GOLDEN RATIO OF SOCIAL SCIENCE AND EDUCATION
VOLUME 5, ISSUE. 1 (2025)
Website: https://goldenratio.id/index.php/grsse/index

GOLDEN RATIO
ISSN [Online]: 2797-5827

SOCIAL SCIENCE AND EDUCATION | RESEARCH ARTICLE

The Effect of Investment, Export-Import, and Inflation Level on Economic Growth in Indonesia from The Perspective of Islamic Economics in 2004-2024 with The Vector Error Correction Model Approach

Anisa Sukma Dewi [1], Okta Supriyaningsih[2], Taufiq Qurrahman[3]

[1, 2, 3] Department of Islamic Economics, Faculty of Islamic Economics and Business, Universitas Islam Negeri Raden Intan, Lampung, Indonesia. Email: anisasukmadewi06@gmail.com[1], oktasupriyaningsih@radenintan.ac.id[2], Taufiqur@radenintan.ac.id[3]

ARTICLE HISTORY

Received: June 17, 2025
Revised: July 16, 2025
Accepted: July 26, 2025

DOI
https://doi.org/10.52970/grsse.v5i2.1411

ABSTRACT
This study aims to analyze the influence of investment, export-import, and inflation rate on economic growth in Indonesia from the perspective of Islamic economics during the period 2004–2024. The Vector Error Correction Model (VECM) identifies short-term and long-term relationships among these variables. The data employed are annual secondary data from various official sources, such as the Central Bureau of Statistics and Bank Indonesia. The results indicate that, in the long term, investment and exports have a significant positive effect on economic growth, while inflation has a negative impact. In the short term, the relationships among these variables demonstrate complex dynamics, yet remain consistent with Islamic economic theory, which emphasizes stability, justice, and sustainable growth. This study provides important implications for macroeconomic policies aligned with sharia principles, particularly in efforts to achieve inclusive and equitable economic development in Indonesia.

Keywords: Export-Import, Inflation, Economic Growth, Islamic Economics, VECM.

I. Introduction

In the context of a country's national development, one of the indicators and measures that can serve as a benchmark of its success is economic growth over a specific period (Fathurrahman, 2023). Economic growth is also a top priority in developing a country's economy. Every country, especially developing ones, is responsible for catching up with developed nations' economic progress. This is important because economic changes can significantly impact various sectors of society (Padi, 2021). In recent years, many studies have discussed the relationship between the financial sector and economic growth (Boukhatem, 2018). This is because some researchers believe the financial sector has a vital role in real economic growth at the national and international levels (Demirguc-Kunt, 2003). This condition is based on the reason that when the economy is about to improve, the productivity of entrepreneurs must also be increased by providing entrepreneurs

with credit aimed at financing new production techniques and interesting innovations (Schumpeter, 2021). Thus, it is unsurprising that financial processes can increase economic growth and development (Gurley, 2021). The financial sector that is developing and becoming the center of attention is the Sharia financial sector. This condition can be seen from Shariafinancial assets, which are predicted to reach $5,955 trillion in 2025/2026, an increase of 49.4% compared to 2021/2022 (Report, 2023). The interesting thing about Sharia finance is that it covers the commercial sector (such as Sharia banking and capital markets) and includes the social sector (such as zakat, infaq, alms, and waqf). Therefore, it is not surprising that the Islamic financial sector is in line with global financial goals in the form of (1) social empowerment, which has an impact on the real economy, (2) poverty alleviation, and (3) reducing income inequality (Nugraheni, 2023). Indonesia is a country with good financial growth in Sharia. Based on the State of the Global Islamic Economy Report, the position of Sharia finance is ranked seventh (Report, State of the Global Islamic Economy Report, 2023). Apart from that, in the Islamic Finance Development Index, Indonesia is also ranked 3rd, with the highest score on the education indicator (LSEG & ICD, 2023). This condition is supported by the growth of Sharia financial assets in Indonesia, which reached IDR 2,375 trillion in 2022, an increase of 15.86% from 2021 (Keuangan, 2022). This rapid development of assets cannot be separated from Indonesia's population, which is predominantly Muslim, because the Muslim population plays an important role in the development of Sharia financial institutions (Lebdaoui, 2016). Islamic banks are part of the Islamic financial sector, which is important in economic growth (Chowdhury, 2018).

Economic growth is an important indicator that reflects a country's ability to improve the welfare of its people. In Indonesia, efforts to achieve sustainable economic growth continue to be pursued through various fiscal, monetary, and real sector policies. Three key factors often studied about economic growth are investment, export-import activities, and the inflation rate, given the importance of these three variables and their connection to the principles of Islamic economics (Moh Sahroni Nurkodri, 2023). This study analyzes the influence of investment, export-import activities, and the inflation rate on Indonesia's economic growth from 2004 to 2024. The study employs the Vector Error Correction Model (VECM) approach to capture long-term and short-term relationships among the variables. This approach is considered appropriate given the complexity of the dynamic interactions between the variables under study. Therefore, this research is expected to make an empirical contribution to the macroeconomic literature and strengthen the understanding of how Islamic economic principles can be applied in formulating sustainable economic development policies in Indonesia. These three variables are closely linked to the dynamics of the national economy, both in the short and long term. Whether domestic or foreign, investment is a key driver in increasing production capacity and creating employment opportunities. Export and import activities play a role in maintaining trade balance and enhancing the competitiveness of domestic industries. (Putra, 2022). Society and the business climate. In Islamic economics, economic growth is viewed quantitatively and must align with the principles of justice, balance, and public welfare (maslahah). Islamic economics emphasizes the importance of fair wealth distribution, the prohibition of usury (riba), and the development of a productive real sector. The researcher chose this title because a two-decade period allows for observing long-term dynamics between variables such as investment, export-import activities, and inflation on economic growth. This is particularly relevant to the VECM approach, which is specifically designed to capture long-term relationships and short-term adjustments among variables. Therefore, it is necessary to conduct a study that is not only econometric but also considers Islamic values in analyzing the relationships among economic variables (Muhammad Sadli, 2022). To observe the developments in investment, export, imports, inflation rate, and economic growth from 2004 to 2024, refer to the following table:

Table 1. Investment, Export, Import, Inflation Rate, and Economic Growth (2004–2024)

Year	Investment	Export	Import	Inflation Rate	GDP
2004	6,432.10	71,584.60	46,524.50	6.41	2,295,826.20
2005	4,317.20	85,659.90	57,700.90	17.11	2,774,281.10
2006	2,678.70	100,798.60	61,065.50	6.61	3,339,216.80
2007	5,942.80	114,100.90	74,473.40	6.59	3,950,893.20

