)**			
 Diagnostic Tools				
Adj R-squared	0.697			
Normality Test		0.683		
Autocorelation Test		0.628		
Heteroskedasticity Test		0.609		
Therefore and the state of the		0.007		

Source: Data Processed

Table 3 shows that the exchange rate variable has a different influence on TPF in Islamic banking. In the short term, it shows that the exchange rate has a positive effect on deposits in sharia banking, this shows that the depreciation of the rupiah exchange rate will encourage an increase in deposits in sharia banking. Depreciation of the exchange rate causes the price of domestic goods to increase so that people have two options: continue to consume imported goods as a substitute for the increase in the price of domestic goods or save their money and in the short term the depreciation of the exchange rate increases savings in sharia banking, this result in line with research by Hafizh, Hidayah, and Silalahi.<sup>41</sup> In the long term, exchange rate depreciation will reduce the level of savings in Islamic banking, this is a response from domestic business actors to the increase in prices of domestic goods back to normal and increases consumption among the public, thereby reducing savings in sharia banking. In the exchange rate variable, there are different patterns in the

<sup>&</sup>lt;sup>41</sup> Hafizh, Hidayah, and Silalahi, "Macroeconomics and Profit Sharing Financing...".

short and long term. This shows that the public responds differently to exchange rate sensitivity and is related to deposits or savings in Islamic banking. The overall research results show that macroeconomic variables play an important role in identifying people's behavior in saving in Islamic banking.



**Figure 2. Stability Test** 

According to Pesaran, Shin, and Smith<sup>42</sup> the ARDL model needs to apply a stability test because each variable has a different lag value. The stability test uses CUSUM for the ARDL model and CUSUM-Q for the residual value of the model. The conditions for the stability test are that the CUSUM and CUSUM-Q values are at the lower and upper thresholds. Figure 1 shows that the plots of CUSUM and CUSUM-Q do not exceed the upper and lower limits of the critical values, indicating that the ARDL model is stable.

### Conclusion

Banks are intermediary institutions that collect funds from the public and channel them back in the form of credit and the funds collected are third party funds (TPF) which are the largest source of funds relied on by banks, including sharia banking. The challenge of sharia banking is to expand market share, currently in Indonesia the banking market share is dominated by conventional banking, increasing market share will increase savings in sharia banking and strengthen sharia banking as an intermediation institution. In the last 10 years, conditions of high global uncertainty have had an impact on domestic macroeconomic conditions, which makes identifying macroeconomic variables important for analyzing the function of Islamic banking as an intermediary institution in this case collecting funds from the public.

The research results show that there are two variables that influence the short and long term, namely the GDP variable and the exchange rate. Meanwhile, inflation and interest rate variables only have an effect in the short term. The implications of the research show that increasing economic growth must be followed by increasing people's income and the stability of the rupiah exchange rate will increase people's deposits or savings in sharia banking. Apart from that, it is necessary to study the impact of contractionary monetary policy which can reduce savings in Islamic banking.

<sup>&</sup>lt;sup>42</sup> Pesaran, Shin, and Smith, "Bounds Testing Approaches...".

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