

## **The Effect of Macroeconomic Variables on Financing in Islamic Banks**

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### **Abstract**

Macroeconomic variables are closely related to financial conditions. During the 1997-1998 crisis, the achievement of the financial sector was tested through the depreciation of the rupiah exchange rate and the uncertainty of domestic economic growth. The 2008 crisis tested the achievements of the financial sector through the global financial crisis and in 2020 it was tested through the Covid-19 crisis. However, Islamic banking is relatively unaffected by some of these crises, this is because Islamic banking has a unique business model and Islamic banking is a productive intermediary institution compared to conventional banks. This study aims to examine macroeconomic variables such as domestic interest rates, inflation, exchange rates and foreign interest rates on Islamic bank financing. The study uses time-series data and multiple regression method. These findings highlight that stable monetary conditions, particularly interest rates and exchange rates, are essential for sustaining the performance of Islamic banking. The implication of the research is that maintaining exchange rate stability and price stability is the main agenda of the government in maintaining the growth of the financial sector, especially the Islamic financial sector.

**Keywords:** Inflation, Exchange Rate, Financing, OLS

## Abstrak

Variabel makroekonomi memiliki keterkaitan yang erat dengan kondisi keuangan. Selama Krisis Asia 1997–1998, kinerja sektor keuangan diuji melalui depresiasi nilai tukar rupiah dan ketidakpastian pertumbuhan ekonomi domestik. Krisis keuangan global 2008 menguji ketahanan sektor keuangan melalui guncangan krisis keuangan global, dan pada tahun 2020 sektor ini kembali diuji melalui Pandemi COVID-19. Namun, perbankan syariah relatif tidak terlalu terdampak oleh beberapa krisis tersebut. Hal ini karena perbankan syariah memiliki model bisnis yang khas dan berperan sebagai lembaga intermediasi yang lebih produktif dibandingkan bank konvensional. Penelitian ini bertujuan untuk menguji pengaruh variabel makroekonomi seperti suku bunga domestik, inflasi, nilai tukar, dan suku bunga luar negeri terhadap pembiayaan pada perbankan syariah. Penelitian ini menggunakan data runtut waktu (*time-series*) dan metode regresi berganda. Temuan penelitian menunjukkan bahwa kondisi moneter yang stabil, khususnya suku bunga dan nilai tukar, sangat penting untuk menjaga kinerja perbankan syariah. Implikasi penelitian ini adalah bahwa menjaga stabilitas nilai tukar dan stabilitas harga menjadi agenda utama pemerintah dalam mempertahankan pertumbuhan sektor keuangan, khususnya sektor keuangan syariah.

**Kata Kunci:** Inflasi, Nilai Tukar, Pembiayaan, OLS (Kuadrat Terkecil Biasa)

## INTRODUCTION

In the context of Indonesia's dual banking system, which combines conventional and Islamic banking, there is a critical insight that, while this system expands financial inclusion and provides an alternative based on Islamic principles, it also creates structural dependencies that are not fully aligned with Islamic values, primarily due to the dominance of interest-based instruments in monetary policy (Djatnika Djoni, 2021). In practice, Islamic banking still uses conventional interest rate benchmarks, creating a "shadow effect" that can weaken the differentiation and effectiveness of Islamic business models. In relation to the research problem, this condition is a crucial factor that can influence the relationship between variables such as monetary stability, ESG implementation, and the use of green sukuk on Islamic banking performance, as external influences from the conventional

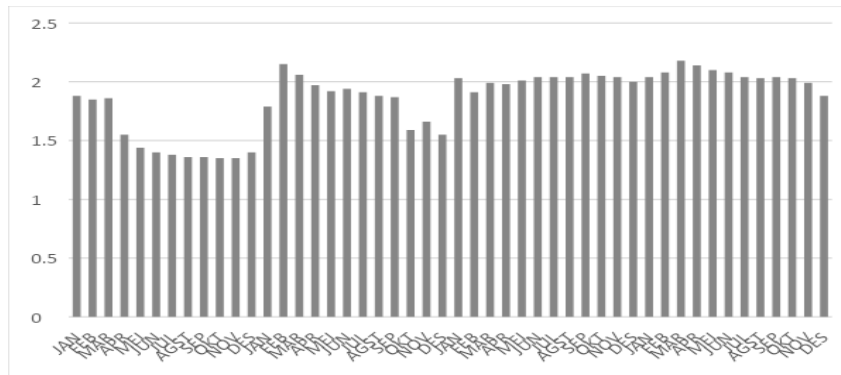
system have the potential to distort the expected results. Therefore, the dual banking system serves not only as a context but also as a critical variable that needs to be considered in analyzing the validity and strength of the relationships between variables in this study.

