

## Does Islamic Finance Boost the Economic Growth? Evidence from Indonesia

### *Apakah Keuangan Syariah Mendorong Pertumbuhan Ekonomi? Bukti dari Indonesia*

Azwar<sup>1</sup>, Safri Haliding<sup>2</sup>, Jamaluddin Majid<sup>3</sup>

<sup>1</sup>Pusat Penelitian dan Pengabdian Masyarakat (P3M), Sekolah Tinggi Ilmu Islam dan Bahasa Arab (STIBA), Jl. Inspeksi PAM Manggala, Makassar, Sulawesi Selatan, 90234, Indonesia, azwar.iskandar@gmail.com

<sup>2</sup>Faculty of Economics and Business, Universitas Muhammadiyah Makassar, Jl. Sultan Alauddin No.259, Gn. Sari, Kec. Rappocini, Kota Makassar, Sulawesi Selatan, 90221, Indonesia, safrihaliding@unismuh.ac.id

<sup>3</sup>Faculty of Economics and Islamic Business, Universitas Islam Negeri (UIN) Alauddin Makassar, Jl. Sultan Alauddin No.63, Romangpolong, Kec. Somba Opu, Kabupaten Gowa, Sulawesi Selatan 92113, Indonesia, jamalmajid75@gmail.com

**Abstract.** Although the growth of the sharia financial industry continues to increase in Indonesia, there is a need to understand the impact of the development of Islamic finance, including sharia banking, sharia bonds (sukuk), sharia shares, and sharia mutual funds, on Indonesia's economic growth. Previous research has highlighted a positive relationship between financial sector development and economic growth in general, but there has been no specific research examining the impact of Islamic financial instruments specifically in the Indonesian economic context. This study aims to analyze the effect of Islamic finance development consisting of Islamic banking, Islamic bonds (sukuk), Islamic stocks, and Islamic mutual funds, both partially and simultaneously, on Indonesian economic growth during the period of 2003-2022. This study uses a quantitative approach with the Ordinary Least Square (OLS) technique. The results of the study show that the Islamic banking and Islamic bonds (sukuk) have a positive and significant influence on the economic growth in Indonesia, the Islamic stocks also was found to have a positive effect on economic growth but not significant, while the Islamic mutual funds was found to have a negative and not significant effect on the economic growth. It implies that government may continuously support to sukuk for sustainable economic growth and the policy for the development of Islamic finance should be improved to increase the income of government particularly for Islamic stock and Islamic mutual fund.

**Key words:** Growth, Islamic banking, Islamic bonds (sukuk), Islamic mutual funds, Islamic stocks.

**Abstrak.** Meskipun pertumbuhan industri keuangan syariah terus meningkat di Indonesia, terdapat kebutuhan untuk memahami dampak pengembangan keuangan Islam, termasuk perbankan syariah, obligasi syariah (sukuk), saham syariah, dan reksa dana syariah, terhadap pertumbuhan ekonomi Indonesia. Penelitian sebelumnya telah menyoroti hubungan positif antara pengembangan sektor keuangan dan pertumbuhan ekonomi secara umum, namun belum ada penelitian khusus yang menguji dampak dari instrumen keuangan Islam secara khusus dalam konteks ekonomi Indonesia. Penelitian ini bertujuan untuk menganalisis pengaruh perkembangan keuangan syariah yang terdiri dari perbankan syariah, obligasi syariah (sukuk), saham syariah, dan reksa dana syariah, baik secara parsial maupun simultan terhadap pertumbuhan perekonomian Indonesia selama periode 2003-2022. Penelitian ini menggunakan pendekatan kuantitatif dengan teknik Ordinary Least Square (OLS). Hasil penelitian menunjukkan bahwa perbankan syariah dan obligasi syariah (sukuk) mempunyai pengaruh positif dan signifikan terhadap pertumbuhan ekonomi di Indonesia, saham syariah mempunyai pengaruh positif terhadap pertumbuhan ekonomi namun tidak signifikan, sementara reksa dana syariah mempunyai pengaruh negatif dan tidak signifikan terhadap pertumbuhan ekonomi. Hal ini menyiratkan bahwa pemerintah dapat terus mendukung sukuk untuk pertumbuhan ekonomi yang berkelanjutan dan kebijakan pengembangan keuangan syariah harus diperbaiki untuk meningkatkan pendapatan pemerintah khususnya untuk saham syariah dan reksa dana syariah.

**Kata Kunci:** Obligasi syariah (sukuk), perbankan syariah, pertumbuhan, reksa dana syariah, saham syariah.

## INTRODUCTION

Currently, Islamic finance developed rapidly and is widely accepted by many countries in Asia, Europe and the United States. The establishment of Islamic financial institutions and the launch of various Islamic-based financial instruments marked the moment (Iskandar, 2014; Iskandar and Aqbar, 2019). As part of the global economy, global Islamic financial assets have reached US\$3.96 trillion in 2021. This figure has increased 16.76% from the previous year, namely US\$3.39 trillion and are predicted to be growing to USD 4.9 trillion in 2025, with a Cumulative Annual Growth Rate (CAGR) of around 7.9%, which indicates that the global sharia financial industry is growing steadily along with global economic recovery (Financial Services Authority (OJK), 2023b).

According to the State of the Global Islamic Economy in 2022, global revenue from Islamic finance reached USD 49 billion in 2020 and is expected to increase to USD 128 billion in 2025. Furthermore, spending by Muslims around the world is expected to reach USD 2.8 trillion in 2025 with a CAGR of around 7.5% in the food, pharmaceutical, cosmetic, fashion, travel and media/entertainment sectors (DinarStandard, 2022).

In 2022 Islamic Finance Development Indicator report showed that Indonesia is in third place in world sharia financial development, behind Malaysia and Saudi Arabia (Refinitiv, 2022). In December 2022, Indonesia's total sharia financial assets (excluding Sharia Shares) reached Rp 2,375.84 trillion or around USD 151.03 billion, growing by 15.87% (yoy) from the previous year. The Islamic Capital Market is the largest sector with a portion of 60.08% of Islamic financial assets, growing by 15.51% (yoy). Sharia Banking has a market share of 33.77% of sharia finance and grew by 15.63% (yoy), while Sharia IKNB has a share of 6.15% and growth is around 20.88% (yoy) (Financial Services Authority (OJK), 2023b).

Islamic banking in 2022 shows its resilience and experience a positive growth, with total assets reaching IDR 802.26 trillion or growing by around 15.63% (yoy). Positive growth was also seen in Financing and Third Party Funds (*Dana Pihak Ketiga*, DPK), each growing by 20.44% (yoy) and 12.93% (yoy) (Financial Services Authority (OJK), 2023b). All of this shows that Islamic banking carries out the intermediary function by taking into account the principles of prudence and efficiency.

In the other side, the Islamic capital market in Indonesia has evolved into a subdivision of the broader Islamic financial sector, facilitating the movement of capital (Nurzianti, 2021). According to Financial Services Authority (OJK) (2023a), the value of outstanding corporate bonds from public offerings had reached Rp 42.50 trillion, marking a year-on-year growth of 22.24% from the IDR 34.77 trillion recorded in 2021. According to Financial Services Authority (OJK) (2023b), the value of outstanding state bonds also experienced a surge of 16.19%, rising from IDR 1,157.06 trillion in 2021 to IDR 1,344.35 trillion by the end of 2022.

Sukuk has swiftly expanded within the Islamic capital market since the enactment of Law (UU) Number 19 of 2008, which pertains to State Sharia Securities. Subsequent to this, the domestic market witnessed the issuance of the inaugural sovereign sukuk (IFR series) with a total issuance value of IDR 4.67 trillion (Direktorat Jenderal Pembiayaan dan Pengelolaan Risiko (DJPPR) Kementerian Keuangan, 2022). Following this trajectory, the Indonesian government integrated state sukuk into the State Revenue and Expenditure Budget (*Anggaran Pendapatan dan Belanja Negara*, APBN) as a financing mechanism for infrastructure projects. Subsequently, the government has consistently released sovereign sukuk both on the national and global scale. The market has seen a series of offerings including retail sukuk, international state sukuk (SNI), hajj fund sukuk, and in 2018, the pioneering issuance of green sukuk, contributing to the pursuit of the Sustainable Development Goals (SDGs).

The increasing frequency of state sukuk issuances reflects the growing significance of state sukuk in financing the national budget. Ministry of Finance data from DJPPR reveals that over the 14-year

period from 2008 to 2022, State Sukuk issuance amounted to IDR 2,223.01 trillion. While, 17 series of retail sukuk targeted towards the public yielded IDR 292.79 trillion. Notably, 541,739 individuals across Indonesia's 34 provinces invested in Retail Sukuk (Direktorat Jenderal Pembiayaan dan Pengelolaan Risiko (DJPPR) Kementerian Keuangan, 2022; Financial Services Authority (OJK), 2023b). The 2023 State Budget (APBN) Financial Note projects that IDR 598.2 trillion in domestic financing will be employed to cover the budget deficit in the 2023 APBN plan (Republik Indonesia, 2023).

