

The Potential of Green Islamic Banking Profitability in Financing Sustainable Business Industries

Romi Adetio Setiawan(1),^a Ayu Yuningsih(2)^b

^aFaculty of Economics and Islamic Business, Universitas Islam Negeri Fatmawati Sukarno Bengkulu (1), ^b Faculty of Economics and Islamic Business, Universitas Islam Negeri Fatmawati Sukarno Bengkulu (2), Indonesia

e-mail: romiadetio@mail.uinfasbengkulu.ac.id (corresponding author); ayuyuningsih92@gmail.com

Abstract

Financing to industries that have implemented environmental risk management is an important part of the future direction of Indonesia's sustainable economy. However, the potential profit derived from financing in this sector is still a matter of controversy. The purpose of this study is to analyze the potential profitability of Islamic banking which originates from financing the sustainable economic sectors. This study applies the Auto Regressive Distributed Lag (ARDL) data analysis method to see whether there is a relationship between long-term and short-term financing variables in priority sectors of sustainable business industries. The study concluded that there is a potential of profitability in financing sustainable industries in the field of industrial processing sector, the transportation, warehousing, and the communication sectors. The size of data in this study is restricted to only Islamic banks, other data variables from non-Islamic banks were not included to support the improvement of this study. Thus, this paper uses specific time series data from each Islamic bank, which would be lucrative to represent all Islamic commercial banks in Indonesia. This research also proposes that the government should strengthen the aspect of regulatory framework to accelerate the taxonomy of green industries in Indonesia, that could significantly increase the opportunities for Islamic financial institutions to invest in green business industries.

Keywords: *Taxonomy, Sustainable, Islamic Bank, Profitability, Financing, Green, Regulatory*

I. INTRODUCTION

The outbreak of the coronavirus disease which began at the end of 2019 has become a global phenomenon that poses a challenge to the world economy including Indonesia. This pandemic has a multidimensional impact, as a result there is a need to boost the urgency Islamic financial industries in driving the wheels of the national economy. The economic contraction that occurred due to lack of mobility during the lockdown as an effort to tackle the spread of Covid-19 has led to increased unemployment and poverty, as well as widened inequality. In Indonesia, this impact has caused an economic declined in the 1st quarter of 2020 from the usual average year-on-year (YoY) growth of 5.0% to 3.0%. It then followed by consecutive contractions of 5.3% in 2nd quarter 2020 and 3.5% in 3rd quarter 2020, that brings the cumulative growth to -2.0%.¹ This also had a negative impact on Islamic financial industries, such as a sudden decline in revenue, decreased in number of consumers, difficulty in obtaining raw materials, distribution disruptions, and difficulties in establishing new partnerships. Therefore, in order to recover the sustainable industry sectors, a flow of capital to support these sectors are insignificant. As part of Indonesian government project, the mainstreaming of sustainable finance is accelerated through the taxonomy and other sustainable finance regulations and disclosure standards. Although the initial compliance to green industry policy in Indonesia may be challenging, it will accelerate the business opportunities for financial institutions that offer green products and could attract investors who are interested in green business models.

¹ Manggi Taruna Habir and Wisnu Wardna, "COVID-19 's Impact on Indonesia ' s Economy and Financial Markets," *ISEAS Yusof Ishak Institute* (Singapore, 2020), https://www.iseas.edu.sg/wp-content/uploads/2020/12/ISEAS_Perspective_2020_142.pdf.

As a Muslim largest population country, Indonesia has the potential to become a leader in the world's Islamic financial market. To fulfill this need, several steps to support the development of Islamic financial industries are needed, such as by providing a platform through leveraging on sovereign sukuk for sustainable finance in the development of public infrastructure, including green projects. Furthermore, the performance of Islamic banking during the Covid-19 pandemic was still resilient with the distribution of financing in 2020 achieving growth of 8% (yoy), higher than the conventional banking industry which contracted in total by -2.41% (yoy).²

However, the financing of the sustainable industrial sector in Indonesia is lagging despite this rapid increase in Islamic banking performance. In fact, there is still a gap with the financing needs to total share of Islamic financial industries, even though the share of Islamic financial industries to total credit in the financial industry continues to increase. Likewise, from a sectoral perspective, there has been an improvement in the link-and-match between Islamic economic needs and Islamic financing. This can be seen from both the field of business and the scale of the business. On the business scale side, increasing financial inclusion is realized through expanding the reach of Islamic microfinance in facilitating the needs of Islamic businesses in this sectors.³

As an intermediary financial institution, lack of financing in FSS can be one of the main barriers in customer's capital turnover. As it can facilitate the distribution of public funds into productive asset investments which will stimulate the real sector, capital accumulation, and aggregate output growth.⁴ Although the financing allocation to sustainable industry sectors by Islamic bank may increase over time, the challenges of debt constraints and these sector profitability is often unpriced or undervalued. Thus, making the discussion over profitability of financing into these sectors very lucrative. Profitability is an appropriate benchmark in measuring the performance of a bank. The measure of profitability that is widely used is the Return on Assets (ROA). This is because the ROA can accurately compare the efficiency and operational performance of banks.⁵

Bank profitability refers to the amount of profit gained from the difference between the assets and expense of the liabilities. Simply put, bank profitability can be assessed from both micro and macro determinants. Under micro variables, it can be assessed through the balance sheet and income statement, while under macro variables, bank profitability can be assessed through the asset, risk management, capital, expense management, marketable securities and non-performing loans which can affect the profitability in a significant way.⁶ There is hot debate over the banking profitability and financing, for example a study by Yuksel et al. shows that when bank ratio of total loans increases but the economy growth is negative, it will affects the financial performance of the banks in a negative way.⁷ On the other hand, a study by Trisnawati and Ridho show that the ratio of cost-plus financing in Islamic banking affects the ROA. Although the profit-sharing financing also affects ROA and total revenue, some industries prefer this type of financing.⁸ Another study

² Bank Indonesia, *Laporan Ekonomi Dan Keuangan Syariah 2020* (Jakarta: Bank Indonesia, 2020), https://www.bi.go.id/id/publikasi/laporan/Documents/LEKSI_2020_31032021.pdf.

³ Bank Indonesia.

⁴ Departemen Pengembangan Pengawasan and Manajemen Krisis, "Potensi Pertumbuhan Ekonomi Ditinjau Dari Penyaluran Kredit Perbankan Kepada Sektor Prioritas Ekonomi Pemerintah" (Jakarta, 2015).

⁵ Nazipawati Nopa Saputra, "Pengaruh Pembiayaan Terhadap Profitabilitas Bank Syariah Mandiri Periode 2012-2019," *Jurnal Ilmu Ekonomi Dan Perencanaan Pembangunan* 1, no. 1 (2021): 50–71.

⁶ Serhat Yüksel et al., "Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries," *Economies* 6, no. 3 (2018): 1–15, <https://doi.org/10.3390/economies6030041>.

⁷ Yüksel et al.

⁸ Yuniatin Trisnawati and Muhammad Ridho, "Pengaruh Pembiayaan Bagi Hasil, Pembiayaan Jual Beli, Financing to Deposit Ratio (FDR) Terhadap Profitabilitas Pada Bank Umum Syariah Di Indonesia Yang Terdaftar Pada Bursa Efek Indonesia (BEI) Periode 2015-2017," *Jurnal Akuntansi Dan Keuangan* 4, no. 1 (2019): 13–20.

by Ramlan and Adnan finds that Islamic banks are more profitable than conventional banks since their profit gains from total loan to total asset is higher than conventional bank.⁹ Since all these studies do not emphasize on the priority of sustainable economic sectors, thereby this study examines the profitability of Islamic Banking in financing these sectors and assess their constraints from the perspective of economic taxonomy. Currently, the potential of these sectors was still less studied in Indonesia, therefore this paper attempts to address whether or not Islamic bank can gain the profit out of financing in the sustainable economic sectors. The Auto Regressive Distributed Lag (ARDL) method is used in this study to analyse the relationship between long-term and short-term financing variables in priority sectors of sustainable finance.