The development of Islamic commercial banks in Indonesia has experienced quite rapid development, seen from data from 2007 to 2011, the growth of Islamic banking reached 40.2% per year, while conventional banking only experienced growth of 16.7% per year (Tinton, 2015). The increase came from sharia commercial bank assets which included 33 companies, including 14 BUS and 19 UUS. This growth was driven by an increase in third-party funding (DPK). Judging from the number of banks, sharia general banking has also increased to 13 sharia commercial banks starting to be established in Indonesia. The increase in the performance of sharia banks is influenced by several factors both internal and external, or even from foreign factors. One of the macroeconomic factors that has an influence on the performance of general sharia banking is inflation. Inflation is the process of increasing general prices simultaneously and continuously. Experts state that inflation causes disruption in the function of money, levels of consumption tendencies, savings and non-productive levels of investment (Setyaningrum Aisyah, 2017).

Apart from inflation, the macroeconomic factor that influences general sharia banking is the rupiah exchange rate against the US dollar. The exchange rate is the exchange price level of one country's currency for the value of another country's currency and is used in various transactions (Listyadewi, 2023). Changes in exchange rates are influenced by several factors such as Bank Indonesia's economic and monetary policies, both global and domestic influences. In terms of global and domestic influences, macroeconomic factors that influence general sharia banking are domestic interest rates and foreign interest rates (Khunaifi & Umam, 2019). The domestic interest rate is the value of the interest rate or wages on credit distributed by a bank to the public using the money saved by bank customers. The interest rate affects sharia general banking because they serve parties who have excess funds and save their money in the form of wadiah demand deposits, mudharabah deposits, wadi'ah savings and mudharobah savings, as well as providing financing services (Syarifuddin & ..., 2023).

**Figure 1**

Return On Assets in Islamic Bank



In its journey, general sharia banking has not always experienced an increase, fluctuations still occur in general sharia banking due to several things such as the phenomenon of the economic crisis in 2008 and Covid-19 which caused the economy to slow down in Indonesia and had an impact on general sharia banking. In 2008 there was a global economic crisis, where at that time initially sharia banking was not affected by problematic assets in United States banks because the existing assets were not in accordance with Islamic sharia, so it had no effect on the condition of sharia commercial banks which used the concept of Islamic sharia. Sharia general banking does not join in investing in securities held by large banks with high risks. However, the decline in real estate and private equity valuations, most of which are invested in private companies, has had an impact on Islamic financial institutions, such as sharia general banking (hariani Prawidya, 2020).

The Covid-19 condition can reduce the competitiveness of sharia banking and people tend to move their funds to conventional general banking. At the time of Covid-19, sharia commercial banks began to lose income from financing, profit sharing because customers were unable to meet their obligations to pay from this incident, the impact of this decline in income reduced competitiveness, profit sharing on deposits, so that conventional banks became more attractive in the eyes of customers. . From the data obtained, it is known that in April 2020 ROA (*Return on Assets*) decreased compared to the previous month, this occurred due to the impact of the Covid 19 pandemic. The

decrease was quite significant, namely in March ROA had a level of 1.86%, while in April ROA decreased to 1.55%, this was caused by Several macroeconomic factors have experienced a decline in performance and have an influence on the performance of sharia general banking. One of the losses experienced in the economic sphere is the weakening performance and capacity of sharia banks, where this weak performance can increase credit risk to both direct customers and risks to general sharia banking, namely closure and a decrease in profits.

## **LITERATURE REVIEW**

Sharia banking consists of two words, namely bank and sharia. The word "bank" refers to a financial institution that acts as a financial intermediary between two parties (Lahuri, Prastyaningsih, & ..., 2024). The parties referred to are parties who have excess funds and parties who have a lack of funds. Meanwhile, the word "syariah" according to sharia banks in Indonesia is a rule based on an agreement between the bank and other parties to collect or distribute funds and other activities according to Islamic law. Banking is an institution that has a major role in the development of a country. This role is manifested in the bank's function as a financial intermediation institution (*financial intermediary institution*), namely collecting funds and distributing them to the community in the form of credit or other forms in order to increase people's living standards. Islamic banks are banks that operate in accordance with sharia principles. The implementation of sharia principles is the main differentiator from conventional banks (Hasan & Sari, 2024; Suhartini, Arsy Tamika, & Nor, 2024). In essence, sharia principles refer to Islamic sharia which is primarily guided by the Koran and Hadith.