McKinnon (2010) and Nzotta and Okereke (2009) state that the activities within the financial sector play a significant role in fostering economic growth by mobilizing savings, improving the allocation of resources, and catalyzing technological innovation. The financial system serves five fundamental functions that can contribute to economic growth, including (i) acquiring information regarding potential investments and the allocation of capital; (ii) gathering financial resources in the form of savings; (iii) overseeing businesses and exercising control over them once capital is allocated; (iv) facilitating the exchange of goods and services; and (v) managing risk through diversification (Levine, 2005). Financial intermediaries reduce transaction and information costs, enhance the allocation of financial resources, attract more savings to the financial sector, rationalize investment decisions, encourage innovation, and ultimately promote long-term economic growth.

Islamic banks are financial institutions that operate without the use of interest in compliance with Islamic law. Islamic finance incorporates built-in safeguards to ensure a complete avoidance of interest-based financing, excessive speculation (known as *garār*) and gambling. Additionally, its corporate governance structure serves to protect the Islamic financial institutions from crises (Majid and Kassim, 2015).

The foundation of Islamic banking theory is rooted in Sharia law, which strictly prohibits the charging of predetermined interest rates. Islamic teachings, which underpin all the theoretical underpinnings of Islamic banking operations, condemn interest and encourage legitimate trade and investment as a means of promoting hard work. While Islamic banks and conventional banks offer similar financial intermediary services, the unique characteristics of Islamic banking give them a distinct advantage in fostering economic growth in Muslim nations and other developing economies (Imam and Kpodar, 2016). Consequently, Islamic finance has emerged as a viable alternative for providing financial services (Abdu et al., 2018).

Islamic banking possesses inherent characteristics that have the potential to contribute significantly to economic growth. The practice of profit and loss sharing in Islamic finance establishes a clear and robust connection between the financial sector and the real economy. Specifically, money flow within Islamic banking intermediation is intrinsically tied to the movement of goods and services. Islamic banking serves several vital functions, including the stimulation of financing, encouragement of savings, support for ethical and morally driven projects, and the promotion of financial stability (Imam and Kpodar, 2016).

Khoutem and Nedra (2012) propose that Islamic finance plays a distinctive role in fostering economic growth, that it apart from conventional counterparts, primarily due to its unique approach to financial intermediation, which addresses both pre- and post-information asymmetry issues. Khoutem and Nedra argue that participatory financial intermediation effectively mitigates information asymmetry problems, facilitating increased savings and more efficient allocation of financial resources for productive investments at a minimal cost, thereby promoting capital accumulation. Khoutem and Nedra further contend that the principles of risk-sharing motivate the initiation of new and profitable ventures, enhance risk assessment, redistribute risk rather than transferring it entirely, and emphasize technological innovation, all of which stimulate economic growth. Consequently, Islamic finance is seen as a solution for achieving sustainable economic growth.

In addition, King and Levine study the causal relationship between finance and economic growth. King and Levine (1993) introduced four metrics of financial development: financial depth, the ratio of commercial bank credit allocation to central bank credit allocation within a domestic context, credit allocation to private firms relative to GDP, and claims on the non-financial private sector as a proportion of GDP. They opted for this multidimensional approach to measurement due to the limitations of individual indicators and the belief that a combination of indicators would provide a more comprehensive understanding of financial development. These metrics were then analyzed in conjunction with real per capita GDP and its various sources across 80 countries during the period from 1960 to 1989. Their findings confirmed that financial development indeed fostered economic growth, aligning with the Schumpeterian perspective.

Furthermore, Beck et al. (2000) delved into the correlation between financial development and economic growth by examining a dataset spanning 77 countries from 1960 to 1995. Their study unveiled a substantial positive influence of the financial sector on the growth of multi-factor productivity, which subsequently translated into overall GDP growth.

In a panel analysis involving 40 countries and utilizing the GMM technique, Beck and Levine (2004) explored the interplay between stock markets, banks, and economic growth across the years 1976 to 1998. Their research concluded that the overall development of the financial sector holds significance and plays a crucial role in economic growth. They also argued that both the development of stock markets and the banking sector exerted a positive impact on economic growth. The endogenous growth literature underscores the importance of financial development in achieving sustained long-term economic prosperity, primarily through its influence on capital accumulation and the stimulation of technological innovation (Abu-Bader and Abu-Qarn, 2008).

In the light of the above inquiries, the present study is intended to fill this gap. This study aims to analyze the effect of Islamic finance development consisting of Islamic banking, Islamic bonds (sukuk), Islamic stocks, and Islamic mutual funds, both partially and simultaneously, on Indonesian economic growth during the period of 2003-2022. To highlight the current development and the attendant changes in the real economy and Islamic financial industry, the paper deploys the most recent available data to achieve its objectives.

## LITERATURE REVIEW

Empirically, many studies have examined this relationship in the conventional context as mentioned above. However, there still exist gap and little study of the relationship between financial development and income inequality in Islamic perspective. Whereas socio-economic problems, including welfare and growth inequality, remain the most challenging issue faced by Muslim world, such as Indonesia in the last decades. A study by Askari and Rehman (2013) showed that, from the 1980–2011, almost all of 57 OIC member states shows a consistently underperformed trend in comparison to the world average in broad-based economic and social development.

The persistent socio-economic challenges faced by many predominantly Muslim countries have sparked an enduring debate about whether Islam, as a "religion of practice," is linked to socio-economic advancement. However, it is increasingly evident that there are more profound issues at play beyond Islamic values that contribute to lower levels of education, poverty, and subpar health in these nations.

Despite the introduction of Islamic economic principles many centuries ago (Timmer and McClelland, 2004), these principles, known as *maqāṣid syarī'ah*, seek to address one of the fundamental questions that frequently confront developing countries: "What kind of development does Islam advocate?" According to Imam Al-Ghazali, the overarching goal of Sharia (*maqāṣid syarī'ah*) is to promote the well-being of all humanity, which is rooted in safeguarding their faith (*al-dīn*), their human essence (*al-nafs*), their intellect (*al-'aql*), their posterity (*al-nasl*), and their wealth (*al-māl*) (Kasri and Ahmed,

2015). In essence, *maqāṣid syarī'ah* is not solely concerned with achieving economic growth; it is equally focused on attaining the genuine well-being of humanity (*falāḥ*), as evidenced by increased mental peace and a reduction in crime and social tensions. All of these objectives can only be realized through poverty alleviation and the reduction of economic disparities.

## METHOD

Regarding to research methods, the data used in this study is annual time series data for the period 2003 to 2022. The type of data collected is secondary data obtained from the publication of The World Bank for Indonesian Economic Indicator Data and Report of Islamic Finance Statistics by Financial Services Authority (OJK).

The indicator for the welfare which is used as the dependent variable is GDP per capita in Rupiah or current local currency (GDP). Meanwhile, the determinants of the welfare as independent variable are Islamic bonds as measured by the total value of the issuance of Government Islamic Securities (SUKUK) in billion rupiah; Islamic banking as measured by the total of Islamic domestic credit (financing) both from the Sharia commercial banks and Sharia business units in billion rupiah (BANKING); Islamic mutual funds as measured by the total of Islamic mutual funds in billion rupiah (MUTUAL FUNDS); and Islamic stocks as measured by the total of Sharia Index Market Capitalization on the Indonesian Stock Exchange for Jakarta Islamic Index (JII) in billion rupiah (STOCK). The current study converted all the data series into logarithm for consistent and reliable results. The log-linear specification provides better results, because the conversion of the series into logarithm reduces the sharpness in time series data (Shahbaz and Islam, 2011).

Table 1 Research variable

No.	Variable	Description	Unit	Source
1.	GDP	GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.	Rupiah (current local currency)	The World Bank
2.	SUKUK	The total value of the issuance of Government Islamic Securities per year.	Billion Rupiah	Financial Services Authority (OJK)
3.	BANKING	The total of Islamic domestic credit (financing) both from the Sharia Commercial Banks and Sharia Business Units in billion rupiah	Billion Rupiah	Financial Services Authority (OJK)
4.	MUTUAL FUNDS	The total of Islamic mutual funds	Billion Rupiah	Financial Services Authority (OJK)
5.	STOCK	The total of Sharia Index Market Capitalization on the Indonesian Stock Exchange for Jakarta Islamic Index (JII)	Billion Rupiah	Financial Services Authority (OJK)

Source: Financial Services Authority (OJK) (2023a, 2023b); Financial Services Authority (2022); The World Bank (2023)

The research approach uses a quantitative approach, with data analysis techniques using inferential statistical techniques in the form of Multiple Linear Regression. Nachrowi and Usman (2006) explained that the linear regression modeling technique is a quantitative analysis technique that can provide information about the relationship of several variables. This analysis is also called the

ordinary least squares deviation method or Ordinary Least Squares (OLS), which is a method of estimation by minimizing the sum of the squared deviations from the results of estimation or estimation of the dependent variables.

