Analysis of the Effect of Inflation, Gross Domestic Product (GDP), Foreign Currency Exchange Rates and Interest Rates on the Profitability of Sharia Commercial Banks in Indonesia (Case Study of Bank Muamalat for the 2007-2023 Period)

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Abstract
This research aims to analyze the influence of Inflation, Gross Domestic Product, Exchange Rates and Interest Rates on the profitability of Islamic banking, especially Bank Muamalat. This research uses descriptive quantitative methods. The data in this research is secondary time series data published by the Central Statistics Agency (BPS), Bank Indonesia (BI), Financial Services Authority (OJK). The data analysis technique uses multiple linear regression analysis which has previously been tested with classical assumptions. The results of multiple linear regression include that inflation and exchange rates have a significant effect on RoA, GDP and interest rates do not have a significant effect on RoA and inflation, economic growth, exchange rates and interest rates have a significant effect on Return on Assets of Bank Muamalat for the 2007-2023 period.

Keywords: inflation, Gross Domestic Product (GDP), foreign currency exchange rates, interest rates, Return on Asset (ROA)

INTRODUCTION
In a country's economic activities, the role of banks is very important and cannot be separated. Almost all aspects of economic activity currently require banks as financial institutions as guarantors of business activities (Luthfi, 2024). In general, banks are business entities that collect public funds as savings and channel them back as loans or credits (Suhaidi, 2022). Countries with Muslim majority populations in recent decades have tried to switch to using sharia principles in their lives. They have long felt that they have been dominated by western hegemony, especially in the political and socio-economic fields, which distances them from sharia principles. Therefore, in terms of banking they are trying to reform it again based on sharia principles (Nurizal, 2020)

The presence of Islamic banks has long marked the revival of Islam. This can be seen from the independence of the Islamic majority country from western colonialism. The main issue at that time that was widely discussed was the transformation of an economic system based on Islamic teachings which was previously based on a capitalist system. The practice of interest applied by the capitalist system has taken away people's welfare because of its injustice. Eradicating the practice of interest was carried out as an initial step in economic Islamization. Due to its vital position in improving the economy, operating and establishing a bank based on Islamic teachings is a priority.

Mit Ghamr Local Savings Bank Egypt, which was founded in 1963, is a pioneer of contemporary sharia banking. This bank has succeeded in providing innovations related to
eliminating the practice of interest-free banking in its activities. In practice, this bank emphasizes the concept of profit sharing in the fields of trade and industry. This bank’s achievements are considered successful, namely, armed with public trust, it was able to expand its market share in a short time, so that it has nine branches and manages funds worth 1.8 million Egyptian Pounds which has more than 250,000 customers. His ability to not only prevent customers from asking moneylenders for help, but also to instill a sense of belonging among his customers is the reason for his success (Nurizal, 2020).

The development of sharia banking on an international scale is related to the establishment of the Islamic Development Bank (IDB) in 1975. Founded by the Islamic Conference Organization, this bank aims to help its members who want to establish a sharia bank and provide financial assistance to members who need it as well as providing and encouraging research, especially in the fields of economics, finance and sharia banking. On a national scale, the establishment of Bank Muamalat Indonesia in 1991 and starting operations in 1992, initiated by the Indonesian Ulema Council (MUI) of the Indonesian Muslim Scholars Association (ICMI) and fully supported by the government, was the beginning of the implementation of sharia banking in Indonesia. Where Islamic banking has now developed rapidly to become an important element in the global financial market (Nurizal, 2020).

Sharia banking in Indonesia has experienced quite rapid development from the beginning until now (Aziz, Indra & Tarmizi, 2023), this can be seen from the significant increase experienced every year. Based on Sharia Banking Statistics released by the OJK in March 2024, currently Sharia Banks in Indonesia are experiencing a significant increase every year. The development of Sharia Banks can also be seen from other aspects. Starting from the number of offices, BUS and UUS ATMs, total sharia banking assets, as well as the total workforce. There is an increase in Total Sharia Banking Assets every year according to statistical reports on the development of Sharia Banking, namely IDR 676,735 billion in 2021 and 782,100 billion in 2022. However, compared to conventional banking, sharia banking is still far behind in its development. Where in 2022 the market share of sharia banking will be 7.09 percent. Where the assets of conventional banks are IDR 10,581.45 billion, while sharia banks are only IDR 686.29 billion (OJK, 2022).