The rest of this paper is structured as follows. Section II provides an overview of profitability in financing the sustainable economic sectors by Islamic banking. Section III and IV provides a methodology and statistical analysis of descriptive research using ARDL method. Finally the conclusion and recommendations is in Section V.

II. LITERATURE REVIEW

II.A. Islamic Banking Profitability in Financing the Sustainable Industry Sectors

Issuing obligations is one of the effective sources for bank to raise fund. Bank assets are generally referred to as the use of funds, and the interest earned out of these assets is the bank's source of profit. One of the bank's assets is a loan or credit. Bank loan is an obligation for individuals or companies that must be accepted, in return of owning or using the bank assets, bank on the other hand makes profit out of this loan. Loans are generally more liquid than other assets because they cannot be converted into cash until they mature. Loans also have a higher default liability than other assets. Since a loan is illiquid and is high risk of default, the bank earns the highest returns out of it.¹⁰

In generating profits, the bank transforms assets into a particular characteristic, namely a liquidity, risk, size and rate of return and uses the proceeds from the sale to buy assets with various characteristics. For example, bank can gain profit out of a deposited fund by its customer, since the bank can channel this deposited amount into a credit to someone else. Bank in this case, convert savings deposits into home loans. In another case, bank can transform assets in the form of short-term borrowing and long-term facilitation where banks issue credit for the long term and are financed from short-term savings.¹¹ Financing can be defined as channeling a fund by a party to another party to support planned investments, either carried out alone or by an institution. According to Law no. 21 of 2008 concerning Sharia Banking Article 1 Number (25) states that financing is the provision of funds or equivalent claims in the form of: (a) profit sharing transactions such as in *mudharabah* and *musyarakah*; (b) leasing transactions in the form of *ijarah* or leasing in the form of *ijarah muntahiyah bittamlik*; (c) sale and purchase transactions in the form of *murabahah*, *salam*, and *istishna'* receivables; (d) lending and borrowing transactions in the form of *qardh* receivables; and (e) lending and borrowing transactions in the form of *ijarah* for multi-service transactions, based on agreements or agreements between Islamic bank and other parties that require parties who are financed and/or given funding facilities to return the funds after a certain period of time with a return in the form of *ujrah*, or by way of profit sharing.

⁹ Hamidah Ramlan and Mohd Sharrizat Adnan, "The Profitability of Islamic and Conventional Bank: Case Study in Malaysia," in *7th International Economics and Business Management Conference* (Kualalumpur: Procedia Economics and Finance, 2016), 359–67, [https://doi.org/10.1016/S2212-5671\(16\)00044-7](https://doi.org/10.1016/S2212-5671(16)00044-7).

¹⁰ Frederic S Mishkin, *Ekonomi Uang, Perbankan, Dan Pasar Keuangan*, 11th ed. (Jakarta: Salemba Empat, 2017).

¹¹ Mishkin.

Financing is aimed to obtain profitability which is achieved through the contract of profit sharing from business managed by the customers. A side of this, financing also aims to obtain safety, by ensuring the customers that the bank obligation is truly guaranteed so that the objective of profitability can actually be achieved without significant obstacles. Therefore, with this security it is intended that the achievements given in the form of capital, goods or services are really guaranteed to return, so that the expected profit (profitability) can become a reality.¹² The more bank provide a loan, the more will be a bank gain a profit. This is because the bank gets the profit from the interest on the credit loans that are distributed.

According to OJK there are five sectors of priority in ASEAN Taxonomy for Sustainable Finance, namely: (1) Agriculture and forestry sectors; (2) Processing Industry Sector; (3) Electricity, gas and water sectors; (4) Construction Sector; and (5) the transportation, warehousing and communication sector. Thus, this study will focus on these five sectors, which are as below:

1. Agriculture and Forestry Sector

Based on Indonesian Central Bureau Statistic, the data shows that the Agriculture and Forestry Sectors provide a relatively large share in Indonesia's aggregate GDP, although their share tends to decrease as commodity prices become uncontrollable and tend to decline. At the end of 2014 the agricultural sector had a share of 13.33% in GDP but decreased to only 12.39% in 2022.¹³

Barriers faced by agricultural products can be in the form of tariffs or non-tariffs. Tariff barriers can be seen from the anti-dumping policy by export destination countries to protect their products in the domestic market, so that import duties on agricultural products from outside (eg from Indonesia) tend to be increased. Meanwhile, non-tariff barriers include quota restrictions from export destination countries, agricultural product subsidies from export destination countries, anti-dumping policies, automatic import licensing, eco-labelling and other non-tariff barriers related to sanitary and phytosanitary measures. On the other hand, there is the possibility of automatic import licensing which will lower the price of domestic agricultural products. Ecolabelling, sanitary and phytosanitary regulations are related to the standards that must be met when a product enters another country. Financing to the agricultural and forestry sectors is still relatively small. In November 2022, the portion of financing for the agriculture, hunting and forestry sector is only Rp. 22.55 trillion or 4.62% of total financing.¹⁴

2. Industry and Processing Sector

The processing industry provides the largest contribution to Indonesia's GDP. In 2022 the contribution of this sector to GDP is recorded at IDR 359.1 trillion or 18.33% of total GDP. However, there are obstacles faced by the export processing industry sector, including difficulties in obtaining raw materials, high production costs, and product quality which is considered by destination countries to not meet international standards.¹⁵

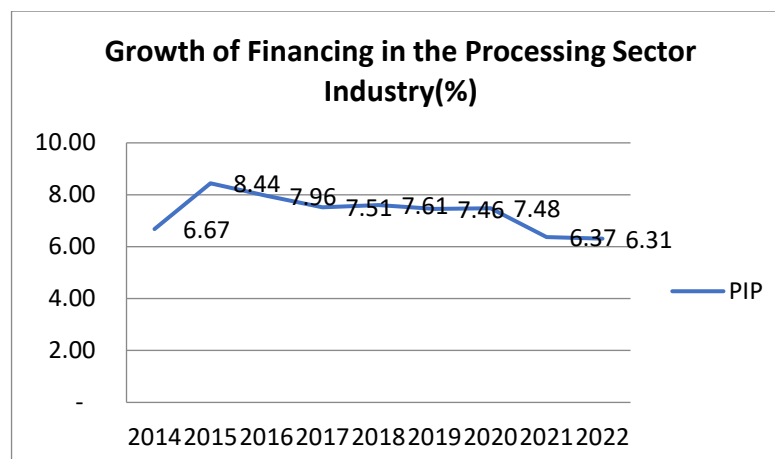
Amid the relatively large share of the manufacturing sector in GDP, the growth rate of financing in the processing industry has declined in line with declining economic conditions and depressed industrial sector productivity, especially the Covid-19 pandemic which occurred some time ago had a significant impact on the economy.

¹² Muhammad, *Manajemen Pembiayaan Bank Syariah* (Yogyakarta: UPP AMP YKPN, 2005).