ISSN [Online]: 2797-5827

Year	Investment	Export	Import	Inflation Rate	GDP
2008	3,871.50	137,020.40	129,197.30	11.06	4,948,688.40
2009	6,003.80	116,510.00	96,829.20	2.78	5,606,203.40
2010	7,977.80	157,779.10	135,663.30	6.96	6,446,851.90
2011	9,135.20	203,496.60	177,435.70	3.79	7,419,187.10
2012	11,098.40	190,020.30	191,691.00	4.31	8,230,925.90
2013	13,798.20	182,551.80	186,628.70	8.38	9,087,276.50
2014	13,458.10	175,980.00	178,178.80	8.36	10,094,928.90
2015	15,043.73	150,366.30	142,694.50	3.35	11,526,332.80
2016	22,352.70	145,134.00	135,652.80	3.02	12,401,728.50
2017	23,209.00	168,828.20	156,985.50	3.61	13,589,825.70
2018	22,716.83	180,012.70	188,711.30	3.13	14,838,756.00
2019	21,567.35	167,683.00	171,275.70	2.72	15,832,657.20
2020	24,297.40	163,191.80	141,568.80	1.68	15,443,353.20
2021	23,358.70	231,609.50	196,190.00	1.87	16,976,751.40
2022	36,859.80	291,904.30	237,443.00	5.51	19,588,459.90
2023	41,363.40	258,774.30	221,885.70	2.61	20,892,348.50
2024	48,563.00	264,703.40	233,659.70	1.71	22,138,964.00

Source: Statistics Indonesia (BPS), 2004–2024

Table 1 presents the overall data for each variable from 2004 to 2024. Investment, export, import, inflation, and economic growth are essential components of macroeconomic analysis. These five variables interact with and contribute to a country's economic dynamics. Investment is related to economic growth as it increases production capacity and efficiency, ultimately driving economic growth. Investment enhances capital stock and labor productivity. Furthermore, exports are linked to economic growth as they are a source of foreign exchange earnings and increase demand for domestic products, thereby boosting national output (GDP). Countries with high export levels tend to experience faster economic growth, especially when exports are of high added value. Meanwhile, the impact of imports on economic growth can be either positive or negative. On the positive side, capital goods and technology imports can enhance domestic productivity and efficiency. On the negative side, excessive imports of consumer goods can reduce demand for domestic products and lead to a trade balance deficit. (Pridayanti, 2014). Inflation has a nonlinear relationship with economic growth. Low to moderate inflation can stimulate growth as it reflects increasing demand, whereas high inflation can hinder economic growth by reducing purchasing power, raising production costs, and creating investment uncertainty. The following graph presents data on investment in Indonesia from 2004 to 2024:

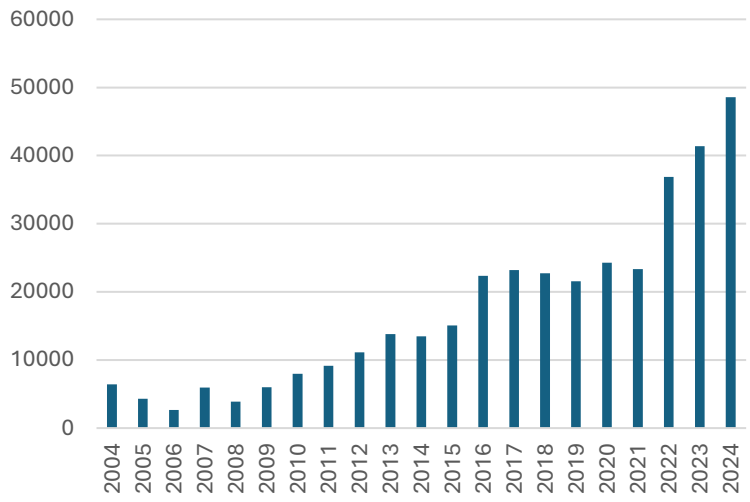

Figure 1. Investment in Indonesia from 2004 to 2024
Source: Statistics Indonesia (BPS), 2004–2024

ISSN [Online]: 2797-5827

Based on Figure 1 above, it is observed that investment in Indonesia experienced a decline between 2004 and 2010, with a data stabilization during that period. However, in 2011, investment increased by 9,135.2 and continued to rise in the following years, surpassing the 2011 level. This upward trend persisted through to 2024. During 2004–2024, Indonesia experienced various global and domestic economic dynamics, including the 2008 global financial crisis, the economic slowdown due to the COVID-19 pandemic, and post-pandemic economic recovery. These changes have impacted investment patterns, international trade, and price stability, making them highly relevant for comprehensive analysis. In Islamic economics, economic growth is not viewed solely from a quantitative perspective, such as the increase in Gross Domestic Product (GDP), but also considers aspects of justice, blessing (barakah), and sustainability. The concept of investment in Islam emphasizes principles of justice, freedom from usury (riba), and profit-and-loss sharing. International trade is encouraged as long as it is conducted fairly and does not harm any party. Conversely, inflation is seen as a form of imbalance that can harm society at large, particularly the underprivileged.

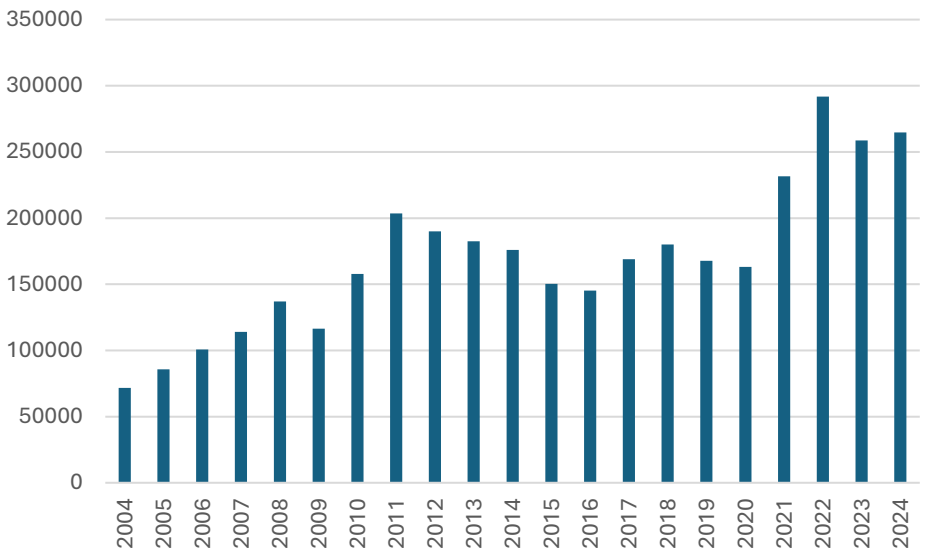

Figure 2. Indonesia's Exports from 2004 to 2024
Source: Statistics Indonesia (BPS), 2004–2024

Figure 2 shows the results of the graph above, indicating that Indonesia's export data from 2004 to 2024 experienced fluctuations, with increases and decreases in specific periods. For example, 2004 export value was 71,584.6 and rose until 2008, reaching 137,020.4. However, it declined in 2009 to 116,510, due to a downturn in international trade in Indonesia. A significant drop in export value also occurred in 2019, primarily due to the global COVID-19 pandemic. Therefore, analyzing the influence of investment, export-import activities, and inflation on Indonesia's economic growth from the perspective of Islamic economics becomes highly important. The econometric approach, such as the Vector Error Correction Model (VECM), is chosen because it captures long-term relationships and short-term dynamics among non-stationary but cointegrated variables. This study aims to provide a deeper understanding of how these three main variables affect Indonesia's economic growth, to analyze their long- and short-term impacts using the VECM approach, and to assess their contributions to economic growth in Indonesia from an Islamic economic perspective, with an emphasis on justice, wealth distribution, and societal welfare.

