International Journal of Islamic Economics and Finance (IJIEF)
Vol. 8(2), page 204-224, July 2025

Check for updates

Determinants of Economic Growth in OIC Countries: Comparative Analysis by Income Level

Karunia Romadhani[1*], Nurrizka Puji Lestari[1], Sri Herianingrum[1], Denizar Abdurrahman Mi'raj[2]

[*]**Corresponding email:** karunia.romadhani.412460-2023@feb.unair.ac.id

Article History
Received: June 1st, 2025 Revised: July 7th, 2025 Accepted: July 27th, 2025

Abstract

Economic growth disparities among OIC member states remain a persistent challenge that demands nuanced, data-driven policy responses. This study investigates the determinants of economic growth in OIC member states from 2010 to 2022. This study offers new insights by analysing four macroeconomic variables, explicitly distinguishing between high and low-income nations. The study's approach provides an in-depth understanding of how each variable impacts different stages of development, supporting more adaptive monetary and fiscal strategies. Panel regression analysis was employed, with a random effects model applied to the low-income country group and a common effects model used for the high-income group. The findings reveal a consistent negative impact of private debt on economic growth across both income groups. In contrast, inflation exhibited no significant influence on economic development in either category. FDI has shown a positive effect on the economic development of high-income countries, while no significant effect was observed for low-income countries. Conversely, trade openness has significantly stimulated economic growth in low-income nations, whereas no significant impact has been observed in high-income countries. Based on these findings, policy recommendations for OIC member states should prioritize debt reduction strategies across all income levels. Policies to enhance FDI in developed economies and promote trade openness are essential for economic growth in low-income OIC member countries.

Keywords: Private Debt, Inflation, FDI, Trade Openness, Economic Growth
JEL Classification: O1; E02; F21; F13
Type of paper: Research Paper

DOI: https://doi.org/10.18196/ijief.v8i2.25915
Web: https://journal.umy.ac.id/index.php/ijief/article/view/25915
Citation:
Romadhani, K., Lestari, N. P., Herianingrum, S., & Mi'raj, D. A. (2025). Determinants of Economic Growth in OIC Countries: Comparative Analysis by Income Level. *International Journal of Islamic Economics and Finance (IJIEF),* *8*(2). 204-224. https://journal.umy.ac.id/index.php/ijief/article/view/25915

[1]Department of Islamic Economics, Faculty of Economics and Business, Universitas Airlangga, Indonesia
[2]Department of Islamic Economics and Finance, Faculty of Political Sciences, Sakarya University, Turkey

I. Introduction

The Organization of Islamic Cooperation (OIC) is the second-largest international organization, comprising 57 member countries. Most of its members are located in Asia and Africa (Pratomo et al., 2023). This organization plays a key role in maintaining global peace and safeguarding the interests of the international community, particularly within Muslim nations. The establishment of the OIC was motivated by several factors, including the need to address internal issues facing member countries. One of the organization's primary objectives is to analyze the factors contributing to high unemployment rates in these countries (Ebaidalla & Mahjoub, 2016). However, previous studies have shown that Muslim countries exhibit suboptimal economic performance, particularly in terms of productivity (Mushtaq & Siddiqui, 2016). Therefore, a comprehensive assessment of the economic performance of OIC countries is necessary.

According to data collected in October 2019, SESRIC estimated an average growth rate of 3.7% for OIC countries in 2020 and 3.8% in 2021 (Hassan et al., 2022). Additionally, data show that most OIC member countries are classified as low- to middle-income countries, with only 14% categorized as high-income countries, shown in Table 1. The World Bank uses a classification system that groups countries based on per capita income, with an upper limit of 13,845 USD per year. On the other hand, countries are classified as upper-middle income if their per capita income ranges from 4,466 USD to 13,845 USD, as middle income if their per capita income ranges from 1,136 USD to 4,465 USD, and as low income if their per capita income is ≤ 1,135 USD (Hamadeh et al., 2023).

Table 1. Categories of Income per Capita of OIC Member Countries

High	Upper Middle	Lower Middle	Low
Saudi Arabia	Turkey	Lebanon	Yemen, Rep.
UEA	Malaysia	Jordan	Palestine
Qatar	Libya	Nigeria	Syria
Kuwait	Indonesia	Egypt	Uganda
Oman	Iraq	Iran	Afghanistan
Bahrain	Algeria	Pakistan	Mali
Brunei Darussalam	Kazakhstan	Bangladesh	Burkina Faso
Guyana	Azerbaijan	Sudan	Mozambique
	Turkmenistan	Uzbekistan	Chad
	Gabon	Tunisia	Niger
	Albania	Ivory Coast	Somalia
	Maldives	Cameroon	Togo
	Suriname	Tajikistan	Sierra Leone
		Kyrgyz Republic	Guinea-Bissau
		Mauritania	Gambia
		Djibouti	
		Morocco	
		Senegal	
		Benin	
		Guinea	
		Comoros	

Source: World Bank (2025)

The objective of this study is to identify the factors that contribute to economic development at two distinct income levels in OIC countries. Economic growth is widely regarded as a primary metric for assessing a nation's economic performance. The measurement of economic growth from one year to the next is determined by the increase in GDP from the previous year (Triatmanto et al., 2023). Furthermore, the economic ramifications of the 2020 pandemic have been substantial, resulting in a decline in GDP and a lack of growth in the majority of OIC countries. Nevertheless, a robust economic recovery was observed after the pandemic, with Guyana registering the most substantial growth rate of 62.6% in 2022 (World Bank, 2025).

While existing research has examined the determinants of economic growth, a crucial gap remains in the comparative analysis of these relationships across different income levels within the OIC. The majority of studies treat the OIC as a homogeneous entity, thus ignoring the substantial heterogeneity in economic structure and stage of development among member countries, as reflected in their diverse income classifications (Abubakar & Kassim, 2018; Megasari & Saleh, 2021; Al Mustofa et al., 2020; Berliani & Violita, 2021 & Khan et al., 2023; Gonese et al., 2023). This research is of pressing concern but has not been sufficiently explored, given that the influence of macroeconomic variables on economic development can differ significantly between high-income and low-income countries. Prior studies have indicated a discrepancy in the impact of macroeconomic variables on economic growth between developing and developed countries. Developing countries face heightened exposure to debt risks, stemming from their reliance on commodities, inadequate institutional capacity, constrained access to economic markets, refinancing risks, and vulnerability to external shocks (Bonizzi et al., 2020). Concurrently, heightened sensitivity to inflation is observed in low-income countries (Sepehri & Moshiri, 2004; Mazumder & Diwakar, 2025).

The effectiveness of FDI policies and trade policies can be influenced by factors such as the quality of institutions and infrastructure, which are generally related to a country's level of income. The propensity of developed countries to attract FDI is primarily attributed to the strength of their institutional frameworks. In contrast, developing countries tend to rely on macroeconomic factors, including trade openness and infrastructure development, as key drivers of FDI attraction (Sabir et al., 2019). Furthermore, the COVID-19 pandemic has significantly impacted global trade and investment flows, resulting in a sharp decline in commodity prices and negatively affecting intra-OIC trade and trade with the rest of the world (Hassan et al., 2022). Thus, it is incumbent upon developed countries and international organizations to provide economic and technical assistance to developing countries. This assistance is necessary to help them overcome the challenges posed by economic uncertainty (Massil et al., 2025).

