

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/366739614>

DETERMINANTS OF ISLAMIC BANK'S NET INCOME IN MIDDLE EASTERN COUNTRIES

Article · December 2022

DOI: 10.22373/share.v11i2.15045

CITATIONS

0

READS

30

3 authors:



Dewi Ayu Muliani

Syiah Kuala University

4 PUBLICATIONS 2 CITATIONS

[SEE PROFILE](#)



Suriani Suriani

Syiah Kuala University

54 PUBLICATIONS 105 CITATIONS

[SEE PROFILE](#)



Chenny Seftarita

32 PUBLICATIONS 74 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



KAJIAN PERBANDINGAN UNDANG-UNDANG TAKAFUL DI MALAYSIA DENGAN INDONESIA [View project](#)



Research in Economic [View project](#)

DETERMINANTS OF ISLAMIC BANK'S NET INCOME IN MIDDLE EASTERN COUNTRIES

Dewi Ayu Muliani¹

Suriani Suriani^{2*}

Chenny Seftarita³

^{1,2,3}Universitas Syiah Kuala, Indonesia

*Corresponding Email: suriani@unsyiah.ac.id

ABSTRACT – Income is one of the most important performance indicators for Islamic banks; the higher the income, the better their performances. Among all Islamic financial institutions worldwide, Islamic banks in the Middle East are listed as having the largest assets and income. This study examined how inflation, total assets, foreign investment (FDI), and gross domestic product (GDP) affect Islamic bank net income in the Middle East. The research objects are Islamic banks in the Middle East, with the criteria being the oldest Islamic banks with the largest assets, as determined by the IFSB report. The data were collected on an annual basis (2005-2021) and analyzed with the Panel Vectorautoregressive method. The results show that the current income of Islamic banks will have both positive and negative effects one year earlier. Meanwhile, gross domestic product had a negative impact on the net income of Islamic banks in Middle Eastern countries during the previous two years, whereas total assets had a positive impact during the same time period. In addition, neither inflation nor FDI has any effect on net income. The accumulated assets of Islamic banks in the Middle East are substantial and can be used to increase their net income. Additionally, the GDP has a negative impact on the net income of Islamic banks. This demonstrates that enhancement income from the public did not flow to Islamic banks, but rather was redirected to safer, more profitable, and less risky sectors, such as mutual funds, real estate, and stocks. Therefore, an increase in GDP as well as total assets is necessary in order to increase Islamic banks' net income in the Middle East.

Keywords: macroeconomic variables, Islamic bank's net income, Middle Eastern Countries.

ABSTRAK – Determinan Pendapatan Bersih Bank Syariah di Negara Timur Tengah. Pendapatan adalah salah satu indikator kinerja yang penting bagi bank syariah dimana semakin tinggi nilai incomenya, semakin baik pula kinerjanya. Di antara semua lembaga keuangan syariah di dunia, bank-bank syariah di Timur Tengah tercatat memiliki aset dan pendapatan terbesar. Penelitian ini bertujuan mengidentifikasi pengaruh inflasi, total aset, penanaman modal asing, dan produk domestik bruto (PDB) terhadap pendapatan bersih bank syariah di Timur Tengah. Objek penelitian adalah bank syariah di Timur Tengah dengan kriteria bank tertua dengan aset terbesar yang ditentukan oleh laporan IFSB. Data dikumpulkan secara tahunan (2005-2021) dan dianalisis dengan metode Panel Vectorautoregressive. Hasil kajian menunjukkan bahwa pendapatan bank syariah saat ini akan memiliki efek positif dan negatif satu tahun sebelumnya. Sementara itu, produk domestik bruto berdampak negatif terhadap pendapatan bersih bank syariah di negara-negara Timur Tengah selama dua tahun sebelumnya, sedangkan total aset berdampak positif dalam periode yang sama. Selain itu, baik inflasi maupun penanaman modal asing tidak berpengaruh terhadap pendapatan bersih. Akumulasi aset bank syariah di Timur Tengah sangat besar dan dapat digunakan untuk meningkatkan pendapatan bersih mereka. Kajian juga menunjukkan bahwa PDB memiliki dampak negatif terhadap pendapatan bersih bank syariah. Hasil ini mengindikasikan bahwa pendapatan masyarakat tidak masuk ke bank-bank syariah, tetapi mengalir ke sektor-sektor yang lebih aman, menguntungkan, dan kurang berisiko, seperti reksa dana, real estate, dan saham. Oleh karena itu, peningkatan PDB serta total aset diperlukan untuk meningkatkan laba bersih bank syariah di Timur Tengah.

Kata Kunci: variabel makroekonomi, pendapatan bersih bank syariah, Negara Timur Tengah.

INTRODUCTION

Over the past few decades, bank institutions have operated in two different systems. One uses the principle of interest, known as conventional banks, while the other uses the principle of income sharing, known as Islamic banks. These two types of banks constantly compete to improve services and gain long-term economic incomes. However, Islamic banking was known as the most rapidly expanding sector in the global financial landscape. Islamic banking remains a viable competitive sector (Izzati, 2017). In their study, Kassim, *et al.* (2009) showed that items on Islamic banks' balance sheets are generally more susceptible to changes in domestic monetary policy than conventional banks. It shows that Islamic banks also respond to macroeconomic factors. However, Islamic banks must carry out their operational activities by meeting sharia requirements, unlike conventional banks, which are freer and rely on interest rates as macroeconomic factors (Arshed & Kalim, 2021).

Establishing sharia banks is to meet customer needs for banking free from usury and earn income through income sharing. As a result, people began to switch from conventional banks to Islamic banks. They try to leave transactions with interest in financing and investment activities. Asadullah (2017) also mentioned a similar statement, wherein a few years ago, the researcher observed that people were interested in investment and financing in Islamic bank as financing and investment product. People tried to get rid of interest. This is consistent with efforts made by Islamic banks to obtain maximum incomes. One of them is to offer products that are superior to conventional banks. In addition, the most important measurement of Islamic bank performance is income. The higher the income, the better the banking performance (Dodi *et al.*, 2018).