ISSN [Online]: 2797-5827

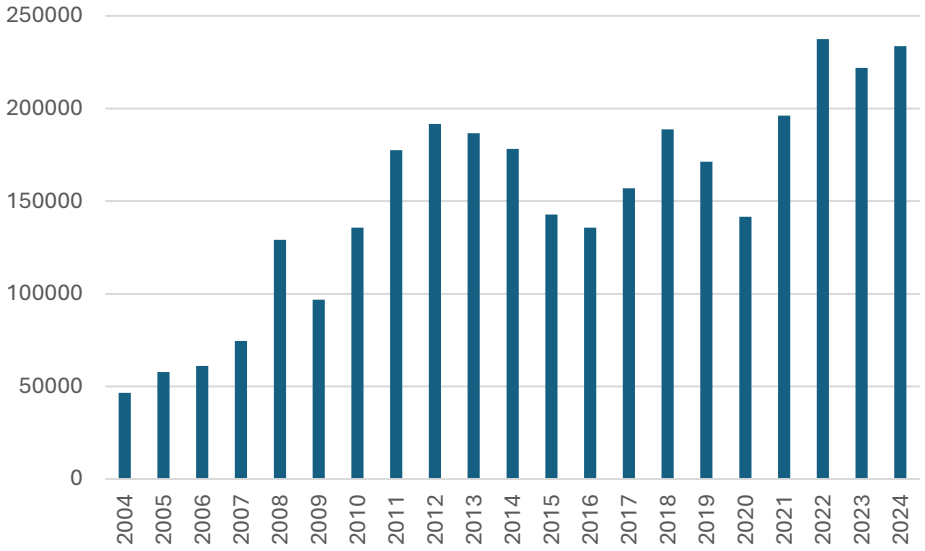

Figure 3. Indonesia's Imports from 2004 to 2024

Figure 3 shows that Indonesia's import data experienced an overall increase each year, similar to exports. Imports fluctuated with increases and decreases each year, primarily influenced by inflation. Starting in 2004, the import value continued to rise until 2018, followed by a sharp decline in 2019 due to the impact of COVID-19 in Indonesia. In addition, the Islamic economic perspective offers a different view in evaluating economic factors. Islam emphasizes the principles of justice, wealth distribution, and the welfare of society. Applying Islamic economic principles in this context can provide additional insights into analyzing the influence of investment, export-import activities, and inflation on Indonesia's economic growth. Therefore, the results of this study are expected to serve as input for economic policies that are not only empirically effective.

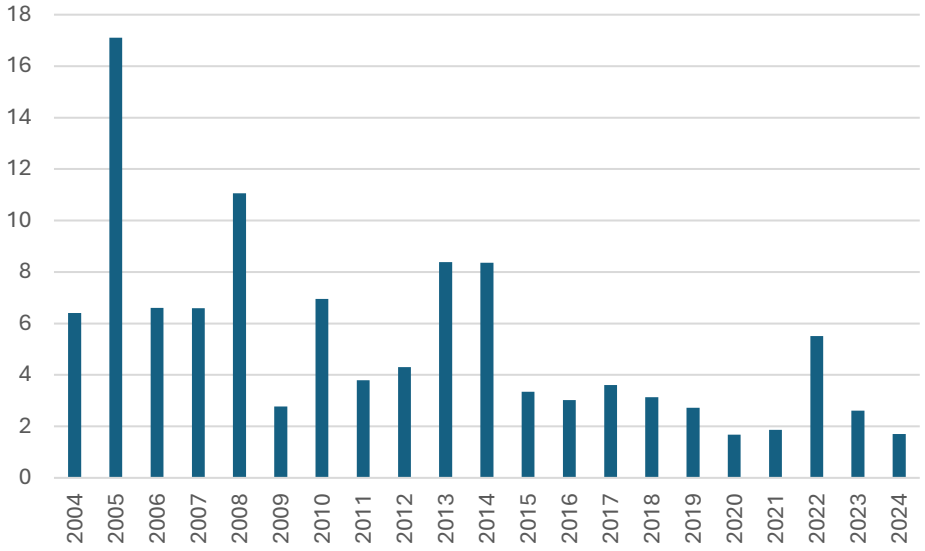

Figure 4. Indonesia's Inflation Rate from 2004 to 2024
Source: Statistics Indonesia (BPS), 2004–2024

Figure 4. Based on the figure above, it can be analyzed that the inflation rate from 2004 to 2024 experienced fluctuations with increases and decreases each year, due to the general and continuous rise in

ISSN [Online]: 2797-5827

the prices of goods and services over a specific period. When inflation occurs, the purchasing power of money decreases, meaning that the same amount of money can buy fewer goods or services than before. For example, a study by Abdul Rozak et al. found that export and investment values significantly influence Indonesia's economic growth from a sharia perspective. The study used the Error Correction Model to analyze these variables' long-term and short-term relationships. The results showed that exports and investment contribute positively to economic growth, which aligns with Islamic economic principles that emphasize improving societal welfare through productive and just economic activities. It is hoped that the results of this research can contribute to formulating economic policies that stimulate economic growth and promote equitable welfare for all levels of society by Islamic economic principles. Investment, exports, imports, and inflation are important interrelated variables directly influencing economic growth. Investment increases production capacity, creates jobs, and drives innovation, stimulating economic growth. (Andi Triyawan, 2021). An increase in exports boosts demand for domestic products, increases production, and adds to the country's foreign exchange reserves. Meanwhile, imports can support growth if they consist of capital goods or raw materials that aid the production process, but they can hinder growth if dominated by consumer goods. On the other hand, controlled inflation creates economic stability and encourages economic activity, whereas high inflation can reduce purchasing power, discourage investment, and slow growth. Therefore, balancing these variables is essential for sustainable and stable economic growth. (Sri Marwanti, 2018).

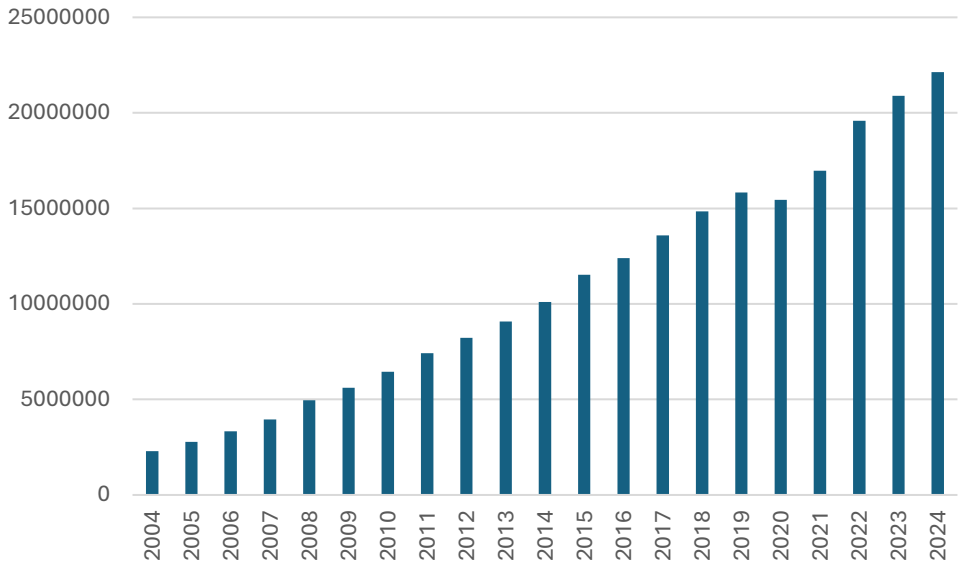

Figure 5. Indonesia's Economic Growth from 2004 to 2024
Source: Statistics Indonesia (BPS), 2004–2024

Figure 5. Based on the figure above, the data shows that economic growth, as measured by Gross Domestic Product (GDP), experienced a significant increase from 2006 to 2019. However, in 2020, it declined due to the impact of COVID-19, which caused a downturn in Indonesia's economic growth.

