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Article

The Effect on Inflation, Exchange and BI Rate on Third Party Funds with Equivalent Rate (Er) as an Intervening Variable in Shariah Commercial Banks in Indonesia

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ABSTRACT

This study aims to analyze the effect of inflation exchange rate and BI rate and BI rate on Sharia Commercial banks on third party funds (DPK) during the period 2018 - 2022 with Equivalent Rate (ER) as an intervening variable. The object of this study is Islamic Commercial banks, namely foreign exchange banks. Type of quantitative research using time series data, this study uses secondary data. Sampling was carried out on three Islamic Commercial Bank Included in foreign exchange banks with saturated sampling techniques. These banks are Bank Muamalat, Bank Mega Syariah, Bank Panin Dubai Syariah. Data Analysis methods used in include multiple linear regression testing, hypothesis testing, Classical Assumption testing, path Analysis and descriptive statistical testing processed through Eviews 10 Software. The results revealed that third party funds (DPK) are partially positively influenced by the BI rate and Inflation. Meanwhile, third party funds partially show the negative influence of exchange rates and Equivalent rates. The results of the analysis also indicate that the Equivalent Rate has a role as a mediator in linking the influence of inflation, exchange rate and BI rate on third party funds (DPK), this is in line with the finding of the path analysis conducted

Keywords: Jakarta Composite Index (JCI), Inflation, Exchange Rate, Gross Domestic Product, Dow Jones Index, World Oil Prices

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INTRODUCTION

The progress and evolution of each banking institution is greatly influenced by its ability to raise funds from the community. The availability of funds is a central issue that affects the bank's operations as a financial entity. Without an adequate supply of funds, banks become defenseless, or in other words, banks run the risk of completely ceasing operations.

In addition to capital provided by bank owners and loans from other parties, including interbank loans, sources of funds or cash controlled by banks are also sourced from public deposits, also known

as third party funds. Third party funds refers to funds received by the bank through various types of deposit products managed by the bank, originating from various individuals and business entities in the community. This Third Party Fund is the largest donation of funds owned by the bank, this is consistent with the bank's role as a fundraiser of funds from individuals or organizations that have excess funds in the community.

These third-party funds are divided into several forms, including savings deposit which involve restrictions on withdrawals according to previously approved terms, and Time Deposits which involve withdrawing funds at a predetermined period of time, in accordance with the agreement between the customer and the bank. In addition, there is also a Giro (Demand Deposit) in the form of a deposit that allows withdrawals at any time through checks for cash withdrawals or bilyet giro for fund transfers.

Table 1
Development of Third-Party Funds in Sharia Commercial Banks (billion Rupiah)

Information	2018	2019	2020	2021	2022
Wadiah	27,554	42,076	50,747	54,311	64,380
Deposito Mudharabah	142,008	146,243	152,179	173,959	199,775
Tabungan Mudharabah	88,044	100,659	119,926	137,151	164,873

Source : ojk.go.id (2023)

The level of public confidence in Islamic banks can be reflected in the amount of funds held by the bank. If the amount of third-party funds is higher, then this indicates a higher level of public confidence in the bank. On the other hand, if the amount of third-party funds is low, this can indicate a lower level of public trust in the Islamic bank (Mumtazah & Septiarini, 2017).

This was evident during the monetary crisis in 1998 in Indonesia, where public confidence declined due to an increase in interest rates of 68.76% from inflation of 77.00%, which was accompanied by the depreciation of the rupiah exchange rate from Rp 2,500 to Rp 16,650 per US dollar in June 1998. The crisis of public confidence had a significant impact on the withdrawal of capital from the banking sector which in turn led to liquidity difficulties. As a result, the effect is very detrimental, with the economic growth rate which was originally 4% dropping sharply to reach a negative number, namely -13% (Rosvitasari, 2016).

The rapid growth and development of Islamic banks in Indonesia is reflected in Bank Indonesia press release No. 22/71 / DKom, which reported that third party fund raising (DPK) reached 11.64%, and low inflation was recorded at 1.32%. Suku bunga Lending Facility berada pada angka 4,75%, suku bunga Deposit Facility sebesar 3,25%, dan suku bunga BI-7Day Reverse Repo Rate mencapai 4,00%. Despite the decline in the rupiah exchange rate by 1.58%, this was due to uncertainty in the financial industry. In this context, the role of the government becomes very important to accelerate the financing and collection of third-party funds, which are the main source for Islamic banking. The goal of this effort is to achieve a market share of 9.03% by 2020 (Bank Indonesia, 2020).

Seeing this phenomenon, Islamic banks need to be more attentive to face various macroeconomic conditions that can affect third-party funds. Some macroeconomic conditions can affect the amount of

third-party funds, including inflation, exchange rate, and BI *rate*.

Table 2
Development of Inflation Rate in Indonesia

No	Year Of	Inflation
1.	2018	3,13%
2.	2019	2,72%
3	2020	1,68%
4.	2021	1,87%
5.	2022	5,51%

Source: bi.go.id (2023)

Regarding inflation, according to economic theory, when inflation is high, people's savings interest rates will fall. Because people are afraid that if they save, the value of their savings will eventually decrease, so they prefer to spend money or income (Afiyanti Tripuspitorini, 2020). High prices and fixed incomes or incomes that increase in line with inflation keep people from having excess money to save in the form of savings or investments. High inflation lowers the value of wealth in money (Maya Panorama, 2016). This is evidenced by the continued increase in the number of deposits when the inflation rate is unstable.