This effort continues to be carried out by Islamic banks operating worldwide, including in the Middle East. As recorded in the IFSB (2020), Islamic banks in the Middle East are in the top position as the country with the most prominent Islamic banks, especially in terms of assets and income. Some of the banks are Islamic banks with old age, which are conversions from previous conventional banks, such as in Iran and Pakistan. Other Islamic banks are supported by the abundant development of the oil industry, as in Saudi Arabia and its surroundings. A more detailed description can be seen in Figure 1 and Figure 2 below.



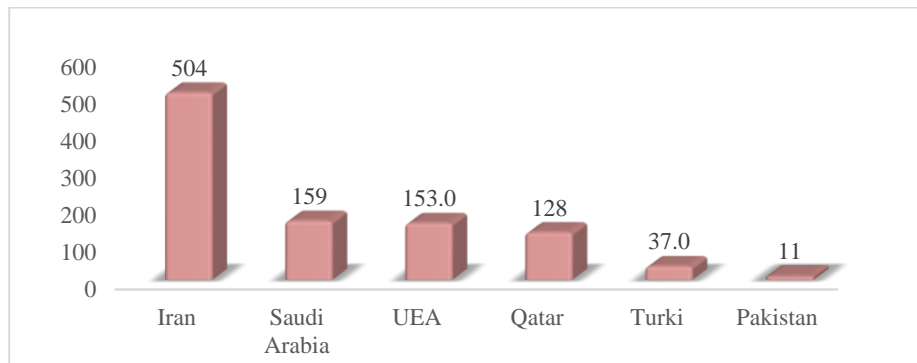


Figure 1 Middle East Sharia Banks' Assets in 2018 (Billion in US Dollars)
Source: IFSB 2020

Islamic bank assets continued to grow strongly throughout the year and continued to increase despite the shaky economy in recent years (Akhtar *et al.*, 2011). The number of owners of these assets is growing every year even though the economic conditions for some research countries, such as Iran and Turkey, are not conducive. However, Iran has controlled more than 43 percent of the assets of the world's Islamic banks, and its market share has reached 31 percent (IFSB, 2015). This is expected to align with Islamic banks' ability to generate net income. The statement is supported by Khediri and Khediri's (2009) research, which shows that macroeconomic variables such as economic growth and inflation have a major impact on the incomes of Islamic banks.

According to Shabbir and Rehman (2019), Malaysian investors obtained a return of 1.16 percent on non-deposits, less than the return on investment received by US deposit holders. Furthermore, an 11.82 percent difference was discovered between the return of Islamic banks and the 8.61 percent return of US interest-based banks. Mersni and Othman (2016) said that Islamic banks are institutions that try to generate income like conventional banks through various efforts, including taking into account economic conditions. However, in another statement, the financial stability of Islamic banks has never been better than conventional banks, despite the efforts mentioned above (Nugroho *et al.*, 2019).

Based on Figure 2, it can be seen that the Islamic bank with the highest net income is the United Arab Emirates, then Qatar, Saudi Arabia, followed by Iran. Whereas previously, Iran had the largest assets of up to 504.013 billion dollars (Figure 1). There is a shift in the order in this example, indicating that the number of assets possessed by an Islamic bank is not the primary driver of



high net income; other external factors also play a role. This statement is in line with the statement above.

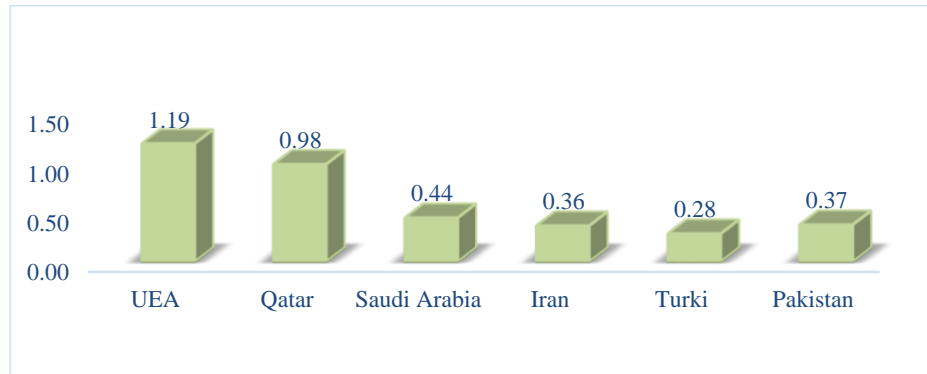


Figure 2. Net Income of Sharia Banking in Middle East Countries in 2021 (Billion US Dollars)

Source: Processed Annual Report

In its development, changes in net income are also influenced by macroeconomic variables (Rashid & Jabeen, 2016) such as gross domestic product (Alharbi, 2017). This variable illustrates the condition of people's income in a country, so Islamic banking is considered to increase economic growth (Imam & Kpodar, 2016; Ibrahim & Kamri, 2017). When the number is high, the spread of public acceptance is also higher, and vice versa (Ichsan *et al.*, 2021). This increase encourages people to make investments to earn income. This income can be found through Islamic banks before being used as working capital. This activity will generate income. But all of that also depends on changes in other macroeconomic variables such as inflation and foreign direct investment.

Movements in inflation can affect customer decisions in their saving and investment activities (Muliani *et al.*, 2022). If in moderate conditions, the possibility to save and invest is much greater because these activities will generate income. However, the opposite condition applies if the inflation that occurs reduces the value of money (Mailinda *et al.*, 2018). Customers tend to spend their income on consumption compared to investing or saving (Muarif *et al.*, 2021). Under different conditions, companies also need bank assistance to assist activities through FDI. This variable is believed to be an important source of financing, especially for developing countries. The presence of FDI can significantly contribute to growth through the transfer of assets, technology, and other skills. It becomes interesting to study further the factors that cause



the contrasting differences between Islamic banks in this Middle Eastern country.

Furthermore, this study will describe how inflation, total assets, foreign direct investment (FDI), and gross domestic product (GDP) impact Islamic banking's net income in countries in the Middle East. In this study, every oldest Islamic bank from the selected country was used as the object of research, with the dependent variable chosen to describe the income of Islamic banks as net income.