This study introduces a novel approach by systematically examining four pivotal macroeconomic variables: private debt, inflation, Foreign Direct Investment (FDI), and trade openness. The selection of these variables was predicated on their direct relevance to monetary and fiscal policy instruments in the economic growth of OIC countries. The primary innovation of the study lies in the explicit differentiation of OIC countries based on per capita income, distinguishing between high and low-income nations. This methodology differs from the approach of previous studies, which tended to be overly generalized. This unique approach enables a deeper understanding of

how the impact of each macroeconomic variable can vary significantly at different stages of development. For instance, inflation is closely related to central bank monetary policy, particularly through interest rate instruments and open market operations (Mishkin, 2019). The impact of private debt on fiscal policy is significant due to its capacity to engender systemic risks, necessitating government intervention and exerting influence on economic stability (Bernardini & Forni, 2020). The economic stability of a nation is influenced by a variety of economic factors, including foreign direct investment (FDI) and trade openness. Fiscal incentives, such as tax cuts and monetary policies, can also play a significant role in shaping a country's investment climate and competitiveness (Rodrik, 2007). Consequently, this study addresses an important gap in the extant literature by providing a robust empirical foundation for designing more adaptive, efficient, and targeted monetary and fiscal strategies that explicitly acknowledge economic heterogeneity within the OIC.

II. Literature Review

Macroeconomic Theory

Gross Domestic Product (GDP) is a fundamental measure of a nation's economic performance. An increase in GDP is often associated with economic development, which in turn can lead to a rise in national income (Triatmanto et al., 2023). Economic growth, which is generally quantified by the annual fluctuation in GDP per capita, is indicative of an economy's augmentation in production capacity. The components of GDP, namely consumption, investment, government spending, and net exports, are influenced by several factors, including private debt (Silitonga, 2021).

The accumulation of private debt can offer certain benefits. Therefore, credit depth indicators, such as the ratio of private debt to GDP, serve as effective proxies for measuring economic development (King & Levine, 1993; Levine, 2004). As a result, a rise in private debt may indicate a period of faster credit deepening. Additionally, Mijiyawa (2024) observations reveal a significant shift in the composition of private debt, characterized by a decrease in the share of other private loans and a sustained increase in bond financing. This change has implications for investment and overall economic activity. Several studies have suggested that private debt financing may have specific advantages over public debt, including better monitoring, access to private information, and improved management of economic distress. However, private lenders can also negatively influence borrowers through rent extraction and management incentive distortions (Denis & Mihov, 2003).

Beyond growth, macroeconomic stability is paramount. Inflation, defined as a sustained increase in the general price level, reduces the real value of money and impairs its ability to serve as a reliable measure of value (Fahmi, 2014). Chapra highlights the detrimental effects of inflation on the fairness and efficiency of the monetary system. Economists define inflation as a general increase in the prices of goods and services (Karim, 2007). From a macroeconomic perspective, inflation is a destabilizing force that can lead to economic upheaval and crises. Therefore, many nations prioritize maintaining price stability.

Foreign direct investment (FDI) is essential. It can take various forms, including establishing new production facilities, engaging in mergers and acquisitions, and investing in property, factories,

and equipment. Unlike portfolio investments, which focus on economic instruments, FDI represents a long-term commitment to managing and operating the invested entity. FDI facilitates capital flows, technology transfer, managerial expertise, and access to international markets. These contributions help recipient countries grow their economies by creating jobs, increasing production capacity, and facilitating knowledge spillovers (Bala et al., 2025).

Trade openness provides countries with the opportunity to meet their people's needs and promote economic progress. According to Khalid's (2016) research, it facilitates the exchange of goods, services, capital, and labour information (Muharromy & Auwalin, 2021). This exchange enables countries to reap economic benefits and gain comparative advantages stemming from differences in natural resources, technology, and human capital (Ibrahim & Halkam, 2021). Halwani (2005), cited by Ibrahim & Halkam (2021), describes international trade as transactions involving goods and services between economic actors in different countries, including individuals, companies, and government entities. In conclusion, this theory analyses the interaction of macroeconomic factors, including private debt, inflation, foreign direct investment (FDI), and trade openness, as well as their impact on gross domestic product (GDP) growth. These factors are closely interrelated and significantly impact a country's economic performance and development within the global economy.

Previous Research and Hypotheses Development

Private Debt

Previous studies have revealed positive and negative correlations between private debt and GDP per capita growth. According to previous research, debt is intended to increase investment in infrastructure development, thereby stimulating economic growth (Aziz & Ramdansyah, 2016). It is expected to have a positive impact on a country's long-term economy (Yuliana et al., 2023). Previous studies have shown that debt significantly impacts economic development in upper-middle-income countries using Autoregressive Distributed Lag (ARDL) and Error Correction Model (ECM) approaches (Cahyadin & Sarmidi, 2019). Countries with more developed economies generally have higher private debt-to-GDP ratios. This positive correlation is consistent with previous research on economic deepening and economic growth. Studies often use the private debt-to-GDP ratio as a proxy for economic development. This trend suggests a potential relationship between a country's economy and the size of its private debt market (Verner, 2019). Therefore, private debt is crucial for companies with low credit ratings. Additionally, private debt fills funding gaps that traditional lenders cannot meet, making this financing essential for companies (Denis & Mihov, 2003).

Other studies have highlighted the adverse potential risks associated with high levels of private debt. Previous studies have examined public and private debt in developing economies that have experienced a sharp increase in public debt since 2008 (Poljašević & Trivić, 2019). As in similar economies, stagnant public revenue, an oversized bureaucracy, weak economic competitiveness, a poor business environment, and high credit risk can hinder further growth. This is particularly true as loans are increasingly allocated to consumption rather than investment. Other research has examined seventy low and middle-income countries to identify the factors influencing private-sector support for debt and its impact on economic development (Mijiyawa, 2024). The effect on economic growth varies by debt category, with commercial loans hurting growth. This

finding is particularly significant, as developing countries have recently experienced a substantial increase in the proportion of private debt within their total public external debt. The study shows that, in developing countries, the proportion of public and publicly guaranteed (PPG) debt held by private creditors increased from 41% in 2000 to over 60% in 2016. This surge in private debt could slow economic growth (Jalles & Medas, 2024). Private debt spikes are generally followed by periods of lower real growth, though the impact may be milder than that of public debt spikes.

H1: Private debt has a positive impact on the economic growth of high-income countries, but an adverse effect on the economic growth of low-income countries.

Inflation

Previous research shows that inflation negatively impacts economic development in South Africa. Each 1% increase in inflation is correlated with a 0.1735% decrease in GDP growth (Chikwira & Jahed, 2024). This impact is likely due to a decline in purchasing power, increased business uncertainty, and pressure on the central bank to raise interest rates, hindering investment and economic growth. Additionally, high inflation can disrupt the essential functions of money, including saving, making payments, and performing calculations. Inflation is also believed to harm consumer purchasing power and overall public welfare (Rizani et al., 2023). This is consistent with the view that high inflation negatively impacts economic growth by diverting resources to transaction activities, distorting price signals, and creating uncertainty that hinders investment (Sepehri & Moshiri, 2004). High inflation hinders economic growth by affecting asset prices, increasing equity costs, and reducing the value of investments (Mustofa et al., 2021). Previous research has also identified a significant long-term relationship between housing finance and inflation in Kenya. Although an initial surge in inflation may prompt an uptick in housing demand, the central bank's attempts to curb inflation through the implementation of higher interest rates may prove counterproductive. It results in deleterious consequences for the housing market and the broader economic landscape (Kilonzo et al., 2025).