Sharia bank is a financial institution that provides services based on sharia principles. The sharia principles referred to in this case are the principles of Islamic law in the field of banking business based on fatwas issued by agencies that have the power to determine fatwas in terms of sharia. The basic aim of sharia banks is to prepare facilities in the financial system through various methods in providing financial instruments which must be adjusted based on the provisions in force in Islamic law. Sharia banks do not solely

play the role of maximizing profits, but can also provide profits to other communities. This statement of the basic objectives of Islamic banking is based on the contents in *Handbook of Islamic Banking*. The operational system of sharia banks is different from the operational system of conventional banks, sharia banks offer interest-free services to their customers. The sharia operating system prohibits interest-based payments or withdrawals for all types of transactions at sharia banks. Islamic banks do not use interest schemes, whether the interest is obtained from customers who borrow funds or interest paid to depositors according to sharia. Sharia banks are banks that carry out all their activities in collecting and distributing funds based on sharia principles using a buying and selling system and profit sharing (Jallow, 2023). Apart from that, it is hoped that Islamic banks can be a tool for collecting funds from the community and channeling funds to the community through various products that can be obtained by the community, especially the Muslim community. And with sharia banks operating based on a profit sharing system, it is hoped that the needs of the Muslim community in Indonesia in their services can be met using sharia principles and can encourage the economic capacity and participation of the Muslim community in increasing development in Indonesia.

In its operations, Islamic banks are based on the concept of profit sharing and Islamic banks do not apply an interest system as a means of earning profits. Islamic banks also do not charge interest when using funds or financing, because interest is *riba* which is prohibited, and Islamic banks are not like conventional banks, because Islamic banks cannot make clear distinctions in the real and monetary sectors. Therefore, Islamic banks can use transactions in the real sector, for example buying and selling and renting in operational activities. Apart from that, sharia banks can carry out their operational activities to receive income from other banking services which do not contradict sharia principles. In this sharia bank it is explained that the operational system they use is profit sharing. Profit sharing is a system that includes procedures for sharing business results between fund providers and fund managers (Rumasukun & Reza, 2022). If conventional banks pay interest to their customers, Islamic banks pay profit sharing according to the agreement. This profit sharing agreement is determined by a figure for the profit sharing ratio or ratio.

Profit sharing is a form of cooperation agreement between investors (investors) and capital managers (Entrepreneurs) by carrying out economic business activities, where the two of them will be bound by a contract that in the business, if profits are obtained, they will be shared by both parties in accordance with the agreed ratio at the beginning. agreement and likewise, if the business experiences losses, they will be borne jointly according to their respective portions.

The concept of profit sharing is very different from the concept of interest applied by conventional economic systems. In sharia economics, the concept of profit sharing can be explained as follows: 1) Fund owners invest their funds through financial institutions that act as fund managers. 2) The manager manages these funds in a system known as the pool of funds system, then the manager will invest these funds in projects or businesses that are feasible and profitable and comply with all aspects of sharia. 3) Both parties make an agreement (contract) which contains the scope of cooperation, nominal amount of funds, ratio, and the validity period of the agreement.

## RESEARCH METHOD

This research uses the Ordinary Least Square (OLS) method to determine the influence of independent variables on the dependent variable. In this research, to determine the influence of macroeconomic variables on sharia commercial bank financing.

**Table 1**  
Operational Definition of Variables

Variable	Notation	Information	Source
LONG	AND	Percent	FSA
BI Rate	X1	Percent	BPS
Inflation	X2	Percent	Bank Indonesia

Exchange Value	X3	Thousand rupiah	Bank Indonesia
Foreign Interest Rates	X4	Percent	Trading Ekonomic

Source: Design's Author

The OLS method equation is as follows:

$$Y = \beta_{\sigma} X_1 + \beta_1 X_2 + \beta_2 X_3 + \beta_3 X_3 + \beta_4 X_4$$

Where Y is the ROA of Bank Syariah Indonesia, X1 is the BI Rate, X2 is Inflation, X3 is the Exchange Rate, X4 is the Foreign Interest Rate,  $\beta_{\sigma}$  is the Constanta Value,  $\beta_1 - \beta_4$  is the coefficient value of the independent variable,  $\varepsilon_t$  is an error. To fulfill the BLUE (Best Linear Unbiased Estimator) concept, this research applies the classic assumption test consisting of normality, autocorrelation, multicollinearity and heteroscedasticity.

## RESULT AND DISCUSSION

Based on the analysis results, it is known that the BI Rate has a negative and significant influence on the ROA of Indonesian sharia commercial banks. The regression results show that the BI Rate variable coefficient value is -4.289, illustrating that if the BI Rate increases by 1%, the ROA value of sharia commercial banks will decrease by -4.289 percent. This is in accordance with the research results of Syed Atif Ali and friends (2012) which stated that the factors that influence the profitability of Islamic commercial banks are the interest rate factor (Amalia). However, from the results of other people's research, this is not in accordance with research conducted by Amalia Nuril Hidayah which states that increasing the BI Rate will also increase the ROA of sharia commercial banks.

