MACROECONOMIC FACTORS THAT AFFECT DEPOSITOR FUNDS OF SHARIA BANK IN INDONESIA

Sigit Sanjaya*

Department of Accounting, Universitas Putra Indonesia YPTK, Indonesia

ABSTRACT

This study aims to determine the effect of macroeconomic factors on Islamic bank savings funds in Indonesia. Macroeconomic variables used; economic growth, government debt, exchange rates, trade balance, money supply (M2), and foreign direct investment. Macroeconomic data is obtained from the publication of the Central Statistics Agency (BPS). Depositors’ fund data is obtained from the Financial Services Authority (OJK). The population consists of all Islamic commercial banks and Islamic business units. The sampling technique used total sampling, and data analysis was performed using multiple linear regression. Observation data from January 2005 to December 2019 used quarterly data. The results show that government debt and money supply (M2) positively and significantly affect depositors of Islamic banks in Indonesia. In contrast, economic growth, exchange rates, trade balance, and foreign investment do not significantly affect Islamic bank deposit funds in Indonesia.

Keywords: Macroeconomic Factors, Depositor Funds, Sharia Bank

JEL Classification: C3, E00, Z00

Introduction

In carrying out their operations, banks utilize funding from three related parties: share capital, interbank loans, and third-party funding (Hadinoto, 2013). Funding from third parties or depositors’ funds is a form of customer confidence in a bank. Therefore, the higher the growth of third-party funds at a bank, it has built a positive image in the public’s eyes, increasing confidence in the bank.

Third-party funding or depositing funds is an important factor because the central bank has established a minimum liquidity reserve. This reserve is known as 4% Macroprudential Liquidity Support (PLM) for conventional commercial banks and Islamic banks based on Bank Indonesia Regulation Number 20/4 / PBI / 2018. From the first, second, and third parties, each of which has advantages and disadvantages. Fund depositors function as an intermediary for fundraising and channeling credit to the public. A high ratio of deposit funds can improve the performance and quality of Islamic banking services. Therefore, maximizing third-party funds is very important in increasing Islamic banks’ profitability (Fitri, 2016). Banks with large

*Correspondence: Sigit Sanjaya
E-mail: sigitsanjaya@upiyptk.ac.id

ARTICLE INFO

Received: September 28th, 2020
Revised: March 15th, 2021
Accepted: March 17th, 2021
Online: June 1st, 2021

To cite this document: Sanjaya, Sigit. (2021). Macroeconomic Factors that Affect Depositor Funds of Sharia Bank in Indonesia. JDE (Journal of Developing Economies), Vol. 6(1), 79-91

JDE (Journal of Developing Economies) p-ISSN: 2541-1012; e-ISSN: 2528-2018
DOI: 10.20473/jde.v6i1.22279
Open access under a Creative Commons Attribution 4.0 International (CC-BY)
third-party funds will be more willing to offer customers attractive interest rates for customers. On the other hand, if deposit funds are running low, banks will experience liquidity dryness and cause companies to provide high-interest rates to the public.

Total depositor funds during the current year 2019 (year to date) reached IDR 402.36 trillion. On an annual basis, depositor funds growth reached 13.03%. In December, the market share of Islamic banking assets increased to 6.01% compared to September 2019, which gained 5.94%. This growth is still lower than that of conventional banks. In several provinces in Indonesia, the development of depositor funds has even decreased from the previous year.

The development of depositor funds is influenced by internal factors such as customer satisfaction or service and external factors such as macroeconomic factors. In this study, we put aside the religiosity factor. Previous studies have examined the relationship between macroeconomic factors and depositor funds. Research by Jatnika (2020) has examined the relationship of macroeconomic variables: exchange rates, inflation, interest rates, and Gross Domestic Product (GDP) on depositor funds. Research by Adim & Sukmana (2017) has also examined the relationship between macro variables: interest rate, GDP, money supply (M2), and the consumer price index to depositors funds. In this study, the difference with previous studies was that we used macroeconomic variables: economic growth, government debt, exchange rates, trade balance, money supply (M2), and foreign direct investment (FDI). There are also differences in the study period—the object of this study to determine macroeconomic factors that affect depositor funds of sharia bank in Indonesia. Macroeconomic factors are economic growth, government debt, exchange rate, trade balance, money supply, and foreign direct investment.