II. Literature Review and Hypothesis Development

2.1. Investment

Investment is important in supporting economic growth as it can increase capital accumulation and production capacity. According to Mankiw (2014), investment is expenditure on purchasing capital goods that will be used to produce goods and services in the future. In Islamic economics, permissible investments are

ISSN [Online]: 2797-5827

those that do not involve elements of riba (usury), maisir (gambling), and gharar (uncertainty). Halal investments such as mudharabah, musyarakah, and ijarah serve as means to promote equitable economic development. (Antonio, 2001).

2.2. Export-Import

Export and import activities are part of international trade that influence a country's foreign exchange reserves and economic growth. The theory of comparative advantage by David Ricardo explains that international trade allows countries to specialize in goods they produce efficiently. From the perspective of Islamic economics, international trade is encouraged as long as it is conducted fairly and does not harm any of the parties involved (Mannan, 1991).

2.3. Inflation

Inflation is a continuous increase in the general price level within an economy. According to (Samuelson, 2010), uncontrolled inflation can reduce people's purchasing power and create economic uncertainty. In Islamic economics, inflation must be managed to prevent distributional imbalances and social injustice. One of the solutions offered by Islamic economics is implementing a riba-free financial system and controlling the money supply based on tangible assets.

III. Research Method

3.1. Type and Research Approach

This study is a quantitative research using an econometric approach. The main objective of this study is to analyze the long-term and short-term relationships among macroeconomic variables, namely investment, exports, imports, and inflation, and their impact on Indonesia's economic growth. This research also aims to evaluate the findings from the perspective of Islamic economics, particularly by relating them to the principles of maqāṣid al-sharī'ah. A quantitative approach is used to obtain objective and measurable results through statistical and econometric techniques. At the same time, the model employed is the Vector Error Correction Model (VECM), which can explain long-term dynamics between variables and their short-term adjustment mechanisms. The variables used in this study consist of one dependent variable, economic growth (measured using Gross Domestic Product data from the Central Statistics Agency), and four independent variables: investment, exports, imports, and inflation, which are theoretically believed to influence economic growth.

3.2. Approach and Type of Research

The approach used in this research is quantitative. This approach is chosen because it can process and analyze numerical data objectively and systematically using statistical methods. In this case, the quantitative approach is used to determine and measure the strength of the relationships between variables tested through econometric analysis. The type of research used is associative research, which aims to determine the relationship between two or more variables. This study specifically examines the relationship between investment, exports, imports, and inflation on economic growth in Indonesia using the VECM model. This model analyzes the dynamic linkages among those macroeconomic variables over a long and structured period.

ISSN [Online]: 2797-5827

3.3. Data Sources and Selection Criteria

The data used in this study are secondary in the form of annual time series from 2004 to 2024. The data sources are obtained from various official publications, including the Central Statistics Agency (BPS), Bank Indonesia (BI), and, when necessary, publications from international institutions such as the World Bank and the International Monetary Fund (IMF). Data from BPS are accessed through its official website (www.bps.go.id) in Excel or PDF formats, which are then processed and adjusted according to the research needs. The criteria for data selection include complete availability for the 2004–2024 period, consistency in annual data format, and relevance to the variables studied. The chosen period also considers significant national economic dynamics, including the 2008 global crisis, the COVID-19 pandemic, and post-pandemic economic policy reforms. Therefore, this time frame is considered sufficiently representative for observing long-term relationships among variables.

3.4. Reasons for Variable Selection

The selection of variables in this study is based on macroeconomic theories and previous empirical findings. Investment is chosen because it is a key component of economic growth and has a multiplier effect on job creation and income generation. Exports and imports are selected as indicators of Indonesia's economic openness—exports serve as a growth engine through increased foreign demand, while imports can influence the structure of domestic production. Inflation is selected due to its close relationship with economic stability; high inflation can weaken public purchasing power and disrupt sustainable growth. Economic growth is selected as the dependent variable because it reflects the overall performance of the national economy. From an Islamic economic perspective, these variables are closely related to the principles of *maqāṣid al-sharī'ah*, particularly in preserving wealth (*ḥifẓ al-māl*), ensuring distributive justice, and promoting overall societal welfare.

3.5. Data Analysis

This study employs quantitative analysis using econometric methods based on the Vector Autoregressive (VAR) model and the Vector Error Correction Model (VECM). The VAR model is initially used to observe dynamic relationships among variables without assuming cointegration. If the test results indicate the presence of cointegration among the variables, the VECM model is applied. VECM is particularly suitable for time series data with long-term relationships, as it can capture short-term adjustments toward long-term equilibrium. The analysis uses EViews 10 software, which performs stationarity tests (ADF test), Johansen cointegration tests, and VECM model estimation. Microsoft Excel 2016 was initially used for data collection, processing, and validation before further analysis in EViews. In general, the Vector Autoregressive (VAR) model can be formulated as follows:

$$\mathrm{PEt} = \alpha + \beta\mathrm{INVt} + \beta\mathrm{EKSt} + \beta\mathrm{IMPt} + \beta\mathrm{INFt} + e\mathrm{t}$$

Explanation:

PE = Economic Growth (GDP)
INV = Investment
EKS = Export
IMP = Import
INF = Inflation
e = Error Term
t = Time

ISSN [Online]: 2797-5827

3.6. Methodological Limitations

Although the VECM model has advantages in explaining long-term relationships and short-term adjustment mechanisms between economic variables, this method has several limitations. First, it heavily relies on the quality and completeness of time series data. Data inconsistencies, missing values, or outliers—such as those caused by extraordinary events like the COVID-19 pandemic—can affect the validity of the results. Second, the model is only applicable if all variables in the study are non-stationary and integrated at the same order. This makes initial tests, such as unit root and cointegration tests, critical and sensitive to model specification. Third, the VECM method is quantitative and does not directly reflect normative values in Islamic economics, such as the principles of justice, balance, and blessing. Therefore, further analysis is needed to interpret the results of this study within the framework of *maqāṣid al-sharī'ah* so that the empirical findings become more relevant and contextual in the development of Islamic value-based economic policies.

a. Stationarity Test

Economic time series data are generally stochastic (exhibiting non-stationary trends or containing unit roots). If a dataset has unit roots, its values fluctuate without centering around a mean, making model estimation difficult.

b. Optimal Lag Test

VAR estimation is highly sensitive to the number of lags used. The optimal lag length in a VAR model can be determined using criteria such as AIC (Akaike Information Criterion), SC (Schwarz Criterion), or HQ (Hannan–Quinn). Moreover, determining the optimal lag length is essential to eliminate autocorrelation issues in the VAR system. By applying the optimal lag length, autocorrelation problems are expected to be minimized.

c. VAR Stability Test

Before conducting further analysis, the stability of the VAR model must be tested. Suppose the estimated VAR model, combined with the error correction model, is unstable. In that case, the results of the Impulse Response Function and Variance Decomposition analyses will be invalid.