**Table 2**  
Regression Estimation Results

Variable	Coefficient
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C	3,731
	(5,352)**
X1	-0,322
	(-4,289)**
X2	0,006
	(0,070)
X3	-5,96E-05
	(-1,288)
X4	0,212
	(6,259)**
<b>Model Diagnosis</b>	
Normality	0,388
Autocorrelation	0,191
Heteroskedatisitas	0,163
Multicollinearity	<i>Free from multicollinearity problem</i>

Source: Data processing results

In this research, the BI Rate shows negative and significant results on the ROA of Islamic commercial banks in Indonesia because the majority of the population in Indonesia. When the interest rate is high, it will attract funds from the public to be used as savings,

and people will tend to save in conventional commercial banks. because conventional commercial banks are more responsible for the interest rate in Indonesia and this will attract more public interest in saving in conventional commercial banks in Indonesia than in sharia commercial banks. This will have an impact on decreasing the income of sharia commercial banks and the assets in sharia commercial banks, so that an increase in the BI Rate of sharia commercial banks will respond with the opposite value.

Based on the results of the analysis carried out, foreign interest rates have a positive and significant influence on the ROA of Islamic commercial banks. The regression results show a value of 6.259, which means that an increase in foreign interest rates by 1% will increase the ROA value of Islamic commercial banks by 6.259 percent. This happens because of two main things, firstly, when foreign interest rates increase, share prices will tend to increase, this will affect people's interest in investing in shares. Sharia commercial banks which are involved in the world of shares and fund stock companies, will have a positive impact on the increase in this variable. Public interest in stock investment will influence the increase in growth of stock companies, this will increase the assets or ROA of Islamic commercial banks. Second, several Islamic commercial banks listed on the stock exchange will experience an increase in demand for shares when foreign interest rates increase. Companies - Companies that buy shares from sharia commercial banks will directly increase the value of ROA (*Return on Assets*) sharia commercial banks.

In this research, the inflation value has no influence on the ROA value of Islamic commercial banks. So that increases or decreases in the value of inflation will not have an impact on the ROA value of sharia commercial banks. This is in accordance with research (Anindya, Aprilianto, & Agustin, 2022) which states that inflation does not have a significant effect on the ROA value of Islamic commercial banks. However, this research is not in line with Athanasoglou's (2006) theory which states that there are external factors that influence bank profitability, one of these external factors is inflation and BI interest rates.

The exchange rate has negative and insignificant regression results on the ROA value (*Return on Assets*) sharia commercial banks. So that changes in the exchange rate in

Indonesia will not affect the ROA value (*Return on Assets*) sharia commercial banks. This is not in line with research results (Anindya, Aprilianto, & Agustin, 2022) which state that the exchange rate has a significant positive effect on Return On Assets (ROA) of sharia commercial banks. The exchange rate (exchange rate) influences people's saving decisions. When the rupiah exchange rate rises, people choose to save their money in rupiah. Because the public will benefit from the strengthening of the rupiah exchange rate. Based on the recapitulation of the classical assumption test in the table above, it is known that the probability value *Jarque Bera* more than the 5% significance level so that the data is normally distributed. Based on the autocorrelation test using the test *Breusch-Godfrey setialcorrelation Lm test* value is obtained *obs\*R-squared* 0.191 is greater than the 5% significance level, meaning that the model does not contain autocorrelation. The heteroscedasticity test is carried out using the test *Glazes*. From the regression results with the test method *White* earned value *Obs\*R-squared* of 0.163 is greater than the 5% significance level which means that residual homoscedasticity is accepted.

## CONCLUSION

Based on the results of the study on the influence of domestic interest rates, inflation, exchange rates, and foreign interest rates on the ROA of Islamic commercial banks using secondary data, it can be concluded that domestic interest rates have a negative but insignificant effect on ROA, indicating that higher interest rates may encourage people to save or transfer funds from Islamic banks to conventional banks due to higher returns. Foreign interest rates, on the other hand, have a positive and significant effect on ROA, as increases in foreign interest rates may stimulate stock market activity and positively affect Islamic commercial banks involved in investment sectors. Inflation does not significantly affect ROA, showing that fluctuations in inflation do not directly influence the profitability of Islamic commercial banks. Likewise, the exchange rate has a negative but insignificant effect, suggesting that changes in the rupiah exchange rate generally do not significantly impact Islamic banking performance in Indonesia. Overall, the findings provide useful

information and references for future research and can serve as a consideration for customers and the public in making investment decisions related to Islamic banking.

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