Banks as business entities certainly need to pay attention to the maximum profits obtained in addition to other things. With maximum profits obtained, banks can do more for employees, the welfare of owners, improve product quality and make investments or expand their business wings. Therefore, it is important to set a profit target to be achieved so that the profit achieved subsequently must be in accordance with what is expected and not just from making a profit. The level of profit can be measured using the profitability ratio or profit ratio, also known as the profitability ratio (Kasmir, 2014).

Islamic banks in Indonesia have the best level of profitability in the world as measured by the profit to assets (ROA) ratio. Both in terms of the full-fladge bank category and the Sharia Business Unit (UUS), it is stated that in determining the level of bank health, Bank Indonesia as the supervisor and supervisor of banking places more importance on assessing the amount of return on assets (ROA) and prioritizes the value of profitability as measured by the assets whose funds are most of it is public savings funds.

In banking operational activities, it is certainly important to pay attention to macro-economic influences. Several factors that influence macro-economics include national income which includes gross domestic product and gross national product, per capita income and economic growth, employment and unemployment, inflation or the rate of price changes, the balance of payments and the position of the balance of trade, and stability. Domestic currency value or exchange rate (Sukirno, 2011).

According to sharia banking statistical data, when the global crisis occurred in 2008, where inflation was 11.06 percent and the exchange rate depreciated to IDR 10,950, this caused the profitability of sharia banking to fall from 1.78 percent in 2007 to 1.57 percent in 2008. However, this is not visible. In general, in the period from 2005 to 2013, Islamic banking profitability continued to grow by 0.85 percent to 2.10 percent in June 2013. However, this still did not meet the expected target. Which in December 2013, according to
Bank Indonesia’s statement, is expected to achieve the sharia banking market share target of 5 percent. On the other hand, looking at Bank Muamalat's Return on Assets (RoA) data in the period 2007 - 2023, it tends to decline. Therefore, these paradigms make the profitability of Islamic banking very interesting to research.

**Islamic Bank**

The general definition of Sharia Bank is a bank whose activities are based on the principles of Islamic law. Recently, the term sharia bank has referred to sharia bank entities other than the term bank itself, namely interest-free banks, usury-free banks, and sharia banks themselves (Priscila, 2021)

**Sharia Bank Profitability**

Profitability can be interpreted as the result of financial gain through the exchange of potential risks (Ali & Maamor, 2018). According to Widiastuty (2018) Profitability is the final result of a number of decisions and policies taken by the company. Return On Assets (ROA) is a ratio that can be used to measure profitability. ROA is a ratio that describes a bank's ability to manage funds invested in assets that produce overall profits (Anwar & Miqdad, 2017). A high level of profitability is reflected in the ROA value, which makes a bank gain the trust of the public, thereby enabling the bank to increase capital and benefit from opportunities to expand credit widely. In measuring the level of health, there are differences between theoretical ROA and ROA calculated based on Bank Indonesia regulations (Anwar & Miqdad, 2017).

**Inflation**

Inflation is a general and continuous increase in the prices of goods and services over a certain period of time. An increase in the price of just one or two goods cannot be called inflation unless the increase spreads or results in prices for other goods (BI, 2009). Inflation also impacts customers and financial resources significantly, not just corporate pricing (Ali & Maamor, 2018).

The inflation rate greatly influences public consumption due to the emergence of uncertainty in macroeconomic conditions. Moreover, inflation which causes high prices or rises and falls in income makes it difficult for people to determine the amount of their consumption, which ultimately means they do not have reserve funds or savings in the form of savings or investments (Imam, 2020).