Table 3
Development of Rupiah exchange rate Per 1 US Dollar in Indonesia

No.	Central Exchange Rate	
	Year	Rupiah
1.	2018	14.481
2.	2019	13.901
3.	2020	14.105
4.	2021	14.269
5.	2022	15.731

Source: bi.go.id (2023)

In addition to inflation, the exchange rate is one measure of a country's macroeconomic health. The Relative Strength of a country's economy compared to other countries can be determined by looking at currency exchange rates. Islamic banks ' methods of obtaining money are influenced by the value of the rupiah in relation to the US dollar. When the US dollar exchange rate is low, the price of domestic goods will be stable, which is very good for the domestic economy. Islamic banks receive more money as a result of depreciation. The decision to reduce spending was made by consumers as a result of the increase in imports and the value of the currency. However, when there is an increase in value and a decrease in deposits, this relationship is inversely proportional. This is the result of exchange rate instability (Salma Firdayanti, 2021)

Table 4
Bank Indonesia Interest Rate Developments

No.	Year	BI Rate
1.	2018	6,00%
2.	2019	5,00%
3.	2020	3,75%
4.	2021	3,50%
5.	2022	5,50%

Source: bi.go.id (2023)

In addition, the determination of the BI *Rate* also determines the amount of DPK. The higher the interest rate, the higher people's interest in saving, because they expect higher interest rates from conventional banks. Unlike conventional banks, in Sharia commercial banks (BUS), when the BI *rate* is high, BUS does not allow an increase in the profit sharing ratio in financing, because it has been agreed at the beginning of the contract. This is because Islamic banks benchmark against profit sharing. So that overall the interest rate is not necessarily able to determine the level of Sharia bank deposit. However, when the BI rate is low, this will have a bad impact when people start investing in other fields besides banking (Marpaung, 2016).

The movement of the equivalent rate is determined by Indonesia's BI rate, and when the BI rate falls, the equivalent rate rises, increasing the amount of Islamic banking funds (DPK), and vice versa. Therefore, Islamic banking policies reduce the BI *rate* in accordance with the increase in the exchange rate, causing the equivalent value to rise along with the increase in DPK and vice versa (Muhammadinah, 2020). Banks use the determination of a comparable equivalent rate to give prospective customers a general idea of how much of a profit share they can receive, which is determined at the end of the month after business is conducted. The more attractive it is for new customers to deposit their money in Islamic banks, the higher the equivalent rate. The profit share on the bank's profit determines the percentage of the varying interest rate. Therefore, customers can measure the performance of the bank by looking at its profit-sharing ratio; if the bank performs better, its revenue will also be higher, which will have an impact on the profit-sharing ratio that customers will see (Zahwa, 2019).

This study aims to determine the effect of inflation, kus, and BI *rate* on third party funds with equivalent rate as an intervening variable in Islamic commercial banks in Indonesia. The use of equivalent *rate* as an intervening variable makes a distinction from previous researchers. Indirect influence can be expected to strengthen the results of research conducted on third-party funds. The use of the period 2018-2022 aims to obtain more relevant and up-to-date results from previous studies. The taking of foreign exchange banks makes the object of differentiation because of the existence of exchange rates as an independent variable in this study, which can be interpreted as a bank that obtains permission from Bank Indonesia to conduct foreign exchange transactions (Kasmir, 2005).

LITERATURE REVIEW

1. Signal theory

The theory used in this research is Signaling Theory, where a signal is an action that provides guidance to investors about how management sees company opportunities (Brigham, E. F., & Houston,

2019). The assumption of signal theory is that the company gives signals to the users of financial statements to illustrate that the company has an advantage over other companies. In generating quality profits, by implementing conservative accounting policies, managers can provide financial statement information. This principle aims to prevent the not overstated by financial report users and companies manipulating profits.

2. Inflation

Inflation is a general increase in commodity prices caused by the lack of synchronization between commodity procurement programs (production, pricing, printing money, and so on) and the level of community income. The effect of inflation on the economic impact Resulting in changes in the pattern of community income distribution, because for example when inflation obtains a fixed income, the real value decreases due to the increase in inflation, Changes in production factors occur, because the demand for certain goods becomes greater than other goods, which ultimately increases the cost of producing the goods and Resulting in an increase in output produced because inflation usually increases the price of goods exceeds the increase in wages so that business profits increase and encourage them to produce more output.

3. Exchange Rate (Exchange Rate)

Exchange rate is one of the most important prices in an open economy considering its huge influence on the current account balance and other macroeconomic variables. The role of the government in determining the exchange rate aims to ensure whether or not there is an effect of the exchange rate so that it does not have a negative impact on the country's economy. Determination of the exchange rate of a country's currency for another country's currency is determined as goods, namely by the demand and supply of the currency concerned. This law also applies to the rupiah exchange rate, if the demand for the rupiah is greater than the supply, the rupiah exchange rate will increase, and vice versa. The rupiah exchange rate against foreign currencies is generally influenced by several factors such as Demand and Supply of Foreign Exchange, Inflation Rate, Interest Rate, Income and Production Level, Balance of Payment (Foreign Balance of Payments), Government Supervision and Speculation.

4. Interest Rate (BI Rate)

The interest rate is one of the indicators in determining whether someone will invest or save. Interest rates influence a person's decision to use or save money in the form of savings. An increase in the BI rate encourages someone to save or sacrifice consumption in the future. Fluctuations in the BI Rate can affect DPK, if the BI Rate increases, DPK decreases and if the BI Rate decreases, DPK increases. Factors that influence interest rates are Funding needs, Competition between banks, Government policies, Time period, Guarantee quality, Customer reputation, Products, Bank relationships, Risk.