d. Granger Causality Analysis

This test determines whether an endogenous variable can be treated as an exogenous variable. It originates from uncertainty about the direction of influence among the variables.

e. Cointegration Test

The cointegration test is conducted to identify long-term relationships among the variables. If cointegration is found among the variables used in the model, it confirms the existence of long-term relationships. One of the methods used to test for cointegration is the Johansen Cointegration method.

f. Estimation of the VECM Model

The VECM is a restricted form of VAR applied when the data are non-stationary but cointegrated. VECM is often called a design for non-stationary time series with cointegrated relationships. The VECM specification restricts the long-term relationships of the endogenous variables to converge into cointegration

ISSN [Online]: 2797-5827

relationships, while still allowing for short-term dynamics. (Basuki, 2017). The VECM estimation results are used to observe both the long-term and short-term effects between the dependent and independent variables.

g. Impulse Response Function (IRF) Analysis

This method is used to determine the response of an endogenous variable to a shock in a particular variable. IRF also shows how long the effect of a shock from one variable lasts. Through the IRF, the impact of a one-standard-deviation change in an independent variable can be analyzed. The IRF traces the effect of a one-standard-error disturbance (innovation) in one endogenous variable on the other endogenous variables.

h. Variance Decomposition Analysis

Forecast Error Variance Decomposition (FEVD) explains the innovation in a particular variable by breaking it down into the contributions of other variables in the VAR system. FEVD provides information on the proportion of forecast error variance attributed to the variable and other variables sequentially over time.

IV. Results and Discussion

4.1. Stationarity Test

In this study, the unit root test is conducted based on the deterministic form of each research variable using the Augmented Dickey-Fuller (ADF) test as the indicator.

Table 2. Unit Root Test Results (Stationarity Test)

Variable	Test Level	Adj. t-Statistic	Critical Value (5%)	PP Prob. Value
GDP	Level	2.184623	-3.052169	0.9997
	First Difference	-3.580902	-3.040391	0.0175
	Second Difference	-4.862228	-3.081002	0.0019
Investment	Level	1.197621	-3.029971	0.9967
	First Difference	-3.877021	-3.029971	0.0091
	Second Difference	-3.479607	-3.119911	0.0271
Export	Level	-1.166364	-3.029971	0.6662
	First Difference	-4.347298	-3.040391	0.0037
	Second Difference	-5.614059	-3.065585	0.0004
Import	Level	-1.542323	-3.029971	0.4912
	First Difference	-4.346322	-3.029971	0.0034
	Second Difference	-5.242935	-3.065585	0.0008
Inflation	Level	-3.250885	-3.029971	0.0326
	First Difference	-9.421564	-3.029971	0.0000
	Second Difference	-9.600423	-3.065585	0.0000

The unit root test is assessed by examining whether the probability value is less than 0.05. If the probability value is < 0.05, the variable is considered stationary. If each variable is stationary at the first difference level, the data can proceed to the VECM test.

a. Investment= first dif 0,00 < 0,05 stasioner
b. Export= first dif 0,00 < 0,05 stationer
c. Import = first dif 0,00 < 0,05 stationer
d. Inflation first dif 0,00 < 0,05 stationer
e. GDP= first dif 0,00 < 0,05 stasioner

ISSN [Online]: 2797-5827

4.2. Optimal Lag Test

Table 3. Optimal Lag Length Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-934.3350	NA	6.02e+36	98.87737	99.12591	98.91943
1	-905.1284	39.96694	4.32e+36	98.43457	99.92579	98.68694

Table 3 shows that the selected lag is Lag 1 in the Optimal Lag Test. This optimal lag is identified by the number of asterisks displayed under each criterion in the table. This test focuses on the AIC value, which shows an asterisk at Lag 1, indicating it as the optimal lag.

4.3. VAR Stability Test

The next step is testing the stability of the VAR model. Stability testing is an important step in VAR model analysis, aiming to ensure that the estimated VAR model is valid and can be used for further analysis, such as forecasting and impulse response analysis.

Table 4. VAR Stability Test Results

Root	Modulus
0.700689 – 0.655406i	0.959439
0.700689 + 0.655406i	0.959439
−0.824636	0.824636
−0.264604 – 0.754772i	0.799810
−0.264604 + 0.754772i	0.799810
0.385272 – 0.667219i	0.770465
0.385272 + 0.667219i	0.770465
−0.403056 – 0.456416i	0.608909
−0.403056 + 0.456416i	0.608909
−0.484782	0.484782

In Table 4, the result of the VAR Stability Test shows that if the model at first difference with Lag 1 meets the condition where the modulus values are less than 1, the VAR model can be considered stable. Therefore, it can be concluded that the VAR model is stable, as it satisfies the required stability condition.

4.4. Granger Causality Analysis

The results of the Granger causality test can be seen in the table below:

Table 5. Granger Causality Analysis Results

Null Hypothesis	Obs	F-Statistic	Prob.
Investment does not Granger-cause GDP	20	0.02588	0.8741
GDP does not Granger-cause Investment	20	5.10914	0.0372
Export does not Granger-cause GDP	20	1.20639	0.2874
GDP does not Granger-cause export	20	1.86808	0.1895
Import does not Granger-cause GDP	20	0.12217	0.7310
GDP does not Granger-cause Import	20	1.84282	0.1924
Inflation does not Granger-cause GDP	20	0.02297	0.8813
GDP does not Granger-cause inflation	20	12.2237	0.0028

Null Hypothesis	Obs	F-Statistic	Prob.
Export does not Granger-cause Investment	20	4.26036	0.0546
Investment does not Granger-cause export	20	1.05984	0.3177
Import does not Granger-cause Investment	20	1.67134	0.2134
Investment does not Granger-cause import	20	1.76610	0.2014
Inflation does not Granger-cause Investment	20	0.85640	0.3677
Investment does not Granger-cause inflation	20	5.44544	0.0322
Import does not Granger-cause Export	20	2.05738	0.1696
Export does not Granger-cause Import	20	4.55808	0.0476
Inflation does not Granger-cause export	20	3.77767	0.0687
Export does not Granger-cause inflation	20	5.61489	0.0299
Inflation does not Granger-cause imports	20	6.49186	0.0208
Import does not Granger-cause inflation	20	7.50527	0.0140

Source: Processed Data, 2024.

In Table 5, the results of the Granger causality test show that investment does not significantly affect GDP, so the null hypothesis is accepted. However, GDP has a probability value of 0.0372 < 0.05, indicating no bidirectional relationship between investment and GDP, only a one-way causality from GDP to investment. Other results from the causality test indicate that inflation does not statistically affect GDP significantly, thus the null hypothesis is also accepted. However, there is a causal relationship from GDP to inflation, with a probability value of 0.0028 < 0.05, meaning there is only a one-way relationship between inflation and GDP. There is also a one-way relationship between inflation and investment, where investment influences inflation, as indicated by a probability value of 0.0322 < 0.05. Finally, the relationship between imports and exports also shows one-way causality, where exports affect imports, with a probability value of 0.0476 < 0.05. This means there are no reciprocal (two-way) relationships among the variables; only unidirectional causality exists between them.

