

## **Integrating Islamic values in geopolitical economy of development finance: Empirical evidence from OIC selected countries in the Asia-Pacific region**

**Syafrina Machfud<sup>1\*</sup>, Imron Mawardi<sup>2</sup>, Dahlia Bonang<sup>3</sup>**

<sup>1,2</sup> Islamic Economics Department, Business and Economics Faculty, Universitas Airlangga, Indonesia

<sup>3</sup> Islamic Economics Department, Islamic Business and Economics Faculty, Universitas Islam Negeri Mataram, Indonesia

### **Abstract**

Despite extensive literature on external debt and economic growth, the fiscal burden of multilateral debt service and its interaction with Islamic governance principles and multilateral development bank alignment remain empirically underexplored among Organization of Islamic Cooperation member states. This study examines the impact of multilateral debt service on GDP per capita growth across twelve OIC Asia-Pacific member states over 1996 to 2022, focusing on the moderating roles of governance quality, infrastructure investment, technological advancement, and Islamicity Index adherence. Applying System Generalised Method of Moments on an unbalanced panel of 312 country-year observations, results confirm a marginally significant negative short-run effect on growth through productive investment crowding out, with the long-run effect remaining negative and persistent. Infrastructure investment and technological advancement significantly mitigate these effects, while the Islamicity Index produces a marginally significant negative moderating effect in both horizons, reflecting structural constraints imposed by the prohibition of *riba* on conventional debt financing. New Asian Model banks demonstrate the most consistently positive growth outcomes, whereas Islamic-principled banks face persistent challenges reconciling debt obligations with Shariah requirements. These findings call for strategic integration of Shariah-compliant financing instruments, differentiated multilateral development bank engagement, and governance capacity investment across OIC member states.

**Keywords:** multilateral debt, economic growth, Islamicity, geopolitical economy, multilateral development banks

---

\* Corresponding author: [syafrina@hotmail.co.uk](mailto:syafrina@hotmail.co.uk)

## Introduction

Development finance encompasses financial resources, instruments, and mechanisms that foster economic development, crucial for addressing global economic disparities and promoting inclusive growth (Biekpe et al., 2017). The geopolitical economy of development finance is characterized by the intricate interplay of geopolitics, geoeconomics, and geo-finance, with each domain exerting significant influence over international development cooperation. Geopolitics, focused on strategic state considerations, heavily influences decisions regarding development finance allocation and investment priorities (Ignatyeva & Isaev, 2019), while geoeconomics drives competition among states for market access, resources, and investment opportunities (Barbieri, 2024; Cevik, 2024), and geo-finance encompasses the financial mechanisms used to mobilize capital across borders under geopolitical influence (Sellar et al., 2019)

These dynamics are theoretically situated within the intersecting frameworks of dependency theory (Prebisch, 1962; Frank, 1966), the debt-overhang hypothesis (Krugman, 1988; Myers, 1977), and the Islamic economic paradigm grounded in the objectives of **Maqasid Shariah** (Al-Zuhaili, 2011), which together provide the analytical architecture of this study.

With the conclusion of the Cold War, the global focus shifted from political conflicts to economic competition, emphasizing the race for markets, resources, and strategic influence (Baru, 2012; Luttwak, 1998). Consequently, geopolitical economy and financial strategies now prioritize infrastructure investments to enhance regional connectivity, secure resources, and strengthen geopolitical standing. This approach is particularly significant in the Asia-Pacific region, where strategic infrastructure development promotes economic growth and fosters regional integration (Straub & Terada-Hagiwara, 2011)

Infrastructure development is essential for driving economic growth and asserting geopolitical influence, as evidenced by its impact on Asia-Pacific OIC countries such as Indonesia, Bangladesh, and Türkiye (Straub & Terada-Hagiwara, 2011; SESRIC, 2025). Strategic infrastructure projects improve regional connectivity, ensure resource security, and enhance economic competitiveness, as reflected in Indonesia's position as the leading OIC inward FDI stockholder at US\$ 305.7 billion in 2024 and Türkiye's role as the second-largest intra-OIC merchandise exporter (SESRIC, 2025)

However, significant financing gaps in infrastructure development persist, compelling governments to rely on multilateral development banks (MDBs) for critical funding. While MDBs provide essential financial resources, their loans often lead to higher debt burdens, raising concerns about long-term fiscal sustainability. The total external debt stock of OIC countries reached US\$ 2,235 billion in 2023, an increase of 4.6% from the previous year, with short-term debt rising 8.1% and its share in total external debt rising from 17.9% to 18.5%, reflecting growing fiscal pressures from debt service obligations