5. Third Party Funds (TPF)

Third party funds are funds from individuals or business entities originating from the public. Funds are obtained by banks from various savings products offered and owned by banks. The amount of TPF reflects the level of public trust in Islamic banks, because it is based on the composition of TPF, namely current accounts, deposits, and savings, all of which come from the public.

6. Equivalent Rate (ER)

Equivalent rate is an indication of the rate of return from an investment or fundraising carried out by a bank. Equivalent rate also means the rate of

return on investment invested from bank fundraising and is determined at the end of each month after obtaining results from the investment carried out.

The hypotheses proposed as temporary answers in this study are as follows:

HI: Inflation has a positive effect on Third Party Funds

H2: Exchange rates have a negative effect on Third Party Funds

H3: BI Rate has a positive effect on Third Party Funds

H4: Equivalent Rate has a positive effect on Third Party Funds (TPF).

H5: Equivalent Rate can mediate the effect of Inflation on TPF.

H6: Equivalent Rate can mediate the effect of Exchange Rate on TPF.

H7: Equivalent Rate can mediate the effect of BI Rate on TPF.

METHODOLOGY

Based on the formulation that has been described, this type of research can be categorized as quantitative research. Quantitative research conducted by the method of collecting numbers with the type of secondary data in the form of time series data. Saturated sample technique is used in this study to obtain samples taken from the entire population, namely Sharia commercial banks that have published their financial statement data in full from the 2018-2022 period and are included in foreign exchange banks so that 3 Sharia commercial banks are obtained, namely Bank Muamalat, Bank Mega Syariah, and Bank Panin Dubai Syariah. Analysis techniques used descriptive statistical tests, multiple linear regression analysis, hypothesis testing (t test, F test, and coefficient of determination), classical assumption test (normality, multicollinearity, heteroscedasticity, autocorrelation), and path analysis (path analysis). The Eviews 10 pro 64 bit version application is used to process statistical and econometric data.

RESULT AND DISCUSSION

Descriptive Statistical Test

This study uses inflation, exchange rate, and BI *rate* as independent variables. Meanwhile, third party funds as the dependent variable, while the equivalent rate as the intervening variable. Below are the results of a descriptive statistical analysis of each of these variables, tested using the Eviews 10 software:

Table 5
Descriptive Statistical Test Results

	DPK (Rp)	Inflasi (%)	Kurs (Rp)	BI Rate (%)	ER (%)
Mean	59.094.982	2,805667	14.456,82	4,499833	3,688833
Median	58.227.498	2,85	14.360,00	4,25	3,72
Maximum	69.958.388	5,95	16.376,00	6,00	4,77
Minimum	52.666.884	1,32	13.413,00	3,50	2,40
Std. Dev.	4.329.311	1,159330	530,9982	0,927408	0,776260
Observations	60	60	60	60	60

Source: Data processed by *Eviews* 10 (2023)

Based on the output of table 5 of eviews 10 which produces a total of 60 number of data points, it can be seen that the DPK has a median value of 58,227,498 and an average value of 59,094,982.

Sharia commercial bank deposits have fluctuated from year to year, reaching a peak of Rp69, 958, 388 in December 2022 and a lowest point of Rp.52, 666, 884 in July 2020. The development of the amount of third party funds in the Islamic banking sector is strongly affected by the growth of Islamic banks, both in the form of Islamic commercial banks and Islamic business units.

The average and median inflation values are 2.805667% and 2.85%, respectively. With a maximum value of 5.95% in September 2022 and a minimum of 1.32% in August 2020, the increase in inflationary pressures is mainly seen in the foodstuff category, triggered by rising foodstuff prices globally. The value of inflation that is prone to fluctuate is influenced by these economic conditions.

The average exchange rate is Rp 14,360.00, with an average value of Rp 14,456. 82. Fluctuations in the Rupiah exchange rate against the US Dollar continued with a tendency to depreciate. As a result, changes in exchange rates are influenced by the market situation and overall economic conditions. The highest value was Rp16, 376.00 in March 2020 and the lowest value was Rp13, 413.00 in January 2018.

The median and average values for the BI rate are 4.25% and 4.499833%. The benchmark interest rate, or BI rate, has varied between 6.00% from November 2018 to May 2019 and 3.50% from February 2021 to July 2022, indicating that internal and external factors influence the policy of increasing and decreasing the BI rate. Every monthly period, Bank Indonesia takes decisions on interest rates by considering various sectors, especially to maintain the stability of the national economy.

Median of equivalent rate is 3,72%. The total average of the equivalent rate reflects the factors that influence the determination of interest rates on savings and financing products offered to customers, which is 3.688833%. The highest of all equivalent rate values was recorded in March 2019 at 4.77%, while the lowest value occurred in July 2022 with a figure of 2.40%.

Multiple Linear Regression Test

Table 6
Regression test results equation I (DPK)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	94884481	11376978	8.340043	0.0000
INFLATION	1509942.	373892.5	4.038440	0.0002
EXCHANGE	-1867.950	760.3414	-2.456725	0.0172
BI_RATE	1898823.	843703.3	2.250582	0.0284
EQUIVALENT_RATE	-5846206.	988717.8	-5.912916	0.0000

Source: data processed Eviews 10 (2023)

The equation in the first regression model can be written as follows:

DPK = 94.884.481 + 1.509.942 INFLASI – 1.867,950 KURS + 1.898.823 BI RATE – 5.846.206 EQUIVALENT RATE + e

Based on Table 6, the first model regression estimates can be explained that:

a. The value of constant coefficient is 94,884,481, which means that the deposit owned by Sharia commercial banks is only Rp

94,884,481 even though there is no inflation, exchange rate, BI rate, and equivalent rate.

b. The value of the inflation coefficient is 1,509,942, which indicates that if inflation increases by 1%, the deposit will increase by Rp 1,509,942 assuming the exchange rate, BI rate, and equivalent rate are constant.
c. The value of the exchange rate coefficient is -1,867.950, which indicates that if the exchange rate increases by Rp1, the deposit will decrease by Rp1, 867, 950 assuming inflation, BI rate, and equivalent rate are all constant.
d. The value of the BI rate coefficient rate is 1,898,823, which indicates that if the BI rate increases by 1%, Third-party funds will increase by Rp. 1,898,823 assuming inflation, exchange rate, and equivalent rate are constant.
e. The value of the equivalent rate coefficient equivalent rateis -5,846,206, which indicates that if the equivalent rate increases by 1%, Third party funds will decrease by Rp 5,846,206 assuming inflation, exchange rate, and BI rate are constant.