4.5. Cointegration Test

Table 6. Johansen Cointegration Test Results (Trace Statistic)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.978749	137.4677	69.81889	0.0000
At most 1 *	0.829760	68.14334	47.85613	0.0002
At most 2 *	0.546952	36.27355	29.79707	0.0078
At most 3 *	0.506145	22.02193	15.49471	0.0045
At most 4 *	0.404245	9.322670	3.841466	0.0023

In Table 6, the results show that the probability values are less than 5% or 0.05. This indicates the presence of cointegration among the variables. This test confirms cointegration as all tests are marked with an asterisk, indicating significance, based on the probability values being below 5% (0.05).

4.6. Estimation of the VECM Model

Table 7. Vector Error Correction Model (VECM) Estimation

Cointegrating Equation:	
Variable	**Coefficient**
D(GDP(-1))	1.000000
D(INVESTMENT(-1))	-169.7568
	(17.6771)
	[-9.60323]

ISSN [Online]: 2797-5827

Cointegrating Equation:					
Variable			**Coefficient**		
D(EXPORT(-1))			-31.31799		
			(4.87224)		
			[-6.42785]		
D(IMPORT(-1))			31.85176		
			(4.87679)		
			[6.53130]		
D(INFLATION(-1))			260480.6		
			(21142.9)		
			[12.3200]		
Constant (C)			-436679.6		
Error Correction Term:					
Independent Variable	**D^2 (GDP)**	**D^2 (Investment)**	**D^2 (Export)**	**D^2 (Import)**	**D^2 (Inflation)**
CointEq1	-0.416934	-0.001477	-0.028820	-0.043444	-5.50e-06
	(0.22851)	(0.00125)	(0.00913)	(0.00427)	(1.2e-06)
	[-1.82461]	[-1.17893]	[-3.15596]	[-10.1667]	[-4.60839]
D^2(GDP(-1))	-0.203693	0.005146	-0.006442	0.007938	5.19e-06
	(0.35420)	(0.00194)	(0.01415)	(0.00662)	(1.8e-06)
	[-0.57509]	[2.65070]	[-0.45511]	[1.19850]	[2.80758]
D^2(INVESTMENT(-1))	-61.73933	-0.852330	-5.489242	-5.485492	-0.000554
	47.7274)	(0.26159)	(1.90733)	(0.89253)	(0.00025)
	[-1.29358]	[-3.25825]	[-2.87797]	[-6.14602]	[-2.22236]
D^2(EXPORT(-1))	1.972167	-0.018933	0.151482	0.134248	-9.83e-05
	(9.69565)	(0.05314)	(0.38747)	(0.18131)	(5.1e-05)
	[0.20341]	[-0.35628]	[0.39096]	[0.74042]	[-1.94204]
D^2(IMPORT(-1))	7.703186	-0.002740	-0.415826	-0.444617	1.94e-05
	(9.40819)	(0.05157)	(0.37598)	(0.17594)	(4.9e-05)
	[0.81877]	[-0.05314]	[-1.10598]	[-2.52712]	[0.39434]
D^2(INFLATION(-1))	35436.74	-12.07780	4114.862	5401.112	0.253412
	(39494.5)	(216.467)	(1578.32)	(738.568)	(0.20617)
	[0.89726]	[-0.05580]	[2.60712]	[7.31295]	[1.22915]
Constant (C)	113300.4	505.5795	4690.815	5892.698	0.461329
	(153573.)	(841.724)	(6137.22)	(2871.89)	(0.80168)
	[0.73776]	[0.60065]	[0.76432]	[2.05185]	[0.57545]

Based on Table 7, the results indicate that in the long run, the independent variables or X variables, namely investment, exports, imports, and inflation, significantly influence GDP (Y), as shown by their t-statistics exceeding the t-table value of 2.11. Specifically, the t-statistic for investment is 9.60, for exports 6.42, for imports 4.87, and for inflation 12.32. This implies that the long-term VECM estimation reveals a positive and significant effect of all these independent variables on GDP. Meanwhile, in the short-term VECM analysis, only investment and inflation significantly affect GDP. This is evident from the t-statistic values of investment (2.65) and inflation (2.80), which are greater than the t-table value of 2.11. Therefore, only investment and inflation significantly contribute to economic growth in the short run.

The empirical findings from the VECM model estimation indicate a significant long-term relationship between investment, exports-imports, and inflation rates on Indonesia's economic growth from 2004 to 2024. In addition, several variables also show relevant short-term effects on growth. To gain a deeper understanding of these results and their relevance in policy formulation and Islamic economic values, an analysis that is not only statistical but also conceptual and normative is required. Therefore, the following section will provide a more comprehensive interpretation of the research findings by linking the empirical results to previous literature and the principles of Islamic economics.

ISSN [Online]: 2797-5827

4.7. Impulse Response Function (IRF) Analysis

Figure 6 illustrates the response of investment to a shock in GDP. It shows that national investment begins to respond to the shock with a positive trend (+) that continues until the end of the period. The analysis based on the table above is as follows:

a. Response of Investment to GDP In the graph above, the investment response to a shock in GDP can be observed. The shock from the first to the tenth quarter generates a positive response, as the response line remains above the horizontal axis throughout the period. This indicates that investment consistently reacts positively to GDP shocks over time.
b. Response of Export to GDP In the graph above, the response of exports to a shock in GDP can be seen. The shock in the first quarter generates a positive response. However, in the second and third quarters, the response turns negative**,** before shifting back to a positive response in the fourth quarter. From the fifth to the tenth quarter, the response remains negative, as the response line stays below the horizontal axis, indicating a continued adverse reaction of exports to GDP shocks during that period.
c. Response of Imports to GDP In the graph above, the response of imports to a shock in GDP can be observed. The first quarter shock results in a positive response, as the line above the horizontal axis indicates. However, from the second quarter through the tenth**,** the response becomes negative**,** with the line consistently below the horizontal axis**,** indicating a sustained adverse reaction of imports to GDP shocks over the remaining periods.
d. Response of Inflation to GDP In the graph above, the response of inflation to a shock in GDP can be seen. In the first quarter**,** the shock produced a positive response**.** However, starting from the second quarter**,** the response fluctuates**,** showing ups and downs across the following quarters. This indicates that the impact of GDP shocks on inflation is unstable and varies over time.