To find out the feasibility of the model in explaining the relationship between the dependent variable and the independent variable, the model will go through several tests. These tests include testing the assumptions used and statistical testing of the resulting regression model or function (Nachrowi and Usman, 2006). This test is a prerequisite for multiple regression analysis, including the normality test, heteroscedasticity test, and autocorrelation test.

The normality test is a test of the normality of the data distribution. Normally distributed data is a condition where the data will follow the shape of a normal distribution (Santoso, 2016). This study uses the "Normal P-P Plot" and "Histogram" techniques in testing the normality of the data. According to Ghozali (2006), if the histogram graph depicts a distribution pattern that does not slant to the right and left, but is right in the middle like a bell shape, then the results indicate that the data is normally distributed.

For the Normal P-Plot, normality can be detected by looking at the spread of the data or the points on the diagonal axis of the graph. If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram shows a normal distribution pattern, then the regression model meets the assumption of normality. Conversely, if the data spreads far from the diagonal and/or does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution pattern, then the regression model does not meet the assumption of normality.

Heteroscedasticity test is used to see whether the confounding variables have the same variance or not. Heteroscedasticity is a condition which illustrates that the residual variance from one observation to another is different. This will result in the estimation of the regression coefficients to be inefficient and less than it should be (Gujarati, 2012).

The way to detect the presence or absence of heteroscedasticity is by looking at the Scatter Plot Graph between the predicted value of the dependent variable, namely ZPRED, and the residual SRESID. If there is a certain pattern on the scatterplot graph between SRESID and ZPRED, where the Y axis is Y that has been predicted and the X axis is residual (Y predicted – Y actually) that has been studied, such as a pattern of regular dots (wavy, widened then narrows), then in the research data there are symptoms of heteroscedasticity. Meanwhile, if there is no clear pattern, where the dots spread above and below the number 0 on the Y axis, then in the research data it is stated that there are no symptoms of heteroscedasticity (Gujarati, 2012).

Finally, the autocorrelation test is an assumption test in regression where the dependent variable is not correlated with itself, namely that the value of the dependent variable is not related to the value of the variable itself, either the value of the previous variable or the value of the period after (Santoso, 2016). Durbin Watson test (DW) is a test used to detect the occurrence of autocorrelation in residual values (prediction errors) from a regression analysis. The Durbin Watson table is used as a comparison tool for the calculated Durbin Watson values. The results of the comparison will produce the following conclusions:

1. If  $DW < dL$ , it means that there is a positive autocorrelation;
2. If  $DW > (4 - dL)$ , it means that there is a negative autocorrelation;
3. If  $dU < DW < (4 - dL)$ , it means that there is no autocorrelation;
4. If  $dL < DW < dU$  or  $(4 - dU)$ , it means that it cannot be concluded;

where  $dL$  is the lower Durbin Watson limit and  $dU$  is the upper Durbin Watson limit. The  $dL$  and  $dU$  values can be seen in the Durbin Watson table (Wahid, 2002).

To test the research hypothesis, the following tests were carried out:

1. Statistical t-test (Partially).

According to Ghozali (2006), the t-counted basically shows how far the influence of one independent variable individually on the dependent variable. The test was carried out using a significance level of 0.05 ( $\alpha=5\%$ ). Acceptance or rejection of the hypothesis is carried out with the following criteria:

- a. If the significant value (Sig.)  $> 0.05$  or t-counted  $<$  t-table (minus value is ignored) then the hypothesis is rejected or the regression coefficient is not significant. This means that partially the independent variable has no significant influence on the dependent variable.
  - b. If the significant value (Sig.)  $\leq 0.05$  or t-counted  $>$  t-table (minus value is ignored) then the hypothesis is accepted or the regression coefficient is significant. This means that partially the independent variable has a significant influence on the dependent variable.
2. Statistical F-test (Simultaneously).

According to Ghozali (2006), the F statistical test shows whether all the independent variables included in the model have a significant effect simultaneously (simultaneously) on the dependent variable. The test criteria where the hypothesis is accepted, namely if the ANOVA value F-counted  $>$  F-table or the value of Sig.  $<$   $\alpha$  (0.05).

The general model of the multiple regression equation is formulated as follows:

$$GDP_t = \beta_0 + \beta_1 \text{SUKUK} + \beta_2 \text{BANKING} + \beta_3 \text{MUTUAL FUNDS} + \beta_4 \text{STOCK} + \varepsilon \quad (1)$$

From the above model, it can be stated that the welfare is influenced by interceptive systematic risk ( $\beta_0$ ), variable parameter regression of Indonesian Sharia bonds ( $\beta_1$ SUKUK), Sharia banking ( $\beta_2$ BANKING), Sharia mutual funds ( $\beta_3$ MUTUAL FUNDS), and Sharia securites ( $\beta_4$ STOCK), and  $\varepsilon$  (error), which are other variables outside of the research variables.

In addition, based on the assumption that the Islamic finance developments are able to increase the economic growth so in this study the research hypothesis to be tested is formulated as follows:

- H<sub>1</sub> : Islamic banking has a positive and significant influence partially on the economic growth in Indonesia.
- H<sub>2</sub> : Islamic bonds (sukuk) has a positive and significant influence partially on the economic growth in Indonesia.
- H<sub>3</sub> : Islamic mutual funds has a positive and significant influence partially on the economic growth in Indonesia.
- H<sub>4</sub> : Islamic stocks has a positive and significant influence partially on the economic growth in Indonesia.
- H<sub>5</sub> : Islamic banking, Islamic bonds (sukuk), Islamic mutual funds, and Islamic stocks simultaneously have a significant influence on the economic growth in Indonesia.

## RESULTS AND DISCUSSION

### Descriptive Statistic of Data

Table 2 Descriptive statistic of data

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
BANKING	20	5,530.00	491,489.00	177,460.80	153,871.60
SUKUK	20	740.00	42,500.00	12,518.00	12,495.51
MUTUAL_FUND	20	4.00	289.00	110.50	102.98
STOCK	20	177,782.00	2,318,566.00	1,430,751.95	739,077.58
GDP	20	9,026,688.00	71,101,090.00	36,362,259.55	19,169,726.05
Valid N (listwise)	20				

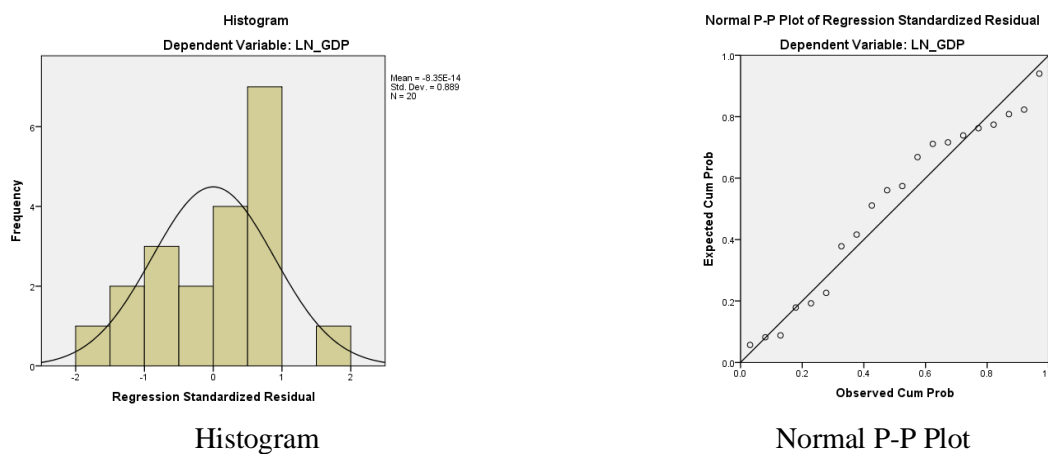
Source: Data processed results, 2023.

Table 2 shows the descriptive statistics of the research variables. GDP per Capita values range from 9,026,688.00 to 71,101,090.00 rupiah with an average value of 36,362,259.55 rupiah. The Islamic banking (financing) ranged between 5,530 billion rupiah and 491,489 billion rupiah with an average value of 177,460.80 billion rupiah. The Islamic bonds (sukuk) ranged from 740.00 to 42,500 billion rupiah, with an average value of 12,518 billion rupiah. The Islamic mutual funds during the study period ranged from 4.00 to 289.00 billion rupiah with an average value of 110.50 billion rupiah. Meanwhile, the mount of Islamic stocks from capitalization of Jakarta Islamic Index ranged between 177,782.00 and 2,318,566.00 with an average value of 1,430,751.95 billion rupiah. The total observations are 20 for all variables from 2003 to 2022.