**Literature Review**

Depositor funds are funds obtained from the public (collected in the form of the current account, saving account, and time deposit account) both in rupiah and foreign currency (Hadinoto, 2013). The minimum amount of Macroprudential Liquidity Support (PLM) has been set by the central bank at 4%. Several macroeconomic factors affect depositor funds in Islamic banks in Indonesia, which are described as follows.

**The Relationship Economic Growth and Depositor Funds of Sharia Banks in Indonesia**

Economic growth is the process of changing the economic condition of a country or a region towards a better situation in a certain period (Yuliani, 2019). According to Putong (2013) economic growth is an increase in national income (marked by the rise in per capita revenue) in a certain period. Economic growth indicates an increase in economic activity in a country when compared to the previous period. Economic growth is categorized as positive if GDP in the observed year is higher than GDP in the last year. On the contrary, if GDP in the experimental year is lower than the previous year. High economic growth indicates that there is economic stability in the community. Therefore, the better the economic growth, the higher the level of money-saving in society. Also, good economic growth will impact the growth in the amount of credit extended to the public, and the community’s ability to pay their obligations will also increase. With the high level of money-saving and creditors’ ability to pay off debts, third-party funds’ optimization will increase. Previous studies by Prasetya et al., (2015); Sudin & Wan (2008); Hind & Joerg (2016); Zirek et al., (2016) showed economic growth has a significant effect on depositor funds. Therefore, can formulate the following hypothesis:
**H_2**: Economic growth has a positive and significant effect on depositor funds of sharia bank in Indonesia.

**The Relationship Government Debt and Depositor Funds of Sharia Banks in Indonesia**

Government debt is a liability in foreign currency to non-residents with an original maturity or an extension of more than one year (Mehran, 1985). According to Munandar (2014), government debt is public debt to non-residents (or foreigners) paid in currencies, goods, or internationally accepted services. Debt management wisely is a good thing. With the condition, the government uses every rupiah debt to build infrastructure, facilities, and infrastructure to generate long-term benefits. Debt policy is one of the alternatives to optimize urgent development. Debt can be a tool to accelerate economic growth. Likewise, depositor funds and foreign debt development can be a stimulus for economic development so that the Islamic bank deposits originating from domestic and overseas will increase. Previous studies by Haslag (2020); Essien et al., (2016); Isibor et al., (2018); Saifuddin (2016) showed government debt has a significant effect on depositor funds. Therefore, can formulate the following hypothesis:

**H_2**: Government debt has a positive and significant effect on depositor funds of sharia bank in Indonesia.

**The Relationship Exchange Rate and Depositor Funds of Sharia Banks in Indonesia**

The exchange rate is a record of foreign currency’s market price in domestic currency prices. According to Effendie (2017), an Exchange rate is the value of a country’s currency against a foreign currency that occurs in the foreign exchange market through a balance mechanism for balancing the balance of demand and supply of the foreign deducted or calculated against the country’s currency. Exchange rate fluctuations can affect the development of depositor funds in Islamic banking in Indonesia. Depreciation does not always harm depositor funds, assuming the flight of foreign capital out of the country. But what happens is the opposite, depositor funds will increase because customers are interested in investing in foreign currency savings by expecting a return on the margin of the rupiah exchange rate against the US dollar. Previous studies by Boon (2018); Humphrey (2016); Aysan et al., (2018), and Anureev (2015) showed exchange rate has a significant effect on depositor funds. Therefore, can formulate the following hypothesis:

**H_3**: The exchange rate has a positive and significant effect on depositor funds of sharia banks in Indonesia.

**The Relationship Trade Balance and Depositor Funds of Sharia Banks in Indonesia**

The trade balance is the amount received for net exports of goods and services (Mankiw, 2003). According to Diphayana (2018), the trade balance is the difference between exports and imports of goods. If the export value exceeds the import value, then the trade balance is categorized as a surplus. On the contrary, if the import value is higher than the export value, it is classified as a deficit. The trade balance, either a surplus or a minus, impacts the development of depositor funds because the trade balance indicates import and export activity between countries. These activities involve banking as a means of payment between countries. Exporters and importers can take advantage of the spot, swap, and spread markets in conducting foreign currency transactions. Previous studies by Kabir & Chowdhury (2014); Niepmann & Schmidt-Eisenlohr (2017); Ahmed & Siddiqui (2018); Sarker & Rashid (2015)
showed trade balance has a significant effect on depositor funds. Therefore, can formulate the following hypothesis:

\[ H_4 : The \ trade \ balance \ has \ a \ positive \ and \ significant \ effect \ on \ depositor \ funds \ of \ sharia \ banks \ in \ Indonesia. \]