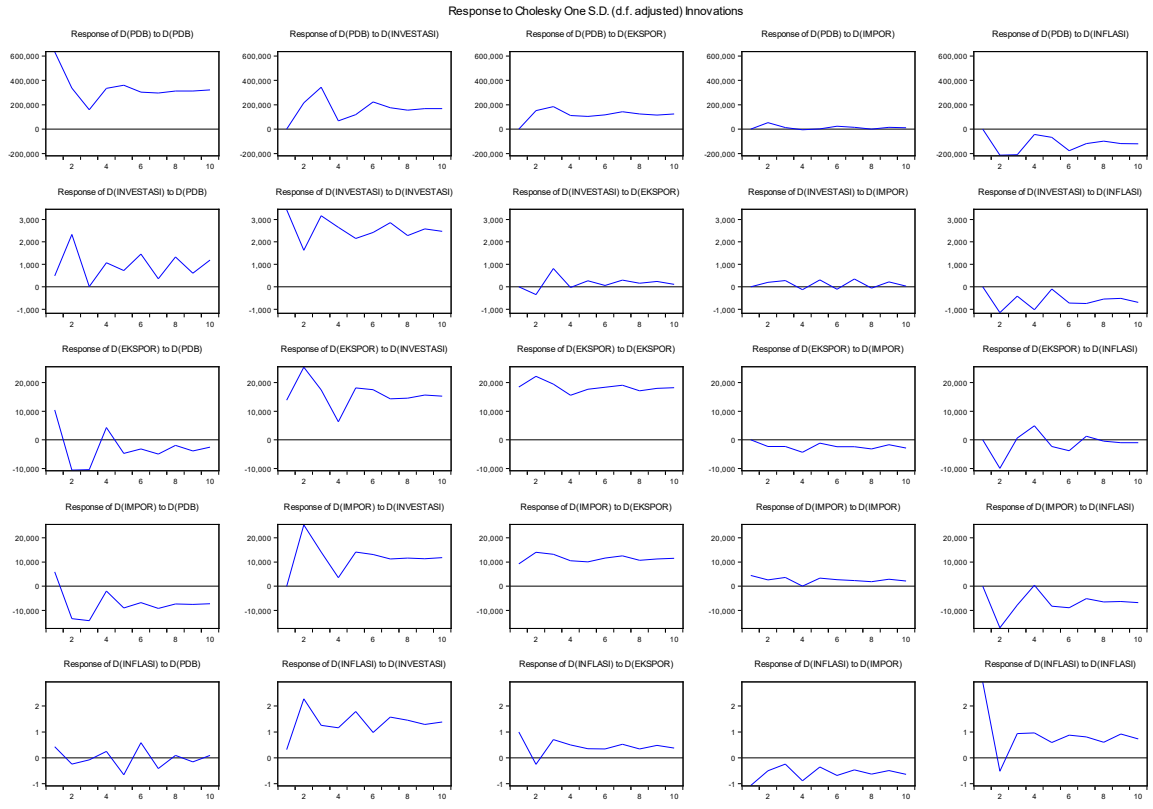

Figure 6. Impulse Response Function (IRF) Analysis

ISSN [Online]: 2797-5827

4.8. Variance Decomposition Analysis

The purpose of VDC analysis is to measure the interrelationships between variables. The results of this test can be seen in the table below:

Table 8. Variance Decomposition Analysis

Variance Decomposition of D(GDP)						
Period	**S.E.**	**D(GDP)**	**D(Investment)**	**D(Exports)**	**D(Imports)**	**D(Inflation)**
1	633776.3	100.0000	0.000000	0.000000	0.000000	0.000000
2	796234.1	81.26389	7.409189	3.676953	0.446772	7.203191
3	925643.8	63.11246	19.34683	6.739928	0.350450	10.45032
4	994421.4	66.09615	17.24483	7.118947	0.305043	9.235034
5	1071868.	68.24448	16.07517	7.085878	0.263707	8.330774
6	1156395.	65.51180	17.57763	7.132583	0.273770	9.504209
7	1221186.	64.65533	17.84162	7.787063	0.261711	9.454273
8	1280071.	64.82936	17.71030	8.038316	0.238338	9.183690
9	1339184.	64.72222	17.78430	8.095556	0.231369	9.166555
10	1398722.	64.66328	17.74864	8.230379	0.219998	9.137707

Based on the results of the variance decomposition analysis shown in the table, it can be observed that initially, GDP is almost entirely influenced by itself, with a contribution of 100%. At the same time, investment, exports-imports, and inflation have no effect in the early periods. However, as the periods progress, the influence of the other variables gradually increases, although their impact remains smaller compared to GDP's influence. Investment emerges as the second-largest contributor to GDP after GDP itself. At the beginning of the period, its influence is 7.40%, and it continues to increase, reaching 17.74% by the end. The smallest contribution to GDP is made by the import variable, which affects GDP by only 0.21% at the end of the period. Meanwhile, exports rank third in terms of their impact on GDP, with a contribution of 8.23% by the end of the period, as shown in the variance decomposition test. A country's economic growth is a key indicator that reflects the increase in the capacity to produce goods and services over a specific period. In Indonesia, economic growth is generally reflected through the rise in Gross Domestic Product (GDP), which originates from several primary sources of growth, including investment, labor, and government expenditure. These three components are interrelated and play a crucial role in shaping the structure and resilience of the national economy. Stable economic growth is when a country's economy experiences a sustained, consistent, and non-volatile increase in output or national income, accompanied by controlled inflation, sufficient employment opportunities, and price and exchange rate stability. Such growth indicates that the economy is expanding without major disruptions such as crises, recessions, or extreme price surges, providing certainty for economic actors and creating a conducive investment climate. In the long run, this stability is essential for enhancing public welfare and maintaining confidence in the prevailing economic system.

4.9. Economic Growth from an Islamic Economic Perspective

Economic growth in Islam is understood as a process of enhancing societal welfare that goes beyond material indicators such as income or production. It also embraces spiritual, moral, and social dimensions. Islam regards wealth as a trust (amanah) from Allah, which must be managed responsibly and through halal means. (Nasution., 2023) Therefore, economic growth should be founded on the principles of tawhid (oneness of God), justice, and balance, with the ultimate goal of achieving Allah's pleasure (ridha Allah) and the well-being of the ummah. A key feature of economic growth in Islam is the emphasis on fair and equitable wealth distribution. Islam promotes the use of social instruments such as zakat, infaq, sadaqah, and waqf as mechanisms to alleviate poverty and reduce social inequality. Furthermore, the Islamic economic system prohibits harmful practices such as riba (usury), gharar (excessive uncertainty), and maisir (gambling). It

GOLDEN RATIO
ISSN [Online]: 2797-5827

encourages productive, honest, and transparent business activities, especially those based on profit-and-loss sharing principles. (Aisyah Amelia Purba, 2025). In the development context, Islam does not separate economic goals from social objectives. Economic growth must generate employment, improve the quality of life, and strengthen social solidarity and responsibility among community members. Islam also emphasizes the crucial role of the state in ensuring distributive justice and enacting economic policies that support the vulnerable, while maintaining freedom of entrepreneurship within the bounds of sharia. Hence, Islamic economic development is inclusive, placing human beings at the center not merely as producers or consumers, but as moral agents. Moreover, Islam encourages innovation, productivity, and efficiency in economic activities as long as they do not contradict Sharia principles. Sectors like trade, agriculture, industry, and services are encouraged to grow with diligence and moral responsibility. While economic profit is legitimate, it must be earned fairly and used for good, such as helping others and contributing to community development. In this light, economic growth is not the ultimate goal, but a means to achieve a balanced and harmonious life between the material and spiritual. (Khairul Wahid, 2023). Through this holistic approach, Islamic economics offers a more humane and sustainable growth model. It aims to foster prosperity and preserve human values, ethics, and the environment. In the long term, Islamic-based economic growth is believed to lead to a stable, just system that brings blessings (barakah) to all people. Thus, economic growth in Islam is not merely about improving economic figures, but also about building an ethical, just, and prosperous society. This growth must be sustainable, environmentally friendly, and beneficial for all layers of society, without compromising religious and humanitarian values. (Erni Febrina Harahap, 2020).