¹³ Badan Pusat Statistik, "Produk Domestik Bruto (Lapangan Usaha)," BPS - Statistics Indonesia, 2023, <https://www.bps.go.id/subject/11/produk-domestik-bruto--lapangan-usaha-.html>.

¹⁴ Otoritas Jasa Keuangan, "Potensi Pertumbuhan Ekonomi Ditinjau Dari Penyaluran Kredit Perbankan Kepada Sektor Prioritas," *Otoritas Jasa Keuangan*, 2015, 58.

¹⁵ Otoritas Jasa Keuangan.



Source: Adapted from the statistical data of Indonesian Financial Authority

Figure 1. Growth of Financing in the Processing Sector Industry

3. Electricity, Gas and Water Sector

The contribution of the electricity, gas and water sector to GDP is relatively small. In 2014 the sector's contribution was IDR 12.2 trillion and IDR 21.72 trillion in 2022.¹⁶ From the energy side, despite having large potential energy resources, Indonesia faces a risk of energy security which is quite vulnerable. The continued increase in fuel demand has not been fully met by domestic energy production. Some of the problems hampering domestic energy production are mainly infrastructure development constraints in the form of developing towers and power plants as well as the limited development of new and renewable energy diversification. The vulnerability of Indonesia's water security is mainly influenced by the relatively low capacity to manage water resources and the presence of factors that affect water resources such as land conversion, relatively limited natural resources infrastructure, disturbance of watersheds, and water pollution.¹⁷

4. Construction Sector

The construction sector is one of the development priorities to increase productivity and product competitiveness in the international market. The current infrastructure limitations make logistics costs relatively expensive, so this factor becomes an obstacle in efforts to increase investment. The contribution of the construction sector to GDP is relatively large and has an increasing trend. In 2014 the sector's contribution amounted to IDR 1,041.9 trillion and IDR 1,912.9 trillion in 2022.¹⁸ There are opportunities for financing in the construction sector, but the amount of Islamic commercial bank financing in the construction sector as of November 2022 is only Rp. 36.95 trillion or only about 7.57% of the total financing. The low financing in the construction sector is influenced by its unique characteristic which require large amounts of funds and a relatively long pay-back period.

The construction sector is also viewed as risky by the banking sector, considering that companies in this sector do not have a natural hedge, especially if there is a temporary depreciation of the exchange rate foreign debt in this sector is quite significant. This is because most of the income structure of companies in the construction sector comes from rupiah income while the financing comes from external debt.¹⁹

5. Transportation, Warehousing and Communication Sector

¹⁶ Badan Pusat Statistik, "Produk Domestik Bruto (Lapangan Usaha)."

¹⁷ Bank Indonesia, "Tantangan, Arah Kebijakan Dan Prospek Perekonomian Indonesia," *Bank Indonesia* (Jakarta, 2015), https://www.bi.go.id/id/publikasi/laporan/Pages/LPI_2015.aspx.

¹⁸ Badan Pusat Statistik, "Produk Domestik Bruto (Lapangan Usaha)."

¹⁹ Otoritas Jasa Keuangan, "Potensi Pertumbuhan Ekonomi Ditinjau Dari Penyaluran Kredit Perbankan Kepada Sektor Prioritas."

The transportation, warehousing and communication sector contributed to GDP of IDR 179.63 trillion or 9.17% of the total GDP in 2022.²⁰ The transportation, warehousing and communication sectors have good growth potential after the Covid-19 pandemic. There are opportunities for financing in the transportation, warehousing, and communication sectors, but the amount of Islamic commercial bank financing in the transportation, warehousing and communication sectors is still low at Rp. 13.8 trillion or 2.83% of total financing in 2022.²¹

II.B. Economic Growth

Macroeconomic conditions are one of the external factors that can influence banks in obtaining profits. The most appropriate indicator used to measure economic conditions in a country is gross domestic product (GDP) growth, because GDP growth is considered the best measure of economic performance.²² GDP is the total market value of finished goods and services produced in a country during a certain year. Fast GDP growth can be an indication of better economic growth in a country. Improved economic growth will certainly affect banking performance, including influencing the demand for and supply of credit as well as deposits of third-party funds.²³ National and global economic turmoil can also affect the level of profitability of Islamic banking.

II.C. Exchange Rates

Exchange rates are used by each nation in their economic transaction. The foreign exchange rate is the unit price of a currency in another currency, which are determined in the foreign exchange market.²⁴ When a recession or even a crisis occurs, it will cause the outflow of foreign capital due to the speculative behavior of investors, as a result the value of the country's currency will depreciate.²⁵ A depreciating exchange rate will be accompanied by a large increase in domestic costs for foreign debt. The increased risk premium and the monetary contraction that occurs to prop up the exchange rate causes interest rates to rise and creates loan repayment problems.²⁶

Changes in the exchange rate are vulnerable to problematic external credit and the fall in the exchange rate is due to panic among market participants. The relationship between non-performing financing and the exchange rate can have an impact on economic activity, especially producers who use imported raw materials, so that when the exchange rate depreciates, the price of imported raw materials rises and this burdens production costs, in the end it will have an impact on producers' profits and income. Then producers as debtors will be affected by loan payments to banks.

Since Islamic bank is an intermediary institution, it is also affected by exchange rate fluctuations. As a consequence there will be a fluctuation in customer capital to return financing from customers. This resulted in the return of financing from customers and also had an impact on the bank's subsequent profitability. If the exchange rate appreciates or depreciates, it will have an impact on the level of bank profitability.²⁷

²⁰ Badan Pusat Statistik, "Produk Domestik Bruto (Lapangan Usaha)."

²¹ Badan Pusat Statistik.

²² N. Gregory Mankiw, *Makroekonomi*, Keenam (Jakarta: Erlangga, 2007).

²³ Ni Made Elin Sukmawati and Ida Bagus Anom Purbawangsa, "Pengaruh Pertumbuhan Dana Pihak Ketiga, Pertumbuhan Kredit, Risiko Kredit, Likuiditas, Dan Kondisi Ekonomi Terhadap Profitabilitas," *E-Jurnal Manajemen Unud* 5, no. 9 (2016): 248723.

²⁴ Mankiw, *Makroekonomi*.

²⁵ N Samuelson, *Ilmu Makro Ekonomi* (Jakarta: Megia Global, 2004).

²⁶ M Kuncoro, *Manajemen Keuangan Internasional Pengantar Ekonomi Dan Bisnis* (Yogyakarta: BPFE, 2001).

²⁷ Annafsun Nadzifah and Jaka Sriyana, "Analisis Pengaruh Inflasi, Kurs, Biate, PDB Dan Kinerja Internal Bank Terhadap Profitabilitas Pada Perbankan Syariah Dan Konvensional," *Jurnal Manajemen Dan Bisnis Indonesia* 6, no. 1 (2020): 79–87; Nur Lailatul Fatmawati and Abdul Hakim, "Analisis Tingkat Profitabilitas Perbankan Syariah Di

II.D. Theoretical Framework

Based on the description in the literature review, the framework that will be used in this study is as follows:

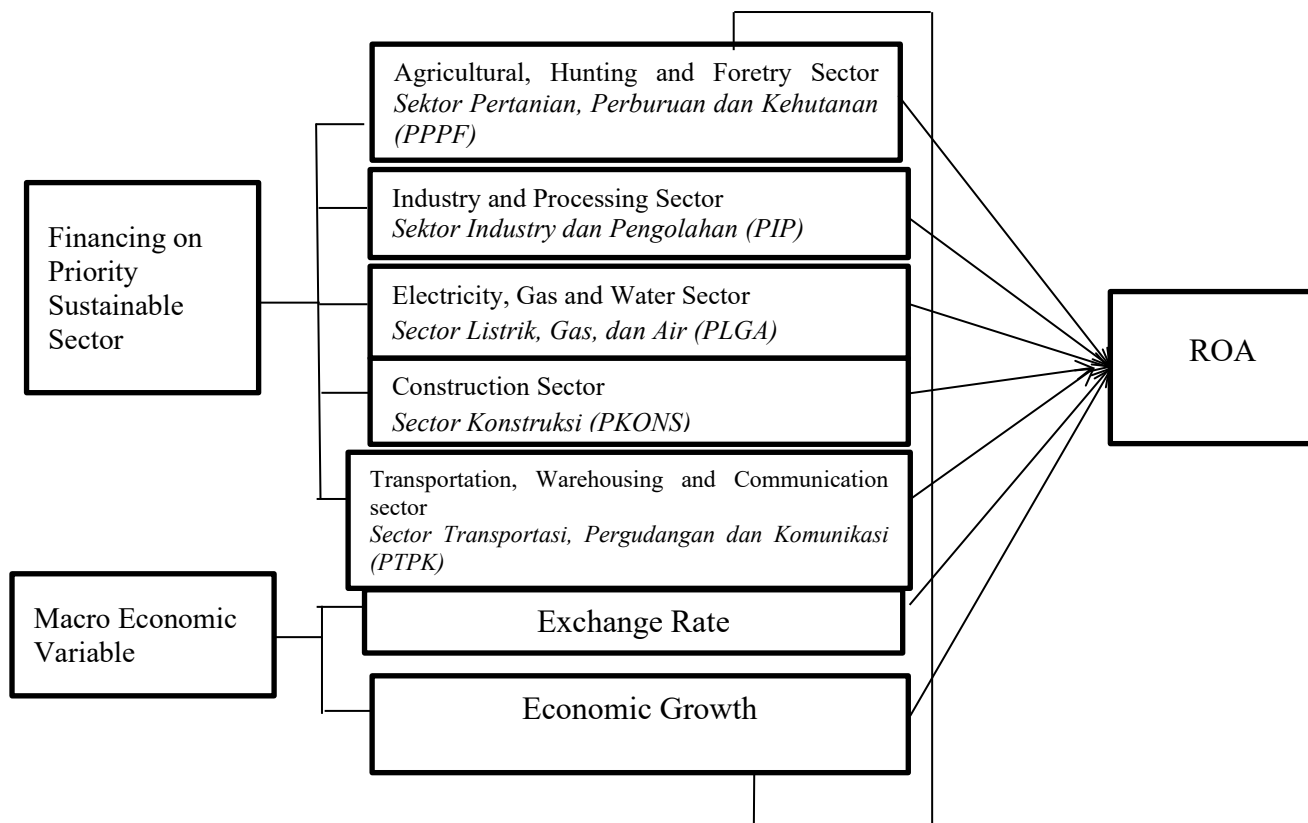


Figure 2. Theoretical Framework

- H1* : Financing for the agricultural, hunting and forestry sectors has a positive effect on the Return on Assets of Indonesian Islamic Banking.
- H2* : Financing for the industrial and processing sectors has a positive effect on the Return on Assets of Indonesian Islamic Banking.
- H3* : Electricity, gas and water financing have a positive effect on the Return on Assets of Indonesian Islamic Banking.
- H4* : Construction sector financing has a positive effect on Return on Assets of Indonesian Islamic Banking.
- H5* : Financing for the transportation, warehousing and communication sector has a positive effect on the Return on Assets of Indonesian Islamic Banking.

- H6* : The exchange rate has a negative effect on the Return on Assets of Indonesian Islamic Banking.
- H7* : Economic growth has a positive effect on the Return on Assets of Indonesian Islamic Banking.

III.Data and Methodology

This study uses a quantitative approach and is based on time series data. The population used in this study is Islamic Commercial Banks registered with the OJK from the period of 2014-2022. This study used a saturated sampling technique using all members of the population as samples. The data used is aggregate data presented in the monthly period from January 2014 to December 2022. Meanwhile, the main variables used to see the relationship between profitability and sustainable priority sector financing are defined in Table 1.

Table 1. Variable Operational Definition

Variable	Operational Definition	Format and Sources of Data
<i>Return On Asset (ROA)</i>	ROA =Net Profit/Total Assets 100%	Monthly, Ratio, From FSA statistic
PPPF	Financing in the agricultural, hunting and forestry sectors.	Monthly, ratio to total financing, From FSA statistic
PIP	Manufacturing sector financing includes the food and tobacco industries; animal feed and fish industry; textile, clothing and leather industries; wood and wood products industry; paper material industry (pulp), paper and paper products; printing and publishing; chemical processing industry and chemical products; petroleum, coal, rubber and plastic products; non-metal mining product processing industry, in addition to other oil and coal products.	Monthly, ratio to total financing, From FSA statistic
PLGA	Financing in the electricity, gas and water sectors.	Monthly, ratio to total financing, From FSA statistic
PKONS	Financing in the construction sector	Monthly, ratio to total financing, From FSA statistic
PTPK	Financing in the transportation, warehousing and communication sector	Monthly, ratio to total financing, From FSA statistic
IPI	The Industrial Production Index (IPI) is an economic indicator that calculates the level of output produced by all industries in a country. The IPI is calculated by considering several components both in terms of output capacity and efficiency to form an index.	Monthly, Numbers, Statistic from Bank Indonesia
KURS	Rupiah exchange rate against the US dollar (US\$). The exchange rate data used in this study is the depreciation exchange rate.	Monthly, Percentage, Bank Indonesia

All variables in table 1 were analyzed simultaneously using the Autoregressive Distributed Lag (ARDL) method. The data analysis model used is as follows:

$$\begin{aligned}\Delta ROA_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta ROA_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta PPPF_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta PIP_{t-1} + \\ & \sum_{i=1}^n \alpha_{4i} \Delta PLGA_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta PKONS_{t-1} + \sum_{i=1}^n \alpha_{6i} \Delta PTPK_{t-1} + \\ & \sum_{i=1}^n \alpha_{7i} \Delta LNIPI_{t-1} + \sum_{i=1}^n \alpha_{8i} \Delta KURS_{t-1} + \theta_1 ROA_{t-1} + \theta_2 PPPF_{t-1} + \\ & \theta_3 PIP_{t-1} + \theta_4 PLGA_{t-1} + \theta_5 PKONS_{t-1} + \theta_6 PTPK_{t-1} + \theta_7 LNIPI_{t-1} + \\ & \theta_8 KURS_{t-1} + e_t \dots\dots\dots (1)\end{aligned}$$