**The Relationship Money Supply and Depositor Funds of Sharia Banks in Indonesia**

The money supply is generally categorized into two types, M1 and M2. M1 is defined as the monetary system’s obligation to the domestic private sector, which consists of currency and demand deposits. M2 consists of currency and demand deposits, quasi-money and securities, and does not include shares (Suseno, 2017). Financial operations or open market operations in regulating the money supply by Bank Indonesia will impact the development of depositor funds. Too much money in circulation causes the real value of money to fall, causing interest rates to decrease and increase consumption. People will prefer borrowing to save. It, of course, reduces the number of depositor funds. If there is too little money in circulation, the real value of money will increase but harm individuals and entities that carry out export activities. It can reduce the portion of depositor funds from exporters. Previous studies by Sudin & Wan (2008); Werner (2014); Anik & Prastiwi (2019); Nastiti & Kasri (2019) showed money supply has a significant effect on depositors funds. Therefore, can formulate the following hypothesis:

\[ H_5 : Money \ supply \ has \ a \ positive \ and \ significant \ effect \ on \ depositor \ funds \ of \ sharia \ banks \ in \ Indonesia \]

**The Relationship Foreign Direct Investment and Depositor Funds of Sharia Banks in Indonesia**

Foreign Direct Investment (FDI) is defined as investing to do business in the Republic of Indonesia’s territory, either fully using foreign capital or joint ventures with domestic investors (Kairupan, 2014). Foreign ownership can provide strong capital for the sustainability of the Islamic banking business. On the other hand, foreign investment, both medium and large, can assist banks in technological applications. Foreign capital was able to increase internal strengthening with capital strength so that maintained bank liquidity. Continuity of banking operations is a guarantee for customers to save money in the bank. Previous studies by Bahri et al., (2017); Sie (2018); Hamza (2016) has a significant effect on depositor funds. Therefore, can formulate the following hypothesis:

\[ H_6 : Foreign \ direct \ investment \ has \ a \ positive \ and \ significant \ effect \ on \ depositor \ funds \ of \ sharia \ banks \ in \ Indonesia \]

**Conceptual Framework**

Based on theoretical studies and previous research, the conceptual framework of the research is presented in Figure 1 below:
Research variables consist of independent and dependent variables. Independent variables consist of macroeconomic variables: economic growth ($X_1$), government debt ($X_2$), an exchange rate ($X_3$), trade balance ($X_4$), money supply ($X_5$), and foreign direct investment ($X_6$). The dependent variable in this research is depositor funds ($Y$). The research data were obtained from secondary sources. For macroeconomic variables, economic growth ($X_1$), an exchange rate ($X_3$), and FDI ($X_6$) data obtained from the publication of Statistics Indonesia (BPS), government debt ($X_2$) data are obtained from the Ministry of Finance. Trade balance ($X_4$) and money supply ($X_5$) data are obtained from the Ministry of Trade publications. For depositor funds, data are obtained from the publication of the Financial Services Authority (OJK). Data is collected quarterly. Therefore, the research data starts from the first quarter of 2005 to the fourth quarter of 2019.

The measurement of each variable will be presented in Table 1 below:

| No | Variable                      | Measurement                                                                 |
|----|-------------------------------|----------------------------------------------------------------------------|
| 1  | Depositor funds ($Y$)         | Demand deposits Wadia + non-profit sharing investment fund + profit sharing investment fund |
| 2  | Economic growth ($X_1$)        |                                                                           |
| 3  | Government debt ($X_2$)        |                                                                           |
| 4  | Exchange rate ($X_3$)          | United States Dollar (USD) against Indonesian Rupiah (IDR)                |
| 5  | Trade balance ($X_4$)          | Country’s Export – Country’s Import                                       |
| 6  | Money supply ($X_5$)           | Currency + Demand Deposits + traveler’s check + savings deposits + money market funds + certificates of deposits + other time deposits |
| 7  | Foreign Direct Investment ($X_6$) | Equity capital + reinvestment of earnings + other long-term capital + and short-term capital |
Data analysis consisted of descriptive analysis, classical assumption test, and multiple linear regression. The descriptive analysis was used to assess the characteristics of the data. The normality test uses the Kolmogorov Smirnov test because the data is categorized as normal if the significant value > 0.05. The heteroscedasticity test uses the Glejser test on the condition that each independent variable has a significance value > 0.05. The multicollinearity test has provisions where each variable’s tolerance value is > 0.1, and the Variance Inflation Factor (VIF) value is < 10. Autocorrelation test using the Durbin-Watson test with provisions DW > DU and (4-DW) > DU. Hypothesis testing uses F-test and the t-test. F test was performed by comparing the significance value < 0.05 and F-statistic > F-table. T-test was performed by comparing the significance value < 0.05 and t-statistic > t-table.

The regression model equation can be formulated as follows:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \cdots + \varepsilon \]  

Where:
- Y: Depositor funds
- X_1: Economic growth
- X_2: Government debt
- X_3: Exchange rate
- X_4: Trade balance
- X_5: Money supply
- X_6: Foreign direct investment

Finding and Discussion

The results of the descriptive analysis test result are presented in table 2 below. The minimum value for depositor funds (Y) is 35,913,557 (in billion IDR), and the maximum value is 1,227,311,000 (in billion IDR). The lowest depositor funds occurred in the first quarter of 2005, and the highest depositor funds occurred in the fourth quarter of 2019. The minimum value for economic growth (X_1) is 4.31%, and the maximum value of 6.81%. The lowest economic growth occurred in the third quarter of 2009, and the highest economic growth occurred in the fourth quarter of 2010. The minimum value for government debt (X_2) is 26.20%, and the maximum value is 46.50%. The lowest government debt value occurred in the first quarter of 2012, and the highest government debt value occurred in the first quarter of 2005. The minimum value for the exchange rate (X_3) is 8,597, and the maximum value is 14,929. The lowest IDR exchange rate against USD occurred in the second quarter of 2011, and the highest IDR exchange rate against USD happened in the third quarter of 2018. For trade balance (X_4), the minimum value is -4,883.54 (in million USD), and the maximum value is 11,885 (in million USD). The lowest trade balance value occurred in the fourth quarter of 2018, and the highest trade balance value occurred in the fourth quarter of 2006. The minimum value for money supply (X_5) is 1,020,693.00 (in trillion IDR), and the maximum value is 6,136,551.81 (in trillion IDR). The lowest money supply occurred in the first quarter of 2005, and the highest money supply occurred in the fourth quarter of 2019. The minimum value for Foreign Direct Investment (X_6) is 457.40 (in million USD), and the maximum value for FDI (X_6) is 51,279.90 (in million USD). The lowest FDI occurred in the fourth quarter of 2009, and the highest FDI happened in the fourth quarter of 2018.
Table 2: Descriptive Statistics Test Result

|                    | N   | Minimum     | Maximum    | Mean           | Std. Deviation |
|--------------------|-----|-------------|------------|----------------|----------------|
| Y_Fund             | 60  | 35913557.00 | 1227311000.00 | 452308654.6833 | 370834566.3717 |
| X1_Growth          | 60  | 4.31        | 6.81       | 5.5312         | .63058         |
| X2_Debt            | 60  | 26.20       | 46.50      | 33.1047        | 4.54121        |
| X3_Exchange        | 60  | 8597.00     | 14929.00   | 11141.8833     | 2096.46419     |
| X4_Trade           | 60  | -4883.54    | 11885.00   | 3198.5070      | 4122.61285     |
| X5_Money           | 60  | 1020693.00  | 6136551.81 | 3263654.5880   | 1599903.9885   |
| X6_FDI             | 60  | 457.70      | 51279.90   | 9721.1300      | 7710.52027     |

Source: Author Calculation

The results of the normality test are shown in table 3 below. The result of significance is 0.200 > 0.05. From the results, it can conclude that the data distribution is normal.