This study differs from previous research by Amzal (2016), which raised the topic of the effect of inflation, GDP, and interest rates on Islamic banks' income ability as measured by ROE. Widyaningrum and Dodik (2014) took a similar topic by measuring the relationship between GDP and inflation on the ROE of Islamic banks in Asia. Alharbi (2017) examines the relationship between operating income, GDP per capita, and bank size on Islamic bank income ability in OIC through ROA. Research on the ROA of Islamic banks in Pakistan and its relationship with bank size, GDP, inflation, and liquidity has been studied by Asadullah (2017). Meanwhile, this study examines the effect of inflation, total assets, FDI, and GDP on Islamic banking in the Middle East by taking the variable net income.

The difference in this study lies in the net income variable as the dependent. In addition, the object of this study is an Islamic bank in the Middle East with the highest level of assets and income based on information published by the IFSB report. The selection of Islamic banks is also based on the banks with the oldest age in the country because they are considered capable of depicting a better influence. Research with the same object and variables has never been done before. Although there are several similar studies, there are still many research gaps, as mentioned above. After the introduction, this research is continued with the following sections. Section 2 shows the literature review and then continues with the research method in Section 3. The method used is Vector Autoregressive for panel data. Section 4 presents the results of the research and discussion. Finally, Section 5 is the conclusion of this study.



LITERATURE REVIEW

Research Theory

The Harrod-Domar theory

This modern growth theory began with a classic British economics article by Roy Harrod and Domar, "An Essay in Dynamic Theory," which is currently better known as the "Harrod-Domar Growth Model." This model describes an economic mechanism whereby more investment leads to more growth.

According to Harrod (1939, 1948) and Domar (1946), the capitalist system is inherently unstable using a production function. However, they also explain how aggregate supply expands, meaning investment has two effects, one on the aggregate demand side, such as spending more business, and the other on the aggregate supply side, where more investment increases the capital stock and generates more business (Liang *et al.*, 2015). This theory also explains that if a country wants to increase its economic growth, it must increase the amount of savings or investment to a certain proportion of its total output.

Keynesian theory

According to Keynes (as cited in Marlina & Iskandar, 2019), the amount of savings depends on the size of household income and not interest rates. The higher the income the community owns, the greater the value of their savings. In his theory, Keynes stated that it was the tendency to consume that explicitly linked savings with income from society. Furthermore, Keynes noted that savings are income that is not used (consumed), so it is used for saving.

Prior Research

Ramlan and Adnan (2016) examined the income ability of conventional and Islamic banks in Malaysia by considering how internal and external factors affect each type of bank. His study concludes that Islamic banks are more income able than conventional banks.

Amzal (2016) indicated that GDP, BI Rate, Inflation, and NPF significantly impact the earnings of Islamic banks in Indonesia. The study's findings suggest that GDP can boost the income ability of Indonesia's Islamic banks. In addition, the higher the BI Rate applied, the greater the negative and significant impact



on the income of Islamic banks. On the other hand, Islamic banks can continue to operate even though the economy is experiencing higher inflation. Dodi *et al.* (2018) mention that the internal factors that impact Islamic banks are total assets, while external factors are inflation and GDP, and it is hoped that Islamic banks anticipate changes in these factors so that they can be more competitive than conventional banks. They supported this statement by adding that Islamic banks should get support from the government by building better regulations that comply with Islamic and sharia law. Widyaningrum and Dodik (2014) also strengthens the above results by mentioning that Islamic banks' income ability in Asia is influenced by external macroeconomic factors consisting of GDP and inflation and internal factors in the form of total assets, which are a proxy for the size of Islamic banks.

Kalayci and Tekin (2016) added foreign direct investment (FDI) variables in their research. The results of his study conclude that there is a link between GDP and FDI in Turkish Islamic banks. In addition, Yahya *et al.* (2017) explained that if FDI supports the increase of Islamic banks, Islamic banks attract FDI.

Another research conducted by Rosiana *et al.* (2019) concluded that in Indonesian Islamic banks, the income is unaffected by external variables such as inflation and exchange rates taking eight Islamic banks in the five-year study period. However, according to him, internal factors play more of a role in increasing incomes in Islamic banks, where income sharing and Non-Performing Financing (NPF) affect the incomes of Islamic banks in Indonesia. Widarjono (2018) concludes the same thing from his research on the incompatibility of Islamic banks. Istan and Fahlevi (2020) added that inflation does not affect it because, during inflationary conditions, the monetary authority will raise interest rates, while interest rates have no impact on incomes in Islamic banks because they are not by sharia principles in Islamic banks.

Mensi *et al.* (2020) analyzed the effects of macroeconomic factors and the development of Islamic banks in the MENA area (Middle East and North Africa) on the economic growth of these countries. The results show a strong and direct correlation between Islamic banking and economic growth. In addition, there is an asymmetrical relationship between macroeconomic factors and economic development. According to them, the growth of Islamic banking in the studied countries is positively impacted by inflation. Another study by Al-Qudah and Jaradat (2013) at Jordan's Islamic bank led to the discovery that



factors supporting income growth in Islamic banks include macroeconomic variables like the exchange rate and the money supply.

Research by Tumewang *et al.* (2019) was done by testing the macroeconomic variables and Islamic banks' income ability. The selected independent variables are inflation, exchange rates, and interest rates. The research findings show that Islamic banks' income ability is unaffected by inflation and exchange rates, but interest rates significantly impact it.

METHODOLOGY

This study investigates the impact of gross domestic product, foreign direct investment, total assets, and inflation on the net income of Islamic banks in the Middle East. The countries covered by the research include Saudi Arabia, the United Arab Emirates, Turkey, Qatar, Iran, and Pakistan. The research year range is 2005-2021. The selection of the Middle East as a research object was based on IFSB publications which showed that Islamic countries have the highest Islamic bank assets and incomes. These Islamic banks are collected in the Middle East states, so this research focuses on and takes the object of Islamic Banks in the Middle East.

The Middle East is interesting to be an object of research because the Muslim population in that country is much higher than in other countries (IFSB, 2015). The high Muslim population is in line with the need for Islamic banks, so the presence of Islamic banks in the country is essential (Islam & Rahman, 2017; Nugraheni & Widayani, 2021). The data analysis method used is the Vector Autoregressive (VAR) analysis method for panel data. This model has been used in general, especially in analyzing the impact of economic fluctuations on global, national, and industries (Sun, 2021).