Paisal (2019) empirically analyzed the influence of BI interest rate risk, inflation risk and exchange rate risk on the profitability of Bank BNI Syariah in Indonesia. This research uses quarterly data for the period 2012 to 2019. The findings show that interest rate and inflation risks do not have a significant effect on profitability. On the other hand, the exchange rate has a positive and significant effect on profitability.

This is also supported by research conducted by Arzi (2022) taking data for the 2012-2021 period that inflation partially has a positive but not significant effect on the profitability of Sharia Commercial Banks in Indonesia. Meanwhile, the other variables BI Rate have a significant negative effect and the Exchange rate has a significant positive effect. From this explanation, the following hypothesis can be used:

**Economic growth**

Economic growth is the value of goods and services that are able to be produced by domestic companies and foreign companies located in a certain country in a certain period (Irsyad, et al, 2018). A country’s GDP can describe and become a benchmark for calculating its economic activity nationally.

Sharia banking profitability is also influenced by Gross Domestic Product (GDP). Gross Domestic Product (GDP) is the value of goods and services produced in a country in a given year. People's ability to save funds is more influenced by their income, not by interest rates. In other words, the greater a country’s GDP, the higher its people's ability to save. This is in line with the increasing profitability of sharia banking (Sukirno, 2016).

According to Emylia (2023), who conducted research on the impact of inflation, exchange rates and Gross Domestic Product (GDP) on Islamic banking profitability by taking data in the 2018-2020 period, it was found that all variables simultaneously did not have a significant influence on profitability. Furthermore, the exchange rate and GDP
partially have a significant impact on profitability. Meanwhile, inflation does not have a significant influence.

Other literature, such as that conducted by (Figo, 2023) with a case study of Islamic general banks registered with the OJK from 2010-2021, found that simultaneously there was a significant relationship between inflation, GDP and the exchange rate on ROA. Partially, inflation and exchange rates have a negative influence on ROA. Meanwhile GDP has a positive and significant influence. Based on the explanation above, there is the following hypothesis:

**Foreign Currency Exchange Rates**

The exchange rate is how much domestic foreign currency is worth to get one foreign currency value (Sasmita et al, 2018). The value of foreign currency is a comparison of the value of currencies between countries which function as a means of payment for international trade transactions (Syahwildan & Sutrisno, 2020). The exchange rate is a foreign currency exchange rate agreement (Lestari et al., 2020).

The exchange rate on profitability does not have a significant effect on the profitability of Islamic banking based on research conducted by Tumewang (2019). Meanwhile, the inflation rate has no effect on the profitability of sharia banking and interest rates have an influence on the extent to which customers decide to continue using sharia banking products. The data used is secondary data from 2012-2015. Like Sitompul (2021) who conducted research using data from 10 sharia commercial banks and sharia business units in Indonesia. The findings show that partially the exchange rate and inflation have a positive but not significant effect.

Other research conducted by Afhami (2022) using data from Sharia Commercial Banks registered with the OJK in 2016-2020 showed that inflation had a significant and negative influence on profitability. Meanwhile, the exchange rate has no effect on profitability. Meanwhile, simultaneously both variables influence profitability.

**Interest rate**

Furthermore, the interest rate (BI rate) determined by Bank Indonesia influences the determination of the interest rates offered by banks to the public. The public's desire and demand to invest in banks through the products offered is also influenced by interest rates. This also has an impact on the bank itself, namely the amount invested by the community affects the bank’s ability to distribute these funds, whether in the form of credit or otherwise. The amount of credit distributed has an impact on the amount of income obtained by the bank (Dewi, 2018).

According to Khusnul (2024), who conducted research on the influence of inflation, interest rates and exchange rates on the profitability of Islamic banking, it was found that interest rates had a positive but not significant effect on profitability. According to him, this is because fluctuating interest rates can influence customers to have sharia banking. However, this is considered normal because it is impossible for sharia banking which applies profit sharing to compete with conventional banks which apply very high interest rates. Therefore, sharia banking is faced with two choices, namely increasing profit sharing for customers or reducing pricing.