Table 3: Normality Test Result

|                      | One-Sample Kolmogorov-Smirnov Test | Unstandardized Residual |
|----------------------|-----------------------------------|-------------------------|
|                      | Normal Parameters<sup>a,b</sup>   | Mean: 0.0000000         |
|                      | Std. Deviation: 39.96817402       |                         |
| Most Extreme Differences | Absolute: 0.092                  |
|                       | Positive: 0.092                   |
|                       | Negative: -0.070                  |
| Test Statistic        | .092                              |
| Asymp. Sig. (2-tailed)| .200<sup>c,d</sup>               |

Source: Author Calculation

The result of the heteroskedasticity test is shown in table 4 below. The results of the significance of each independent variable > 0.05. From this result, it can be concluded that there are no symptoms of heteroscedasticity in the data.

Table 4: Heteroskedasticity Test Result

| Model   | Coefficients<sup>a</sup> |
|---------|---------------------------|
|         | Unstandardized Coefficients | Standardized Coefficients |
|         | B            | Std. Error | Beta  | t      | Sig. |
| 1       | (Constant)   | -74.710    | 67.235 | -1.111 | .272 |
|         | X1_Growth    | 1.780      | 6.869  | .042   | .259 | .797 |
|         | X2_Debt      | -.255      | .861   | -.043  | -.296 | .769 |
|         | X3_Exchange  | 6.843      | 4.796  | .533   | 1.427 | .160 |
|         | X4_Trade     | 2.111      | 1.002  | .323   | 1.106 | .240 |
|         | X5_Money     | .755       | .591   | .448   | 1.276 | .208 |
|         | X6_FDI       | -.518      | .633   | -.148  | -.819 | .417 |

<sup>a</sup> Dependent Variable: ABS_RES
Source: Author Calculation

The result of the multicollinearity test is shown in table 5 below. The tolerance value of each independent variable > 0.1 and Variance Inflation Factor (VIF) value < 10. From this re-
result, it can be concluded there are no symptoms of multicollinearity in the data.

**Table 5: Multicollinearity Test Result**

| Model Coefficients* | Collinearity Statistics |
|---------------------|-------------------------|
| Tolerance | VIF |
| 1 X1_Growth | .422 | 2.369 |
| X2_Debt | .518 | 1.932 |
| X3_Exchange | .378 | 3.770 |
| X4_Trade | .464 | 2.156 |
| X5_Money | .488 | 2.307 |
| X6_FDI | .333 | 3.007 |

a. Dependent Variable: Y_Fund
Source: Author Calculation

The result of the autocorrelation test is shown in table 6. The value of Durbin – Watson is 1.902. DW > DU (1.902 > 1.80817), and (4-DW) > DU, (4-1.902) > 1.80817. From this result, it can be concluded there are no symptoms of autocorrelation.

**Table 6: Autocorrelation Test Result**

| Durbin-Watson | DL | DU |
|---------------|----|----|
| 1.902 | 1.37186 | 1.80817 |

Source: Author Calculation

All the classical assumption tests have been completed. The data has fulfilled the requirements to perform multiple linear regression. Furthermore, the coefficient of determination test, the test results are presented in Table 7 below. The value of R Square is 0.421 or 42.1%. It indicates that the contribution of the independent variable, which consists of economic growth (X_1), government debt (X_2), an exchange rate (X_3), balance trade (X_4), money supply (X_5), foreign direct investment (X_6) on dependent variable depositor funds (Y) is 42.1%, other variables outside this research influence the rest 57.9%.

**Table 7: Coefficient Determination Test Result**

| Model Summary |
|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of Estimate |
| 1 | .425* | .421 | .419 | 21.61370 |

Source: Author Calculation

The F-test was performed to determine the effect of the independent on the dependent simultaneously. The F-test results are shown in Table 8 below. The test results show the significance value is 0.000 < 0.05, the value of F-statistic>F-table (51.592 > 2.25). It means variables economic growth (X_1), government debt (X_2), an exchange rate (X_3), balance trade (X_4), money supply (X_5), and foreign direct investment (X_6) simultaneously have a significant effect on depositor funds (Y). The next step to test hypotheses partially, the t-test is performed.
The t-test result is shown in table 9 below. The significance value of economic growth ($X_1$) is 0.470 > 0.05, t-statistic< t-table (0.728 < 2.00). H1 is rejected. This result indicates economic growth ($X_1$) has no significant effect on depositor funds ($Y$). This result is not in line with previous research by (Prasetya et al., 2015; Sudin & Wan, 2008; Hind & Joerg, 2016; Zirek et al., 2016). Low economic growth does not reduce people’s interest in saving in shariah banks and high economic growth.