H2: Inflation negatively affects economic growth for both high and low-income categories.

Foreign Direct Investment

Several empirical studies have shown a positive correlation between FDI and GDP growth in high-income countries. FDI facilitates knowledge transfer, capital flows, and infrastructure development (Cahyadin & Sarmidi, 2019; Yue et al., 2016; Comes et al., 2018). This enhances the efficiency and promotes fair competition in the manufacturing sector (Fathia et al., 2021). Previous studies analyzed 17 countries in the MENA region, including high-income countries such as Saudi Arabia, Qatar, the United Arab Emirates, and Kuwait, from 1990 to 2012, employing a growth model and GMM estimation (Abdouli & Hammami, 2017). The results indicated a two-way causal relationship between FDI flows and economic growth: increased FDI leads to economic development, and economic growth attracts more FDI. High-income countries, particularly those rich in energy resources, utilize FDI to enhance productivity and global competitiveness (Rahmandani & Dewi, 2023). A significant decline in FDI flows during the pandemic has impacted countries (SESRIC, 2020).

On the other hand, FDI often hurts low-income countries, especially those within the Organization of Islamic Cooperation (OIC). Research indicates that FDI can significantly hinder economic development in these countries. This is due to investor uncertainty caused by macroeconomic instability and inadequate infrastructure, as well as a preference for stability in high-income countries. Additionally, FDI can trigger inflationary pressures, an increased money supply, and local currency appreciation due to increased technology imports and multinational companies' profit repatriation (Fitriyanto et al., 2021). FDI in low-income countries tends to be concentrated in agriculture and resource-intensive industries. Overreliance on sectors vulnerable to global price fluctuations can hinder economic diversification and resilience. Previous research suggests that, in the long term, FDI may hinder economic development, particularly in Bangladesh's pharmaceutical industry, as examined using the ARDL approach (Rahman et al., 2024). Furthermore, PPML research indicates that FDI reduces India's GDP per capita due to its adverse effects on exports and capital formation (Kaur et al., 2024).

H3: FDI has a significant positive effect on the economic growth of high-income countries, but a substantial adverse impact on low-income countries.

Trade Openness

Studies have shown that trade openness has a positive influence on economic growth in both high and low-income countries (Radmehr et al., 2022; Çetrez, 2022). Increased trade activity stabilizes imports, boosts exports, and directly stimulates economic growth. Global trade also encourages countries to produce higher-quality goods and services, thereby serving as a key driver of productivity (Douglas, 2025; Muharromy & Auwalin, 2021). However, increased vulnerability to external shocks and potential inequality are the main challenges of trade openness, particularly in economies with weak institutional frameworks (Seti et al., 2025). Thus, developing countries must implement economic policies that reduce financial uncertainty and strengthen social protection mechanisms to safeguard vulnerable households. Conversely, developed countries and international organizations must provide economic and technical assistance to promote economic stability and help developing countries overcome the challenges of financial uncertainty (Massil et al., 2025).

H4: Trade openness positively affects economic growth for both high and low-income categories.

Conceptual Framework

The model incorporates independent variables, including private debt, inflation, FDI, and trade openness. Concurrently, HDI is utilized as a robust test in the present study, illustrated in Figure 1.

Previous studies have shown that debt has a positive impact on economic growth in high-income countries (Aziz & Ramdansyah, 2016; Yuliana et al., 2023; Cahyadin & Sarmidi, 2019; Verner, 2019; Denis & Mihov, 2003). Conversely, the impact of debt on economic growth in low-income economies is negative (Poljašević & Trivić, 2019; Mijiyawa, 2024; Jalles & Medas, 2024). Similarly, inflation generally exerts a negative influence on growth across all income levels (Chikwira & Jahed, 2024; Rizani et al., 2023; Sepehri & Moshiri, 2004; Mustofa et al., 2021; Kilonzo et al.,

2025). The impact of FDI also varies significantly between high- and low-income countries. High-income nations often experience positive growth outcomes from FDI inflows driven by knowledge transfer, capital formation, and infrastructure development (Cahyadin & Sarmidi, 2019; Yue et al., 2016; Comes et al., 2018; Fathia et al., 2021; Abdouli & Hammami, 2017; Rahmandani & Dewi, 2023). Conversely, low-income countries may see FDI hindering growth due to macroeconomic instability, poor infrastructure, and a focus on resource extraction (Fitriyanto et al., 2021; Rahman et al., 2024; Kaur et al., 2024). Conversely, trade openness has been demonstrated to promote economic growth in low-income countries through increased trade activity and expanded exports (Douglas, 2025; Muharromy & Auwalin, 2021; Naima et al., 2025). However, trade openness has the potential to exacerbate income inequality and exert adverse impacts on specific sectors within high-income countries (Hye & Lau, 2012; Cateia & Savard, 2025).

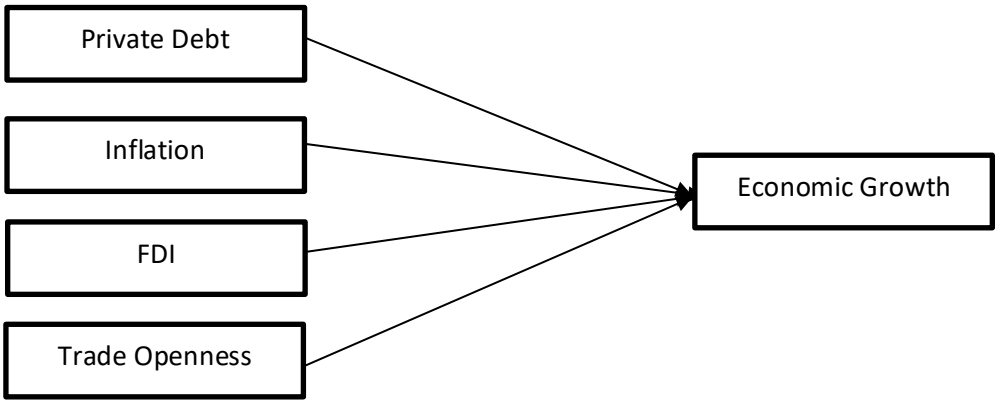

Figure 1. The Framework of Research

III. Methodology

Data

The present study examined a total of 14 OIC member countries, with seven countries in each of two distinct criteria. The high-income countries in this region include Saudi Arabia, Guyana, Oman, Bahrain, Kuwait, Qatar, and the United Arab Emirates. Furthermore, the low-income countries encompass Guinea-Bissau, Chad, Niger, Burkina Faso, Mali, and Uganda. The selection of sample countries was based on the availability of the required data. The operational variables used in this study are summarized in Table 2 below.