**Data Testing**

**Normality test**

Based on the results of the normality test through the “Histogram” and “Normal P-P Plot” for all research variables, the following results are obtained:



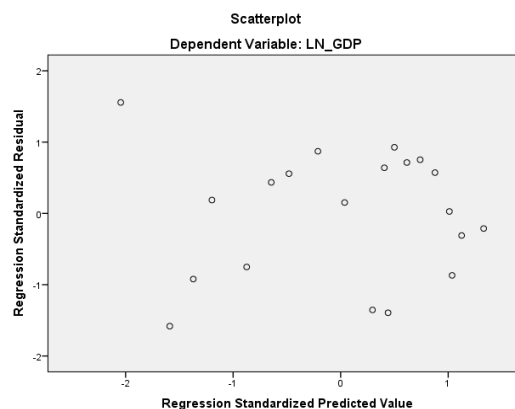
Source: Data processed results, 2023.

Figure 1 Result of normality test

Based on Figure 1, it can be seen that the histogram graph depicts a distribution pattern that does not slant to the right and left, but is right in the middle like a bell shape. Likewise, in the Normal P-Plot, the data or points spread on the diagonal axis of the graph. Thus, it can be stated that all research variable data are normally distributed and the normality test is fulfilled.

**Heteroscedasticity test**

The results of the heteroscedasticity test through the Scatter Plot Graph are as follows:



Source: Data processed results, 2023.

Figure 2 Scatterplot of heteroscedasticity test



In the Figure 2, it can be seen that there are dots that spread above and below the number 0 on the Y axis and do not form a specific pattern, so it can be concluded that there is no heteroscedasticity in the research data.

#### Autocorrelation test

The results of the autocorrelation test by calculating the Durbin Watson value are as follows:

Table 3 Result of autocorrelation test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.997 <sup>a</sup>	.994	.993	.05532	1.495
a. Predictors: (Constant), Ln_BANKING, Ln_SUKUK, Ln_MUTUAL FUNDS, Ln_STOCK					
b. Dependent Variable: GDP					

Source: Data processed results, 2023.

In the Durbin Watson table with n (number of observations) = 20, k (number of variables) = 5 with an alpha of 5%, dL and dU values are obtained, namely dL = 0.7918 and dU = 1.9908. In the table above, the DW number in the data processing results shows a value of 1.495 or is in the interval  $dL < DW < (4 - dL)$  so that it can be stated that there is no autocorrelation in the research data.

#### Regression Analysis

After carrying out a series of classic assumption tests of multiple regression analysis, the research data analysis was then continued with statistical tests which included observing the R-Square value and testing the research hypothesis with the t-test (partial) and the F-test (simultaneous).

Table 4 Result of Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.997 <sup>a</sup>	.994	.993	.05532		
a. Predictors: (Constant), Ln_BANKING, Ln_SUKUK, Ln_MUTUAL FUNDS, Ln_STOCK						
ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.794	4	1.948	636.701	.000 <sup>b</sup>
	Residual	.046	15	.003		
	Total	7.840	19			
a. Dependent Variable: GDP						
b. Predictors: (Constant), Ln_BANKING, Ln_SUKUK, Ln_MUTUAL FUNDS, Ln_STOCK						

#### Coefficients<sup>a</sup>

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.633	.819		12.984	.000
	Ln_BANKING	.406	.055	.857	7.435	.000
	Ln_SUKUK	.229	.092	.401	2.502	.024
	Ln_MUTUAL FUNDS	-.164	.092	-.305	-1.787	.094
	Ln_STOCK	.042	.060	.052	.702	.493

a. Dependent Variable: GDP

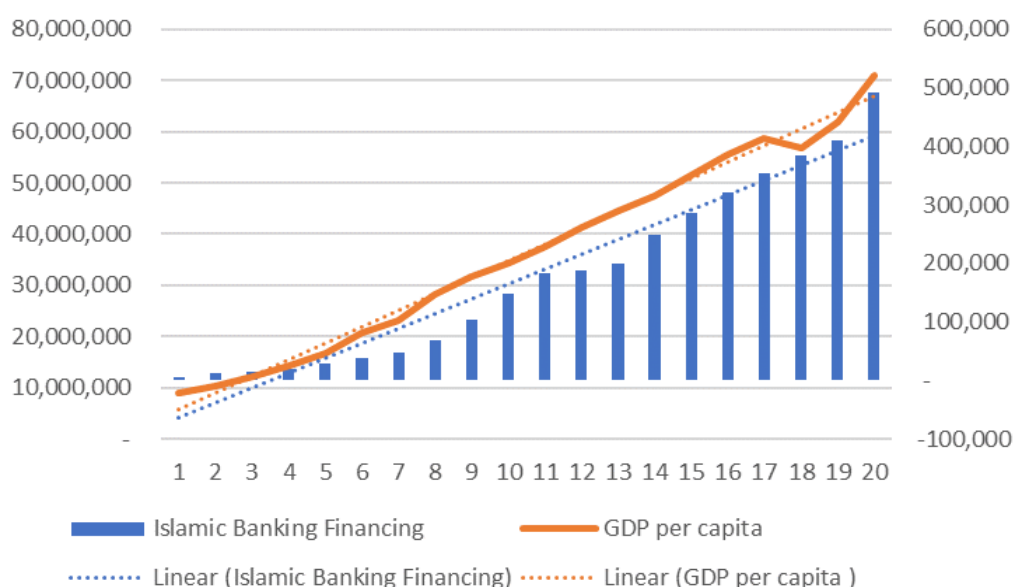
Source: Data processed results, 2023.

Based on the Table 4, it is known that the resulting R-square value is 0.993 or 99.3%. This means that changes in Islamic bonds, Islamic banking, Islamic mutual funds, and Islamic stocks, can affect changes in welfare (as measured by GDP per capita) by 99.3%. The remaining 0.7% is influenced by other factors not included in the model. The very high level of prediction of this model indicates that the research model is considered good (goodness of fit).

In the ANOVA table with degrees of freedom (df) for the numerator (df1) =  $k-1 = 5-1 = 4$ ; where k is the number of variables (independent and dependent) and the degrees of freedom (df) for the denominator (df2) =  $n-k = 20-5 = 15$ ; where n is the number of observations/samples forming the regression (n= 18) with an alpha of 5% ( $\alpha=0.05$ ), an F-table value of 2.36 is obtained. The statistical F value (simultaneous) generated based on the table above is 636.701 and Sig. of 0.000. This means that the Islamic bonds, Islamic banking, Islamic mutual funds, and Islamic stocks are simultaneously significant affect the welfare (F-counted > F-table or value Sig. <  $\alpha$ ). With this evidence, the fifth hypothesis (H5) of the research which states that “Islamic bonds, Islamic banking, Islamic mutual funds, and Islamic stocks simultaneously have a significant influence on the welfare” can be accepted (proven).

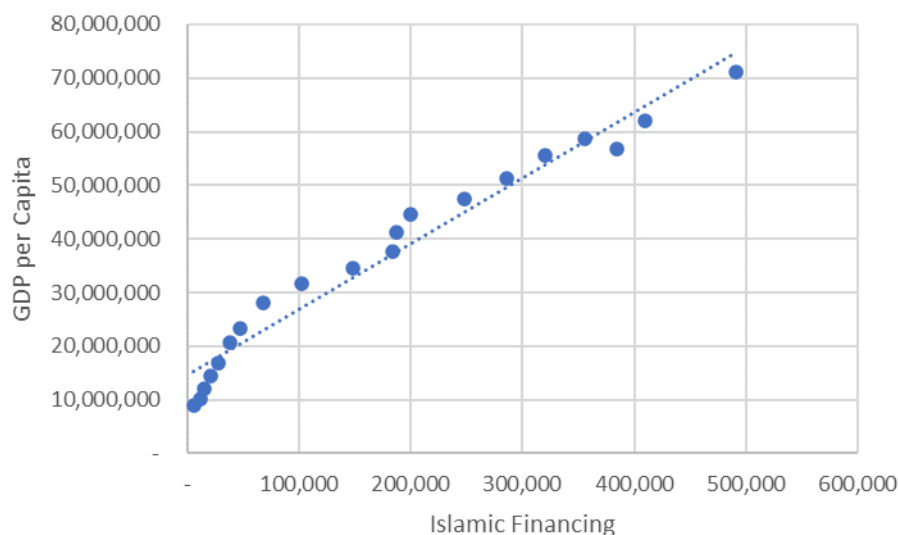
### The Effect of Islamic Banking on Economic Growth

The results of the t-test (coefficients) between the Islamic banking variable and growth variable show a t-counted value of 7.435 and sig. 0.000 which is below 0.05. The standardized coefficient value of the influence of Islamic banking on growth is 0.857 with a positive sign (+) indicating a positive influence. This means that when the value of the total of Islamic domestic credit (financing) both from the Sharia commercial banks and Sharia business units in billion rupiah increases, this will be accompanied by an increase in the value of GDP per capita as proxy of growth. Furthermore, the relationship between Islamic domestic credit (financing) by Islamic banking and the welfare which is measured by GDP per capita is visualized in Figure 3.