(SESRIC, 2025). These escalating debt burdens raise significant concerns about long-term fiscal sustainability, particularly as multilateral debt service obligations redirect resources away from productive public investment (Clements et al., 2021)

The growing need to finance public projects and support rapid economic growth often drives increased external borrowing, particularly from multilateral institutions. However, such borrowing does not always translate into economic growth (Ayana et al., 2023; Ezinwa et al., 2016). Empirical research on the impact of external debt, especially multilateral debt, on economic growth reveals mixed outcomes, reflecting the complexity of this relationship. Key influencing factors include the nature of the debt, the borrowing country's economic conditions, and the quality of governance. Elevated debt levels can significantly hinder economic growth, particularly in low-income and emerging markets, by constraining physical capital accumulation and reducing total factor productivity, ultimately lowering per capita GDP growth (Baum et al., 2013; Checherita-Westphal & Rother, 2012)

In Islamic jurisprudence, loans or borrowing, termed **al-Qardh**, are permissible under strict ethical guidelines. **Al-Qardh** is derived from the Arabic term **qaradha**, meaning "to cut," and refers to the portion of wealth lent by the lender. Loans must be repaid in full at an agreed time, as outlined in **Surah Al-Baqarah** (245): "Who will lend to Allah a good loan which Allah will multiply many times over? It is Allah  $\bar{\text{a}}$ alone $\bar{\text{a}}$  who decreases and increases  $\bar{\text{a}}$ wealth $\bar{\text{a}}$ . And to Him you will  $\bar{\text{a}}$ all $\bar{\text{a}}$  be returned." This concept emphasizes the ethical and charitable nature of lending in Islam. Additionally, Hadiths such as one narrated by Ibn Mas'ud state, "There is no Muslim who lends to another Muslim twice, except that it is like giving charity once" (Ibn Majah & Ibn Hibban, Hadith 2340 in Nur et al., 2019), underscoring the moral dimensions of lending.

Islamic economics adopts a cautious approach to debt, emphasizing that it must avoid excessive uncertainty (gharar) and extravagance (israf), as detailed in **Surah Al-Baqarah** (282-283). This guidance stresses the need for transparent, fair financial transactions by requiring that loans be documented and witnessed. Debt is permissible when it serves the public interest (maslahah) and avoids causing harm (mafsadah), aligning with the objectives of Maqasid Shariah to safeguard life, wealth, and dignity (Az-Zuhaili, 1985; Ismail & Dewi, 2015).

Islamic principles also strongly discourage dependency on external debt, particularly when it involves **riba**. Sayyid Qutb criticized foreign borrowing for its exploitative nature, arguing that interest-based systems erode faith (hifdh al-din) and destabilize social and economic structures (Qayyum et al., 2014). **Surah Al-Baqarah** (275) explicitly condemns **riba**, describing its practitioners as being in torment, thereby highlighting the ethical concerns of wealth concentration and societal inequity associated with usurious practices. These teachings present a sharp contrast to traditional MDBs, whose imposed conditions often clash with local priorities (Kilby, 2023). Islamic economics further warns

against excessive reliance on debt, especially when it involves exploitative elements or fails to promote the communal good.

This study examines the impact of multilateral debt on economic growth in selected OIC countries within the Asia-Pacific region, focusing on the moderating effects of domestic macroeconomic conditions and policies, including governance, infrastructure investment, and technology. Using the Islamicity Index to integrate Islamic values, this research evaluates countries' adherence to Islamic principles across various dimensions, including the economy, legal and governance systems, human and political rights, and international relations. Developed by the Islamicity Foundation, the index aims to support peaceful and positive change in Muslim countries by providing benchmarks for effective institutions and reforms.

By including the Islamicity Index, the study emphasizes principles of transparency, equity, and public welfare, aiming to align infrastructure investments with sustainable and ethical development goals specifically designed for the unique needs of OIC countries in the Asia-Pacific. The Islamicity Index relates to economic growth through three mechanisms. First, higher Islamicity scores reflect stronger adherence to ethical governance and institutional quality, which improve resource allocation efficiency and reduce corruption in debt-financed projects, thereby enhancing the productive returns of multilateral borrowing (Askari et al., 2010; Rehman & Askari, 2010b, 2010a). Second, adherence to Islamic principles, including the prohibition of *riba* and emphasis on risk-sharing, constrains reliance on conventional interest-based debt, which may limit short-term borrowing capacity but promotes long-term fiscal stability by avoiding excessive debt accumulation (Harahap et al., 2022; Maksum & Hidayah, 2023). Third, Islamic principles emphasizing *maslahah* and public welfare orient government expenditure toward productive social investments in education, infrastructure, and poverty reduction, which are consistently associated with sustained GDP per capita growth in OIC economies (Az-Zuhaili, 1985; Ismail & Dewi, 2015). Together, these mechanisms explain why the Islamicity Index is expected to moderate the relationship between multilateral debt and economic growth, with higher adherence potentially attenuating the negative short-run debt effect while strengthening long-run growth resilience.