Based on the description above, the researcher concluded that the common thread of the problem is related to the influence of macroeconomic variables on the profitability of Islamic banks. The research gap in this study is the difference in the range of research years compared to previous research and the difference in the number and types of variables used. The author also concludes that the independent variables chosen are those that are very close to influencing the dependent variable. For the dependent variable, the author chose Bank Muamalat because it can be said that Bank Muamalat can represent sharia banking in Indonesia considering its work, which the author also mentioned previously as a pioneer of sharia banking in Indonesia. Therefore, it is hoped that this research will provide knowledge and insight regarding the influence of macroeconomic variables on the profitability of Bank Muamalat in particular and Syairah Commercial Banks in Indonesia in general. Therefore, the author is encouraged and motivated to conduct research with the title "Analysis of the Effect of Inflation, Gross Domestic Product (GDP), Foreign Currency Exchange Rates,
Money Supply and Interest Rates on the Profitability of Sharia Commercial Banks in Indonesia for the 2013-2023 Period

The objectives of this research include: 1) partially to determine the effect of Inflation on Return on Assets of Bank Muamalat for the 2007-2023 period, 2) partially to determine the effect of Economic Growth on Return on Assets of Bank Muamalat for the period 2007-2023, 3) partially to determine the influence of the Exchange Rate on Return on Assets of Bank Muamalat for the 2007-2023 period, 4) partially to determine the influence of Interest Rates on Return on Assets of Bank Muamalat for the period 2007-2023, 5) simultaneously to determine the influence of Inflation, Economic Growth, Value Exchange Rates and Interest Rates on Return on Assets of Bank Muamalat for the 2007-2023 period.

METHOD

This research uses a descriptive quantitative approach. According to Sugiyono (2019) quantitative research refers to a research approach that follows positivist ideology. Which collects data using research instruments, involving a population or sample, then analyzes the data using quantitative and statistical methods to test hypotheses. Meanwhile, the descriptive method is a type of research used to analyze data that has been collected as it exists by describing or illustrating it. Meanwhile, the descriptive quantitative research method aims to explain a situation to be researched supported by literature studies so as to strengthen the researcher's analysis in making conclusions. The hypothesis is structured as follows:

H1: Inflation has no significant effect on sharia banking profitability
H2: Economic growth has a significant effect on the profitability of sharia banking
H3: The exchange rate has a significant effect on the profitability of sharia banking
H4: Inflation, Economic Growth, Exchange Rates and Interest Rates Simultaneously have a significant influence on the profitability of sharia banking

Data source

This research uses secondary data sources. Secondary data is data collected from previously existing data which was initially primary data that had been collected by other people, either for research or collected in a database. Secondary data can be obtained from libraries, previous research reports, or links on official websites.

In this research, secondary data is used in the form of time series data. Time series data is a type of data that is collected according to time sequence within a certain time period. This research uses time series data taken from Bank Muamalat's annual financial report in 2013 - 2023.

Population and sample

This research is a descriptive quantitative study which aims to examine the influence of inflation, economic growth, foreign exchange rates, money supply and interest rates on Bank Muamalat's profitability in 2013 - 2023 as viewed from Return on Assets (ROA). The population used is the annual financial report of Bank Muamalat. Meanwhile, the sample used is Bank Muamalat's annual financial report for the 2013-2023 period. The data procedure in this study uses the Eviews 12 multiple linear regression analysis method to test the influence of independent variables on the dependent variable. The stage taken is to carry out multiple regression analysis which ultimately produces an output. Next, to ensure these results, a data feasibility test was carried out using the Classic Assumption test. Starting from the Multicollinearity Test, Normality Test, Heteroscedasticity Test and Autocorrelation Test. Ghozali (2009) stated that traditional assumption tests were carried out to validate research results.
RESULTS AND DISCUSSION