Table 7
Regression test results equation II (ER)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.792008	0.399430	4.486416	0.0000
INFLATION	-0.059450	0.013622	-4.364202	0.0001
EXCHANGE	-9.08E-05	2.76E-05	-3.291605	0.0017
BI_RATE	0.215304	0.015692	13.72084	0.0000

Source: Data processed by *Eviews* 10 (2023)

The second equation using the regression model can be written as follows:

EQUIVALENT RATE = 1,792008 - 0,059450 INFLATION – 0,0000908 EXCHANGED + 0,215304 BI RATE + e

Based on Table 7, the estimated results of the second regression model can be explained that:

a. The constant coefficient value of 1.792008 shows that the Equivalent Rate owned by Islamic commercial banks is only 1.792008% without inflation, exchange rate and BI *rate.*
b. The value of the inflation coefficient of -0.059450 indicates that if inflation increases by 1%, the equivalent rate will decrease by 0.059450% assuming the exchange rate and BI *rate* are constant.
c. The value of the exchange rate coefficient of -0.0000908 indicates that if the exchange rate rises by Rp. 1, then the equivalent rate will decrease by 0.0000908% assuming inflation and the BI *rate* are constant.
d. The value of the BI rate coefficient of 0.215304 indicates that if the BI *rate* increases by 1%, the equivalent rate will increase by 0.215304% with inflation and the exchange rate assumed to be constant.

Hypothesis Test

1. Test T test (partial)

Table 8
Test result T test (DPK)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	94884481	11376978	8.340043	0.0000
INFLATION	1509942.	373892.5	4.038440	0.0002
EXCHANGE	-1867.950	760.3414	-2.456725	0.0172
BI_RATE	1898823.	843703.3	2.250582	0.0284
EQUIVALENT_RATE	-5846206.	988717.8	-5.912916	0.0000

Source: Data processed by Eviews 10 (2023)

Based on Table 8, the analysis of the first model regression results can be explained that:

a. The value of the inflation coefficient is 150.9942, the calculated t_{value} is 4.038440 > t_{Table} is 2.004045, and the probability of inflation is 0.0002 < 0.05. This means that partially inflation has a significant positive effect on DPK.
b. The value of the exchange rate coefficient is -1876.950, the calculated t value is -2.456725 >the table t value is 2.004045, and the probability is 0.0172 < 0.05, meaning that the DPK is negatively affected significantly by the partial exchange rate.
c. Probabilitas BI *rate* 0,0284 < 0.05, t_{count} 2,250582 > t_{table} 2,004045, and BI rate coefficient is 1898823. This means that the DPK is partially influenced positif significantly by the BI *Rate*.
d. Equivalent Rate coefficient is -5846206, t_{count} -5,912916 > t_{table} 2,004045, and probability Equivalent Rate is 0,0000 < 0,05. This means that the DPK is partially negatively affected significantly by the Equivalent Rate.

Table 9
Test Results T Test (ER)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.792008	0.399430	4.486416	0.0000
INFLATION	-0.059450	0.013622	-4.364202	0.0001
EXCHANGE	-9.08E-05	2.76E-05	-3.291605	0.0017
BI_RATE	0.215304	0.015692	13.72084	0.0000

Source: Data processed by *Eviews* 10 (2023)

Based on Table 9, the second model regression analysis can be explained that:

a. The value of the inflation coefficient -0.059450 and the value of t_{count} -4.364202 > t_{table} 2.003241 and the probability of inflation of 0.0001 < 0.05 can be interpreted that the partial Equivalent rate is negatively affected significantly by inflation.
b. t_{count} of -3.291605 > t_{table} 2.003241 and probability 0.0017 < 0.05 and coefficient value -0.0000908 can be interpreted that the partial equivalent rate is negatively affected significantly by the exchange rate.
c. BI *Rate coefficient* 0,215304, t_{count}13,72084 > t_{table} 2,003241, and probability 0,0000 < 0,05. This means that the BI *Rate* has a significant positive effect on *the partial Equivalent Rate*.

2. Test F test (simultaneous)

Table 10
Test results F test (DPK)

F-statistic	30.65836	Durbin-Watson stat	0.683809
Prob(F-statistic)	0.000000		

Source: Data processed by Eviews 10 (2023)

The above analysis shows F_{count} 30.65836 > F_{table} 2.539689 and probability value (*F-statistic*) 0.000000 < 0.05. It can be interpreted that simultaneously the DPK is significantly influenced by inflation, exchange rate, BI rate, and equivalent rate.

Table 11
Test result F test (ER)

F-statistic	73.21176	Durbin-Watson stat	0.403625
Prob(F-statistic)	0.000000		

Source: Data processed by *Eviews* 10 (2023)

The above analysis shows the value of F_{count} is 73.21176 > F_{table} 2.769431 and the value of prob (F-statistic) is 0.000000 < 0.05. This means that the simultaneous Equivalent rate is significantly influenced by inflation, exchange rate, and BI rate.