In most cases, shariah bank customers behave following the theory of saving behavior. When the rate of economic growth is low, the public does not change its preference for lower-risk investments. At a high economic growth level, people spend more of their money at the consumption level, not at the saving rate. When economic growth is low, people are less conservative and still aspire to return from risky investments.

The significance value of government debt ($X_2$) is 0.000 < 0.05, t-statistic> t-table (4.505 > 2.00). H2 is accepted. This result indicates government debt ($X_2$) has a positive and significant effect on depositor funds ($Y$). This result confirms previous research by (Haslag, 2020; Essien et al., 2016; Isibor et al., 2018; and Saifuddin, 2016). Public debt may harm financial development if the government borrows heavily from the banking sector (Ismihan & Ozkan, 2012). The public responds to the increase in government debt by making safer and lower-risk investments by saving in banks.

On the other hand, the government utilizes funds collected from the public through state debt securities issuance. Infrastructure development requires increased funding, and foreign debt is a funding source with low interest compared to domestic funding. Infrastructure development has greatly increased economic activity and can make people improve their habits for deposits.

The significance value of exchange rate ($X_3$) is 0.295 > 0.05, t-statistic< t-table (-1.057 < 2.00). H3 is rejected. This result indicates exchange rate ($X_3$) has no significant effect on depositor funds ($Y$). This result is not in line with previous research by (Boon, 2018; Humphrey, 2016; Aysan et al., 2018; Anureev, 2015). When the rupiah strengthens against the dollar, the public converts the rupiah into dollars. When the dollar rises, people tend to take short-term profits by converting the rupiah to dollars to benefit the exchange rate.

On the other hand, when the dollar falls, people are more likely to travel abroad and spend more money. The price of gold also falls. The public reacts to investing in gold because it is cheaper for holders of the rupiah currency. In these two cases, further research is needed.

The significance value of balance trade ($X_4$) is 0.627 > 0.05, t-statistic< t-table (-0.426 < 2.00). H4 is rejected. This result indicates balance trade ($X_4$) has no significant effect on depositor funds ($Y$). This result is not in line with previous research by (Kabir & Chowdhury, 2014; Niepmann & Schmidt-Eisenlohr, 2017; Ahmed & Siddiqui, 2018; Sarker & Rashid, 2015).
The tendency for high imports to make the trade balance deficit. It has occurred during the last few years. However, this does not have a significant effect on saving preferences in sharia banks. Although the bank is the guarantor of payment, the liaison between the exporter and importer and the financier cannot increase depositor funds. Export and import players only use banks as a medium of payment and do not use banks as foreign currency savings.

The significance value of money supply \((X_5)\) is 0.000 < 0.05, t-statistic > t-table (20.312 > 2.00). H5 is accepted. This result indicates money supply \((X_5)\) has a positive and significant effect on depositor funds \((Y)\). This result confirms previous studies by (Sudin & Wan, 2008; Werner, 2014; Anik & Prastiwi, 2019; and Nastiti & Kasri, 2019). When the money supply is normal, the public’s saving behavior is also normal. When the money supply is not very high, the real value of money will decrease concerning goods. People are more likely to save than spend because it spends more money on the same item. The government also seeks to reduce the money supply by raising interest rates to reduce the circulation of money in the public. When the money supply is too high, it will result in uncontrolled inflation.

The significance value of FDI \((X_6)\) is 0.119 > 0.05, t-statistic < t-table (1.587 < 2.00). H6 is rejected. This result indicates FDI \((X_6)\) has no significant effect on depositor funds \((Y)\). This result is not in line with previous research by (Bahri et al., 2017; Sie, 2018; Hamza, 2016). Foreign investment is expected to build the government to build infrastructure, while depositor funds are expected as an alternative so that the government does not depend on foreign capital.