Results

Table 1. Descriptive Results

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.655294</td>
<td>4.688824</td>
<td>5.165882</td>
<td>12703.65</td>
<td>6.205882</td>
</tr>
<tr>
<td>Median</td>
<td>0.200000</td>
<td>3.610000</td>
<td>5.070000</td>
<td>13400.00</td>
<td>6.000000</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.600000</td>
<td>11.600000</td>
<td>6.500000</td>
<td>15731.00</td>
<td>9.500000</td>
</tr>
<tr>
<td>Maximum</td>
<td>11.600000</td>
<td>16.000000</td>
<td>2.070000</td>
<td>9168.0000</td>
<td>3.500000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.842045</td>
<td>2.792315</td>
<td>1.081463</td>
<td>2161.795</td>
<td>1.750325</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.162365</td>
<td>1.049238</td>
<td>-1.340262</td>
<td>-0.476107</td>
<td>0.116752</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.925084</td>
<td>3.195889</td>
<td>5.077124</td>
<td>1.960301</td>
<td>2.253690</td>
</tr>
</tbody>
</table>

Jacque-Bern Probability 0.147210 0.297404 0.017028 0.502103 0.813801
Sums 11.14000 79.718000 87.820000 215952.0 105.5400
Sums Sq. Dev. 11.34462 124.7524 18.71301 747737.0 47.90441
Observations 17 17 17 17 17

The following are the results of the descriptive statistics based on the table () above:
- It can be seen that there are 17 Y variables (ROA), with an average of Y variable data of 0.65 percent, the smallest value of Y variable data is 0.02 percent, the highest value of Y variable data is 2.60 percent, and the standard deviation value of Y variable data is 0.84 percent.
- For variable X1 (Inflation) there are 17, with an average of variable X1 data of 4.68 percent, the smallest value of variable data X1 is 1.68 percent, the highest value of variable data
- For variable X2 (Economic Growth) there are 17, with an average of variable X2 data of 5.16 percent, the smallest value of variable data X2 is 2.07 percent, the highest value of variable data X2 is 6.50 percent, and the standard deviation value of variable data
- For variable X3 (Exchange Value) there are 17, with an average of variable data X3 12703.65, the smallest value of variable data X3 is 9168, the highest value of variable data
- For variable X4 (BI Rate) there are 17, with an average of variable data X4 6.20 percent, the smallest value of variable data X4 is 3.50, the highest value of variable data X4 is 9.5, and the standard deviation value of variable
- For variable X1 (Inflation) there are 17, with an average of variable X1 data of 4.68 percent, the smallest value of variable data X1 is 1.68 percent, the highest value of variable data
• Multicollinearity Test

Table 2. Multicollinearity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient of Variance</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG(X1)</td>
<td>0.154974</td>
<td>13.80113</td>
<td>1.847384</td>
</tr>
<tr>
<td>LOG(X2)</td>
<td>0.716788</td>
<td>75.46901</td>
<td>1.947002</td>
</tr>
<tr>
<td>LOG(X3)</td>
<td>1.365797*</td>
<td>479.99933</td>
<td>1.658698</td>
</tr>
<tr>
<td>LOG(X4)</td>
<td>0.456533</td>
<td>69.41615</td>
<td>1.47593</td>
</tr>
<tr>
<td>C</td>
<td>143.3382</td>
<td>570.046</td>
<td>NA</td>
</tr>
</tbody>
</table>

It can be seen from the results of the independent correlation test above that the Centered VIF value of all variables is smaller than 10 (<10). So it can be concluded that the multicollinearity test assumptions have been met or passed the multicollinearity test.

• Normality Test

Table 2. Normality Test

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.23e-15</td>
</tr>
<tr>
<td>Median</td>
<td>0.44345</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.897688</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.230377</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.581188</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.723907</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.375966</td>
</tr>
</tbody>
</table>

It can be seen from the results of the normality test using the Jarque-Bera method above, that the J-B probability value is greater than $\alpha$ 5% (0.05). Therefore the data can be said to have normal distribution.

• Heteroscedasticity Test

Table 3. Heteroscedasticity Test

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>1.955581</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>6.798574</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>4.410195</td>
</tr>
</tbody>
</table>

It can be seen from the results of examining heteroscedasticity symptoms using the Glejser test that the Prob.Chi-Square value in Obs*R Squared is greater than $\alpha$ 5%. Therefore, no symptoms of heteroscedasticity were found.