Table 2. Operational Definitions

Data Variable	Indicator	Unit	Source of Data
GDP Growth (GDPG)	The annual growth of GDP per capita, adjusted for inflation, reflects the change in a nation's economic output per person, based on GDP calculated at market prices without accounting for asset depreciation or resource depletion.	Percent	WDI

Data Variable	Indicator	Unit	Source of Data
Private Debt (PD)	Private sector debt, which includes loans from economic institutions and debt securities, constitutes a significant proportion of the economy, reflected in a certain percentage of Gross Domestic Product (GDP).	Percent	IMF
Inflation (INF)	The yearly growth rate of the GDP deflator, which indicates the rate of price change in the whole economy, is used to quantify inflation	Percent	WDI
Foreign Direct Investment (FDI)	The net flow of funds utilized to obtain sustainable managerial influence (a minimum of 10% of voting rights) in foreign companies, encompassing equity, reinvested earnings, and other capital, is presented as a proportion of GDP.	Percent	WDI
Trade Openness (TO)	This percentage represents the value of a country's total exports and imports compared to its total economic output.	Percent	SESRIC

Model Development

The present study utilizes a panel regression model to ascertain the factors that influence Gross Domestic Product (GDP) growth.

$$GDPG = \alpha_0 + \beta_1 PD_{it} + \beta_2 INF_{it} + \beta_3 FDI_{it} + \beta_4 TO_{it} + \varepsilon_{it} \quad (1)$$

Description: This study uses Gross Domestic Product Growth (GDPG) as the dependent variable to measure economic performance. In this model, α_0 is a constant, and β is the regression coefficient that indicates the effect of each independent variable on GDPG. The independent variables used are private debt (PD), inflation (INF), foreign direct investment (FDI), and trade openness (TO) in high and low-income member countries of the Organization of Islamic Cooperation (OIC). Additionally, ϵ represents the standard error, while the t-index indicates time, and *i* denotes the country.

Method

This study employs a panel data regression model, which is analyzed using E-Views 12 software. Determining the optimal model between the standard effect model (CEM), fixed effect model (FEM), and random effect model (REM) involves a series of statistical tests. The Chow test was used to determine whether to choose between the CEM and the FEM. The CEM was selected if the probability of the cross-section chi-square was greater than the significance level (α = 0.05). Next, the Hausman test was used to evaluate the suitability of the REM compared to the FEM. The REM was chosen if the probability of the random cross-section was greater than the significance level (α = 0.05), and the FEM was recommended if the likelihood was negligible. Finally, the Lagrange Multiplier Test (Breusch-Pagan) was used to determine the preference between the CEM and the REM. The REM was selected if the probability was less than the significance level α (0.05), and the CEM was chosen if the likelihood was greater than α

(Sihombing, 2022). After determining the best model, hypothesis testing is conducted to interpret the findings (Matondang & Natussion, 2021). The t-test is a statistical technique used to assess the partial significance of each independent variable coefficient. In the context of statistical analysis, a p-value less than α (0.05) is indicative of a statistically significant effect. The F-test is a statistical procedure used to determine the overall significance of a regression model and to assess whether at least one independent variable has a statistically significant impact on the dependent variable.

IV. Results and Discussions

Descriptive Statistics

The following Table 3, presents a descriptive statistical analysis of the OIC member countries, categorized by income level (high and low), over 13 years (2010-2022).

Table 3. Statistical Description Results on High and Low-income Categories (%)

High-Income Country						
Variable	Obs.	Mean	Median	Max	Min	Std. Dev
PD	91	74,67	79,36	157,46	21,01	30,26
INF	91	3,19	3,00	28,78	-26,30	11,36
FDI	91	3,35	1,91	32,76	-2,76	5,75
TO	91	115,49	101,64	191,87	49,71	36,05
GDPG	91	1,01	0,08	43,51	-8,92	6,65
Low-Income Country						
PD	91	16,62	12,86	30,44	4,71	7,70
INF	91	2,78	2,40	15,15	-8,48	3,68
FDI	91	3,09	2,93	13,44	-4,85	2,68
TO	91	52,95	55,65	82,15	30,20	11,41
GDPG	91	1,50	2,00	9,69	-9,15	2,92

High-income countries have an average private debt (PD) ratio of 74.67%, which is much higher than the 16.62% ratio in low-income countries. They also have an average trade openness (TO) ratio of 115.49%, which is much higher than the 52.95% ratio in low-income countries. High-income countries exhibit greater volatility, with an inflation standard deviation of 11.36 (compared to 3.68 in low-income countries) and a GDP growth standard deviation of 6.65 (compared to 2.92). However, low-income countries have slightly higher average GDP growth at 1.50%, compared to 1.01% in high-income countries. High-income countries recorded extreme maximum values, such as PD at 157.46% and GDPG at 43.51%, indicating the potential for more drastic increases and decreases. Meanwhile, the average foreign direct investment (FDI) was slightly higher in high-income countries (3.35%) than in low-income countries (3.09%), though both recorded negative minimum values, indicating an outflow of investment. Additionally, the level of trade openness in high-income countries is also significantly higher, reflecting a deeper level of integration into the global economy. Therefore, high-income countries tend to have more dynamic economies but are also more vulnerable to economic volatility. Consistent with previous research, high-income countries exhibit greater economic volatility than low-income countries,

which demonstrate greater stability and moderate growth (Breitenbach et al., 2022). Therefore, a resilient economy depends heavily on macroeconomic stability and good governance.

The next step in this process is selecting the most appropriate regression model. The regression hypothesis passed the tests for multicollinearity and heteroscedasticity because there was no correlation between the independent variables, and the residual variance was constant. This selection is crucial to ensure accurate panel data regression analysis. According to the results of the Chow test, the null hypothesis (H0) is accepted for the high-income country category, as indicated by the chi-square probability value of 0.1821. This value suggests a preference for the common effect model (CEM). Conversely, H0 is rejected for the low-income country category because the cross-section chi-square probability value is 0.0001, which is significantly smaller than the 5% α level of significance. This suggests that the fixed effects model (FEM) is more appropriate than the common effects model (CEM) for this category (Napitupulu et al., 2021). To determine which model is more suitable between the CEM and the random effect model (REM) in the high-income country category, Lagrange multiplier tests were conducted. In the low-income country category, the Hausman test was used to determine whether to choose between the FEM and the REM. The findings of this study indicate that applying the CEM to high-income country panel data is more appropriate than using the REM. This is supported by the results of the Lagrange multiplier (LM) test, which produced Breusch-Pagan statistics with a p-value of 0.6289 ($p > 0.05$) (Napitupulu et al., 2021). On the other hand, the results of the Hausman test for the low-income country category. A random cross-section probability exceeding 0.05 suggests that the null hypothesis (H0) cannot be rejected at the 5% significance level (Napitupulu et al., 2021). These results indicate that the REM provides a significantly better fit than the FEM in explaining the observed variation in the low-income country category.

Panel Data Regression Test

The panel data was analysed using a regression model that employed a random effects model for low-income countries and a common effects model for high-income countries.

Table 4. Panel Data Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
High-Income Categories				
PD	-0.074482	0.034047	-2.187612	0.0314**
INF	0.100400	0.078854	1.273246	0.2064
FDI	0.380658	0.186520	2.040839	0.0443**
TO	0.018004	0.027417	0.656662	0.5132
Low-Income Categories				
PD	-0.149138	0.062296	-2.394036	0.0188**
INF	0.067363	0.076899	0.875993	0.3835
FDI	-0.203550	0.119709	-1.700366	0.0927
TO	0.130655	0.037527	3.481671	0.0008**

*Note: ** $p < 0.05$*

This panel regression analysis reveals that the relationship between macroeconomic variables and economic growth is complex and varies across different income levels, shown in Table 4. Private debt hurts economic growth, regardless of a country's income classification. These

findings are consistent with previous studies (Poljašević & Trivić, 2019; Mijiyawa, 2024; Jalles & Medas, 2024). In high-income countries, a negative correlation has been observed between private debt ratios and economic growth. This relationship suggests a negative correlation between private debt and economic growth. A significantly more pronounced negative impact is observed in low-income countries, highlighting the disproportionate vulnerability of low-income economies to debt accumulation. A notable finding is the absence of a statistically significant relationship between inflation and economic growth, irrespective of the geographical classification of the countries under consideration. However, foreign direct investment (FDI) flows demonstrate a robust positive correlation with economic growth in high-income countries. These findings are consistent with previous research (Cahyadin & Sarmidi, 2019; Yue et al, 2016; Comes et al, 2018; Fathia et al, 2021; Abdouli & Hammami, 2017; Rahmandani & Dewi, 2023). In contrast, the impact of FDI on economic growth in low-income countries is not statistically significant. Additionally, trade openness has been shown to play a significant role in promoting economic growth in low-income countries. This finding aligns with the conclusions of previous studies (Douglas, 2025; Muharromy & Auwalin, 2021; Naima et al., 2025). However, the impact of trade openness on GDP growth in high-income countries is not statistically significant. Despite the varying effects on individual variables across the two groups, the probability values (p-values) from the F-test for both groups of countries are below the 5% significance level. The findings suggest that the combined impact of private debt, inflation, FDI, and overall country openness is statistically significant in both high-income and low-income countries.