Source: Data processed results, 2023.

Figure 3 Relationship between Islamic domestic credit (financing) by Islamic banking and GDP per capita period of 2003-2022



Source: Data processed results, 2023.

Figure 4 Scatter plot diagram between Islamic financing and GDP per capita

Based on the annual trend line (linear) in Figure 4, GDP per capita tends to increase during the observation period from 2003 to 2022, followed by a trend in the amount of sharia financing which also increases in the same period. This means that both have the same linear trend. The scatter plot in Figure 4 shows the relationship pattern between the Islamic financing and GDP per capita, where an increase in the amount of Islamic financing will be followed by an increase in GDP per capita.

The scatter plot forms a pattern that resembles a straight line which indicates that there is a close relationship between the two variables (linear) and forms a positive relationship. With this evidence, the first hypothesis (H1) of the study which states that “Islamic banking has a partially positive and significant influence on the economic growth in Indonesia” can be accepted (proven). This finding is in line with Abduh and Chowdhury (2012); Setiawan et al. (2012); Yazdan and Sadr (2012); Kassim (2016); Setiawan (2019); Naz and Gulzar (2022); Ledhem and Mekidiche (2022); and Hassan et al. (2022).

Islamic banking in Indonesia fulfills a growth-enhancing role by facilitating economic expansion through the allocation of financial resources from surplus units to deficit units within the economy. This dynamic implies that the growth is stimulated when non-interest-based bank financing expands (as highlighted by Sabiu and Abduh (2020)). The analysis leads to the conclusion that the historical and contemporary transformations in non-interest bank financing have had a notable impact on income changes in Indonesia. Furthermore, Islamic banks in Indonesia also contribute to fostering growth by directing funds toward the most productive investment areas, thereby leading to GDP increases and vice versa.

As a result, the researcher asserts that the current policies crafted by policymakers to establish a robust and comprehensive Islamic financial system in Indonesia, which is closely tied to economic growth, have proven effective. This underscores the effectiveness of non-interest-based banking in Indonesia in stimulating economic activities within the real sector. Therefore, enhancements to the Islamic financial system within the country have the potential to foster economic development and play a significant role in improving overall welfare and reducing poverty over the long term.

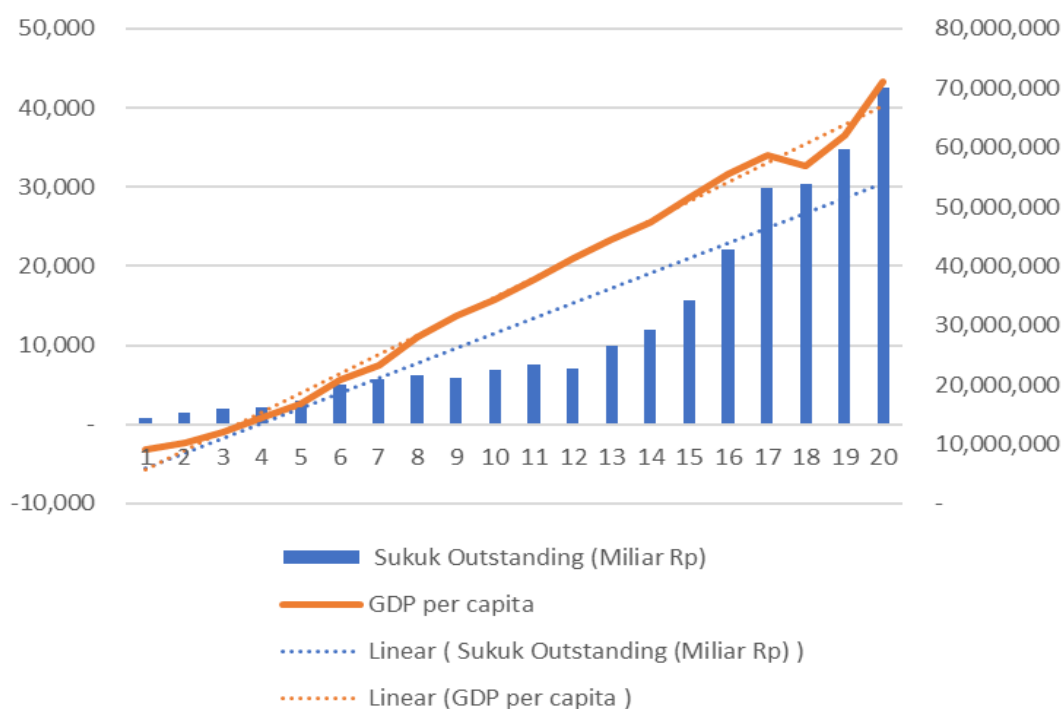
Studies conducted by Ascarya (2014) further substantiate this point by revealing that productive financing has a positive impact on the output of the real sector, facilitating balanced growth between the monetary and real sectors of the economy. Through intermediation, banks can actively contribute to economic development. The financing activities of Islamic banks' loans can support the expansion

of economic activities and employment opportunities. The resulting changes in national output and employment are strongly influenced by the role of banks in optimizing their intermediation function, particularly in allocating funds to the productive sectors of the economy.

Based on this finding, the Indonesian government should prioritize the advancement of non-interest banking due to its substantial positive impact on the economy. To achieve this, it can set a specific target ratio for non-interest banking assets relative to the total banking assets, with a goal to be realized within a designated timeframe. This approach aligns with the strategies employed by several Islamic nations. Additionally, the government should actively support the establishment of local Islamic banks, Islamic banking windows, and Islamic rural banks. Furthermore, it should encourage existing banks to expand their branch networks. To foster innovation within the Indonesian Islamic banking sector, there is also a need to attract foreign Islamic banks to operate within the country.

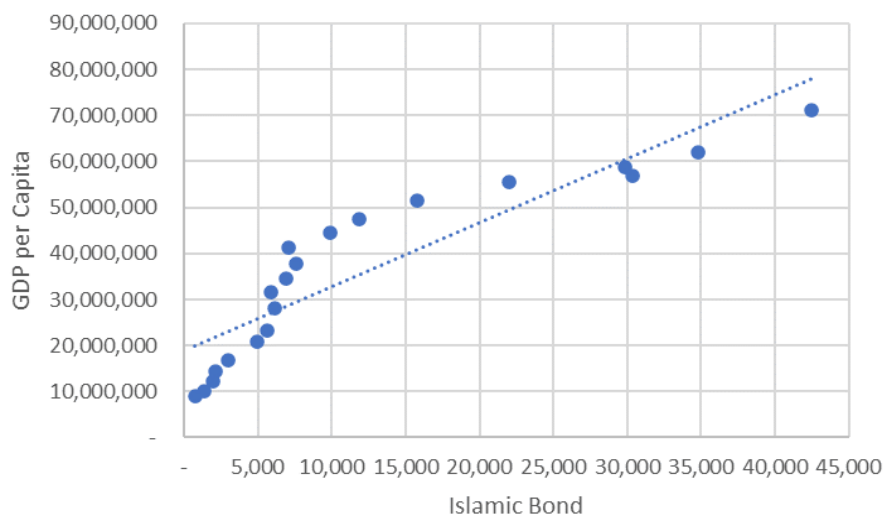
### The Effect of Islamic Bonds (Sukuk) on Economic Growth

The results of the t-test (coefficients) between the Islamic bonds (sukuk) variable and growth variable show a t-counted value of 2.502 and sig. 0.024 which is below 0.05. The standardized coefficient value of the influence of Islamic bonds (sukuk) on welfare is 0.401 with a positive sign (+) indicating a positive influence. This means that when the total of value of the outstanding of Government Islamic Securities (sukuk) per year increases, this will be accompanied by an increase in the value of GDP as proxy of growth. Furthermore, the relationship between Islamic bonds (sukuk) and the welfare which is measured by GDP per capita is visualized in the Figure 5.



Source: Data processed results, 2023.

Figure 5 Relationship between Islamic bonds (sukuk) and GDP per capita period of 2003-2022



Source: Data processed results, 2023.

Figure 6 Scatter plot diagram between Islamic bonds (sukuk) and GDP per capita

Based on the annual trend line (linear) in Figure 6, GDP per capita tends to increase during the observation period from 2003 to 2022, followed by a trend in the amount of Islamic bonds (sukuk) which also increases in the same period. This means that both have the same linear trend. The scatter plot in Figure 6 shows the relationship pattern between the Islamic bonds (sukuk) and GDP per capita, where an increase in the amount of Islamic bonds (sukuk) will be followed by an increase in GDP per capita.