Table 4. Heteroscedasticity Test

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>1.633395</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>5.448412</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>3.169808</td>
</tr>
</tbody>
</table>
It can be seen from the results of examining heteroscedasticity symptoms using the Breusch-Pagan-Godfrey test that the Prob.Chi-Square value in Obs*RSquared is greater than α 5%. Therefore, no symptoms of heteroscedasticity were found.

- **Autocorrelation Test**

<table>
<thead>
<tr>
<th>Breusch-Godfrey Serial Correlation LM Test:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null hypothesis: No serial correlation at up to 2 lags</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*RSquared</td>
</tr>
</tbody>
</table>

It can be seen from the results of the autocorrelation test using the Breusch-Godfrey Serial Correlation LM that the Prob.Chi-Square in Obs*RSquared(2) is greater than α 5%. Therefore, the results of this study have met the criteria for passing the autocorrelation test.

**Multiple Linear Regression Analysis**

Model analysis from research using time series data is as follows:

Estimation Equation:

\[
\begin{align*}
\text{LOG}(Y) &= C(1)\times\text{LOG}(X1) + C(2)\times\text{LOG}(X2) + C(3)\times\text{LOG}(X3) + C(4)\times\text{LOG}(X4) \\
&+ C(5)
\end{align*}
\]

Substituted Coefficients:

\[
\begin{align*}
\text{LOG}(Y) &= 0.940837439451\times\text{LOG}(X1) + 0.692362024974\times\text{LOG}(X2) - 4.89638082087\times\text{LOG}(X3) + 1.09230643462\times\text{LOG}(X4) + 40.3501700935
\end{align*}
\]

Information:

- Y=Profitability (ROA)
- X1=Inflation
- X2=Economic Growth
- X3=Exchange Value
- X4=Interest Rate

**Multiple Linear Regression Analysis**

The regression model formed based on the research results is:

Substituted Coefficients:

\[
\begin{align*}
\text{LOG}(Y) &= 0.940837439451\times\text{LOG}(X1) + 0.692362024974\times\text{LOG}(X2) - 4.89638082087\times\text{LOG}(X3) + 1.09230643462\times\text{LOG}(X4) + 40.3501700935
\end{align*}
\]

The regression model can be explained as follows:
• The value of the constant coefficient is 40.35. This can indicate that if the values of Inflation, Economic Growth, Exchange Rates and Interest Rates are equal to 0 (zero), then the size of the Return on Assets variable is 40.35.
• If the inflation coefficient value is 0.94. This can be interpreted as when the inflation value increases by 1 (one) point while other independent variables are constant or fixed, then the Return on Assets level will increase by 0.94.
• If the coefficient value for Economic Growth is 0.692. This can be interpreted as when the Economic Growth value increases by 1 (one) point while the other independent variables are constant or fixed, then the Return on Assets level will increase by 0.692.
• If the coefficient value of the Exchange Rate is -4.896. This can be interpreted as when the exchange rate value decreases by 1 (one) point while the other independent variables are constant or fixed, then the Return on Assets level will increase by -4.896.
• If the interest rate coefficient value is 1.092. This can be interpreted as when the interest rate value increases by 1 (one) point while the other independent variables are constant or fixed, then the Return on Assets level will increase by 1.092.