In the ARDL model, whether there is a long-term relationship between the variables in the model is tested using the cointegration test bound testing approach. The cointegration test bound testing approach is based on the F statistic test. The Null hypothesis (H_0) from equation 1 above is if $\phi_1 = \phi_2 = \phi_3 = \phi_4 = \phi_5 = \phi_6 = \phi_7 = \phi_8 = 0$ which states that there is no long-term relationship in the model (not cointegrated). Meanwhile, the alternative hypothesis (H_a) is $\phi_1 \neq \phi_2 \neq \phi_3 \neq \phi_4 \neq \phi_5 \neq \phi_6 \neq \phi_7 \neq \phi_8 \neq 0$ which states that there is a long-term relationship to the model (cointegrated). The F-Statistic value of the calculation results will be compared with the critical values shown in the CI (III). The lower bound critical value assumes that the explanatory variables cointegration is in order zero or I (0), while the upper bound critical value assumes that the explanatory variables are integrated in order one or I (1).²⁸ In this analysis, an adjustment model will also be tested to make corrections for short-term imbalances using the error correction model. The error correction model from the previous ARDL equation (1) is as follows:

$$\begin{aligned}\Delta ROA_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta ROA_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta PPPF_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta PIP_{t-1} + \\ & \sum_{i=1}^n \alpha_{4i} \Delta PLGA_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta PKONS_{t-1} + \sum_{i=1}^n \alpha_{6i} \Delta PTPK_{t-1} + \\ & \sum_{i=1}^n \alpha_{7i} \Delta LNIPI_{t-1} + \sum_{i=1}^n \alpha_{8i} \Delta KURS_{t-1} + \vartheta ECT_{t-1} + e_t \dots\dots\dots (2)\end{aligned}$$

Where ECT_{t-1} is an error correction variable or the previous period's (residual) error.²⁹

IV. Result and Analysis

Table 2. Result of Descriptive Statistical Analysis

	PPPF	PIP	PLGA	PKONS	PTPK	LNIPI	KURS
Mean	3.561667	7.263039	3.365098	7.194216	3.984608	4.907157	0.165196
Maximum	4.340000	8.440000	5.460000	9.890000	8.040000	5.060000	14.74000
Minimum	1.870000	3.200000	1.970000	3.910000	2.410000	4.640000	-6.970000
Std. Dev.	0.526671	0.955354	0.807822	1.637829	1.484467	0.082214	2.523837
Observations	102	102	102	102	102	102	102

Source: Authors, managed from statistical data

Based on the data presented in Table 2. it can be seen that the amount of data used in this study is 102. The minimum value of financing variables in the agricultural, hunting and forestry sectors is 1.870000, the maximum value of financing variables in the agriculture, hunting and forestry sector is 4.340000 and the average value of financing variables in the agricultural, hunting and forestry sector is 3.561667 with a standard deviation of 0.526671. Meanwhile, the financing variable for the manufacturing sector has a minimum value of 3.200000, the maximum value for the variable financing for the manufacturing sector is 8.440000 and the average value for the financing variable for the manufacturing sector is 7.263039 with a standard deviation of 0.955354.

The electricity, gas and water sector financing variables have a minimum value of 1.970000,

²⁸ M. H. Pesaran and Y. Shin, "An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis," *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*, no. March 3-5, 1995 (1999): 1–31, <https://doi.org/10.1017/CCOL521633230>.

²⁹ Agus Widarjono, *Ekonometrika Pengantar Dan Aplikasinya Disertai Panduan Eviews*, Edisi Keli (Yogyakarta: UPP STIM YKPN, 2018).

the maximum value of the electricity, gas and water sector financing variables is 5.460000 and the average value of the electricity, gas and water sector financing variables is 3.365098 with a standard deviation of 0.807822. Then the construction sector financing variable has a minimum value of 3.910000, the maximum value of the construction sector financing variable is 9.890000 and the average value of the construction sector financing variable is 7.194216 with a standard deviation of 1.637829. While the financing variable for the transportation, warehousing and communication sector has a minimum value of 2.410000, the maximum value for the financing variable for the transportation, warehousing and communication sector is 8.040000 and the average value for the financing variable for the transportation, warehousing and communication sector is 3.984608 with a standard deviation of 1.484467.

Then the Industrial Production Index (IPI) variable has a minimum value of 4.640000, the maximum value of the IPI variable is 5.060000 and the average value of the IPI variable is 4.907157 with a standard deviation of 0.122478. The exchange rate variable has a minimum value of -6.970000, a maximum exchange rate variable value of 14.74000 and an average exchange rate variable value of 0.165196 with a standard deviation of 0.082214.

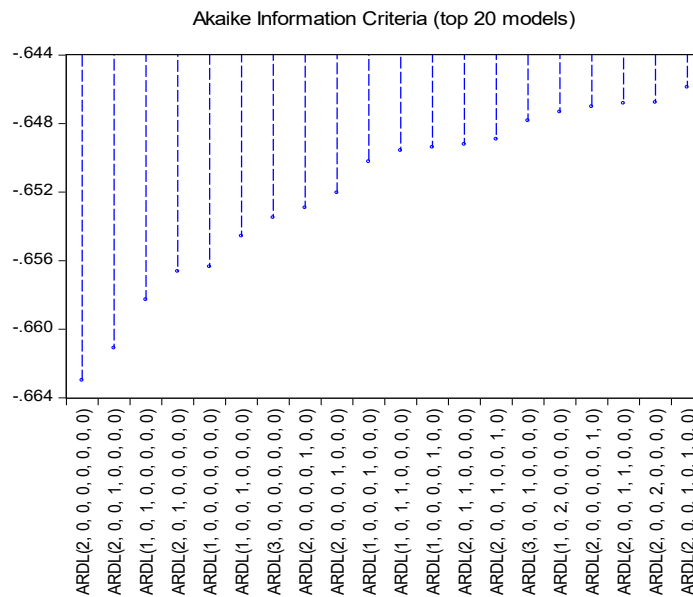
Table 3. Data Stationarity Test Results

Variabel	Tingkat Stasioneritas			
	Level	Value	1st Difference	Value
PPPF	0.0741	Not Stationary	0.0000	Stationary *
PIP	0.0013	Stationary *	0.0000	Stationary *
PLGA	0.8189	Not Stationary	0.0000	Stationary *
PKONS	0.9060	Not Stationary	0.0000	Stationary *
PTPK	0.7069	Not Stationary	0.0804	Not Stationary
LNPI	0.0003	Stationary *	0.0000	Stationary *
KURS	0.0000	Stationary *	0.0000	Stationary *
ROA	0.0164	Stationary **	0.0000	Stationary *

Value Description: Mackinnon Critical Value *: $\alpha = 1\%$, **: $\alpha = 5\%$, ***: $\alpha = 10\%$

Source: Author, managed from statistical data.

Based on Table 3 above, it can be seen that the PPPF, PIP, PLGA, PKONS, LNPI, EXCHANGE AND ROA variables are stationary at first difference while PTPK is not stationary. This shows that the possibility of regression is spurious regression. Therefore the use of the ARDL model is the right choice.



Source: Authors' own calculation based on data

Figure 3. ARDL Model Estimation

Based on the Akaike Information Criterion (AIC) shown in figure 3, the best model for this research is ARDL (2, 0, 0, 0, 0, 0, 0).

Table 4. ARDL Model Estimation

Model selection method: Akaike info criterion (AIC)

Selected Model: ARDL(2, 0, 0, 0, 0, 0, 0)

Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
ROA(-1)	0.553710	0.101880	5.434896	0.0000
ROA(-2)	0.205035	0.098024	2.091688	0.0393
PPPF	0.013349	0.098434	0.135612	0.8924
PIP	-0.098080	0.046001	-2.132151	0.0357
PLGA	-0.013261	0.030672	-0.432342	0.6665
PKONS	-0.009007	0.023479	-0.383633	0.7022
PTPK	-0.071263	0.029999	-2.375486	0.0196
LNPI	0.246695	0.315233	0.782578	0.4359
KURS	-0.000424	0.007270	-0.058298	0.9536
C	0.169041	1.556774	0.108584	0.9138
R-squared	0.889321	Mean dependent var		1.220700
Adjusted R-squared	0.878253	S.D. dependent var		0.494119
S.E. of regression	0.172409	Akaike info criterion		-0.583251
Sum squared resid	2.675248	Schwarz criterion		-0.322734
Log likelihood	39.16255	Hannan-Quinn criter.		-0.477815
F-statistic	80.35144	Durbin-Watson stat		1.815536
Prob(F-statistic)	0.000000			

Source: Authors' own calculation

Based on Table 4 above. The R-Squared and Adjusted R-Squared values of the ARDL model are relatively high at 0.88 and 0.87 respectively. The Adjusted R-Squared value of 0.87 means that 87% of the dependent variable Return On Assets (ROA) can be explained by each of the selected ARDL model independent variables. This is an early indication that this research

model is good enough to be analyzed.