VAR method for panel data can investigate the relationship between research objects and the impact of macroeconomic shocks and then analyze the response through the impulse response function and variance decomposition. The stages of research using this method are:

Stationarity test (unit root test)

The interaction of data from various research objects within a certain period can raise suspicions of cointegration between data banks during the research period (Pedroni, 2000 as cited in Ekananda, 2017). Data that is not stationary



will result in a spurious/false regression. Estimates from the resulting research are not accurate. To estimate a research model with these data, the step that must be taken is to test the stationarity of the data, known as the unit root test, using the Augmented Dickey-Fuller (ADF) method.

Determination of optimum lag length

The PVAR model aims to see the relationship between variables in a certain lag. To be able to determine the optimum lag length in this study, the information criteria recommended by the smallest value of Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwartz Information Criteria (SIC), or Hannan -Quin Criteria (HQ). The optimum lag is determined with an asterisk (*) on the lag, which is the optimum lag, using the E-Views data processing program.

Stability test

A stability test is a test used to see whether the estimation of PVAR is stable or not. Stability can be determined by looking at the roots of the characteristic polynomial. If all unit roots have a modulus of less than one, the test is said to be stable.

Cointegration test

The cointegration method in the VAR Panel can be done after the researcher knows to what degree stationarity occurs in the variables used. This is one of the tests used to determine whether or not variables in the study have a long-term relationship. The cointegration test in this method was carried out using the Eagle Granger, Durbin Watson (CDRW) Cointegrating Regression Test, and Johansen cointegration test (Basuki & Prawoto, 2016).

Vector Autoregressive model with panel data

The tool chosen to test the effect of the specified and independent variables in this study is Vector Autoregressive for panel data (PVAR). Christopher Sims developed this method in 1980 (Gujarati, 2004). VAR is used to investigate the dynamic impact of the random error variable in a system variable and to perform a causality test. The standard form of a VAR system in this research as Suriani *et al.* (2021):



$$\Delta Y_{i,t} = \alpha_i + \sum_{i=1}^n \alpha_i \Delta Y_{i,t-1} + \varepsilon_{i,t} \tag{1}$$

Where Y is a form of a vector ($n \times I$), α is a parameter, Δ is operator difference and ε is an error term. Based on the above description, the standard form of the Vector Autoregressive for panel data used in this study is as follows:

$$NI_{i,t} = \alpha_1 + a_{11} \sum NI_{i,t-i} + a_{12} \sum TA_{i,t-i} + a_{13} \sum INF_{i,t-i} + a_{14} \sum FDI_{i,t-i} + a_{15} \sum GDP_{i,t-i} + \varepsilon_{i,t} \tag{2}$$

In this study, the equation used is equation (2). It aims to answer research question regarding the effect of the Total Assets, Inflation, Foreign Direct Investment, and Gross Domestic Product on Net Income variable. Meanwhile, other endogenous equations were not carried out in this study.

The following steps to be tested are the Impulse Response Function (IRF) and the Variance Decomposition Function (VEDF). The function of this test is to strengthen the explanation and evidence of the influence of independence in this study on certain variables. This is done because the VAR model has a weakness in the inability to read the results of the influence between these variables.

RESULT AND DISCUSSION

Data Stationarity Test

Stationarity test results for the variables of inflation, exchange rate, foreign direct investment, gross domestic product, population, and net income of Islamic banks in Middle Eastern countries from 2005-2021 are shown in the table below:

Table 1. Stationarity Test Results of the ADF Method Data

Variable	Level <i>P-value</i>		1 Differentiation <i>P-value</i>		Information
	I	I&T	I	I&T	
DINF	0.3454	0.5192	0.0005	0.0273	Stationary D1
DLTA	0.0849	0.3538	0.0002	0.0001	Stationary D1
DLFDI	0.3284	0.2262	0.0022	0.0517	Stationary D1
DLGDP	0.4439	0.7364	0.0230	0.1344	Stationary D1
DLNI	0.4264	0.0730	0.0000	0.0155	Stationary D1

Description: I (Intercept; I&T (Intercept and Trend)); DI (Differentiation 1)

Source: Processed Data (2022)



Based on Table 1, as can be seen, the stationary test using the Augmented DickeyFuller (ADF) method obtained the results of the research variable having a unit root at the 1st Differentiation level. Then, the next data processing stage uses differentiated variables at the first level (first different).

Optimum Lag Length

Determining the proper lag from the VAR model utilized in the study is the first step in estimating the VAR model. Finding the ideal lag before computing VAR requires a great deal of research of this kind.

Table 2. Optimum Lag Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-681.8013	NA	48.63498	18.07372	18.22706	18.13500
1	-248.3733	798.4200*	0.001047*	7.325615*	8.245642*	7.693302*
2	-227.5167	35.67577	0.001177	7.434652	9.121367	8.108745
3	-213.5102	22.11549	0.001607	7.723955	10.17736	8.704454

Note: *is the length of the lag selected based on the criteria

Source: Processed data (2022)

Based on the results of Table 2, the optimal lag for this study is lag 1. This conclusion is based on the results obtained in the next testing stage, where by using lag 1, this research is stable and can be continued. As a result, the optimal lag length used to estimate the VAR parameter in this study is 1.

Stability Test

After determining the optimal lag length, the model stability test is performed. The stability test of this model is carried out by looking at the values of the modulus and the Root of the Characteristic Polynomial. The model is stable if the polynomial's root value and modulus are smaller than 1.

Table 3. Test Results with Polynomial Modulus

Root	Modulus
0.365941	0.365941
-0.275897	0.275897
0.046485 - 0.086284i	0.098009
0.046485 + 0.086284i	0.098009
0.070219	0.070219

No root lies outside the unit circle. VAR satisfies the stability condition.

Source: Processed Data (2022)

Based on the results from Table 3, it can be seen that the modulus value is less



than 1, meaning that the model used is stable. In addition to using the Modulus Table to determine the stability of the model used, you can also use the Roots of Characteristic Polynomials, as shown in Figure 3. Based on Figure 3, it can be said that this study's modulus value is less than 1. The model is stable since every point is contained within the circle.