Robustness Check

Robust testing is a crucial component of statistical analysis. It ensures the reliability of research results by evaluating their consistency across different model settings (Neumayer & Plümper, 2017). One common practice in this process is the addition of new control variables to the regression model (Angrist & Pischke, 2009). The goal is to verify that the relationship between the main independent and dependent variables remains consistent and significant when other potential influencing factors are considered, thereby confirming the robustness of the research findings, shown in Table 5.

Table 5. Robustness Check of Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
High-Income Categories (Including HDI)				
PD	-0.038760	0.016805	-2.306507	0.0211**
INF	0.124650	0.029093	4.284605	0.0583
FDI	0.075679	0.070820	1.068611	0.0379**
TO	0.020891	0.010065	2.075585	0.2852
HDI	-2.908821	8.081032	-0.359957	0.7189
Low-Income Categories (Including HDI)				
PD	-0.084348	0.044549	-1.893354	0.0083**
INF	0.026775	0.070606	0.379221	0.7045
FDI	-0.128748	0.101346	-1.270375	0.2040
TO	0.080125	0.028457	2.815701	0.0049**
HDI	3.142273	4.344852	0.723218	0.4695

*Note: ** $p < 0.05$*

This study tests the robustness of regression models by adding the Human Development Index variable. This addition is highly relevant because HDI is strongly correlated with economic growth,

as it measures quality of life, education, and health (Singh et al., 2025). By including HDI, we can test whether the relationship between the other main independent variables and economic growth remains consistent and significant. If the results are stable, this will increase confidence that the research findings do not depend solely on the initial model specification. Robust testing confirms that the research findings are robust. The coefficients and significance of the main variables remain consistent. This finding persists when the Human Development Index (HDI) is employed as a control variable. This consistency suggests that the relationship between the primary independent variables and economic growth is stable. This approach precludes the possibility of omitted variable bias resulting from HDI.

Discussion

This study employs various panel regression models for each income group and reveals statistically significant differences in the observed relationships. Statistical tests confirm that debt significantly hinders economic growth in both high- and low-income groups. This suggests that OIC member countries had inefficient debt management practices from 2010 to 2022, primarily due to the significant allocation of government revenue toward debt repayment. This diversion of resources limits government investment in critical public infrastructure, education, and health, which could hinder economic activity and reduce GDP per capita (Basten et al., 2021). The negative impact of debt is also supported by studies that highlight the link between rising debt burdens and declining GDP per capita growth in developing countries, such as Indonesia, Thailand, Vietnam, and the Philippines (Triatmanto et al., 2023). Hayat and Malik (2010) also found that Pakistan's economic development was severely hampered by debt, necessitated by the need to cover deficits in the balance of payments, investment, and savings. Both groups experienced negative impacts from total debt, but the effects were more significant for low-income countries. This difference is likely due to the better fiscal capacity of high-income countries, which includes strong tax systems, adequate government expenditure control, and sophisticated debt management strategies. These strategies are generally less developed in low-income countries (Apeti et al., 2024).

Furthermore, stagnant public revenues coupled with rapid debt growth can trigger problems such as a bloated public bureaucracy, which hinders private-sector production and investment. Ultimately, this harms competitiveness and deters foreign and domestic investment. This environment puts increasing pressure on borrowing, especially for corporations facing low profits, rising capital losses, and a lack of viable projects (Poljašević & Trivić, 2019). Ironically, while corporate and housing credit stagnate, consumer credit rises, reflecting households' struggle to meet basic needs amid low disposable income, exacerbated by high private debt levels.

Additionally, this analysis reveals a negative relationship between debt and economic growth in high-income Organization of the Islamic Cooperation (OIC) member countries, particularly among oil exporters. Despite potentially stronger fiscal positions, these countries are vulnerable to the negative impacts of high debt. Internal issues, such as unstable economic systems and low per capita income, contribute to this vulnerability, leading some countries to perform sub-optimally (Rauf & Khan, 2017). These findings contradict previous research by Aziz and Ramdansyah (2016),

Yuliana et al. (2023), Cahyadin and Sarmidi (2019), Verner (2019), and Denis and Mihov (2003). The decline in oil prices driven by decarbonization efforts creates additional economic vulnerabilities for oil-exporting countries. Previous research has shown a negative relationship between the decline in oil prices (driven by decarbonization efforts) and economic performance for oil-exporting countries specifically. This decline in revenue is projected to increase debt by approximately 0.5% of GDP annually (Jensen, 2024). The decline in oil revenue due to decarbonization is projected to result in an annual decline of 0.6 to 0.8 percent in government revenue. Additionally, research shows that a 10-percentage point decline in real oil price inflation is associated with a 1.58 percent decline in real GDP four periods after the shock. This further highlights the vulnerability of these economies.

Regarding inflation, the statistical analysis revealed no consistent link between inflation and economic growth within the OIC, regardless of a country's income level. This finding differs from previous studies, which suggest that inflation affects economic growth (Chikwira & Jahed, 2024; Rizani et al., 2023; Al Mustofa et al., 2021; Kilonzo et al., 2025). These results suggest a complex, nonlinear relationship in which inflation may initially hinder economic expansion but ultimately have a neutral or beneficial impact, depending on factors specific to each nation, such as its economic situation, economic system, and government policies. This finding aligns with prior research indicating that inflation has a limited effect on economic growth. This lends credence to the notion that inflation does not substantially affect the economic development of OIC nations (Semuel and Nurina, 2015; Yeisa and Rani, 2020; Muharromy & Auwalin, 2021). Specifically, prior research has shown that inflation has no significant effect on GDP per capita growth in OIC nations. The hypothesis testing result for this variable yielded a probability value of 0.2123 (Muharromy & Auwalin, 2021).