Additionally, the research analyzes the influence of geopolitical economic factors, such as alignment with specific multilateral development banks (MDBs), on the outcomes of multilateral debt interventions. A key focus is placed on evaluating whether the concentration of voting power within MDBs aligns with the development priorities of borrowing nations and how this dynamic affects their economic performance. For instance, Ray (2021) highlights that Regional Development Banks (RDBs) and Sub-Regional Development Banks (SRDBs) provide borrowers with a stronger voice and promote a more balanced decision-making process than global MDBs. However, Ray's study does not directly investigate how these governance structures translate into tangible development

outcomes. This research addresses that gap by assessing how the distribution of voting power in MDBs influences the economic performance of OIC countries in the Asia-Pacific, offering critical insights to strike a balance between economic priorities and geopolitical economy factors in fostering long-term growth while adhering to Islamic principles.

## Method

### Data Sample Selection

The selected OIC countries from the Asia-Pacific region include Indonesia (Southeast Asia), Bangladesh (South Asia), Türkiye, Egypt, Jordan, and Lebanon (Southwest Asia), Azerbaijan, Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan (North and Central Asia), and Albania (East and North Asia extended). Countries were chosen through purposive sampling (Creswell, 2014) based on four criteria: (1) geographical location and data availability, ensuring coverage across subregions with accessible data from the World Bank, IMF, and MDBs; (2) income group classification by GNI per capita; (3) debt thresholds, using Maastricht Treaty benchmarks and (Cecchetti et al., 2011, 2012) to categorize countries as having sustainable, quasi-sustainable, or unsustainable debt levels; and (4) MDB voting shares, grouping countries by dominant alignment with Islamic-principled, New Asian Model, or Western-backed MDBs based on the highest voting share.

Table 1. OIC Selected Countries

No	Region	OIC selected countries
1.	Southeast Asia and Pacific	Indonesia
2.	South Asia	Bangladesh,
3.	Southwest Asia	Türkiye, Egypt, Jordan, Lebanon
4.	North and Central Asia	Azerbaijan, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan
5.	East and North Asia (extended area)	Albania

Table 2 reveals that Indonesia, Türkiye, and Azerbaijan have the highest voting shares in Islamic-principled MDBs; Bangladesh, Uzbekistan, and the Kyrgyz Republic align with New Asian Model MDBs; and Jordan, Lebanon, Albania, Kazakhstan, and Tajikistan dominate Western-backed MDBs. This categorization highlights the varying economic alignments and governance dynamics across these nations, providing a comprehensive framework for examining the relationship between multilateral debt and economic growth.

Table 2. OIC Selected Countries MDBs Alignment

No.	Country	Voting share			MDB Alignment
		West-Backed MDBs (1)	New Asian Model MDBs (2)	Islamic-principled MDBs (3)	
1.	Indonesia	0.1	2.48	6.17	3
2.	Türkiye	0.41	2.27	6.77	3
3.	Egypt	0.31	1.79	0.96	2
4.	Bangladesh	0.18	0.37	0.03	2
5.	Uzbekistan	0.13	0.4	0.1	2
6.	Azerbaijan	0.11	0.28	0.42	3
7.	Jordan	0.1	NA	0.06	1
8.	Lebanon	0.08	NA	0.02	1
9.	Albania	0.08	NA	0.02	1
10.	Kazakhstan	0.07	0.2	0.05	1
11.	Kyrgyz Republic	0.07	0.2	0.03	1
12.	Tajikistan	0.09	NA	0.03	1