Table 5. Cointegration Test Results Bounds Testing

Test Statistic	Value	Signifikansi	I(0)	I(1)
F-statistic	4.377371	10%	2.03	3.13
k	7	5%	2.32	3.5
		2.50%	2.6	3.84
		1%	2.96	4.26

Source: Authors' own calculations.

Based on Table 5. above, it can be seen that the F-Statistic value of 4.377371 is greater than the lower limit value I(0) the upper limit value I(1) with a significance level of 1%. Thus there is a long-term relationship between the ten determinant variables on Return On Assets (ROA).

Table 6. ARDL-Based ECM Estimation Results

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ROA(-1))	-0.205035	0.098024	-2.091688	0.0393**
D(PPPF)	0.013349	0.098434	0.135612	0.8924
D(PIP)	-0.098080	0.046001	-2.132151	0.0357**
D(PLGA)	-0.013261	0.030672	-0.432342	0.6665
D(PKONS)	-0.009007	0.023479	-0.383633	0.7022
D(PTPK)	-0.071263	0.029999	-2.375486	0.0196**
D(LNIPI)	0.246695	0.315233	0.782578	0.4359
D(KURS)	-0.000424	0.007270	-0.058298	0.9536
CointEq(-1)	-0.241255	0.065179	-3.701423	0.0004

Cointeq = ROA - (0.0553*PPPF -0.4065*PIP -0.0550*PLGA -0.0373
*PKONS -0.2954*PTPK + 1.0225*LNIPI -0.0018*KURS + 0.7007)

*: $\alpha = 1\%$, **: $\alpha = 5\%$, ***: $\alpha = 10\%$

Source: Authors' own calculations.

Based on Table 6, it can be seen that the ECT/CointEq coefficient shows the number - 0.241255 and is significant at $\alpha = 1\%$. This indicates a correction of short-term errors that affect the process towards its long-term balance. The negative sign accompanying the value means that the direction will be close to its long-term balance of Return On Assets (ROA). The consequence is that if there is a difference between the Return On Assets (ROA) and the balance value so that there are error disturbances that increase in the short term, corrections/adjustments will be made to the error downwards to return it to the long term balance. This mechanism will occur during the process towards long-term balance which is influenced by short-term balance. Meanwhile, the ECT/CointEq parameter value shows the number 0.241255 indicating that the adjustment process is quite slow. This situation can provide an economic interpretation that the independent variables in this equation are small enough to affect the dependent variable.

ROA in the first lag has a negative and significant coefficient. This means that in the first lag or the one-month period beforehand, if ROA has increased, it will be followed by a decrease in ROA in the current period. PIP and PTPK variables in the short term have negative and significant coefficients. This means that if PIP and PTPK experience an increase, it will be followed by a decrease in ROA in the current period. While other variables have no effect on ROA in Islamic banking. The PPPF variable in the short term has a positive coefficient but not significant, meaning that the PPPF variable in the short term has no effect on ROA. PLGA and

PKONS variables in the short term have negative coefficients and are not significant, meaning that PLGA and PKONS variables in the short term have no effect on ROA. Furthermore, the KURS variable in the short term has a negative coefficient and is not significant, meaning that the EXCHANGE variable in the short term has no effect on ROA.

Table 7. ARDL Estimation Results

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PPPF	0.055331	0.404296	0.136858	0.8914
PIP	-0.406541	0.182013	-2.233584	0.0280**
PLGA	-0.054965	0.128944	-0.426275	0.6709
PKONS	-0.037336	0.103110	-0.362097	0.7181
PTPK	-0.295384	0.158847	-1.859551	0.0662***
LNPI	1.022547	1.284706	0.795938	0.4282
KURS	-0.001757	0.030152	-0.058265	0.9537
C	0.700672	6.491646	0.107934	0.9143

*: $\alpha = 1\%$, **: $\alpha = 5\%$, ***: $\alpha = 10\%$

Source: Authors' own calculations.

Based on the ROA estimation results of the ARDL model presented in Table 7, it can be seen that the PPPF variable in the long term has a positive coefficient of 0.055331 but is not significant or has no effect on ROA. The PIP variable in the long term has a negative coefficient of -0.406541 and is significant $\alpha = 5\%$. That is, if there is an increase in the PIP variable by 1 percent, it will be followed by a decrease in ROA of 0.406541 percent. Furthermore, the long-term PLGA and PKONS variables have negative and insignificant coefficients, meaning that the long-term PLGA and PKONS variables have no effect on ROA. PTPK variable in the long run has a negative coefficient of -0.295384 and is significant at $\alpha = 10\%$. That is, if there is an increase in the PTPK variable by 1 percent, it will be followed by a decrease in ROA of 0.295384 percent. While the IPI variable in the long term has a positive coefficient and is not significant, meaning that in the long term the IPI variable has no effect on ROA. Furthermore, the KURS variable in the long term has a negative and insignificant coefficient, meaning that the EXCHANGE variable in the long term has no effect on ROA.

Table 8. Summary of Research Results

Independent Variable	hypothesis	Results	
		ROA	
		Short Term	Long Term
pppf	Financing for the agricultural, hunting and forestry sectors has a positive effect on the Return on Assets of Islamic Banking.	(+) Not significant	(+) Not significant
PIP	Financing for the industrial and processing sectors has a positive effect on the Return on Assets of Islamic Banking.	(-) Significant	(-) Significant
PKONS	Construction sector financing has a positive effect on the Return on Assets of Islamic Banking.	(-) Not significant	(-) Not significant

PLGA	Electricity, gas and water financing have a positive effect on the Return on Assets of Islamic Banking	(-) Not significant	(-) Not significant
PTPK	Financing for the transportation, warehousing and communication sector has a positive effect on the Return on Assets of Islamic Banking.	(-) Significant	(-) Significant
Nilai Tukar	The exchange rate has a negative effect on the Return on Assets of Islamic Banking.	(-) Not significant	(-) Not significant
IPI	Economic growth has a positive effect on the Return on Assets of Islamic Banking.	(+) Not significant	(+) Not significant

Source: Authors' own calculations.

Based on the estimation results of ARDL Return On Assets (ROA) in Islamic banking, it shows that most of the priority sector financing for sustainable finance has not had a significant effect on profitability in Islamic banking. This is in line with research by Dina³⁰, Antoni³¹, and Sukmawati³², where the financing in the agricultural, hunting and forestry sectors in the short and long term has a positive and insignificant effect on Return On Assets (ROA) in Islamic banking. This happens because the risk of financing in the sector is quite high, the existence of an anti-dumping policy by export destination countries to protect their products in the domestic market, causing import duties on agricultural products from outside (eg from Indonesia) tends to increase. Meanwhile, non-tariff barriers include quota restrictions from export destination countries, agricultural product subsidies from export destination countries, anti-dumping policies, automatic import licensing, eco-labelling and other non-tariff barriers related to sanitary and phytosanitary measures. On the other hand, there is the possibility of automatic import licensing which will lower the price of domestic agricultural products. Ecolabelling, sanitary and phytosanitary regulations are related to standards that must be met when a product enters another country. This causes bank profitability to be small. Therefore, Islamic banking tends to allocate its financing distribution to sectors that are more profitable.