The study reveals a significant positive correlation between FDI and economic growth in high-income of OIC member states. These findings corroborate those of previous studies conducted in developed economies (Cahyadin & Sarmidi, 2019; Yue et al., 2016; Comes et al., 2018; Fathia et al., 2021; Abdouli & Hammami, 2017; Rahmandani & Dewi, 2023). These studies indicate that increased FDI inflows lead to increased economic growth in these nations. Conversely, high-income countries often leverage FDI to enhance productivity and global competitiveness, particularly in energy-related sectors, in which many OIC members hold substantial reserves (Rahmandani & Dewi, 2023). Decreased FDI is also associated with decreased economic development. This is underscored by the drastic decline in global FDI during the 2020 pandemic, particularly in developed countries, which experienced a 35% drop (SESRIC, 2020). The pandemic also led to a projected 40% contraction in global investment flows, which could result in a further decline in FDI among OIC members (Ebaidalla & Mahjoub, 2016). Contrary to expectations, however, the empirical evidence does not support a statistically significant relationship between FDI inflows and economic growth in low-income OIC countries. Previous studies have shown that FDI does not significantly influence countries with advanced economic development (Robeena & Sumaira, 2022; Win et al., 2017). This is likely because inadequate infrastructure and an unstable macroeconomic system discourage international investors (Fitriyanto et al., 2021). Furthermore, the concentration of FDI in resource sectors, such as agriculture, may hinder economic diversification and increase vulnerability to global price fluctuations.

Finally, the analysis reveals that trade openness does not affect the GDP growth of high-income OIC member nations. However, it significantly enhances economic development in low-income countries. This suggests that increased exports and imports boost economic growth in low-income countries, whereas decreased trade hinders it. One possible explanation is that high-income countries have already optimized their trade flows, so changes have a less significant impact on their GDP growth. According to SESRIC (2020), intra-OIC exports increased by over 30% from 2016 to 2019. Nevertheless, trade flows between OIC countries remained stagnant at 18% and 19% from 2012 to 2019.

High-income countries possess large domestic markets and established trade relationships. Previous studies have shown that trade openness boosts aggregate production and industrial growth (Alam and Sumon, 2020). Therefore, trade openness exerts a more significant influence on the economic growth of low-income countries. In order to reap the benefits of trade openness and promote economic development, developing countries must strengthen their trade infrastructure, institutions, and policies.

V. Conclusion and Recommendation

This study examined the impact of various factors on economic growth within the Organization of Islamic Cooperation (OIC). Among high-income OIC member countries, the findings reveal that private debt and FDI partially influence economic growth. In contrast, within the low-income category, private debt and trade openness were found to have a partial impact. Further analysis indicates that while private debt has a negative influence on economic growth in both income groups, its effect is more pronounced in low-income countries. Furthermore, trade openness emerged as a significant positive driver of GDP per capita growth, specifically within low-income OIC member states. This finding indicates that the determinants of economic growth differ across income groups of OIC member countries. Therefore, there is a need for specifically designed economic policies to address the challenges and capitalize on the unique opportunities faced by each income group.

These policy recommendations offer guidance for the economic development of OIC member countries. They focus on three key areas that have financial and monetary implications. First, for high-income countries to manage their private debt effectively, they need to establish stronger economic rules and encourage various ways to finance their economies. They should do this by using smart monetary support and financial incentives. At the same time, low-income countries need to make it easier for small businesses to get financing. They should do this by using monetary and fiscal policies that help everyone. They also need to improve financial literacy and explore ways to restructure debt in a way that helps everyone. Second, when high-income countries withdraw their investments, they should focus on creating jobs, transferring technology to new countries, and diversifying their business activities. They should use tax breaks and low interest rates to help with this.

On the other hand, developing countries need to focus on creating a stable investment environment through careful financial and banking policies, investing in their people, and utilizing

their resources effectively. Third, to capitalize on trade opportunities, low-income countries must promote exports in a targeted manner, invest in infrastructure, and streamline trade procedures to enhance their competitiveness. At the same time, high-income countries should focus on quality and variety in their trade, thereby increasing the value of their exports. They should also strive to expand sales in new markets and collaborate with other countries. This study demonstrates that income-adjusted economic policies are crucial for OIC countries to achieve sustainable and inclusive growth.

Author Contributions

Conceptualization, K. R. & N.P.L & D.A.M; Literature review, K. R.; Methodology, K. R..; Investigation, K. R. & S. H.; Analysis, K. R.; & D.A.M; Original draft preparation, K. R. & N.P.L; Review and editing, K. R., & S. H.; Visualization, K. R.; Project administration, K. R. & N.P.L

Acknowledgement

The authors are grateful to the editor and two anonymous reviewers for the valuable comments, which improved the quality of the paper.

Conflicts of Interest

The authors declare no conflict of interest regarding this research.

References

Abdouli, M., & Hammami, S. (2017). Exploring links between FDI inflows, energy consumption, and economic growth: Further evidence from MENA countries. *Journal of Economic Development*.

Abubakar, A., & Kassim, S. (2018). Institutional and Macroeconomic Determinants of Financial Development in the OIC Countries. *Global Business and Economics Review*, *20*(04), 410–424. https://doi.org/10.1504/GBER.2018.092754

Al Mustofa, M. U., Mawardi, I., Widiastuti, T., & Ardiantono, D. S. (2020). Macroeconomy Impacts on International Trade Between Indonesia and Islamic Countries. *Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business)*, *6*(1), 134. https://doi.org/10.20473/jebis.v6i1.14138

Al Mustofa, M. U., Sukmana, R., Herianingrum, S., Ratnasari, R. T., Mawardi, I., & Zulaikha, S. (2021). Determining Factors of Inward Foreign Direct Investment (FDI) in Selected Muslim Countries. *Journal of Economic Cooperation and Development*, *42*(4), 1–25.

Alam, K. J., & Sumon, K. K. (2020). Causal Relationship Between Trade Openness and Economic Growth: a Panel Data Analysis of Asian Countries. *International Journal of Economics and Financial Issues*, *10*(1), 118–126. https://doi.org/10.32479/ijefi.8657

Angrist, J. D., & Pischke, J.-S. (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press. https://doi.org/10.2307/j.ctvcm4j72

Apeti, A. E., Bambe, B. W. W., Combes, J. L., & Edoh, E. D. (2024). Original sin: Fiscal rules and government debt in foreign currency in developing countries. *Journal of Macroeconomics*,

80(March). https://doi.org/10.1016/j.jmacro.2024.103600

Aziz, A., & Ramdansyah, R. (2016). Esensi Utang Dalam Konsep Ekonomi Islam. *BISNIS : Jurnal Bisnis Dan Manajemen Islam*, *4*(1), 124. https://doi.org/10.21043/bisnis.v4i1.1689

Bala, H., Abubakar, A. H., Al-Absy, M. S. M., Ja'afar, Y., Khatoon, G., Sani, A. A., Ashraf, M., & Zahid, U. (2025). The Effect of Foreign Direct Investment on the Nexus between Green Levies and Green Energy Technologies. *International Journal of Energy Economics and Policy*, *15*(1), 267–273. https://doi.org/10.32479/ijeep.17135

Basten, E. Van, Hudayah, S., & Gani, I. (2021). Pengaruh utang luar negeri terhadap pertumbuhan ekonomi dan dampaknya pada pengangguran terbuka di indonesia. *Forum Ekonomi*, *23 (1) 202*(1), 340–350.