3. Coefficient Of Determination (R^2)

Table 12
Test results coefficient of determination (R^2) (DPK)

R-squared	0.690374	Mean dependent var	59094982
Adjusted R-squared	0.667855	S.D. dependent var	4329311.

Source: Data processed by *Eviews* 10 (2023)

Table 12, showing results is Adjusted R-squared 0,667855, it's means Third-Party Funds are affected by inflasi, kurs, BI rate and equivalent rate 66,7855%. While other variables that are not part of the variables in the research effect of 33.2115%

Table 13
Test results coefficient of determination (R^2) (ER)

R-squared	0.796833	Mean dependent var	1.282058
Adjusted R-squared	0.785949	S.D. dependent var	0.221171

Source: Data processed by *Eviews* 10 (2023)

Table 13, shows the results that Adjusted R-squared 0,785949, it's means that equivalent rate Influenced by 78,5949% Exchange, inflation, and BI rate. While 21.4051% influenced by other variables that are not included in the research model.

Classical Assumption Test

1. Normality Test

Equation 1 Third Party Funds (Y) (Table 1.6)

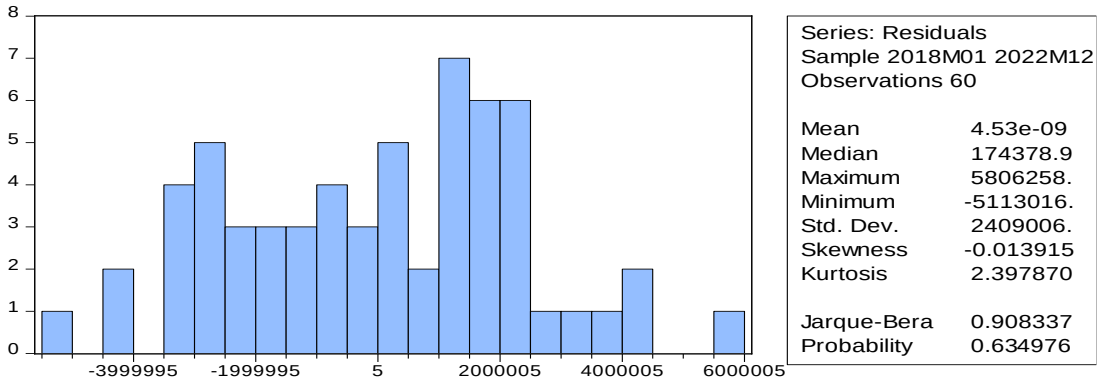

Figure 1
Normality test (DPK)

Source: Data processed by *Eviews* 10 (2023)

Figure 1 above shows the normally distributed data residuals. Residual can be said to be normal distribution because the value of Jarque-Bera Probability 0.634976 > 0.05, which means that the assumptions of normality test has been met.

Equation 2 Equivalent Rate (Z) (Tabel 7)

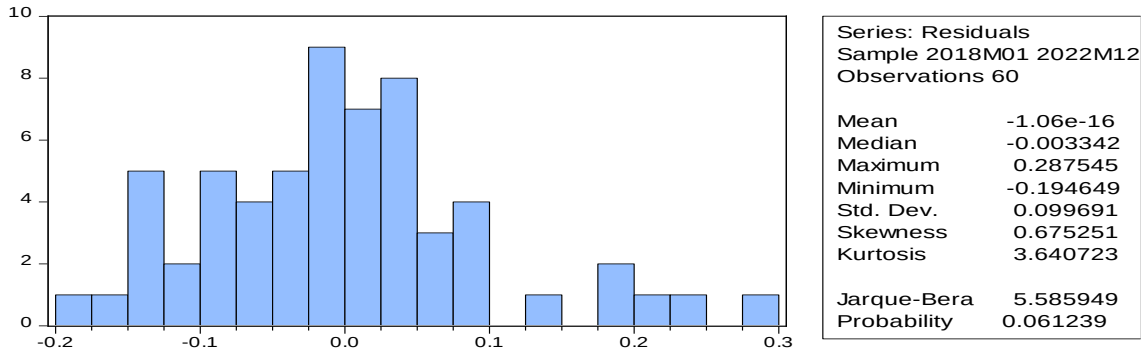

Figure 2
Normality test (ER)

Source: Data processed by *Eviews* 10 (2023)

Figure 2 above shows the data residuals found to be normally distributed. Residual can be said to be normally distributed because the value of Jarque-Bera Probability 0.061239 > 0.05 which indicates that the classical assumption of normality test has been met.

2. Multicollinearity Test

Equation 1 Third Party Funds (Y) (Table 6)

Table 14
Multicollinearity (DPK) test results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1.29E+14	1247.499	NA
INFLATION	1.40E+11	12.38672	1.780715
EXCHANGE	578119.0	1166.070	1.544865
BI_RATE	7.12E+11	144.7205	5.802413

EQUIVALENT_RATE	9.78E+11	133.7889	5.582728

Source: Data processed by *Eviews* 10 (2023)

Based on Table 14 shows that the VIF value of each variable is less than 10, according to the data. Therefore, it is defined that each independent variable does not have multicollinearity.

Equation 2 Equivalent Rate (Z) (Tabel 7)

Table 15
Multicollinearity Test Results (ER)

Variable	Variance	VIF	VIF
C	0.159544	914.2390	NA
INFLATION	0.000186	9.775684	1.405352
EXCHANGE	7.60E-10	911.5848	1.207711
BI_RATE	0.000246	29.76359	1.193340

Source: Data processed by *Eviews* 10 (2023)

Based on Table 15 shows that the VIF value of each variable is less than 10, according to the data. Therefore, interpreted between independent variables does not occur multicollinearity.