Manufacturing sector financing variables in the short and long term have a significant negative effect on Return On Assets (ROA) of Indonesian Islamic banking. The processing industry provides the largest contribution to Indonesia's GDP. However, there are obstacles faced by the export processing industry sector, including difficulties in obtaining raw materials, high production costs, and product quality which are considered by destination countries to not meet international standards, causing Islamic banking.

The construction sector financing variable in the short and long term has a negative and insignificant effect on the Return On Assets (ROA) of Indonesian Islamic banking. The low financing in the construction sector is influenced by the characteristics of the construction sector which require large amounts of funds and a relatively long pay-back period. The construction sector is also viewed as risky by the banking sector, considering that companies in this sector do not have a natural hedge, especially if there is a temporary depreciation of the exchange rate (for example) foreign debt (ULN) in this sector is quite significant. This is because the income structure of companies in the construction sector mostly comes from rupiah income while the financing

³⁰ Dina Fitriana, "Pengaruh Pembiayaan Sektoral Terhadap Profitabilitas Bank Syariah Indonesia Periode Januari 2012-Maret 2016" (Universitas Islam Indonesia, 2016).

³¹ Abdurrahman Antoni and Muhammad Nasri, "Profitability Determinants of Go-Public Bank in Indonesia: Empirical Evidence after Global Financial Crisis," *International Journal of Business and Management Invention* ISSN 4, no. 1 (2015): 37–46.

³² Sukmawati and Purbawangsa, "Pengaruh Pertumbuhan Dana Pihak Ketiga, Pertumbuhan Kredit, Risiko Kredit, Likuiditas, Dan Kondisi Ekonomi Terhadap Profitabilitas."

comes from external debt.

The electricity, gas and water sector financing variables in the short and long term have a negative and insignificant effect on the Return On Assets (ROA) of Indonesian Islamic banking. From the energy side, despite having large potential energy resources, Indonesia faces a risk of energy security which is quite vulnerable. The continued increase in fuel demand has not been fully met by domestic energy production. Some of the problems hampering domestic energy production are mainly infrastructure development constraints in the form of developing towers and power plants as well as the limited development of new and renewable energy diversification. The vulnerability of Indonesia's water security is mainly influenced by the relatively low capacity to manage water resources and the presence of factors that affect water resources such as land conversion, relatively limited natural resources infrastructure, disturbance of watersheds, and water pollution.

The financing variables for the transportation, warehousing and communication sectors, both in the short and long term, have a negative and significant effect on the Return On Assets (ROA) of Indonesian Islamic banking. The transportation, warehousing and communication sectors are economic sectors that have good growth potential after the Covid-19 pandemic. There are opportunities for financing in the transportation, warehousing and communications sectors, but the amount of Islamic commercial bank financing in the transportation, warehousing and communications sectors is still low.

The IPI variable, which is a proxy for economic growth in the long and short term, has no significant effect on the Return On Assets (ROA) of Indonesian Islamic banking. The results of this study are in line with Ayu³³, annafsun³⁴ and Cahyani³⁵ who state that economic growth has no effect on the profitability of Islamic banking. Increasing economic growth does not necessarily increase people's saving patterns in Islamic banking.

Exchange rate variables or exchange rates in the long term and short term have no significant effect on Return On Assets (ROA) of Indonesian Islamic banking. This is in line with the research of Rony³⁶ and Adebola³⁷. The exchange rate crisis has a negative effect on the economy. The depreciation of the exchange rate made imported goods more expensive and resulted in an increase in domestic prices and causing a decrease in people's ability to save and invest as the funds that they owned had been allocated to meet basic needs.

V. CONCLUDING REMARKS

By applying the ARDL analysis, this study concluded that the financing in Islamic banking has only statistically significant and positive effect on ROA over two sectors, namely the industrial processing sector and the transportation, warehousing, and communication sectors in Indonesia. With the coefficient at -0.406541 and -0.295384, which confirms that the increase of financing by Islamic banking in these sectors over time indicates that these sectors are doing a good job with

³³ Ayu Yuningsih and Esti Alfiah, "Ketahanan Perbankan Syariah Indonesia Terhadap Fluktuasi Kondisi Makroekonomi Dan Kondisi Fundamental Saat Pandemi Covid-19," *Al-Intaj: Jurnal Ekonomi Dan Perbankan Syariah* 8, no. 1 (2022): 45, <https://doi.org/10.29300/aij.v8i1.6409>.

³⁴ Nadzifah and Sriyana, "Analisis Pengaruh Inflasi, Kurs, Birate, PDB Dan Kinerja Internal Bank Terhadap Profitabilitas Pada Perbankan Syariah Dan Konvensional."

³⁵ Yutisa Tri Cahyani, "Pengaruh Inflasi, Suku Bunga (BI Rate), Produk Domestik Bruto (PDB) Terhadap ROA (Studi Pada Bank Pembiayaan Rakyat Syariah (BPRS) Di Indonesia Tahun 2009-2016)," *IQTISHADIA Jurnal Ekonomi & Perbankan Syariah* 5, no. 1 (2018): 58–83, <https://doi.org/10.19105/iqtishadia.v5i1.1695>.

³⁶ Rony Arpinto Ady, "Pengaruh Makroekonomi Terhadap Profitabilitas Perbankan Di Indonesia," *Research Fair Unisri* 4, no. 1 (2020): 115–26, <https://doi.org/10.33061/rsfu.v4i1.3393>.

³⁷ Solarin Sakiru Adebola, "The Impact of Macroeconomic Variables on Islamic Banks Financing in Malaysia.," *Research Journal of Finance and Accounting* 2, no. 4 (2011): 22–33, <https://doi.org/10.15408/etk.v16i1.4323>.

each investment they spends. These two sectors could instinctively be a government prioritize sectors as they have a greater multiplier over another.

Thus, this experimental research has achieved vigorous evidence that Islamic Banking in Indonesia do not provide a full contribution across the five priority sectors to promote inclusive and sustainable industrial sectors in the economy, this is also in line with the study by Dina, Antoni, and Sukmawati, where the agricultural, hunting and forestry sectors do not have a significant or positive effect on ROA of Islamic bank in the short and long term. These constraints are caused by high risk of financing, such as the tariff and non-tariff barriers, which give effect of raising the prices and hindering the trade activity. Other problems are related to relatively limited infrastructure, watershed disturbance and water pollution.

Therefore, this empirical research suggests that the government should enhance the legal framework for Indonesian taxonomy in order to have a clarity of regulatory framework at national and international levels so as to strengthen the competitiveness and sustainability of export commodities.

In conclusion, this study suggests possible areas for future research to adopt a more specific time series data from each bank in finding the potential of profitability in financing the sustainable sectors by all commercial banks in Indonesia, so that the results would be successful to represent all banks in Indonesia.