Table 7. Partial Test Results (T Test)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG(X)</td>
<td>0.94037</td>
<td>0.39368</td>
<td>2.292918</td>
<td>0.0341</td>
</tr>
<tr>
<td>LOG(X2)</td>
<td>0.692352</td>
<td>0.675306</td>
<td>1.163282</td>
<td>0.0012</td>
</tr>
<tr>
<td>LOG(X3)</td>
<td>-4.896381</td>
<td>1.617498</td>
<td>-5.082120</td>
<td>0.0001</td>
</tr>
<tr>
<td>LOG(X4)</td>
<td>0.102306</td>
<td>0.536240</td>
<td>0.225000</td>
<td>0.0137</td>
</tr>
<tr>
<td>C</td>
<td>40.35018</td>
<td>3.370237</td>
<td>0.0056</td>
<td></td>
</tr>
</tbody>
</table>

• It can be seen from the results of the t test that it is known that the calculated t value of the inflation variable is 2.389 and the significant profitability figure is 0.0341. In this case, the significance profitability figure for the Inflation variable is less than 0.05 (0.0341 < 0.05). So it can be concluded that H0 is rejected and H1 is accepted, which can be interpreted as inflation having a significant effect on Return on Assets.
• It can be seen from the results of the t test that it is known that the calculated t value of the Economic Growth variable is 0.816 and the significant profitability figure is 0.430. In this case, the significance profitability figure for the Economic Growth variable is greater than 0.05 (0.430 > 0.05). So it can be concluded that H0 is accepted and H1 is rejected, which means that Economic Growth has no significant effect on Return on Assets.
• It can be seen from the results of the t test that it is known that the calculated t value of the Exchange Value variable is -4.208 and the significant profitability figure is 0.001. In this case, the significant profitability figure for the Exchange Value variable is smaller than 0.05 (0.001 < 0.05). So it can be concluded that H0 is rejected and H1 is accepted, which can be interpreted as the exchange rate having a significant effect on Return on Assets.
• It can be seen from the results of the t test that it is known that the calculated t value of the Interest Rate variable is 1.167 and the significant profitability figure is 0.131. In this case, the significant profitability figure for the Interest Rate variable is greater than 0.05 (0.131 > 0.05). So it can be concluded that H0 is rejected and H1 is accepted, which means that interest rates do not have a significant effect on Return on Assets.

Table 8. Simultaneous F Test Results (F Test)

| R-squared         | 0.8691904  | Mean dependent var | -1.468332 |
| Adjusted R-squared| 0.642539   | S.D. dependent var  | 1.646838  |
| S.E. of regression| 0.655348   | Akaike info criterion| 2.226945 |
| Sum squared resid | 5.245546   | Schwarz criterion    | 2.472907  |
| Log likelihood    | -1.32903   | Hannan-Guinn criterion| 2.251304 |
| F-statistic       | 24.4336    | Durbin-Watson stat  | 2.299745  |
| Prob(F-statistic) | 0.000017   |                    |           |
It can be seen from the results of the simultaneous test that the calculated F value is 22.403 with a significance level of 0.000. It can be concluded that H0 is rejected and H1 is accepted because Prob(F-Statistic) is smaller than 0.05, which means the four variables Inflation, Economic Growth, Exchange Rates and Interest Rates simultaneously have a significant influence on Return on Assets of Bank Muamalat in 2013 – 2023.

**Determination Coefficient Test Results**

It can be seen from the results of the coefficient of determination test that the Rsquared value is 0.881. It can be concluded that 88.1% Return on Assets (ROA) can be explained by the four independent variables, namely Inflation, Economic Growth, Exchange Rates and Interest Rates. 11.9% (100%-88.1%) is explained by other variables outside the research.

**Discussion**

Based on the results of the analysis above, it can be seen that partially the Inflation and Exchange Rate variables are proven to have a significant effect on Bank Muamalat's Return on Assets. Meanwhile, the variables Economic Growth and Interest Rates do not have a significant influence on Return on Assets of Bank Muamalat. However, on the other hand, simultaneously the four variables, namely Inflation, Economic Growth, Exchange Rates and Interest Rates, have a significant influence on Bank Muamalat's Return on Assets for the 2007 - 2023 period.