Source: WB, AIIB/NDB, and IsDB website

### Measurement of variables

This study examines the impact of multilateral debt on economic growth, with GDP per capita growth (%) as the dependent variable, reflecting annual economic growth based on constant-price GDP data in the local currency (World Bank). Multilateral Debt (%) is measured as multilateral debt service as a percentage of public and publicly guaranteed debt service (World Bank), capturing the debt burden and repayment capacity, which are crucial for assessing its impact on growth (Baum et al., 2013; Clements et al., 2021). Moderator variables are grounded in theoretical frameworks, including the Harrod-Domar and Solow-Swan models, which emphasize savings, investment, and long-term drivers such as capital accumulation, technology, and labor (Dykas et al., 2022). Public Infrastructure Investment, measured by gross fixed capital formation (% of GDP), emphasizes the role of physical capital in enhancing productivity and fostering growth, consistent with Rostow's Stages of Economic Growth, which highlights infrastructure investment as critical during economic take-off (Barro, 1990; Aschauer, 1989; Muturi, 2023). Technology measured by research and development expenditure (% of GDP) illustrates the importance of innovation for long-term growth (Romer, 1990). Governance, as measured by the Worldwide Governance Indicators index, reflects institutional quality and its critical role in ensuring effective debt utilization (Acemoglu et al., 2001). Islamicity, as measured by the Islamicity Index, reflects adherence to Islamic principles, including risk-sharing, the prohibition of *riba*, and the promotion of public welfare, which provide a unique ethical framework for debt management and reduce the adverse effects of multilateral

debt service on growth (Rehman & Askari, 2010b). The geopolitical economy factor represented by MDB alignment explores the influence of varying institutional mandates on debt outcomes, distinguishing between Islamic-principled MDBs emphasizing Sharia-compliant risk-sharing, Western-backed MDBs emphasizing governance reforms and conditional lending, and New Asian Model MDBs emphasizing infrastructure financing with fewer conditionalities (Hudson, 2016; Kilby, 2023). All variables are summarized in Table 3.

Table 3. Summary of Data and Variables

Variables	Description	Unit of Measurement
Multilateral Debt (x) MDED	Multilateral debt service (% of public and publicly guaranteed debt service)	%
Economic growth (y) <b>GDP_Capita</b>	GDP per capita growth annual	%
Public Infrastructure Investment (INFRASTRUCTURE)	Gross Fixed Capital Formation (% of GDP)	%
Governance and Institutional Quality (GOV)	Average World-wide governance indicators	Index
Innovation and Technology advancement (TECH)	Research and development expenditure (% of GDP)	%
Adherence to Islamic Principles (as supportive policies in OIC countries) (ISLAMICITY)	Islamicity Index	Index

### Model Specification

This study employs a dynamic panel data analysis approach using the System Generalized Method of Moments (Sys-GMM) estimator, which addresses potential endogeneity issues by leveraging both lagged levels and first differences of variables as instruments, providing unbiased and efficient parameter estimates for datasets with a large cross-sectional dimension across a longitudinal time frame of 1996 to 2022 (Arellano & Bover, 1995; Blundell & Bond, 1998). The dynamic panel model estimated in this study is specified as follows:

$$GDP\_capita\_it = \alpha + \beta_1 GDP\_capita\_i,t-1 + \beta_2 MD\_it + \beta_3 (MD\_it \times GOV\_it) + \beta_4 (MD\_it \times GFCF\_it) + \beta_5 (MD\_it \times ISLAMICITY\_it) + \beta_6 (MD\_it \times TECH\_it) + \beta_7 MDB\_alignment\_it + \epsilon_{it} \dots \dots \dots i$$

Where GDP\_capita\_it is GDP per capita growth of country i at time t; GDP\_capita\_i,t-1 is the lagged dependent variable capturing dynamic persistence in economic growth; MD\_it is multilateral debt service as a percentage of PPG debt service; MD\_it × GOV\_it, MD\_it × GFCF\_it, MD\_it × ISLAMICITY\_it, and MD\_it × TECH\_it are interaction terms between multilateral debt and governance, infrastructure investment, Islamicity, and technology respectively; MDB\_alignment\_it is a categorical variable capturing dominant

MDB alignment;  $\alpha$  is the constant;  $\beta_1, \dots, \beta_2$  are estimated coefficients; and  $\epsilon_{it}$  is the error term. The inclusion of  $GDP\_capita\_i,t-1$  justifies the use of System GMM over static panel estimators (Arellano & Bover, 1995; Blundell & Bond, 1998). The long-run effect of each variable is derived using:

$$\text{Long-run effect} = \text{Short-run coefficient} / (1 - \beta_1) \dots \dots \dots \text{ii}$$

Where  $\beta_1$  is the coefficient of the lagged dependent variable. Model validity is confirmed in Table 4, with the Hausman Test (Chi2 = 13.38, p = 0.2030) favoring the random effects model, the Sargan Test (Chi2 = 280.9246, p = 0.1563) confirming instrument validity, and the AR (2) Test (p = 0.2758) indicating no autocorrelation.