3. Heterodedasticity Test

Equation 1 Third Party Funds (Y) (Table 6)

Table 16
Heterocedasticity (DPK) test results

Heteroskedasticity Test: Glejser			
F-statistic	0.581370	Prob. F(4,55)	0.6774
Obs*R-squared	2.433975	Prob. Chi-Square(4)	0.6565
Scaled explained SS	1.816721	Prob. Chi-Square(4)	0.7694

Source: data processed *Eviews* 10 (2023)

The data in Table 16 shows the probability value based on data processing with Glacier test results. ChiSquare (4) 0.6565 < 0.05 means there are no signs of heteroscedasticity in the data.

Equation 2 Equivalent Rate (Z) (Tabel 7)

Tabel 17
Heterokedasticity Test Results (ER)

Heteroskedasticity Test: Glejser			
F-statistic	0.568489	Prob. F(3,56)	0.6381
Obs*R-squared	1.773280	Prob. Chi-Square (3)	0.6208
Scaled explained SS	1.991513	Prob. Chi-Square (3)	0.5742

Source: data processed *Eviews* 10 (2023)

Table 17 shows the value of prob based on data that has been analyzed using Glacier Test. ChiSquare (4) of 0.6208 > 0.05 means that there are no signs of heteroscedasticity in the data.

4. Autocoleration Test

Equation 1. Third Party Funds (Y) (Table 6)

Table 18
Autocorrelation test (DPK)

F-statistic	6.311676	Durbin-Watson stat	1.695713
Prob(F-statistic)	0.000047		

Source: data processed *Eviews* 10 (2023)

Based on Table 18 shows that the Durbin-Watson value is 1.695713, meaning that the model does not have autocorrelation because DW is between -2 < 1.695713 < 2+.

Equation 2. Equivalent Rate (Z) (Table 7)

Table 19
Autocorrelation (ER) test results

F-statistic	16.20958	Durbin-Watson stat	1.707606
Prob(F-statistic)	0.000000		

Source: data processed *Eviews* 10 (2023)

Based on Table 19, it can be seen that there is no autocorrelation in the model because the values of DW 1.707606 and DW range between -2 < 1.707606 < 2+.

Path Analysis

Based on Table 12 the value^2 of R^2 is 0.667855, and e2 is shown from the following results

$e1 = \sqrt{(1 - R^2)} = \sqrt{1 - 0,667855)}$ = 0.576324

DPK =1509942 Inflation -1867,950 Exchange + 1898823 BI Rate – 5846206 Equivalent Rate + 0,576324 e1

Based on Table 13 the value of R^2 is 0.785949, and e2 is shown from the following results:

$e2 = \sqrt{(1 - R^2)} = \sqrt{(1 - 0,785949)}$ = 0,462656

ER = 0,059450 Inflasi – 0,0000908 Kurs + 0,215304 BI *Rate* + 0,462656 e2

Table 20
Path Analysis

Variable	P1 (X–Y)	P2 (X-Z)	P3 (Z-Y)	SP2 (X-Z)	SP3 (Z-Y)
Inflation	1509942	-0,059450	-5846206	0,013622	988717,8
Exchange	-1867,950	-0,0000908	-5846206	0,0000276	988717,8
BI Rate	1898823	0,215304	-5846206	0,015692	988717,8

Source: secondary data processing (2023)

Based on Table 20, the following interpretations are possible:

A. Equivalent rate mediates the effect of inflation on deposits

(p2xp3) = ((-0,059450) × (-5846206)) = 347556,9467

$Sp^2p^3 = \sqrt{p3^2Sp2^2 + p2^2\,Sp3^2 + Sp2^2Sp3^2}$

$$= \sqrt{\begin{matrix}(-5846206)^2\ (0.013622)^2\ + \\ (-0.059450)^2\ (988717.8)^2\ + \\ (0.013622)^2\ (988717.8)^2\end{matrix}}$$

$$= 99892{,}20738$$

The result is used to calculate the following t value:

$$t = \frac{p2 \times p3}{Sp2p3} = \frac{347556{,}9467}{99892{,}20738} = 3{,}479319$$

The interpretation of the above data shows that inflation against DPK can be mediated by the equivalent rate because the coefficient value is 99892.20738 with t_{count} 3.479319 > t_{table} 2.003241.

B. Equivalent rate mediates the effect of exchange rates on deposits

(p2xp3) = ((-0,0000908) × (-5846206)) = 530,8355048

$Sp^2p^3 = \sqrt{p3^2Sp2^2 + p2^2\,Sp3^2 + Sp2^2Sp3^2}$

$$= \sqrt{\begin{matrix}(-5846206)^2(0.0000276)^2 + \\ (-0.0000908)^2(988717{,}8)^2 \\ +(0{,}0000276)^2(988717{,}8)^2\end{matrix}}$$

$$= 186{,}654361$$

The result is used to calculate the following t value:

$$t = \frac{p2 \times p3}{Sp2p3} = \frac{530{,}8355048}{186{,}654361} = 2{,}843949$$

The interpretation of the above data shows that the exchange rate against DPK is mediated by the equivalent rate because the coefficient value is 186.6543613 with t_{count} 2.843949> t_{table} 2.003241.