Berliani, A. D., & Violita, E. S. (2021). The Role of Governance in SDG through Public Trust in Government: Study in Selected OIC Member States. *IOP Conference Series: Earth and Environmental Science*, *716*(1). https://doi.org/10.1088/1755-1315/716/1/012100

Bernardini, M., & Forni, L. (2020). Private and Public Debt Interlinkages in Bad Times. *Journal of International Money and Finance*, *109*, 102239. https://doi.org/10.1016/j.jimonfin.2020.102239

Bonizzi, B., Laskaridis, C., & Ghriffiths, J. (2020). Private Lending and Debt Risks Of Low-Income Developing Countries. In *Overseas Development Institute (ODI), London*. https://www.econstor.eu/handle/10419/233928

Breitenbach, M. C., Chisadza, C., & Clance, M. (2022). The Economic Complexity Index (ECI) and Output Volatility: High vs Low Income Countries. *Journal of International Trade and Economic Development*, *31*(4), 566–580. https://doi.org/10.1080/09638199.2021.1995467

Cahyadin, M., & Sarmidi, T. (2019). The impact of foreign direct investment, labour force, and external debt on economic growth in Indonesia and Malaysia. *Jurnal Ekonomi Malaysia*, *53*(1), 171–185. https://doi.org/10.17576/JEM-2019-5301-14

Cateia, J. V., & Savard, L. (2025). Trade and Distribution in Guinea-Bissau: A Computable General Equilibrium Analysis. *International Economics and Economic Policy*, *22*(1), 1–30. https://doi.org/10.1007/s10368-024-00634-8

Çetrez, M. (2022). Trade Openness, Income Levels, Economic Growth, and Current Account Balances. *Journal of Economics and Administrative Sciences*, *23*(3), 760–773. https://doi.org/10.37880/cumuiibf.1101244

Chikwira, C., & Jahed, M. I. (2024). Analysis of Exchange Rate Stability on the Economic Growth Process of a Developing Country: The Case of South Africa from 2000 to 2023. *Economies*, *12*(11). https://doi.org/10.3390/economies12110296

Comes, C. A., Bunduchi, E., Vasile, V., & Stefan, D. (2018). *The impact of Foreign Direct Investments and remittances on Economic Growth: A case study in Central and Eastern Europe*.

Denis, D. J., & Mihov, V. T. (2003). The Choice Among Bank Debt, Non-Bank Private Debt, and Public Debt: Evidence From New Corporate Borrowings. *Journal of Financial Economics*, *70*(1), 3–28. https://doi.org/10.1016/S0304-405X(03)00140-5

Douglas, A. I. (2025). Does Trade Reform Promote Economic Growth? A Review of Recent Evidence. *World Bank Research Observer*, *40*(1), 147–184. https://doi.org/10.1093/wbro/lkae003

Ebaidalla, E., & Mahjoub. (2016). Determinants of youth unemployment in OIC member states: A dynamic panel data analysis. *Journal of Economic Cooperation and Development*, *37*(2), 81–102.

Fahmi, I. (2014). *Manajemen Keuangan Perusahaan dan Pasar Modal*. Mitra Wacana Media.

Fathia, N., Silvia, V., & Gunawan, E. (2021). Analysis of Foreign Investment Determinants in Indonesia. *Economics Development Analysis Journal*, *10*(3), 338–350.

Fitriyanto, N., Ardiansyah, M., Wibowo, M. G., & Satibi, I. (2021). Dinamika Hubungan Foreign Direct Investment (Fdi), Makroekonomi Dan Return Indeks Saham Syariah Di Empat Negara Asean. *An-Nisbah: Jurnal Ekonomi Syariah*, *8*(2), 322–365. https://doi.org/10.21274/an.v8i2.4471

Gonese, D., Sibanda, K., & Ngonisa, P. (2023). Trade Openness and Unemployment in Selected Southern African Development Community (SADC) Countries. *Economies*, *11*(10), 1–26. https://doi.org/10.3390/economies11100252

Hamadeh, N., Van Rompaey, C., & Metreau, E. (2023). *World Bank Group country classifications by income level for FY24 (July 1, 2023- June 30, 2024)*. https://blogs.worldbank.org/en/opendata/new-world-bank-group-country-classifications-income-level-fy24

Hassan, M. K., Bin-Nashwan, S. A., & Muneeza, A. (2022). OIC Economies during the COVID-19: Implications and Recommendations. In *Towards a Post-Covid Global Financial System* (Issue March, pp. 37–50). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80071-625-420210002

Hayat, M. K., Hayat, M. U., & Malik, S. (2010). External Debt and Economic Growth: Empirical Evidence from Pakistan. *International Research Journal of Finance and Economics*, 95–104.

Hye, Q. M. ., & Lau, W. Y. (2012). Trade Openness and Economic Growth Empirical Evidence from India. *Journal of Business Economics and Management*, *16*(1), 188–205.

Ibrahim, H. R., & Halkam, H. (2021). *Perdagangan Internasional & Strategi Pengendalian Impor*. Lembaga Penerbitan Universitas Nasional (LPU-UNAS).

Jalles, J. T., & Medas, P. (2024). The Economic Aftermath of Surges in Public and Private Debt: Initial Conditions and Channels. *Economic Systems*, *48*(3). https://doi.org/10.1016/j.ecosys.2024.101194

Jensen, L. (2024). The Economic and Fiscal Transition Costs of Global Climate Mitigation in Fossil Fuel Export Dependent Economies. *Resources Policy*, *96*(July), 105234. https://doi.org/10.1016/j.resourpol.2024.105234

Karim, A. A. (2007). *Ekonomi Makro Islam*. PT Raja Grafindo Persada.

Kaur, S., Kumar, P., & Ansari, M. A. (2024). An analysis of Indian FDI inflows through an augmented gravity model: exploring new insights. *International Economics and Economic Policy*, *21*(2),

435–455. https://doi.org/10.1007/s10368-024-00594-z

Khan, S., Hamid, B. A., & Rehman, M. Z. (2023). Determinants of Shadow Economy in OIC and Non-OIC Countries: The Role of Financial Development. *International Journal of Emerging Markets*, *18*(10), 3373–3393. https://doi.org/10.1108/IJOEM-02-2020-0193

Kilonzo, H. M., H.M, Muriithi, M., & Ongeri, B. O. (2025). Drivers of Housing Financing in Kenya. *International Journal of Housing Markets and Analysis*. https://doi.org/10.1108/IJHMA-09-2024-0139

King, R. G., & Levine, R. (1993). Finance and Growth: Schumpeter Might Be Right. *The Quarterly Journal of Economics*, *108*(3), 717–737.

Levine, R. (2004). Finance and Growth: Theory and Evidence. *National Bureau of Economic Research*.

Massil, J. K., Tadadjeu, S., & Yogo, U. T. (2025). Uncertainty and Household Consumption in Developing Countries. *Structural Change and Economic Dynamics*, *73*, 51–64. https://doi.org/10.1016/j.strueco.2024.12.017

Matondang, Z., & Natussion, H. F. (2021). *Praktik Analisis: Pengelolaan Ekonometrika dengan EviEWS san SPPS*. CV Merdeka Kreasi Goup.

Mazumder, J. H., & Diwakar, B. (2025). Is Population Aging Deflationary in Developing Countries? In *Journal of Quantitative Economics* (Issue 0123456789). Springer India. https://doi.org/10.1007/s40953-024-00431-9

Megasari, T., & Saleh, S. (2021). Determinant of FDI Inflows in OIC Countries. *International Journal of Islamic Economics and Finance (IJIEF)*, *4*(1), 31–50. https://doi.org/10.18196/ijief.v4i1.9473

Mijiyawa, A. G. (2024). Does Private Share of Public External Debt Support Economic Growth in Developing Countries? *International Economics*, *178*(January), 100499. https://doi.org/10.1016/j.inteco.2024.100499

Mishkin, F. S. (2019). *The Economics of Money, Banking, And Financial Markets* (Twelfth Ed). Pearson.