Table 4. Best Selection Model Results

Test	Statistic	Value	p-value	Interpretation
Hausman test	Chi2 (10)	13.38	0.2030	Random Effect
Sargan Test	Chi2 (256)	280.9246	0.1563	SyS GMM model valid
AR Test	AR (2) z	665.6993	0.2758	No Autocorrelation

## Result and Discussion

Table 5 indicates that multilateral debt has a negative, marginally significant impact on economic growth at the 10% significance level. In the short run, the coefficient for multilateral debt (MD) is negative (-0.0834) and marginally significant (p-value = 0.080), indicating that a 10-percentage-point increase in multilateral debt service is associated with an approximate 0.834% reduction in annual GDP per capita growth. This finding indicates that an increase in multilateral debt initially exerts a negative effect on economic growth, as measured by GDP per capita growth.

The adverse impact arises from the fiscal strain caused by higher debt service obligations, which divert resources from growth-promoting investments and economic activities. This is particularly evident in the context of the three anchor economies examined in this study. In Indonesia, which holds the highest multilateral debt service obligations among the sample, with an average MDED of 23.26%, the crowding-out effect is reflected in significant variability in GDP per capita growth, ranging from -14.48% to 6.47% over the study period. In Bangladesh, which relies most on multilateral borrowing, with an average MDED of 58.55%, the negative growth effect is compounded by its narrow fiscal space and high export concentration in apparel, limiting its capacity to redirect debt-financed resources toward diversified productive investments. In Türkiye, with an average MDED of 14.69% and a more diversified economic base, the negative effect is comparatively moderated, consistent with the finding that economic diversification attenuates the adverse impact of multilateral debt service obligations on GDP per capita growth.

Extensive empirical literature supports this negative relationship between high debt levels and economic growth, confirming it across different samples and time periods. For instance, (Reinhart et al. (2012) identified a clear negative link between high debt and growth. Similarly, (Caner et al., 2012) analyzed data from 79 developed and developing countries between 1980 and 2008, while (Checherita-Westphal & Rother, 2012) focused on 12 Eurozone economies from 1970 to 2008. (Checherita-Westphal & Rother, 2012) examined the relationship in 18 OECD countries from 1980 to 2005, and Balassone et al. (2013) explored the long-term dynamics in Italy from 1861 to 2010. Ursua and Wilson, as cited in (Kumar et al., 2010), extended their research to both advanced and emerging markets from 1950 to 2010.

Additional studies, including (Panizza & Presbitero, 2014) on 17 OECD countries, (Égert, 2015) on advanced and emerging economies from 1790 to 2009, and Baum et al. (2013) on 12 Eurozone countries from 1990 to 2010, offer further evidence supporting this negative association. These studies consistently show that a 10-percentage-point increase in the debt-to-GDP ratio typically reduces annual economic growth by approximately 0.1 to 0.2 percentage points, as reported by (Caner et al., 2012; Cecchetti et al., 2012; Égert, 2015).

However, Baum et al. (2013) observed a less severe impact, often emphasizing the importance of determining threshold debt levels beyond which debt becomes detrimental to economic growth. This study finds that a 10-percentage-point increase in multilateral debt as a share of GDP is associated with an approximate 0.834% reduction in the annual growth rate of GDP per capita, suggesting a stronger adverse effect specifically in the context of multilateral debt. Similar findings have been reported by (Clements et al., 2021; Cordella et al., 2005). Furthermore, (Pattillo et al., 2021) observed that the negative effects of high debt on economic growth are significantly more pronounced in nations with substantial debt burdens, particularly when coupled with poor policy frameworks or limited external aid. This underscores the compounded challenges faced by such countries in achieving sustainable economic growth amidst high debt levels.

Multilateral debt positively and significantly impacts economic growth when moderated by public infrastructure investment. In the short run, the coefficient is positive and highly significant (0.0029,  $p = 0.004$ ), indicating that infrastructure investment is pivotal in driving immediate economic growth. This supports theoretical models such as Rostow's Growth Stages, which emphasize infrastructure as a critical component of economic take-off. Improved infrastructure reduces transaction costs, enhances productivity, and bolsters trade competitiveness (Muturi, 2023). Projects in the transport and energy sectors stimulate local economies and create jobs, particularly in developing regions (Ibrahimov et al., 2023). Research shows that a 1% increase in infrastructure investment can raise GDP per capita by 0.54%, underscoring the robust link between infrastructure spending and economic growth (Ibrahimov et al., 2023).