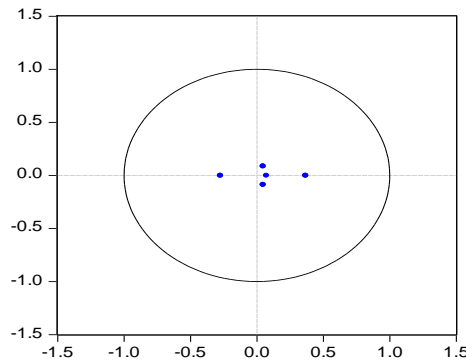


Figure 3. Stability Test Results with *Roots Of Characteristic Polynomial*
Source: Processed Data (2022)

Cointegration Test

This cointegration test uses the method *Johansen Fisher Panel Cointegration Test*.

Table 4. Johansen Panel Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.330342	61.07978	69.81889	0.2037
At most 1	0.235002	30.60469	47.85613	0.6876
At most 2	0.109496	10.24569	29.79707	0.9765
At most 3	0.018663	1.432104	15.49471	0.9993
At most 4	4.22E-06	0.000320	3.841466	0.9878

Source: Processed Data (2022)

Based on Table 4, it can be seen that the cointegration test results of Johansen Panel Cointegration on the model show the probability value of At most 1, At most 2, At most 3, and At most 4 larger than 0.05. This indicates that no long-term or cointegration relationship exists between the variables examined: net income, inflation, FDI, GDP, and total assets.



Panel Vector Autoregressive (PVAR) Estimation

Vector autoregressive for panel data (PVAR) is utilized to study the short-term and long-term effects of the independent variable's effect on the dependent variable. This estimate is shown in Table 5.

According to the estimation results in Table 5, the variable net income (DLNI) has a negative effect on lag 1 and lag 2, total assets (DLTA) has a positive effect on lag 2, gross domestic product (DLGDP) on lag 2 has a negative effect, inflation (DINF) and foreign direct investment (DLFDI) does not affect the net income of Islamic banks in the Middle East. This can be concluded based on the comparison between the probability and significant values of 0,05. The net income (DLNI) has a coefficient value of 1.0000 nowadays and -7,82E-17 a year ago. This means that last year's Islamic bank income condition can negatively affect Islamic bank income in the future. The analysis is that income owned by Islamic banks will be transferred as core capital for the following year or what is commonly referred to as retained earnings. Sharia bank income that is too low in the previous year will reduce the supply of core capital so that financing that can be channeled becomes smaller. This will result in a decrease in profits in the following year.

Table 5. PVAR Estimation Results of Net Income

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.32E-17	2.98E-17	-0.441541	0.6606
DLNI	1.0000000	3.79E-17	2.64E+16	0.0000
DLNI(-1)	-7.82E-17	3.74E-17	-2.091681	0.0412
DLNI(-2)	-2.19E-17	3.80E-17	-0.575661	0.5672
DLTA	-2.27E-18	1.02E-16	-0.022341	0.9823
DLTA(-1)	6.56E-17	1.05E-16	0.624140	0.5352
DLTA(-2)	3.49E-16	9.31E-17	3.743469	0.0004
DINF	4.73E-19	3.02E-18	0.156436	0.8763
DINF(-1)	-1.46E-18	2.77E-18	-0.526430	0.6007
DINF(-2)	1.45E-18	3.33E-18	0.435982	0.6646
DLFDI	-1.69E-17	3.07E-17	-0.551797	0.5834
DLFDI(-1)	1.76E-17	3.16E-17	0.557328	0.5796
DLFDI(-2)	-2.65E-17	3.52E-17	-0.753849	0.4542
DLGDP	-1.21E-16	1.55E-16	-0.778790	0.4395
DLGDP(-1)	9.35E-18	1.87E-16	0.049867	0.9604
DLGDP(-2)	-4.73E-16	2.07E-16	-2.288229	0.0261

Source: Processed Data (2022)

The total asset variable (DLTA) in lag 2 has a coefficient value of 3.49E-16 and a probability value of 0.0004, which is significantly less than 0.05, meaning



that the total asset variable two years ago has a positive effect on the net income of Islamic banks in the Middle East. So that if total assets increase by 1 percent, it will cause the net income of Islamic banks to increase by 3.4 percent. This finding shows that Islamic banks must maintain asset management to encourage increased incomes. The large number of Islamic bank assets that settle and are not transferred to productive activities can reduce the income of Islamic banks and increase their operational burden, hampering bureaucracy and decision-making by management. Islamic banks continue to focus on increasing financing rather than increasing the number of assets and size of the organization. According to Agustina *et al.* (2022), Islamic banking and policymakers must be able to provide higher-quality finance than conventional banking to boost the country's economic growth. Also, Majid *et al.* (2014) supported this statement in their study, where Islamic banks' management assets must be better than their competitor. This finding is also similar to Supiyadi (2018); Asadullah (2017); Javaid (2018); Muliani, *et al.* (2020); Wasiuzzaman (2009). However, in previous studies, Hassan *et al.* (2009) rejected this statement. According to them, the size and age of banks are not influencing factors. This is because both major and small Islamic banks have suffered setbacks. Large banks will face numerous challenges when opposed to small-scale Islamic banks. Comparing these two types of banks is incorrect because their capital and income capabilities are different, and the differences are not statistically significant.

The inflation variable (DINF) has a coefficient value of -1.46E-18 and 1.45E-18 at lag 2, where the probability values are 0.6007 and 0.6646, which are greater than the significant 0.05. This means that the Middle Eastern inflation variable does not affect the net income of Islamic banks in these countries. Palace (2020) stated that in times of inflation, the central bank would implement an interest rate hike policy, whereas Islamic banks are not affected by interest rates. Applying the income-sharing principle in Islamic banks renders them immune to swings in inflation. This means that Islamic banks will see volatility in incomes received and incomes paid to consumers. Unlike the interest system, Islamic banks receive and pay a predetermined amount to their customers. However, research conducted by Wasiuzzaman (2009); Dodi *et al.* (2018); Chowdhury and Rasid (2015) explained that Islamic banks would predict future changes through inflation to generate higher incomes than costs. Considerations regarding the discrepancy with interest rates make Islamic banks switch to predicting and predicting changes in inflation to have an impact