C. Equivalent rate mediates the influence of BI rate on deposits

(p2xp3) = (0,215304) × (-5846206)) = -1258711,54

$Sp^2p^3 = \sqrt{p3^2Sp2^2 + p2^2\,Sp3^2 + Sp2^2Sp3^2}$

$$= \sqrt{\begin{matrix}(-5846206)^2(0{,}015692)^2 \\ +(0{,}215304)^2(988717{,}8)^2 \\ +(0{,}015692)^2(988717{,}8)^2\end{matrix}}$$

$$= 232319{,}6471$$

The result is used to calculate the following t value:

$$t = \frac{p2 \times p3}{Sp2p3} = \frac{-1258711{,}54}{232319{,}6471} = -5{,}418015$$

The interpretation of the above data shows that the BI *rate* against DPK can be mediated by *the equivalent rate* because the coefficient value is 232319.6471 with t_{count} -5.418015 > t_{table} 2.003241.

Discussion

Effect of inflation on third party funds

Based on the results of data analysis Table 8, which shows the value of the inflation coefficient of 1509942 with a positive coefficient direction and obtained the value of t_{count} 4.038440 > t_{table} 2.004045 with the probability of inflation of 0.0002 < 0.05, so that inflation has a positive effect on third-party funds.

This study refers to the signal theory (Signaling Theory) where the signal is an action that provides guidance to investors about how management sees the company's opportunities (Brigham, E. F., & Houston, 2019). This means that third-party funds will decrease as inflation rises. The motivation to save will decrease as a result of inflation, which will also result in a decrease in public deposits in Sharia commercial banks. This happens because the increase in inflation can cause an increase in the price of goods and services, thus reducing people's purchasing power.

This is intended so that people's real income does not decrease due to the decline in the value of money due to inflation. Reduced revenue earned

because money is prioritized for consumption or investment in other industries affects the ability of customers to deposit money in the bank and makes it difficult for banks to secure third-party funds (Muhammadinah, 2020).

If the inflation rate increases, Islamic banks may face a decline, given the impact of inflation on the economy. However, Islamic banks can respond to inflation problems by using Islamic currencies or taking actions consistent with Islamic law. Ultimately, this approach can persuade people to decide to keep their money in Islamic banks as a more sharia-compliant alternative by increasing their awareness of the role of Islamic banks in combating inflation (Shara, 2021).

The results of this study support the research conducted by Muhammad Dzulfaqori JATNIKA (2020), the study shows that Third Party Funds are positively affected by inflation.

Effect of exchange rates on third-party funds

Based on the results of data analysis Table 8, shows the value of the exchange rate coefficient of -1876.950 with a negative coefficient direction and obtained the value of t_{count} -2.456725 > t_{table} 2.004045 with the probability of exchange rate of 0.0172 < 0.05 thus can be interpreted as a negative influence on the exchange rate of third party funds.

This study refers to the signal theory (Signaling Theory) where the signal is an action that provides guidance to investors about how management sees the company's opportunities (Brigham, E. F., & Houston, 2019). This implies that third party funds will increase when the rupiah exchange rate decreases. This happens because when the demand for domestic money decreases, the rupiah exchange rate increases. Therefore, variations in the value of the rupiah relative to the US dollar have an impact on the expansion of Sharia bank deposits. The actual return on investment will depend on the value of the currency.

A decrease in the value of a currency can negatively affect the income and profit from various types of investments. It can also affect the real value of invested capital. The decline in the value of this investment can have an impact on the operations of Islamic banks, considering that investment is one source of income for banks. Therefore, any changes in the currency exchange rate may affect the income and profits of Islamic banks and their operations as a whole (Rahman & Setiawansi, 2021).

When the exchange rate falls, the prices of manufactured goods and services, measured in foreign currency, fall significantly. The impact is that demand for goods and services is expected to increase. A new balance can be created due to an increase in supply due to an increase in demand. Thus, investment-based economic development will accelerate. As a result, it will be easier for banks to collect cash from other parties (Rahman & Setiawansi, 2021).

The results of this study support the research conducted by (2017) The study shows that the exchange rate has a positive impact on third-party funds.

Effect of BI Rate on third party funds

Based on the results of data analysis Table 8, shows the value of the BI rate coefficient of 1898823 with a positive coefficient direction and obtained the value of t_{count} 2.250582 > t_{table} 2.004045 with the probability of BI *rate* of 0.0284 < 0.05, indicating that the BI *rate* has a positive effect on third party funds.

This study refers to the signal theory (*Signaling Theory*) where the signal is an action that provides guidance to investors about how management sees

the company's opportunities (Brigham, E. F., & Houston, 2019). This means that third-party funds will increase as BI r*ate* increases. This happens because, although Islamic banks do not control interest rates, they will still be exposed to interest rate risk both on the funding and financing side.

The move aims to expand Islamic banks ' customer base beyond those who simply follow sharia principles. The problem is, if the profit-sharing rate in Islamic banks is lower than the interest rate given by conventional institutions, then customers can withdraw money from Islamic banks and transfer it to conventional banks. This can lead to liquidity risks for Islamic banks, namely the lack of funds available to meet operational needs and other commitments. Liquidity risk management is crucial for Islamic banks in maintaining a balance between offering attractive profit sharing and ensuring adequate liquidity (Adiwarman, 2010).

Changes in the BI Rate should not have an impact on Islamic banks as they are bound to agreements with profit sharing clauses. Therefore, depending on how much money the business makes from its activities, the amount of profit sharing offered to customers will change (Afiyanti Tripuspitorini, 2020).

The results of this study support the research of Muhammadinah (2020) The study shows that the BI rate has a positive effect on third-party funds.

Effect of Equivalent Rate on Third Party Funds

Based on table 8, the results of data analysis show a value of the equivalent rate coefficient of -5846206 with the direction of the negative coefficient and obtained a tcal value of -5.912916 > table 2.004045 with a probability of equivalent rate 0.0000 < 0.05 so that the deposit is negatively affected by the equivalent rate.