Moreover, the high number of foreign direct investments is not accompanied by additional deposits in Islamic banks because foreign parties tend to save at foreign banks. Joint ventures or similar cooperation have not significantly impacted the development of savings in sharia banks. The government needs to make regulations related to FDI that can provide benefits to banks in Indonesia.

### Table 9: T-test Result

| Model | Coefficients* | Standardized Coefficients | t     | Sig.  |
|-------|---------------|---------------------------|-------|-------|
|       | Unstandardized Coefficients | | | | |
|       | B | Std. Error | Beta | | |
| 1     | (Constant)  | -523.358 | 131.180 | -3.990 | .000 |
|       | X1_Growth | 9.760 | 13.401 | .017 | .728 | .470 |
|       | X2_Debt | 7.570 | 1.680 | .093 | 4.505 | .000 |
|       | X3_Exchange | -9.892 | 9.358 | -.056 | -1.057 | .295 |
|       | X4_Trade | -.833 | 1.955 | -.009 | -.426 | .672 |
|       | X5_Money | 23.438 | 1.154 | 1.011 | 20.312 | .000 |
|       | X6_FDI | 1.959 | 1.235 | .041 | 1.587 | .119 |

Source: Author Calculation

### Conclusion

The results show variables economic growth \((X_1)\), government debt \((X_2)\), an exchange rate \((X_3)\), balance trade \((X_4)\), money supply \((X_5)\), and foreign direct investment \((X_6)\) simultaneously have a significant effect on depositor funds \((Y)\). The results show that government debt \((X_2)\) and money supply \((X_5)\) partially positively and significantly impact depositor funds of sha-
ria banks in Indonesia. In contrast, economic growth ($X_1$), exchange rates ($X_3$), trade balances ($X_4$), and foreign direct investment ($X_6$) partially have no significant effect on depositor funds of sharia banks in Indonesia. The government must strive to increase economic growth to accompany the rising trend of depositor funds. The government must also be concerned about the portion of the debt to GDP and must be able to find alternative financing from foreign debt. Also, the government must take a right monetary policy regarding the money supply. It will cause the money to be stuck in the bank, thereby reducing the circulation of money in the public.

Previous research has also examined other macroeconomic variables such as inflation, interest rates on depositor funds. We suggest examining other variables such as population, Muslim population, poverty, and unemployment rates to enrich the research results for further research. It can also be enriched by analyzing short-term relationships using monthly data.

References

Adim, M. A., & Sukmana, R. (2017). The Effect of Monetary Policy Shocks and Macro Variables on Sharia Bank Third Party Funds (TPF) in Indonesia. *Jurnal Ekonomi Syariah Teori Dan Terapan*, 4(8), 642.

Ahmed, I., & Siddiqui, D. A. (2018). Factors affecting Islamic and conventional mutual funds’ returns. A Comparative Analysis of different classes of funds in Pakistan. *A Comparative Analysis of Different Classes of Funds in Pakistan (December 13, 2018)*.

Anik, A., & Prastiwi, I. E. (2019). Macro Economic Challenges and Third Party Funds of Islamic Commercial Banks in Indonesia. *Shirkah: Journal of Economics and Business*, 3(1).

Anureev, S. V. (2015). Professional depositors and interest rate risks for banks: Russian case of significant fluctuation of exchange rate and federal fund rate in 2014-15. *Mediterranean Journal of Social Sciences*, 6(4), 107.

Aysan, A. F., Disli, M., & Ozturk, H. (2018). Bank lending channel in a dual banking system: why are Islamic banks so responsive? *The World Economy*, 41(3), 674–698.

Bahri, E. N. A., Nor, A. H. S. M., Nor, N. H. H. M., & Sarmidi, T. (2017). Foreign direct investment, financial development and economic growth: a panel data analysis. *Jurnal Pengurusan (UKM Journal of Management)*, 51.

Boon, O. H. (2018). Banking on foreign currency accounts: evidence from Malaysia. *International Journal of Bank Marketing*, 36(7), 1235–1247. https://doi.org/10.1108/IJBM-05-2017-0083

Diphayana, W. (2018). *International Trade*. Deepublish.

Effendie. (2017). *State Finance “A Comprehensive and Integrated Review.”* Airlangga University Press.