Muharromy, N. S. El, & Auwalin, I. (2021). the Effect of Population Growth and Trade Openness on Economic Growth of the Oic Countries. *Jurnal Ekonomi Syariah Teori Dan Terapan*, *8*(5), 537. https://doi.org/10.20473/vol8iss20215pp537-547

Mushtaq, S., & Siddiqui, D. A. (2016). Effect of Interest Rate on Economic Performance: Evidence from Islamic and Non-Islamic Economies. *Financial Innovation*, *2*(1). https://doi.org/10.1186/s40854-016-0028-7

Naima, J., Mony, P. Das, & Lalon, R. M. (2025). Determinants of Foreign Exchange Reserve of Emerging Economy: Time Series Evidence from Bangladesh. *International Journal of Economics and Financial Issues* , *15*(1), 9–16. https://doi.org/10.32479/ijefi.17244

Napitupulu, R. B., Simanjuntak, T. P., Hutabarat, L., Damanik, H., Harianja, H., Sirait, R. M., Tobing, L., & Ria, C. E. (2021). *Penelitian Bisnis, Teknik dan Analisa dengan SPSS - STATA - Eviews* (Edisi 1). Madenatera.

Neumayer, E., & Plümper, T. (2017). Robustness Tests for Quantitative Research. *Economics*. https://doi.org/10.1017/9781108233590

Poljašević, J., & Trivić, J. (2019). Public and Private Debt: Recent Developments in Bosnia and Herzegovina. In *Societies and Political Orders in Transition* (pp. 89–97). Springer Science and Business Media B.V. https://doi.org/10.1007/978-3-319-93665-9_7

Pratomo, W. A., Rusydiana, Riani, R., Lubis, R., Marlina, L., Putra, P., & Nurismalatri, N. (2023). Does Renewable Energy Consumption a Driver for Economic Growth? Panel Data Analysis in Selected OIC Countries. *International Journal of Energy Economics and Policy*, *13*(6), 573–580.

Radmehr, R., Ali, E. B., Shayanmehr, S., Saghaian, S., Darbandi, E., Agbozo, E., & Sarkodie, S. A. (2022). Assessing the Global Drivers of Sustained Economic Development: The Role of Trade Openness, Financial Development, and FDI. *Sustainability (Switzerland)*, *14*(21). https://doi.org/10.3390/su142114023

Rahman, M. R., Rahman, M. M., Subat, A., & Tarin, T. I. (2024). Does the pharmaceutical industry's growth relate to Bangladesh's macroeconomic stability? *International Journal of Pharmaceutical and Healthcare Marketing*, *18*(2), 198–214.

Rahmandani, N., & Dewi, E. P. (2023). Pengaruh Energi Terbarukan, Emisi Karbon, Dan Foreign Direct Investment Terhadap Pertumbuhan Ekonomi Negara Anggota OKI. *JIEI (Jurnal Ilmiah Ekonomi Islam)*, *9*(01), 405–417.

Rauf, A., & Khan, A. (2017). Impact of Foreign Debt on Economic Growth: Evidence from Pakistan. *Asian Economic and Financial Review, 7*(10), 1005–1013.

Rizani, A., Norrahman, R. A., Harsono, I., Yahya, A. S., & Syifa, D. M. (2023). Efek Inflasi terhadap Daya Beli Masyarakat pada Tinjauan Ekonomi Makro. *Journal Of International Multidisciplinary Research*, *1*(2), 344–358. https://journal.banjaresepacific.com/index.php/jimr

Robeena, B., & Sumaira. (2022). *The Role of Foreign Direct Investment and Financial Development in Economic Growth: Evidence from Global Income Countries*. *1*(1). https://doi.org/10.56556/jescae.v1i1.5

Rodrik, D. (2007). *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton University Press. https://doi.org/10.2307/j.ctvcm4jbh

Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from Developed and Developing countries. *Financial Innovation*, *5*(1). https://doi.org/10.1186/s40854-019-0123-7

Semuel, H., & Nurina, S. (2015). Analysis of the Effect of Inflation, Interest Rates, and Exchange Rates on Gross Domestic Product (GDP) in Indonesia. *Proceedings of the International Conference on Global Business, Economics, Finance and Social Sciences*, 1–15.

Sepehri, A., & Moshiri, S. (2004). Inflation-Growth Profiles Across Countries: Evidence from Developing and Developed Countries. *International Review of Applied Economics*, *18*(2), 191–207. https://doi.org/10.1080/0269217042000186679

SESRIC. (2020). International Finance OIC Statistical Outlook. In *OIC Statistical Outlook*. Statistical

Economic and Social Research and Training Centre for Islamic Country. www.sesric.org

Seti, T. M., Mazwane, S., & Christian, M. (2025). Financial Openness, Trade Openness, and Economic Growth Nexus: A Dynamic Panel Analysis for Emerging and Developing Economies. *Journal of Risk and Financial Management*, *18*(2), 1–15. https://doi.org/10.3390/jrfm18020078

Sihombing, P. R. (2022). *Aplikasi EVIEWS Untuk Statistisik Pemula* (A. Rasyid (ed.)). PT Dewangga Energi Internasional Anggota IKAPI.

Silitonga, D. (2021). Pengaruh Inflasi Terhadap Produk Domestik Bruto (Pdb) Indonesia Pada Periode Tahun 2010-2020. *ESENSI: Jurnal Manajemen Bisnis*, *24*(1), 2021. https://journal.feb.unmul.ac.id/index.php/KINERJA/article/download/18/21

Singh, K., Cheemalapati, S., RamiReddy, S. R., Kurian, G., Muzumdar, P., & Muley, A. (2025). Determinants of Human Development Index (HDI): A Regression Analysis of Economic and Social Indicators. *Asian Journal of Economics, Business and Accounting*, *25*(1), 26–34. https://doi.org/10.9734/ajeba/2025/v25i11630

Triatmanto, B., Bawono, S., & Wahyuni, N. (2023). The Contribution and Influence of Total External Debt, FDI, and HCI on Economic Growth in Indonesia, Thailand, Vietnam, and Philippines. *Research in Globalization*, *7*(May), 100163. https://doi.org/10.1016/j.resglo.2023.100163

Verner, E. (2019). Private Debt Booms and the Real Economy: Do the Benefits Outweigh the Costs? *SSRN Journal*, *August*, 1–29. https://doi.org/10.2139/ssrn.3441608

Win, H. H., Ichihashi, M., Kaneko, S., & Goto, D. (2017). Relationship between Financial Development and Foreign Direct Investment. *IDEC DP2 Series*, *7*(2), 1–24. https://doi.org/10.15027/45446

World Bank. (2025). *World Development Indicators*. https://databank.worldbank.org/

Yeisa, W., & Rani, L. N. (2020). Analisis Faktor-Faktor Yang Mempengaruhi Pertumbuhan Ekonomi Di Oki. *Jurnal Ekonomi Syariah Teori Dan Terapan*, *7*(6), 1128. https://doi.org/10.20473/vol7iss20206pp1128-1145

Yue, S., Yang, Y., & Hu, Y. (2016). *Does foreign direct investment affect green growth? Evidence from China's experience. Sustainability (Switzerland)*. *8*(2). https://doi.org/https://doi.org/10.3390/su8020158

Yuliana, S., Aida, N., & Taher, A. R. (2023). Pengaruh Utang Luar Negeri, Investasi Asing Langsung, dan Inflasi Terhadap Pertumbuhan Ekonomi di 7 Negara ASEAN Periode 2012-2020. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, *17*(3), 1927. https://doi.org/10.35931/aq.v17i3.2187