The scatter plot forms a pattern that resembles a straight line which indicates that there is a close relationship between the two variables (linear) and forms a positive relationship. With this evidence, the second hypothesis (H2) of the study which states that “Islamic bonds (sukuk) has a partially positive and significant influence on the economic growth in Indonesia” can be accepted (proven). This finding is in line with Ahmad et al. (2012); Mitsaliyandito et al. (2017); Pradhan et al. (2016); Thumrongvit et al. (2013); and Naz and Gulzar (2022).

Sukuk represents an alternative means to address the requirement for external debt. In line with theoretical frameworks such as the IS-LM model as articulated by Mankiw (2008), it is proposed that an increased issuance of sukuk can indeed influence a country's GDP growth. To illustrate this, consider a scenario in which the Ministry of Finance issues sukuk as a financing mechanism for government projects. Individuals then purchase these sukuk issued by the Ministry of Finance. Consequently, there is a reduction in the money supply, resulting in a leftward shift in the LM curve. Subsequently, the Finance Ministry increases its expenditure to fund its projects, leading to a rightward shift in the IS curve. This shift is automatically associated with a rise in GDP. The ultimate impact on GDP growth depends on the effectiveness of government spending, with the productivity of such spending determining whether GDP increases from its initial level (Mitsaliyandito et al., 2017).

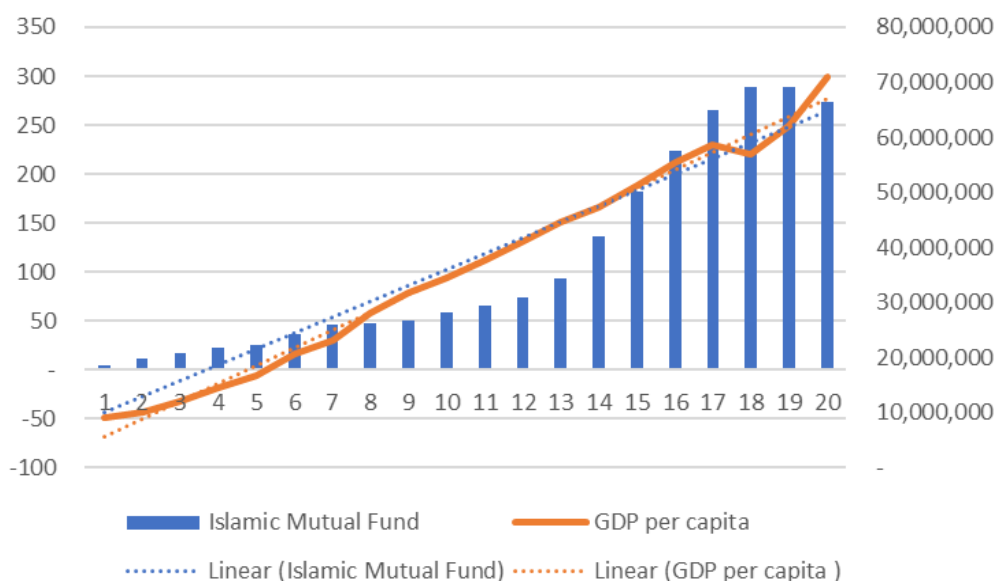
In contrast to conventional bonds, sukuk serves a more distinct purpose in supporting economic development. Indonesia's financial market, sovereign sukuk holds a considerably larger share compared to corporate sukuk. The sovereign sukuk instruments traded in Indonesia are primarily represented by Retail and Project-Based Sukuk. These sukuk primarily serve government initiatives, with the funds channeled towards a variety of infrastructure development projects spanning energy, telecommunications, transportation, agriculture, manufacturing, and real estate, as well as the provision of public services, the promotion of local industries, and other development programs aligned with the government's strategic agenda.

Consequently, it is reasonable to assert that domestic sovereign sukuk exerts a tangible and positive impact on GDP fluctuations, while domestic corporate sukuk does not exhibit a similar influence. Conversely, only the domestic sovereign sukuk market appears to be significantly responsive to GDP shocks, demonstrating a positive reaction to changes in GDP. This positive relationship underscores the concept of bond demand, implying that an increase in GDP or overall public purchasing power tends to augment the issuance of sukuk, leading to a higher number of outstanding sukuk in the market.

There is a strong recommendation for the government to offer increased incentives aimed at fostering the growth of the sukuk market, given its demonstrated positive influence on the economy. Given the government's substantial commitment to infrastructure development, it is strongly advised to issue more sukuk bonds as a means of financing these projects. In future research endeavors, it may be beneficial to include additional variables such as the international sovereign bond market and the sukuk market in the model to investigate whether the use of sukuk can help mitigate the risks associated with exchange rate fluctuations.

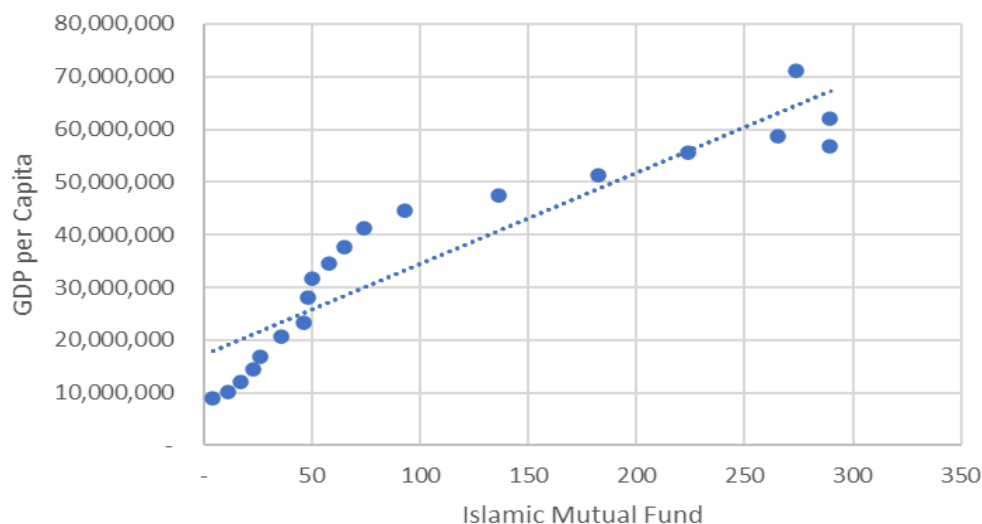
### The Effect of Islamic Mutual Funds on Growth

The results of the t-test (coefficients) between the Islamic mutual funds variable and growth variable show a t-counted value of -1.787 and sig. 0.094 which is above 0.05. The standardized coefficient value of the influence of Islamic mutual funds on growth is -0.305 with a negative sign (-) indicating a negative influence. This means that when the total value of the Islamic mutual funds increases, this will be accompanied by a decrease in the value of GDP as proxy of growth. Furthermore, based on the estimation results in the sample period of the study, the effect is not significant.



Source: Data processed results, 2023.

Figure 7 Visualization of relationship between Islamic mutual funds and GDP per capita



Source: Data processed results, 2023.

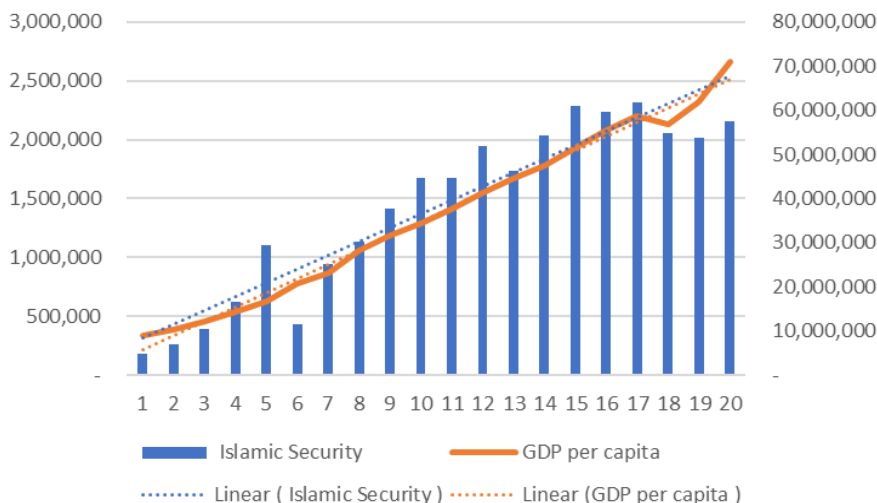
Figure 8 Scatter plot diagram between Islamic mutual funds and GDP per capita

Based on the visualization of Islamic mutual funds trend data in Figure 7 and Figure 8, it actually appears that there is a pattern (linear trendline) of a positive relationship between Islamic mutual funds and economic growth, when the level of Islamic mutual funds tends to increase, the trend of economic growth also increases. However, based on the estimation results in the sample period of the study, the effect is negative and not significant, which means that changes in the Islamic mutual funds do not have a significant impact on the growth. This result is contrast to previous research conducted by Ledhem and Mekidiche (2022); Sakinah et al. (2022); and Sari et al. (2018). This evidence, the third hypothesis (H3) of the study which states that “Islamic mutual funds has a partially positive and significant influence on the economic growth in Indonesia” is rejected (not proven).