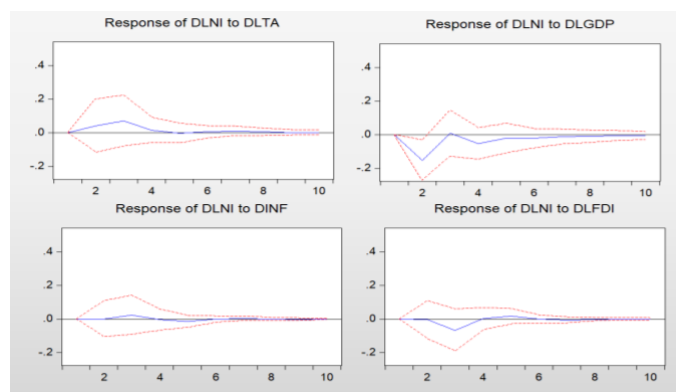


on incomes. Another finding by Zarrouk *et al.* (2016) is that inflation reduces incomes in Islamic banks.

The variable of foreign direct investment has no effect on Islamic banks in the research country. This can be seen in Table 5, where lag 1 and 2, the LFDI variable has a probability value of 0.5796 and 0.4542, which is greater than 0.05 significance.

The Gross Domestic Product variable in lag 1 has a negative effect on lag 2 with a coefficient of $-4.73E-16$, while the probability is 0.0261, which is less than significant 0.05. If GDP rises by 1%, the net income of Islamic banks will fall by 4.73 percent from a year ago. The analysis is that GDP is the income of a country in the current year, where if the country's income increases, it will also encourage an increase in the income of its people. The public will channel the results of the rise to the investment sector, which provides better, higher, and safer returns than Islamic banks. Other sectors, such as mutual funds, stocks, property, and gold, are options. In the long run, these areas give larger returns than income sharing in Islamic banks. Customers with the potential to invest will choose stocks and real estate as an alternative to putting their money in the bank to increase their income. On the other hand, customers with medium investment capacity will choose gold as their investment sector. Research that supports this statement is Istan and Fahlevi (2020); Yahya (2017); Javaid (2018).

Impulse Response Function



Source: Processed Data (2022)

Inflation responds positively to an increase in net income. At the beginning of the period, inflation responded quite aggressively, and then in the next period, it slid back down. This is due to the large net income obtained by Islamic banks,



which is distributed to owners' funds and shareholders. Furthermore, FDI responded negatively to the increase in the net income of Islamic banks. The fourth graph shows how GDP responds to a fluctuating increase in Islamic bank net income. The GDP response was initially negative, then very positive, before sloping down again in the following period. The fifth graph explains that Total Assets respond to a fluctuating increase in the net income of Islamic banks. At the start of the period, the total asset response was negative, then positive, and then negative again. This demonstrates that Islamic banks' asset management has not been optimized. Asset deposition is still common in Islamic banks.

Variance Decomposition

The last stage of this method is Variance Decomposition (VD). The test results are shown in Table 6 below:

Table 6. Variance Decomposition

Variance Decomposition of DLNI:						
Period	SE	DLNI	DINF	DLFDI	DLGDP	DLTA
1	0.510847	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.556163	94.32127	2.430550	0.527462	0.402437	2.318286
3	0.620201	86.68841	2.723123	1.168586	7.058019	2.361866
4	0.723956	80.17200	10.33592	1.022449	5.487038	2.982589
5	0.781903	80.81054	9.213139	2.518344	4.738530	2.719444
6	0.820030	81.38427	8.517178	2.482046	4.709403	2.907104
7	0.855287	82.13469	8.478229	2.284236	4.347860	2.754989
8	0.908776	81.35944	9.392152	2.522751	4.133589	2.592064
9	0.954711	81.58060	9.513221	2.788987	3.764803	2.352386
10	0.987404	82.15969	9.257222	2.792705	3.569058	2.221327

Source: Processed Data (2022)

This table shows how one variable moves to another in the current and future periods. The table describes the variance decomposition, which variables influence net income, and how much these variables affect net income. The effect of the variable itself on net income (DLNI) is 100% in the first period, but it gradually declines to 82.1% in the tenth year. Inflation (DINF), foreign direct investment (DLFDI), gross domestic product (DLGDP), and total assets (DLTA) did not affect net income (DLNI), but this effect increased by a small amount in each period in the 10th period. The description shows that the research variables had little influence on Islamic banks in ten years.



CONCLUSIONS

Based on the discussion's findings, it is evident that the Middle East's gross domestic product and total assets are the research variables that have the most significant impact on Islamic banks' net incomes. Total assets affect the net income of Islamic banks, indicating good management of Islamic bank assets so that funds do not settle in the bank. The high assets deposited in the bank will increase the operational burden and complicate bureaucracy and decision-making. Islamic banks should focus on increasing financing rather than increasing the number of assets and the organization's size. GDP negatively affects the net income of Islamic banks. GDP is a country's income in the current year. Where if the income of a country increases, it will encourage an increase in people's income, as well as industrial development and investment.

Countries in the Middle East must try to overcome the accumulation of bank assets that is too high because it can reduce incomes received. Assets that continue to settle can be channeled through financing to productive businesses that generate revenues as well as short-term or long-term investment instruments that are low risk. Islamic banks must also continue anticipating inflation, GDP, and FDI changes by studying their movements to continue to be used as boosters for increasing net income. The research implies that Islamic banks in the Middle East should divert bank assets that are overly large and unproductive to boost their net income. Accumulating bank assets will only raise operational costs and reduce net income, but as assets become productive through financing, property, or service enhancement operations, the net income increases. Islamic banks also examine the movements of inflation, GDP, and FDI to forecast changes. As noted in prior studies, it is hoped that this can boost net income.

ACKNOWLEDGEMENT

The authors gratefully acknowledge gratitude to the Indonesian Directorate General of Higher Education (DIKTI) and the Ministry of Education, Education, Culture, Research and Technology for the grant provided for this research. The grant was awarded on May 30, 2022, as follows: 247/E5/PG.02.00.PT/2022. The authors also thank the Institute for Research and Community Service (LPPM), Universitas Syiah Kuala, which has provided grant funds for this research. The grant was awarded on May 30, 2022, as follows: 111/UN11.2.1/PT.01.03/DPRM/2022.