This study refers to the signal theory (Signaling Theory) where the signal is an action that guides investors about how management sees the company's opportunities(Brigham, E. F., & Houston, 2019). This means that when third-party funds will also fall when the corresponding equivalent rate falls. This happens as a result of the fact that the volume of third-party funds will be comparable to the *equivalent rate* received by customers of Islamic banks. People's interest in saving will increase as a result of the high percentage equivalent rate of comparable equivalent rates offered by banks to customers, and vice versa. Customers can view the appropriate interest rate data published by Islamic banks to learn how to raise money in the long term to benefit (Salma Firdayanti, 2021).

The results of this study support the research conducted by Bambang Prasetya, Syamsurijal Tan, and Arman Delis (2015) The findings of the study show that the equivalent rate has no effect on deposits.

Effect of inflation on third party funds mediated by *Equivalent Rate*

Based on the path analysis research with sobel test conducted to obtain the results of indirect influence of 99892.20738 with t_{count} of 3.479319 > t_{table} 2.003241 it makes the equivalent rate can mediate inflation to third party funds.

This study refers to the signal theory (Signaling Theory) where the signal is an action that guides investors on how management sees the company's opportunities (Brigham, E. F., & Houston, 2019). This means that when inflation is low, the public can engage in funding operations, raising funds in Islamic banks. The main element or tactic of Islamic banks is their ability to attract customers. When third-party funds move in the same direction as the increase, the bank offers a high rate of profit

sharing. As a result, a decrease in inflation can be offset by an increase in the equivalent equivalent rate when followed by an increase in the DPK(Salma Firdayanti, 2021).

The results of this study contradict the research of Ma (2018) which found that the effect of inflation on deposits cannot be mediated by the equivalent rate.

Effect of exchange rate on third party funds mediated by *Equivalent Rate*

Based on the research on the path analysis with sobel test conducted to obtain the results of indirect influence of 186.654361 with a value of t_{count} 2.843949 > t_{table} 2.003241 it makes the equivalent rate can mediate the exchange rate against third party funds.

This study refers to the signal theory (Signaling Theory) where the signal is an action that guides investors about how management sees the company's opportunities (Brigham, E. F., & Houston, 2019). This happens because the basis of the system of selling goods and services, especially in Islamic banks, is the exchange rate. People can invest some of their money in the form of funding due to falling exchange rates. Islamic banks ' third-party funds rose or increased as a result of this activity. The profit-sharing rate obtained by customers can be calculated using cash flow in Islamic banks. Therefore, third-party funds increase when the exchange rate decreases, followed by a comparable equivalent (Salma Firdayanti, 2021).

The results of this study contradict the research of Ma (2018) which found that the effect of exchange rates on deposits cannot be mediated by the equivalent rate.

The Effect of BI Rate on Third Party Funds mediated by Equivalent Rate.

Based on the research on the path analysis with sobel test conducted to obtain the results of indirect influence of 232319.6471 with a value of t_{count} -5.418015 > t_{table} 2.003241 it makes the equivalent rate can mediate BI *rate* to third party funds.

This study refers to the signal theory (Signaling Theory) where the signal is an action that guides investors about how management sees the company's opportunities (Brigham, E. F., & Houston, 2019). Conventional banks rely on interest rates as the main principle, while Islamic banks avoid usury or interest and adopt a profit-sharing approach. The high interest rates offered by conventional banks are an attraction for many customers. Therefore, Islamic banks need to remain competitive with conventional banks and consider the balance between its principles while attracting funds by offering attractive profit-sharing rates. The customer invests his money to get a return, so *the equivalent rate* which acts as a mediator and has the same third party funds as the BI *rate movement* can be affected (Salma Firdayanti, 2021).

The results of this study are contrary to the research of Ma (2018) which found that the effect of BI rate on deposits cannot be mediated by the equivalent rate.

CONCLUSION AND RECOMMENDATION

1. Inflation partially has a positive effect on third-party funds, this is shown by the value of t_{count} 4.038440 > t_{table} 2.004045
2. The exchange rate partially negatively affects third-party funds, this is shown by the value of t_{count} -2.456725 > t_{table} 2.004045
3. BI rate partially has a positive effect on third party funds, this is shown by the value of t_{count} 2.250582 > t_{table} 2.004045.

4. Third party funds are negatively affected by the partial equivalent rate, this is shown by the value of t_{count} -5.912916 > t_{table} 2.004045.
5. The equivalent rate is able to mediate the effect of inflation on deposits, this is shown by the value of t_{count} 3,479319 > t_{table} 2,003241
6. The equivalent rate can mediate the effect of exchange rates on third party funds this is shown by the value of t_{count} 2,843949 > t_{table} 2,003241
7. The equivalent rate can mediate the influence of the BI rate on deposits this is shown by the value of t_{count} -5,418015 > t_{table} 2,00324.

RECOMMENDATION

Based on the results of data analysis and discussion above, the researchers suggest that in consideration of changes in other variables, Sharia commercial banks need to continue to increase the presence *of an attractive Equivalent Rate* to attract the attention of prospective customers in the future. This will allow Islamic banks to remain competitive with conventional banks that offer interest rates at the beginning of the agreement. However, if this goal is not achieved, customers may prefer to place their funds in conventional banks rather than in Islamic banks.

For future researchers, it is expected that they will be able to expand the scope of the population and sample by covering different types of foreign exchange banks. In addition, consider including additional variables that may affect third-party funding, even if they are not directly related to the focus of this study.

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