Based on the test results, it is evident that Islamic mutual funds do not significantly contribute to promoting economic size and growth. While Islamic mutual funds exhibit consistent growth each year, their total value remains relatively small when compared to the value of traditional mutual funds in circulation. This considerable disparity and the comparatively low value of Islamic mutual funds provide explanation that why these funds do not have a pronounced positive impact on stimulating economic growth. Nonetheless, Islamic mutual funds continue to expand, and their potential for growth aligns with the broader development of the Indonesian Islamic capital market. In this context, one plausible explanation for the limited contribution of Islamic mutual funds to fostering economic growth in Indonesia may be the relatively low level of Islamic financial literacy.

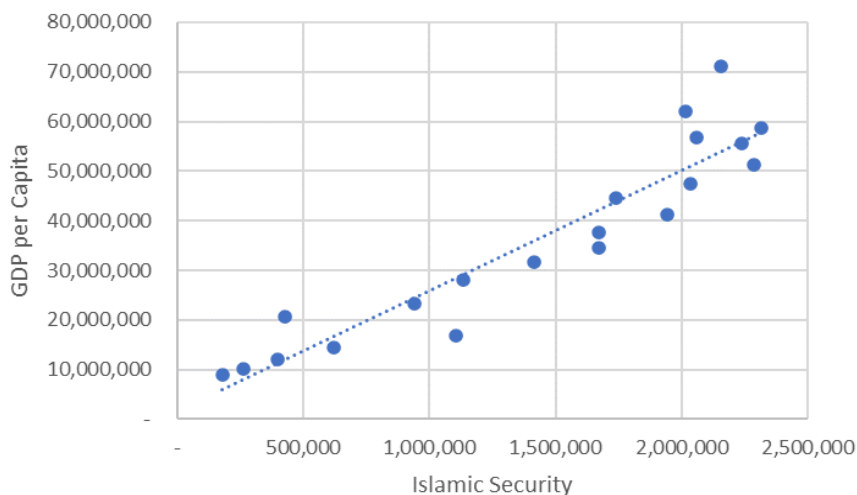
### The Effect of Islamic Stocks on Growth

The results of the t-test (coefficients) between the Islamic stocks variable and growth variable show a t-counted value of 0.702 and sig. 0.493 which is above 0.05. The standardized coefficient value of the influence of Islamic stocks on growth is 0.305 with a positive sign (+) indicating a positive influence. This means that when the total value of the Sharia Index Market Capitalization on the Indonesian Stock Exchange for Jakarta Islamic Index (JII) increases, this will be accompanied by an increase in the value of GDP as proxy of growth. However, based on the estimation results in the sample period of the study, the effect is not significant, which means that changes in the stock do not have a significant impact on GDP per capita. This is illustrated in the following visualization:



Source: Data processed results, 2023.

Figure 9 Visualization of the relationship between Islamic stocks and GDP per capita



Source: Data processed results, 2023.

Figure 10 Scatter plot diagram between Islamic stocks and GDP per capita

Based on the annual trend line (linear) in Figure 6, GDP per capita tends to increase during the observation period from 2003 to 2022, followed by a trend in the amount of Islamic stocks which also increases in the same period. This means that both have the same linear trend. The scatter plot in Figure 10 shows the relationship pattern between the Islamic stocks (JII) and GDP per capita, where an increase in the amount of Islamic stocks will be followed by an increase in GDP per capita.

The scatter plot forms a pattern that resembles a straight line which indicates that there is a close relationship between the two variables (linear) and forms a positive relationship. With this evidence, the fourth hypothesis (H4) of the study which states that “Islamic stocks has a partially positive and significant influence on the economic growth in Indonesia” is rejected (not proven). This finding is in line with Naz and Gulzar (2022); Yadirichukwu and Chigbu (2014); Sari et al. (2018); Samargandi et al. (2015); and Coskun et al. (2017). This finding is also confirming the theoretical path of the “supply-leading hypothesis” of Schumpeter et al. (2002) which determines that finance development, capital securities markets development and financial channels of investments enhance economic growth.



## CONCLUSION

The Islamic finance industry provides a vital player in improving national economy in Indonesia. This study aims to explore empirically whether Islamic finance enhance economic growth in Indonesia using the endogenous growth theory. Thus, the empirical investigation in this paper is expanding literature on the Islamic finance–economic growth nexus with the theoretical context in Indonesia.

The findings show that the Islamic banking and Islamic bonds (sukuk) have a positive and significant influence on the economic growth in Indonesia, the Islamic stocks also was found to has a positive effect on economic growth but not significant, while the Islamic mutual funds was found to has a negative and not significant effect on the economic growth. As a result, government may continuously support to sukuk for sustainable economic growth and the policy for the development of Islamic finance should be improved to increase the income of government particularly for Islamic stock and Islamic mutual fund.

This paper serves as a guiding framework for financial analysts, policymakers, and decision-makers, offering a roadmap to harness the potential of the Islamic finance market as an alternative source of funding to drive robust participation in economic growth. In addition, this study furnishes compelling evidence for financial analysts, corporate leaders, policymakers, and relevant authorities, underscoring the role of Islamic finance in promoting economic growth. It highlights the importance of Islamic finance as a critical instrument in advancing Indonesia's economic development. Consequently, financial analysts, policymakers, and decision-makers are spurred by the imperative to invigorate and integrate Islamic finance into Indonesia's financial landscape, positioning it alongside conventional finance to fund investments that bolster economic progress, particularly in Indonesia where a substantial Islamic population resides.

To assess the influence of Islamic finance on economic growth, this paper confines its empirical investigation to the Indonesia region. Future research endeavors could contemplate expanding the sample by encompassing countries in the Middle East and North Africa, given that this region houses one of the world's prominent Islamic securities markets, notably Saudi Arabia, which ranks as the second-largest sukuk issuer globally.

## REFERENCES

- Abdu, M., Jibir, A., Abdullahi, S., & Rabi'u, A. A. (2018). Can Islamic banking and finance spur financial inclusion? Evidence from Sub-Saharan Africa. *CBN Journal of Applied Statistics*, 9(1), 77–104.
- Abduh, M. & Chowdhury, N. T. (2012). Does Islamic banking matter for economic growth in Bangladesh. *Journal of Islamic Economics, Banking and Finance*, 8(3), 104–113.
- Abu-Bader, S., & Abu-Qarn, A. S. (2008). Financial development and economic growth: empirical evidence from six MENA countries. *Review of Development Economics*, 12(4), 803–817.
- Ahmad, N., Daud, S. N. M. & Kefeli, Z. (2012). Economic forces and the sukuk market. *Procedia-Social and Behavioral Sciences*, 65, 127–133.
- Ascarya, A. (2014). Monetary policy transmission mechanism under dual financial system in Indonesia: Interest-profit channel. *International Journal of Economics, Management and Accounting*, 22(1), 1–32.
- Askari, H. & Rehman, S. (2013). A survey of the economic development of OIC countries. *Economic Development and Islamic Finance*, 299.
- Beck, T., Levine, R. & Loayza, N. (2000). Finance and the Sources of growth. *Journal of Financial Economics*, 58(1–2), 261–300.
- Beck, T. & Levine, R. (2004). Stock markets, banks, and growth: Panel evidence. *Journal of Banking & Finance*, 28(3), 423–442.
- Coşkun, Y., Seven, Ü., Ertuğrul, H. M., & Ulussever, T. (2017). Capital market and economic growth nexus: Evidence from Turkey. *Central Bank Review*, 17(1), 19–29.