According to Boediono (1987) inflation is the tendency of prices to increase generally over a long period of time. It can be seen based on the test results that inflation has a significant effect on Bank Muamalat's Return on Assets (ROA) for the 2007-2023 period. This is shown by the significance probability value in the t-test of 0.034 which is smaller than α 5% (0.034<0.05). The results of this research are in accordance with research by Wahyudi (2020) which states that inflation has a significant influence on the Return on Assets (ROA) of Sharia Banks in Indonesia. However, in research conducted by Sehany and Nurhidayati (2022), other results were found which stated that inflation had no effect on the Return on Assets (ROA) of state-owned sharia commercial banks even though they had the same direction of relationship. Several arguments that can be conveyed are that it is possible for differences in the Islamic bank variables used as dependent variables. It is possible for Islamic banks to be more resistant to existing inflation variables. Apart from that, the chosen time period can also play a role. If the arguments mentioned are fulfilled, this does not mean that it can refute the differences in findings regarding Islamic banking in Indonesia or support the researchers' findings.

Sharia banking profitability can also be influenced by gross domestic variables (GDP). Gross Domestic Product is the value of goods and services produced in a country in a certain period (Sadorno Sukirno, 2016). These results indicate that Economic Growth has no significant effect on Return on Assets of Bank Muamalat for the 2007-2023 period. This is known through the significance probability value in the t-test of 0.430 which is greater than α 5% (0.430>0.05). These results are in line with research conducted by Sangjiaya, Novita and Hilal (2022) which stated that Gross Domestic Product had no significant effect on Return on Assets (ROA) during the Covid-19 pandemic. During the Covid19 pandemic, people's consumption levels were higher than savings. This is related to the decline in people's ability to save because their income does not increase even though GDP increases. Other research conducted by Cahyani (2018) also found the same thing. It can be stated that increasing GDP which has an effect on increasing consumer income may not necessarily increase the decision to save in banking companies.

Furthermore, in the results of this research, the exchange rate variable has a significant influence on the Return on Assets of Bank Muamalat for the 2007-2023 period. This can be seen from the significance profitability value in the t-test of 0.001 which is greater than α 5% (0.001<0.05). This finding is supported by research conducted by Hidayati (2014) which states that there is an influence of currency exchange rates on...
banking profitability, identifying if the exchange rate experiences appreciation or depreciation. Initially, the strengthening of the rupiah exchange rate against the US dollar will increase the profitability of Islamic banks. This means that import prices will decrease as the value of the domestic currency is higher than foreign currency. Lowering prices will have the potential to increase the real sector of the economy. Then, as the real sector increases, people will be more encouraged to invest in this sector, resulting in increased banking profitability.

The test results show that interest rates do not have a significant influence on Bank Muamalat's Return on Assets (ROA) for the 2007-2023 period. This can be seen from the significance probability value of the t-test which shows a value of 0.131 which is greater than α 5% (0.131>0.05). These results are supported by research conducted by Prastowo, Mardani and Wahono (2018) which states that interest rates do not have a significant effect on the profitability of sharia banking. It is possible that an increase in interest rates will not necessarily affect banking operational activities in terms of financing and distribution of funds, so that it will reduce banking profits or income. Apart from that, Islamic bank customers are not concerned with interest which they consider to be usury, but are more concerned with sharia principles. Therefore, even though the BI rate rises, the profitability of Islamic banks continues to increase. The same results were also found in other research conducted by Mellaty and Kartawan (2021).

CONCLUSION
The conclusion of this research are in bel

1. Partial inflation has a significant influence on Bank Muamalat's Return on Assets for the 2007-2023 period.
2. Partial economic growth does not have a significant influence on Bank Muamalat's Return on Assets for the 2007-2023 period.
3. The exchange rate partially has a significant influence on Bank Muamalat's Return on Assets for the 2007-2023 period.
4. Interest rates partially do not have a significant influence on Bank Muamalat's Return on Assets for the 2007-2023 period.
5. Simultaneously Inflation, Economic Growth, Exchange Rates and Interest Rates have a significant influence on Bank Muamalat's Return on Assets for the 2007-2023 period.

BIBLIOGRAPHY


Rahmansyah, M. F., & Ashar, K. (2023). PENGARUH PDB, INFLASI, DAN NILAI KURS TERHADAP TINGKAT PROFITABILITAS BANK SYARIAH (STUDI
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