REFERENCES

- Abd. Majid, M. S., Musnadi, S., & Putra, I. Y. (2014). A comparative analysis of the quality of Islamic and conventional banks' asset management in Indonesia. *Gadjah Mada International Journal of Business*, 16(2), 185–200. <https://doi.org/10.22146/gamaijb.5463>
- Agustina, M., Abd. Majid, M. S., Musnadi, S., Faisal, F., Hafasnuddin, H., & Suriani, S. (2022). Islamic banking, economic growth, and poverty reduction in Indonesia. *2022 International Conference on Decision Aid Sciences and Applications, DASA 2022*, 1249–1253. <https://doi.org/10.1109/DASA54658.2022.9765089>
- Aisy, D. R., & Mawardi, I. (2016). Factors influencing the growth of Islamic bank assets in Indonesia in 2006-2015 (Faktor – faktor yang mempengaruhi pertumbuhan aset bank syariah di Indonesia tahun 2006-2015). *Jurnal Ekonomi Syariah Teori Dan Terapan*, 3(1), 249–265.
- Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Factors influencing the profitability of Islamic banks of Pakistan. *International Research Journal of Finance and Economics*, 66(66), 125–132.
- Al-Qudah, A. M., & Jaradat, M. A. (2013). The impact of macroeconomic variables and banks characteristics on Jordanian Islamic banks profitability: empirical evidence. *International Business Research*, 6(10), 153–162. <https://doi.org/10.5539/ibr.v6n10p153>
- Alharbi, A. T. (2017). Determinan of Islamic banks' profitability: international evidence. *International Journal of Islamic and Middle Eastern Finance and Management*, 34(10). <https://doi.org/10.1108/mf.2008.00934jaa.001>
- Amzal, C. (2016). The impact of macroeconomic variables on Indonesia Islamic banks profitability. *Jurnal Ekonomi Dan Bisnis Islam*, 2(1), 71–86.
- Arshed, N., & Kalim, R. (2021). Modelling demand and supply of Islamic banking deposits. *International Journal of Finance and Economics*, 26(2), 2813–2831. <https://doi.org/10.1002/ijfe.1936>
- Asadullah, M. (2017). Determinants of profitability of Islamic banks of Pakistan – A case study on Pakistan's Islamic banking sector. *international Conference on Advances in Business, Management and Law (ICABML) 2017*, 1(1), 61–73. <https://doi.org/10.30585/icabml-cp.v1i1.13>
- Basuki, A. T., & Prawoto, N. (2016). *Analisis Regresi dalam Penelitian*



Ekonomi & Bisnis; Dilengkapi Aplikasi SPSS & Eviews. PT. Raja Grafindo Persada.

- Chowdhury, M. A. F., & Rasid, M. E. S. M. (2015). The determinants of the profitability of Islamic banks: a cross-sectional study from Asia and Africa. *International Journal of Business and Globalisation*, 15(3), 375–388. <https://doi.org/10.1504/IJBG.2015.071913>
- Dodi, Supiyadi, D., & Arief, M. (2018). Islamic bank profitability : a study of islamic bank in Indonesia. *The International Journal of Business Review (The Jobs Review)*, 1(1), 51.
- Ekananda, M. (2017). Macroeconomic condition and banking industry performance in Indonesia. *Buletin Ekonomi Moneter Dan Perbankan*, 20(1), 71–98. <https://doi.org/10.21098/bemp.v20i1.725>
- Gujarati. (2004). *Basic Econometric* (Mc Graw Hill (ed.); Edition).
- Hassan, T., Mohamad, S., & Khaled I. Bader, M. (2009). Efficiency of conventional versus Islamic banks: evidence from the Middle East. *International Journal of Islamic and Middle Eastern Finance and Management*, 2(1), 46–65. <https://doi.org/10.1108/17538390910946267>
- Ibrahim, A., & Kamri, N. A. (2017). The Ethical Practices of Islamic Banking: An Analysis from Customer Satisfaction Perspective. *MIQOT: Jurnal Ilmu-ilmu Keislaman*, 41(1).
- Ichsan, R. N., Suparmin, S., Yusuf, M., Ismal, R., & Sitompul, S. (2021). Determinant of sharia bank's financial performance during the Covid-19 pandemic. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(1), 298–309. <https://doi.org/10.33258/birci.v4i1.1594>
- IFSB. (2015). *Islamic finance for asia : development , prospects , and inclusive growth*. IFSB.
- IFSB. (2020). *Islamic financial services industry stability report 2020*. Dec, 1–54. www.cbb.gov.bh
- Imam, P., & Kpodar, K. (2016). Islamic banking: good for growth? *economic modelling*, 59, 387–401. <https://doi.org/10.1016/j.econmod.2016.08.004>
- Islam, J. U., & Rahman, Z. (2017). Awareness and willingness towards Islamic banking among Muslims: An Indian perspective. *International Journal of Islamic and Middle Eastern Finance and Management*, 10(1), 92–101.