- DinarStandard. (2022). *State of the Global Islamic Economy Report 2022* [online]. [accessed 2023 Jan 19]. Retrieved from: [https://cdn.salaamgateway.com/reports/pdf/State+of+the+Global+Islamic+Economy+Report+2022\\_V2\\_Updated.pdf](https://cdn.salaamgateway.com/reports/pdf/State+of+the+Global+Islamic+Economy+Report+2022_V2_Updated.pdf).
- Direktorat Jenderal Pembiayaan dan Pengelolaan Risiko (DJPPR) Kementerian Keuangan. (2022). *Data Penerbitan Surat Berharga Negara Syariah (Sukuk)* [online]. [accessed 2023 Jan 29]. Retrieved from: <https://www.djppr.kemenkeu.go.id/>.
- Ghozali, I. (2006). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang (ID), Badan Penerbit Universitas Diponegoro.
- Gujarati, D. N. (2012). *Dasar-Dasar Ekonometrika*. Jakarta (ID), Salemba Empat.
- Hassan, M. K., Hossain, S. & Ahmed, H. (2022). Impact of Islamic finance on economic growth. *Journal of Economic Cooperation & Development*, 43(2), 101–128.
- Imam, P. & Kpodar, K. (2016). Islamic banking: good for growth? *Economic Modelling*, 59, 387–401.
- Iskandar, A. (2014). Pengaruh penerbitan sukuk negara sebagai pembiayaan defisit fiskal dan kondisi ekonomi makro terhadap perkembangan perbankan syariah di Indonesia. *Jurnal of Info Artha Sekolah Tinggi Akuntansi Negara (STAN)*, 1–21.
- Iskandar, A. & Aqbar, K. (2019). Kedudukan ilmu ekonomi Islam di antara ilmu ekonomi dan fikih muamalah: Analisis problematika epistemologis. *NUKHBATUL'ULUM: Jurnal Bidang Kajian Islam*, 5(2), 88–105.
- Kasri, R. & Ahmed, H. (2015). Assessing socio-economic development based on Maqāsid al-Sharī'ah principles: Normative frameworks, methods and implementation in Indonesia. *Islamic Economic Studies*, 23(1), 73–100.
- Kassim, S. (2016). Islamic finance and economic growth: The Malaysian experience. *Global Finance Journal*, 30, 66–76.
- Khoutem, B. J., & Nedra, B. A. (2012). Islamic participative financial intermediation and economic growth. *Journal of Islamic Economics, Banking and Finance*, 3(8), 44–59.
- King, R. G. & Levine, R. (1993). Finance and growth: Schumpeter might be right. *The Quarterly Journal of Economics*, 108(3), 717–737.
- Ledhem, M. A. & Mekidiche, M. (2022). Islamic securities (ṣukūk) and economic growth: New empirical investigation from Southeast Asia using non-parametric analysis of MCMC panel quantile regression. *Islamic Economic Studies*, 29(2), 119–138.
- Levine, R. (2005). Finance and growth: Theory and evidence. *Handbook of Economic Growth*, 1, 865–934.
- Majid, M. S. A & Kassim, S. (2015). Assessing the contribution of Islamic finance to economic growth: Empirical evidence from Malaysia. *Journal of Islamic Accounting and Business Research*, 6(2), 292–310.
- Mankiw, N. G. (2008). *Principles of Macroeconomics*. Edinburgh (UK), Thomson Nelson.
- McKinnon, R. I. (2010). *Money and Capital in Economic Development*. Washington D.C (US), Brookings Institution Press.
- Mitsaliyandito, R. Q., Arundina, T. & Kasri, R. A. (2017). Impact of sukuk market development on Indonesian economic growth. *International Journal of Applied Business and Economic Research*, 15(24), 537–549.
- Nachrowi, D. N. & Usman, H. (2006). *Ekonometrika: Pendekatan Populer dan Praktis Untuk Analisis Ekonomi dan Keuangan*. Jakarta (ID), LPFE UI.
- Naz, S. A. & Gulzar, S. (2022). Impact of Islamic finance on economic growth: An empirical analysis of Muslim countries. *The Singapore Economic Review*, 67(01), 245–265.
- Nurzianti, R. (2021). Revolusi lembaga keuangan syariah dalam teknologi dan kolaborasi fintech. *Jurnal Inovasi Penelitian*, 2(1), 37–46.
- Nzotta, S. M. & Okereke, E. J. (2009). Financial deepening and economic development of Nigeria: An empirical investigation. *African Journal of Accounting, Economics, Finance and Banking Research*, 5(5).
- [OJK] Otoritas Jasa Keuangan. (2022). *Statistik Perbankan Syariah Indonesia*. [online]. [accessed 2023 Mar 19]. Retrieved from: <https://www.ojk.go.id/>.

- [OJK] Otoritas Jasa Keuangan (OJK). (2023a). *Data Obligasi Syariah (Sukuk)*. [online]. [accessed 2023 Nov 25]. Retrieved from: <https://ojk.go.id/id/kanal/syariah/data-dan-statistik/data-produk-obligasi-syariah/default.aspx>.
- [OJK] Otoritas Jasa Keuangan (OJK). (2023b). *Laporan Perkembangan Keuangan Syariah Indonesia 2022*. [online]. [accessed 2023 Nov 25]. Retrieved from: <https://ojk.go.id/id/berita-dan-kegiatan/info-terkini/Documents/Pages/OJK-Luncurkan-Buku-Laporan-Perkembangan-Keuangan-Syariah-Indonesia-%28LPKSI%29-2022/Laporan%20Perkembangan%20Keuangan%20Syariah%20Indonesia%20%28LPKSI%29%202022.pdf>.
- Pradhan, R. P., Arvin, M. B., Bennett, S. E., Nair, M., & Hall, J. H. (2016). Bond market development, economic growth and other macroeconomic determinants: Panel VAR evidence. *Asia-Pacific Financial Markets*, 23, 175–201.
- Refinitiv. (2022). *Islamic Finance Development Report 2022: Advancing Economies* [online]. [accessed 2023 Jul 08]. Retrieved from: <https://www.refinitiv.com/en/resources/special-report/islamic-finance-development-report-2022>.
- Republik Indonesia. (2023). *Buku II: Nota Keuangan Anggaran Pendapatan Dan Belanja Negara Tahun Anggaran 2023* [online]. [accessed 2023 Nov 25]. Retrieved from: <https://media.kemenkeu.go.id/getmedia/4d726514-8416-47db-ab51-49506bbcdaaa/Buku-II-Nota-Keuangan-APBN-2023.pdf?ext=.pdf>.
- Sabiu, T. T. & Abduh, M. (2020). Islamic financial development and economic growth in Nigeria: a bounds testing approach. *Journal of Islamic Monetary Economics and Finance*, 6(3), 597–620.
- Sakinah, G., Kasri, R. A., & Nurkholis, N. (2022). Islamic finance and Indonesia's economy: An empirical analysis. *Jurnal Ekonomi & Keuangan Islam*, 47–59.
- Samargandi, N., Fidrmuc, J., & Ghosh, S. (2015). Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. *World Development*, 68, 66–81.
- Santoso, S. (2016). *Panduan lengkap SPSS versi 23*. Jakarta (ID), Elex Media Komputindo.
- Sari, N., Syamsurijal, A. K., & Widiyanti, M. (2018). The impact of Islamic capital market development on economic growth: The case of Indonesia. *Journal of Smart Economic Growth*, 3(2), 21–30.
- Schumpeter, J., Becker, M. C., & Knudsen, T. (2002). New translations: Theorie der wirtschaftlichen Entwicklung. *The American Journal of Economics and Sociology*, 61(2), 405–437.
- Setiawan, I. (2019). The role of Islamic banking in the development of economic sectors in Indonesia. *International Journal of Applied Business Research*, 88–99.
- Setiawan, I., Kassim, S., Gudarzi Farahani, Y., Dastan, M., Abduh, M., Chowdhury, N. T., Yazdan, G. F., Mohammad Hossein, S. S., Sabiu, T. T., & Abduh, M. (2012). The role of Islamic banking in the development of economic sectors in Indonesia. *Journal of Economic Cooperation & Development*, 6(3), 66–76.
- Shahbaz, M. & Islam, F. (2011). Financial development and income inequality in Pakistan: an application of ARDL approach. *Munich Personal RePEc Archive*, 1-20.
- The World Bank. (2023). *Economy Indicators Data of Indonesia* [online]. [accessed 2023 Jun 06]. Retrieved from: <https://data.worldbank.org/country/ID>.
- Thumrongvit, P., Kim, Y., & Pyun, C. S. (2013). Linking the missing market: The effect of bond markets on economic growth. *International Review of Economics & Finance*, 27, 529–541.
- Timmer, P. & McClland, D. (2004). *Economic Growth in the Muslim World: How Can USAID Help?*. Bureau of Policy and Program Coordination.
- Wahid, S. (2002). *Jalan Pintar Menguasai SPSS*. Yogyakarta (ID), Penerbit Andi.
- Yadirichukwu, E. & Chigbu, E. E. (2014). The impact of capital market on economic growth: The Nigerian perspective. *International Journal of Development and Sustainability*, 3(4), 838–864.
- Yazdan, G. F. & Sadr, S. M. H. (2012). Analysis of Islamic bank's financing and economic growth: Case study Iran and Indonesia. *Journal of Economic Cooperation & Development*, 33(4).