Multilateral debt has a negative but insignificant impact on economic growth when moderated by governance and institutional quality. In the short run, governance is negative (-0.0001) and statistically insignificant ( $p = 0.946$ ), suggesting no immediate effect on moderating the relationship between multilateral debt and economic growth in this dataset. However, prior studies highlight that improved governance can mitigate the adverse impacts of external debt. For instance, (Aurangzaib & Farooq, 2022) observed that stronger governance in South Asia enhances the positive outcomes of external borrowing. Similarly, (Abbas et al., 2021) identified a threshold effect: external debt positively affects growth only when governance meets a certain standard. In Sub-Saharan Africa, governance indicators have been shown to improve economic growth despite the challenges posed by external debt, emphasizing its role in effective debt management (Manasseh et al., 2022).

Multilateral debt has a positive and significant impact on economic growth when moderated by technological advancement. In the short run, technology demonstrates a positive and significant effect (0.0429,  $p = 0.044$ ), highlighting its crucial role in driving growth by enhancing productivity and fostering innovation. This finding is consistent with prior research, which identifies a significant positive impact of ICT as a General-Purpose Technology (GPT), particularly in the U.S. (Cardona et al., 2013). Firm-level studies reveal that while regional effects may vary, ICT adoption generally improves production efficiency (Cardona et al., 2013). Moreover, innovation is strongly linked to productivity growth, especially during structural transitions from traditional to advanced economic sectors (Naveed & Wang, 2023). Developing countries also exhibit a direct causal relationship between investment in technological innovation and short-term economic growth (Mohamed et al., 2022). These findings underscore the importance of innovation-supportive policies to sustain economic growth, particularly in resource-constrained settings (Mohamed et al., 2022).

Multilateral debt has a negative, marginally significant impact on economic growth, moderated by Islamicity. In the short run, the Islamicity index demonstrates a negative effect (-0.0083,  $p = 0.059$ ) that persists and strengthens in the long run (-0.0156,  $p = 0.056$ ), suggesting that adherence to Islamic finance principles consistently restricts conventional debt financing for growth across both time horizons. Islamic finance prohibits *riba*, necessitating alternative profit-sharing or equity-based financing approaches that limit access to conventional debt (Harahap et al., 2022; Maksum & Hidayah, 2023; Suharli et al., 2022). While Islamic economics can spur growth through its stability-focused approach, three structural constraints compound these challenges: the lack of standardized Shariah regulations across OIC countries, creating institutional inconsistencies; divergent jurisdictional rulings increasing transaction costs and reducing investor confidence; and institutional resistance within conventional financial systems, creating barriers to mainstreaming sukuk and equity-based financing models (Ebrahimi

et al., 2021; Rehman & Askari, 2010b). However, innovative Sharia-compliant instruments such as green sukuk offer opportunities to reconcile Islamic principles with sustainable economic development.

Table 5. Short Run Effect Economic Growth Model

Variable	Coef	Std.err	Z	p>z	Interpretation
MD	-0.0834*	(0.048)	-1.75	0.080	Negative and marginally significant.
MDxGOV	-0.0001	(0.001)	-0.07	0.946	Negative and insignificant
IMDxGFCF	0.0029***	(0.001)	2.85	0.004	Positive and highly significant.
MDxISLAMICITY	-0.0083*	(0.004)	-1.89	0.059	Negative and marginally significant.
MDxTECH	0.0429**	(0.021)	2.02	0.044	Positive and significant.
_cons	-4.5545	(3.579)			
N					312
Sargan (prob >chi2)	0.1563	Valid			
AR (2) (prob>z)	0.2758	we do not reject the null hypothesis of no second-order autocorrelation			
Prob > chi2	0.0000	The independent variables (predictors) collectively have a significant effect on the dependent variable (outcome of interest)			

The long-run effects evaluate the cumulative impact of a change in the independent variable on the annual growth rate of GDP per capita, accounting for gradual adjustments over time. This analysis is crucial for understanding how initial changes evolve to affect long-term economic performance. The formula used to calculate the long-run effect when examining GDP growth per capita is as follows:

$$\text{Long-run effect} = \frac{\text{Short – run coefficient}}{1 - \text{coefficient of the lagged GDP growth per capita}} \dots\dots\dots \text{iii}$$

Table 6. Long Run Effect Economic Growth Model

Variable	Coef.	Std. Err.	z	P> z	Interpretation
MD	-0.1582	0.0912	-1.73	0.083	Negative and marginally significant at the 10% level
Governance	-0.0016	0.0024	-0.07	0.946	Negative, Insignificant
Infrastructure	0.0055	0.0019	2.84	0.004	Negative, Significant
Islamicity	-0.0156	0.0082	-1.91	0.056	Negative, Significant
Tech	0.0813	0.0421	1.93	0.054	Positive, Significant

From Table 6, in the long run, the Multilateral Debt coefficient is negative (-0.1582) and marginally significant (p = 0.083). This supports the debt-overhang hypothesis, which

holds that excessive debt reduces investor confidence and fiscal flexibility, aligning with studies indicating that high debt suppresses long-term growth (Reinhart, 2010). (Krugman, 1988; Roubini & Sachs, 1989) Building on (Myers, 1977), it was highlighted that substantial debt acts as an implicit tax on resources, diminishing investment quality and creating disincentives to reform.