<https://doi.org/10.1108/IMEFM-01-2016-0017>

- Istan, M., & Fahlevi, M. (2020). The effect of external and internal factors on financial performance of Islamic Banking. *Jurnal Ekonomi & Studi Pembangunan*, 21(1). <https://doi.org/10.18196/jesp.21.1.5036>
- Izzati, N. (2017). Islamic banking profitability : roles played by internal and external. *The Journal of Muamalat and Islamic Finance Research*, 14(1), 23–38.
- Javaid, S., & Alalawi, S. (2018). Performance and profitability of islamic banks in Saudi Arabia: an empirical analysis. *Asian Economic and Financial Review*, 8(1), 38–51. <https://doi.org/10.18488/journal.aefr.2018.81.38.51>
- Kalayci, S., & Efe Tekin, B. (2016). Interactions between economic growth, FDI and Islamic banking development in Turkey. *International Journal of Business and Management*, 11(8), 230. <https://doi.org/10.5539/ijbm.v11n8p230>
- Kassim, S. H., Abd. Majid, M. S., & Yusof, R. M. (2009). Impact of monetary policy shocks on the conventional and Islamic banks in a dual banking system: Evidence from malaysia. *Journal of Economic Cooperation and Development*, 30(1), 41–58.
- Khediri, K. Ben, & Khediri, H. Ben. (2009). Determinants of Islamic bank profitability in the MENA region. *International Journal Monetary Economics and Finance*, 2.
- Mailinda, R., Ibrahim, A., & Zainul, Z. R. (2018). Pengaruh Leverage, Likuiditas dan Ukuran Perusahaan terhadap Profitabilitas pada BNI Syariah di Indonesia Periode 2015-2017. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 3(4). doi:<https://doi.org/10.24815/jimen.v3i4.9794>
- Marlina, L., & Iskandar, J. (2019). Effect of profit sharing and income per capita on increasing third party funds (Pengaruh bagi hasil dan pendapatan per kapita terhadap peningkatan dana pihak ketiga). *Jurnal Ekonomi Syariah*, 4(1). <https://doi.org/10.37058/jes.v4i1.798>
- Mensi, W., Hammoudeh, S., Tiwari, A. K., & Al-Yahyaee, K. H. (2020). Impact of Islamic banking development and major macroeconomic variables on economic growth for Islamic countries: Evidence from panel smooth transition models. *Economic Systems*, 44(1), 100739. <https://doi.org/10.1016/j.ecosys.2019.100739>
- Mersni, H., & Othman, H. Ben. (2016). Realize the realized stock index



volatility. *Emerald Insight*, 18(1), 59–80. <https://doi.org/10.1111/j.1467-8381.2004.00182.x>

Muarif, H., Ibrahim, A., & Amri, A. (2021). Likuiditas, Kecukupan Modal, Pembiayaan Bermasalah Dan Pengaruhnya Terhadap Profitabilitas Bank Umum Syariah di Indonesia Periode 2016-2018. *JIHBIZ: Global Journal of Islamic Banking and Finance.*, 3(1), 36-55.

Muliani, D. A., Suriani, & Seftarita, C. (2022). How macroeconomic variables affect Islamic banking in Indonesia, Malaysia, and Pakistan. *2022 International Conference on Decision Aid Sciences and Applications, DASA 2022*, 605–609. <https://doi.org/10.1109/DASA54658.2022.9764980>

Nugraheni, P., & Widyani, F. N. (2021). A study of intention to save in Islamic banks: the perspective of Muslim students. *Journal of Islamic Marketing*, 12(8), 1446–1460. <https://doi.org/10.1108/JIMA-11-2019-0233>

Nugroho, L., Badawi, A., & Hidayah, N. (2019). Shirkah. *Journal of Economics and Business*, 4(1).

Ramlan, H., & Adnan, M. S. (2016). The profitability of Islamic and conventional bank: case study in Malaysia. *Procedia Economics and Finance*, 35(October 2015), 359–367. [https://doi.org/10.1016/s2212-5671\(16\)00044-7](https://doi.org/10.1016/s2212-5671(16)00044-7)

Rashid, A., & Jabeen, S. (2016). Analyzing performance determinants: conventional versus Islamic banks in Pakistan. *Borsa Istanbul Review*, 16(2), 92–107. <https://doi.org/10.1016/j.bir.2016.03.002>

Rosiana, R., Syihabudin, S., & Nurmeilani, S. (2019). The influence of profit sharing financing, murabaha financing, non-performing financing, inflation and exchange rates on profitability of sharia commercial banks in Indonesia. *Syi`ar Iqtishadi : Journal of Islamic Economics, Finance and Banking*, 3(1), 22. <https://doi.org/10.35448/jiec.v3i1.5520>

Shabbir, M. S., & Rehman, A. (2019). Layers of misconceptions about Islamic banking: Are Islamic banks threats, challenges and opportunities for investors? *Journal of Islamic Marketing*, 10(3), 874–892. <https://doi.org/10.1108/JIMA-02-2018-0026>

Sun, Z. (2021). An empirical study on the relationship between education and economic development based on PVAR Model. *Scientific Programming*, 2021. <https://doi.org/10.1155/2021/6052182>



- Suriani, S., Abd. Majid, M. S., Masbar, R., A. Wahid, N., & Ismail, A. G. (2021). Sukuk and monetary policy transmission in Indonesia: the role of asset price and exchange rate channels. *Journal of Islamic Accounting and Business Research*, 12(7), 1015–1035. <https://doi.org/10.1108/JIABR-09-2019-0177>
- Tumewang, Y. K., Isnaini, R. N., & Musta'in, J. L. (2019). The impact of macro economy toward profitability of Islamic bank. *Asian Journal of Islamic Management (AJIM)*, 1(2), 101–108. <https://doi.org/10.20885/ajim.vol1.iss2.art4>
- Wasiuzzaman, S., & Tarmizi, A. (2009). Profitability of Islamic banks in Malaysia : an empirical analysis. *journal of Islamic Economics, Banking and Finance*, 6, 54–68.
- Widarjono, A. (2018). Estimating profitability of Islamic banking in Indonesia. *Jurnal Keuangan Dan Perbankan*, 22(3), 568–579. <https://doi.org/10.26905/jkdp.v22i3.2197>
- Widyaningrum, L., & Siswantoro, D. (2014). Analysis the effect of macroeconomic indicators and specific-firm characteristic as determinant profitability of Islamic banks in Asia. *Global Review of Islamic Economics and Business*, 12(2007), 703–712. <https://hsgm.saglik.gov.tr/depo/birimler/saglikli-beslenme-hareketli-hayat-db/Yayinlar/kitaplar/diger-kitaplar/TBSA-Beslenme-Yayini.pdf>
- Yahya, A. T., Akhtar, A., & Tabash, M. I. (2017). The impact of political instability, macroeconomic and bank-specific factors on the profitability of Islamic banks: An empirical evidence. *Investment Management and Financial Innovations*, 14(4), 30–39. [https://doi.org/10.21511/imfi.14\(4\).2017.04](https://doi.org/10.21511/imfi.14(4).2017.04)
- Zarrouk, H., Ben Jedidia, K., & Moualhi, M. (2016). Is Islamic bank profitability driven by same forces as conventional banks? *International Journal of Islamic and Middle Eastern Finance and Management*, 9(1), 46–66. <https://doi.org/10.1108/IMEFM-12-2014-0120>