REFERENCES

- Adebola, Solarin Sakiru. "The Impact of Macroeconomic Variables on Islamic Banks Financing in Malaysia." *Research Journal of Finance and Accounting* 2, no. 4 (2011): 22–33.
<https://doi.org/10.15408/etk.v16i1.4323>.
- Antoni, Abdurrahman, and Muhammad Nasri. "Profitability Determinants of Go-Public Bank in Indonesia: Empirical Evidence after Global Financial Crisis." *International Journal of Business and Management Invention ISSN* 4, no. 1 (2015): 37–46.
- Arpinto Ady, Rony. "Pengaruh Makroekonomi Terhadap Profitabilitas Perbankan Di Indonesia." *Research Fair Unisri* 4, no. 1 (2020): 115–26.
<https://doi.org/10.33061/rsfu.v4i1.3393>.
- Badan Pusat Statistik. "Produk Domestik Bruto (Lapangan Usaha)." BPS - Statistics Indonesia, 2023. <https://www.bps.go.id/subject/11/produk-domestik-bruto--lapangan-usaha-.html>.
- Bank Indonesia. *Laporan Ekonomi Dan Keuangan Syariah 2020*. Jakarta: Bank Indonesia, 2020.
https://www.bi.go.id/id/publikasi/laporan/Documents/LEKSI_2020_31032021.pdf.
- . "Tantangan, Arah Kebijakan Dan Prospek Perekonomian Indonesia." *Bank Indonesia*. Jakarta, 2015. https://www.bi.go.id/id/publikasi/laporan/Pages/LPI_2015.aspx.
- Cahyani, Yutisa Tri. "Pengaruh Inflasi, Suku Bunga (BI Rate), Produk Domestik Bruto (PDB) Terhadap ROA (Studi Pada Bank Pembiayaan Rakyat Syariah (BPRS) Di Indonesia Tahun 2009-2016)." *IQTISHADLA Jurnal Ekonomi & Perbankan Syariah* 5, no. 1 (2018): 58–83.
<https://doi.org/10.19105/iqtishadia.v5i1.1695>.
- Candradewi, Nurlianti. "Analisis Posisi Kredit Per Sektor Ekonomi Pada Perbankan Di Indonesia." Universitas Diponegoro, 2008.
- Fatmawati, Nur Lailatul, and Abdul Hakim. "Analisis Tingkat Profitabilitas Perbankan Syariah Di Indonesia." *Jurnal BAABU AL-ILMI: Ekonomi Dan Perbankan Syariah* 5, no. 1 (2020): 1.
<https://doi.org/10.29300/ba.v5i1.3115>.
- Fitriana, Dina. "Pengaruh Pembiayaan Sektoral Terhadap Profitabilitas Bank Syariah Indonesia Periode Januari 2012-Maret 2016." Universitas Islam Indonesia, 2016.
- Habir, Manggi Taruna, and Wisnu Wardna. "COVID-19 's Impact on Indonesia ' s Economy

- and Financial Markets.” *ISEAS Yusof Ishak Institute*. Singapore, 2020.
https://www.iseas.edu.sg/wp-content/uploads/2020/12/ISEAS_Perspective_2020_142.pdf.
- Kuncoro, M. *Manajemen Keuangan Internasional Pengantar Ekonomi Dan Bisnis*. Yogyakarta: BPFE, 2001.
- Mankiw, N. Gregory. *Makroekonomi*. Keenam. Jakarta: Erlangga, 2007.
- Mishkin, Frederic S. *Ekonomi Uang, Perbankan, Dan Pasar Keuangan*. 11th ed. Jakarta: Salemba Empat, 2017.
- Muhammad. *Manajemen Pembiayaan Bank Syariah*. Yogyakarta: UPP AMP YKPN, 2005.
- Nadzifah, Annafsun, and Jaka Sriyana. “Analisis Pengaruh Inflasi , Kurs , Birate , PDB Dan Kinerja Internal Bank Terhadap Profitabilitas Pada Perbankan Syariah Dan Konvensional.” *Jurnal Manajemen Dan Bisnis Indonesia* 6, no. 1 (2020): 79–87.
- Nopa Saputra, Nazipawati. “Pengaruh Pembiayaan Terhadap Profitabilitas Bank Syariah Mandiri Periode 2012-2019.” *Jurnal Ilmu Ekonomi Dan Perencanaan Pembangunan* 1, no. 1 (2021): 50–71.
- Otoritas Jasa Keuangan. *Indonesian Green Taxonomy*. 1st ed. Jakarta: Otoritas Jasa Keuangan, 2022.
- . “Potensi Pertumbuhan Ekonomi Ditinjau Dari Penyaluran Kredit Perbankan Kepada Sektor Prioritas.” *Otoritas Jasa Keuangan*, 2015, 58.
- Pengawasan, Departemen Pengembangan, and Manajemen Krisis. “Potensi Pertumbuhan Ekonomi Ditinjau Dari Penyaluran Kredit Perbankan Kepada Sektor Prioritas Ekonomi Pemerintah.” Jakarta, 2015.
- Pesaran, M. H., and Y. Shin. “An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis.” *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*, no. March 3-5, 1995 (1999): 1–31.
<https://doi.org/10.1017/CCOL521633230>.
- Ramlan, Hamidah, and Mohd Sharrizat Adnan. “The Profitability of Islamic and Conventional Bank: Case Study in Malaysia.” In *7th International Economics and Business Management Conference*, 359–67. Kualalumpur: Procedia Economics and Finance, 2016.
[https://doi.org/10.1016/S2212-5671\(16\)00044-7](https://doi.org/10.1016/S2212-5671(16)00044-7).
- Samuelson, N. *Ilmu Makro Ekonomi*. Jakarta: Megia Global, 2004.
- Singh, Sandeep. “Explained: What Are ESG Funds, Big Abroad, and Now Finding Interest in India Too.” *The Indian Express*. September 2020.
<https://indianexpress.com/article/explained/explained-what-are-esg-funds-and-why-are-they-becoming-popular-6619234/>.
- Sukmawati, Ni Made Elin, and Ida Bagus Anom Purbawangsa. “Pengaruh Pertumbuhan Dana Pihak Ketiga, Pertumbuhan Kredit, Risiko Kredit, Likuiditas, Dan Kondisi Ekonomi Terhadap Profitabilitas.” *E-Jurnal Manajemen Unud* 5, no. 9 (2016): 248723.
- Taxonomy, Indonesia Green. “Taksonomi Hijau Indonesia.” *Otoritas Jasa Keuangan* Edition 1., no. 2022 (2022): 52.
- Trisnawati, Yuniatin, and Muhammad Ridho. “Pengaruh Pembiayaan Bagi Hasil, Pembiayaan Jual Beli, Financing to Deposit Ratio (FDR) Terhadap Profitabilitas Pada Bank Umum Syariah Di Indonesia Yang Terdaftar Pada Bursa Efek Indonesia (BEI) Periode 2015-2017.” *Jurnal Akuntansi Dan Keuangan* 4, no. 1 (2019): 13–20.
- Widarjono, Agus. *Ekonometrika Pengantar Dan Aplikasinya Disertai Panduan Eviews*. Edisi Keli. Yogyakarta: UPP STIM YKPN, 2018.
- Yüksel, Serhat, Shahriyar Mukhtarov, Elvin Mammadov, and Mustafa Özşarı. “Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries.” *Economies* 6, no. 3 (2018): 1–15. <https://doi.org/10.3390/economies6030041>.
- Yuningsih, Ayu, and Esti Alfiah. “Ketahanan Perbankan Syariah Indonesia Terhadap Fluktuasi Kondisi Makroekonomi Dan Kondisi Fundamental Saat Pandemi Covid-19.” *Al-Intaj*:

Jurnal Ekonomi Dan Perbankan Syariah 8, no. 1 (2022): 45.
<https://doi.org/10.29300/aij.v8i1.6409>.