Conversely, infrastructure investment shows a positive and significant long-term effect (0.0055,  $p = 0.004$ ), consistent with research identifying infrastructure as a driver of productivity and economic growth (Yeboah, 2025). Governance remains negative (-0.0016) and insignificant ( $p = 0.946$ ), suggesting that governance reforms may have delayed impacts or that other institutional factors play a greater role in debt sustainability. Initial conditions, such as debt levels and governance quality, significantly influence reform outcomes (Furceri & Jalles, 2020). Institutional factors, such as elite coordination and electoral systems, further affect reform timing and success (Simón & Guinjoan, 2018). Governance improvements in OECD countries show medium-term growth benefits, though long-term success depends on governance quality and economic conditions (Mavrogiannis & Tagkalakis, 2023).

Technological advancements have a pronounced and significant long-term effect (0.0813,  $p = 0.054$ ), reflecting their role in enhancing productivity and competitiveness. Technology boosts labor productivity and capital efficiency, driving sustained economic growth (Dykas et al., 2022). Islamicity has a marginally significant negative effect (-0.0156,  $p = 0.056$ ), suggesting limitations due to its equity-focused framework. While the Islamic economy can spur growth, inefficiencies in traditional debt instruments and reliance on risk-sharing mechanisms may hinder large-scale investments and economic outcomes (Ebrahim & Sheikh, 2016; Rehman & Askari, 2010b). However, its stability-focused approach offers long-term resilience (Mtiraoui, 2019).

### **Does MDBs Alignment Make a Difference?**

The table provides an overview of selected OIC member countries and their voting shares in different Multilateral Development Banks (MDBs), reflecting their active engagement in both global and regional financial institutions (Ray, 2021). Although the focus of this study is on selected OIC members, it is evident that their development strategies are not uniform and do not always align strictly with Islamic principles as represented by the Islamic Development Bank (IsDB) (Kilby, 2023). Instead, their alignment with various MDBs reflects a broader range of economic strategies and geopolitical interests, highlighting the complexity and variation within the OIC member states (Baru, 2012; Luttwak, 1998)

Countries like Indonesia, Türkiye, Egypt, Jordan, and Lebanon exhibit the highest voting shares in Islamic-principled MDBs (IsDB), which focus on Islamic finance principles such as interest-free financing and risk-sharing (Maksum & Hidayah, 2023; Suharli et al.,

2022). These countries are more likely to emphasize development projects that align with Islamic economic ethics, fostering financial models that avoid excessive debt and promote social equity (Az-Zuhaili, 1985; Ismail & Dewi, 2015).

Countries such as Bangladesh, Uzbekistan, Azerbaijan, and Kazakhstan show a stronger alignment with New Asian Model MDBs, including the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB), prioritizing rapid infrastructure development, regional integration, and flexible financing options (Ayana et al., 2023; Straub & Terada-Hagiwara, 2011). The focus here is often on accelerating economic growth through large-scale infrastructure investments and regional collaboration, with less stringent governance or environmental requirements than those of traditional MDBs (Ezeaku et al., 2020; Kilby, 2023).

Countries like Albania, the Kyrgyz Republic, and Tajikistan have higher voting shares in Western-backed MDBs such as the World Bank and IMF, emphasizing governance reforms, environmental sustainability, and social inclusion (Kilby, 2023; Ray, 2021). Their development strategies align more closely with global standards and conditions typically associated with Western-backed financial institutions, focusing on transparency, accountability, and sustainable growth (Abbas et al., 2021; Manasseh et al., 2022).