One of the instruments in Islam for measuring the level of economic growth and distributive justice in order to achieve both material well-being and spiritual satisfaction is zakat. As stated in the words of Allah:

تُرِّيدُونَ وَجْهَ اَِّلل „من زَكَاة'ربًا لِّيَرْبُوا فِّي أَمْوَالِّ النَّاسِّ فَلَ يَرْبُوا عِّندَ اَِّلل وَمَآءَاتَيْتُم ِّّمن ِّ'وَمَآءَاتَيْتُم ِّّ
فَأُوْلَائِّكَ هُمُ الْمُضْعِّفُونَ

The meaning*: "And whatever riba (interest) you give so that it may increase in people's wealth, it does not increase with Allah. However, whatever zakat you give, seeking the pleasure of All, ah, they will get a manifold reward."* (Q.S. Ar Rum: 39).

This verse emphasizes the difference between wealth that grows through unlawful means (riba) and wealth used for goodness (zakat). In the Islamic view, authentic and blessed economic growth is founded on justice, sincerity, and benevolence, not exploitation. This verse also serves as the basis for the prohibition of riba and the encouragement to give in charity (infaq) and to develop the economy through means pleasing Allah SWT.

V. Conclusion

Based on the results of the research conducted, the following conclusions can be drawn:

a. Using the Granger Causality analysis method, the research findings indicate no mutual (two-way) relationship between investment and GDP. However, GDP significantly influences investment, as shown by a probability value of 0.0372 < 0.05, meaning the relationship is one-way. Furthermore, the Granger causality test results show that exports and imports do not influence GDP, nor does GDP influence them. Inflation also does not affect GDP, but GDP influences inflation, as indicated by a probability value of 0.0028 < 0.05. This means that the relationship with GDP is one-way for investment and inflation, while for exports and imports, there is no significant relationship in either direction.

b. Using the Vector Error Correction Model (VECM), the study concludes that in the long run, investment, exports, imports, and inflation have a positive and significant effect on GDP, as indicated by t-statistics

greater than the t-table value. In the short run, however, only investment and inflation positively impact GDP. This is evidenced by the t-statistic values for investment (2.65 > 2.11) and inflation (2.80 > 2.11).

This study examines the influence of investment, exports-imports, and the inflation rate on economic growth in Indonesia from an Islamic economic perspective from 2004 to 2024, using the Vector Error Correction Model (VECM) approach. Based on the results of the VECM analysis, it was found that in the long run:

a. Investment has a significant positive effect on economic growth, indicating that increased investment drives sustainable growth.
b. Exports and imports also significantly influence, highlighting the importance of international trade activities in shaping national economic dynamics.
c. Inflation, on the other hand, does not have a significant long-term effect on economic growth, suggesting that price stability has not been a dominant factor in driving growth during the studied period.

In the short run, the influence of these variables tends to be limited and not all are statistically significant, reflecting the time needed for economic policies to impact growth. The Granger causality test indicates a one-way causal relationship from investment and exports-imports toward economic growth; however, no causal relationship was found from inflation. Thus, the findings of this study answer the research question: investment and exports-imports have a significant influence on Indonesia's economic growth, aligning with the principles of Islamic economics, which emphasize the importance of productivity, fair trade cooperation, and sustainable development. Meanwhile, the inflation rate has not been proven to directly affect economic growth in the long term during the observed period.

References

Aisyah Amelia Purba, D. P. (2025). Economic growth from an Islamic perspective. Derivatif: Journal of Economic Management and Accounting.

Andi Triyawan, M. (2021). The effect of exports, imports, and Islamic investment on economic growth in Indonesia. Jurnal ANALISIS.

Antonio, M. S. (2001). Islamic banks: From theory to practice. Jakarta: Gema Insani.

Basuki, A. T. (2017). Regression analysis in economic and business research: Equipped with SPSS & EVIEWS applications. Yogyakarta: Mitra Pustaka.

Boukhatem, J., & Moussa, F. B. (2018). The effect of Islamic banks on GDP growth: Some evidence from selected MENA countries. Borsa Istanbul Review, 18(3), 231–247.

Chowdhury, M. A. F. (2018). Nexus between risk-sharing vs non-risk-sharing financing and economic growth of Bangladesh: ARDL bound testing and continuous wavelet transform (CWT) approach. Managerial Finance, 44(6), 739–758.

Demirguc-Kunt, A., Laeven, L., & Levine, R. (2003). Regulations, market structure, institutions, and the cost of financial intermediation. National Bureau of Economic Research, Cambridge, MA, USA.

Erni Febrina Harahap, L. N. (2020). Review of fiscal deficit, exports, imports, and the number of MSMEs on Indonesia's economic growth. Journal Benefita, 6(2), 151–161.

Fathurrahman, A., & Islamiyah, N. (2023). The effect of the Islamic capital market on national economic growth: A Vector Error Correction Model (VECM) approach. Journal Tabarru': Islamic Banking and Finance, 6(1), 111–124. https://doi.org/10.25299/jtb.2023.vol6(1).12883

Gurley, J. G., & Shaw, E. S. (2021). Financial aspects of economic development. The American Economic Review, 45(4), 515–538.

Otoritas Jasa Keuangan (OJK). (2022). Islamic Finance Development Report 2022. Retrieved from https://ojk.go.id/id/kanal/syariah/data-dan-statistik/

Khairul Wahid, A. S. (2023). The concept of Islamicpreneurship in economic growth from the perspective of the Qur'an. ORGANIZE: Journal of Economics, Management and Finance.

Lebdaoui, H., & Wild, J. (2016). Islamic banking presence and economic growth in Southeast Asia. International Journal of Islamic and Middle Eastern Finance and Management, 9(4), 551–569.

Mannan, M. A. (1991). Islamic Economics as a Social Science. Kuala Lumpur: International Islamic University Malaysia Press.

Moh Sahroni Nurkodri, A. A. (2023). Analysis of the effect of balancing funds and investment on economic growth in the districts/cities of Jambi Province. E-Jurnal Ekonomi Sumberdaya dan Lingkungan.

Muhammad Sadli, S. M. (2022). Analysis of the effect of state spending and investment on economic growth in Indonesia. Journal of Accounting.

Nasution. (2023). Economic growth from an Islamic perspective. Journal of Management and Creative Business (JMCBUS).

Nugraheni, P., & Sari, A. K. (2023). The optimisation of Qardhul Hasan management in Islamic banking: Enhancing its role in empowering the community. Journal of Enterprising Communities: People and Places in the Global Economy, 18(3), 469–486. https://doi.org/10.1108/JEC-08-2022-0113

Padi, S. (2021). The influence of the Composite Stock Price Index (IHSG), Indonesian Sharia Stock Index (ISSI), and Islamic bonds (Sukuk) on Indonesia's economic growth. UIN Ar-Raniry.

Pridayanti, A. (2014). The influence of exports, imports, and exchange rates on economic growth in Indonesia from 2002 to 2012. Jurnal Pendidikan Ekonomi (JUPE).

Putra, F. A. (2022). The effect of exports and imports on economic growth in Indonesia. Jurnal Ilmiah Ekonomi Pembangunan.

DinarStandard. (2023). State of the Global Islamic Economy Report. Retrieved from https://haladinar.io/hdn/doc/report2018.pdf

Samuelson, P. A., & Nordhaus, W. D. (2010). Economics (19th ed.). New York: McGraw-Hill Education.

Schumpeter, J. A. (2021). The Theory of Economic Development. London: Routledge.

Sri Marwanti, H. I. (2018). The influence of exports, imports, and investment on the growth of the agricultural sector in Indonesia. Jurnal Agro Ekonomi, 49–65.