Essien, S. N., Agboegbulem, N., Mba, M. K., & Onumonu, O. G. (2016). An empirical analysis of the macroeconomic impact of public debt in Nigeria. *CBN Journal of Applied Statistics*, 7(1), 125–145.

Fitri, M. (2016). The Role of Third Party Funds in the Performance of Sharia Financing Institu-
ions and the Factors Affecting Them. *Economica: Jurnal Ekonomi Islam*, 7(1), 73–95.

Hadinoto, S. (2013). *Bank Strategy on Funding and Liability*. Elex Media Komputindo.

Hamza, H. (2016). Does investment deposit return in Islamic banks reflect PLS principle? *Borsa Istanbul Review*, 16(1), 32–42.

Haslag, J. (2020). Monetary and Fiscal Policy Interactions in a Frictional Model of Money, Nominal Public Debt and Banking. *Nominal Public Debt and Banking (May 1, 2020)*.

Hind, L., & Joerg, W. (2016). Islamic banking presence and economic growth in Southeast Asia. *International Journal of Islamic and Middle Eastern Finance and Management*, 9(4), 551–569. https://doi.org/10.1108/IMEFM-03-2015-0037

Humphrey, D. (2016). Negative interest rates and the demand for cash. *Journal of Payments Strategy & Systems*, 9(4), 280–289.

Isibor, A. A., Babajide, A. A., Akinjare, V. A., Oladeji, T., & Osuma, G. (2018). The effect of public debt on economic growth in Nigeria: An empirical investigation. *International Business Management*, 12(6), 436–441.

Ismihan, M., & Ozkan, F. G. (2012). Public debt and financial development: A theoretical exploration. *Economics Letters*, 115(3), 348–351.

Jatnika, M. D. (2020). The Influence of Macroeconomic Variables on Third Party Funds of Islamic Commercial Banks in Indonesia. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(1), 164–173.

Kabir, M. R., & Chowdhury, A. H. (2014). A Comparative Analysis of Profit Rate on Deposit in Islamic Banks in Bangladesh. *IIUC Studies*, 81–98.

Kairupan, D. (2014). *Legal Aspects of Foreign Investment in Indonesia*. Prenada Media.

Mankiw, N. G. (2003). *Macroeconomics*. New York: Worth Publishers.

Mehran, H. (1985). *External debt management*. International Monetary Fund.

Munandar, Y. (2014). *Finding the Direction of Indonesia’s Cooperation with Partner Countries*. Deepublish.

Nastiti, N. D., & Kasri, R. A. (2019). The role of banking regulation in the development of Islamic banking financing in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*.

Niepmann, F., & Schmidt-Eisenlohr, T. (2017). International trade, risk and the role of banks. *Journal of International Economics*, 107, 111–126.

Prasetya, B., Tan, S., & Delis, A. (2015). Factors that influence the collection of third party funds in Islamic banking in Indonesia. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 3(2), 91–100.

Putong, I. (2013). *Introduction to Macroeconomics*. Wacana Media.

Saifuddin, M. D. (2016). Public debt and economic growth: Evidence from Bangladesh. *Global Journal of Management And Business Research*.

Sarker, M. N. I., & Rashid, M. H. O. (2015). An impact of banking activities of private commercial Islamic bank to economic development in Bangladesh: a case study on First Security
Islami Bank Limited (FSIBL). *Journal of Investment and Management*, 4(5), 264–272.

Sie, N. (2018). *Diverse development effects of Foreign Direct Investment in Africa*.

Sudin, H., & Wan, N. W. A. (2008). Determinants of Islamic and conventional deposits in the Malaysian banking system. *Managerial Finance*, 34(9), 618–643.

Suseno, S. (2017). *Money: Definition, Creation and Its Role in the Economy*. Pusat Pendidikan Dan Studi Kebanksentralan (PPSK) Bank Indonesia.

Werner, R. A. (2014). How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking. *International Review of Financial Analysis*, 36, 71–77.

Yuliani, I. (2019). *The Influence of Spending and Investment on the Independence and Regional Economic Growth*. Uwais Inspirasi Indonesia.

Zirek, D., Boz, F. C., & Hassan, M. K. (2016). The Islamic banking and economic growth nexus: a panel VAR analysis for Organization of Islamic Cooperation (OIC) countries. *Journal of Economic Cooperation and Development*, 37(1), 69–100.