Table 7. MDBs Alignment based on voting share in OIC Selected Countries

No.	Countries	Region	V_Share
1.	Indonesia	Southeast Asia (SEA)	3
2.	Türkiye	South Asia (SA)	3
3.	Egypt, Arab Rep.	Southwest Asia- West (SWA)	3
4.	Bangladesh	South Asia (SA)	2
5.	Uzbekistan	North and Central Asia (NCA)	2
6.	Azerbaijan	North and Central Asia (NCA)	2
7.	Jordan	Southwest Asia- West (SWA)	3
8.	Lebanon	Southwest Asia- West (SWA)	3
9.	Albania	East and North Asia (Asia extended area)	1
10.	Kyrgyz Republic	North and Central Asia (NCA)	1
11.	Tajikistan	North and Central Asia (NCA)	1
12.	Kazakhstan	North and Central Asia (NCA)	2

Read: 1 Highest Voting share in Western-backed MDBs, 2 Highest Voting share in New Asian Model MDBs, 3 Highest Voting share in Islamic-principled MDBs (IsDB). Source: World Bank, AIIB/NDB, and IsDB Website

The interpretations in Table 8 reveal the diverse effects of different MDBs on economic growth and the importance of aligning policy strategies with the principles and strategic focuses of each MDB (Ray, 2021). To classify the impact of a variable as Improved, Worsened, or Neutral, this study employs specific criteria based on statistical

significance and the direction of the coefficients. A variable is considered improved when it initially has a negative coefficient and later becomes positive. Conversely, a variable is considered worsened if it starts with a positive coefficient and shifts to a negative value. Finally, a variable is labeled as Neutral when its coefficient remains unchanged or when its alignment with certain MDBs does not yield a significant difference in results (Cordella et al., 2005).

Table 8. Result Comparison with MDB Alignment

Variable	Short Run Coef. (p>z)	Long Run Coef. (p>z)	(WB) Coef. (p>z)	AIB/NDB) Coef. (p>z)	IsDB Coef. (p>z)
L_GDP_ capita	0.4726 (0.000) (Highly Significant)	-0.075 (In significant)	0.1767 0.236 (Neutral)	0.6429 (0.000) (Improved)	0.1961 0.031 (Improved)
MD	-0.0834 (0.080) (Marginally Significant)	-0.1582 (0.083) (Marginally Significant)	0.0498 (0.323) (Improved)	-0.0521 0.450 (Neutral)	-0.1573 (0.034) (Neutral)
Governance	-0.0001 (0.946) (In significant)	-0.0016 (0.946) (In significant)	-0.0039 (0.000) (Worsen)	-0.0024 0.349 (Neutral)	0.0019 (0.419) (Neutral)
Infrastructure	0.0029 (0.004) (Highly Significant)	0.0055 (0.004) (Significant)	0.0008 (0.693) (Neutral)	0.0031 0.019 (Improved)	0.003 (0.282) (Neutral)
Islamicity	-0.0083 (0.059) (Marginally Significant)	-0.0156 (0.056) (Significant)	-0.0063 0.089 (Worsen)	-0.0058 0.003 (Worsen)	-0.0145 (0.080) (Worsen)
Technology	0.0429 (0.004) (Significant)	0.0813 (0.054) (Significant)	0.0437 0.008 (Improved)	0.0263 0.320 (Neutral)	-0.0246 (0.646) (worsen)

Countries with the highest voting shares in Western-backed MDBs, such as the World Bank, show mixed results in leveraging multilateral debt. For MD, with a coefficient of 0.0498 (p = 0.323), the transition from negative to positive values suggests improved debt management and utilization, though this difference is not statistically significant (Baum et al., 2013). This implies that directing multilateral debt toward productive sectors such as infrastructure and education is essential for sustaining growth (Efthimiadis & Tsintzos, 2023; Ezeaku et al., 2020). Similarly, MDxTech, with a significant positive coefficient of 0.0437 (p = 0.008), underscores the benefits of combining multilateral debt with technological advancements to boost economic growth (Cardona et al., 2013;

Naveed & Wang, 2023). However, MDxGovernance, with a coefficient of -0.0039 ( $p = 0.000$ ), highlights governance challenges that hinder effective debt utilization, requiring strengthened institutional capacity and improved transparency to maximize public investment returns (Abbas et al., 2021; Manasseh et al., 2022). Similarly, MDxIslamicity, with a coefficient of -0.0063 ( $p = 0.089$ ), reveals difficulties in reconciling multilateral debt with Islamic finance principles, requiring hybrid financing models that integrate Shariah compliance with conventional frameworks (Cameron et al., 2021).

In New Asian Model MDBs like AIIB and NDB, variables such as L\_GDP\_capita (coefficient: 0.6429,  $p = 0.000$ ) demonstrate significant positive outcomes, underscoring the effectiveness of growth-oriented policies emphasizing education, innovation, and infrastructure investments (Aghion et al., 2016; Romer, 1990). MDxInfrastructure (coefficient: 0.0031,  $p = 0.019$ ) also shows a significant positive result, highlighting the economic resilience brought by infrastructure investments in transport and energy sectors (Ibrahimov et al., 2023; Muturi, 2023). Conversely, MDxGovernance (coefficient: -0.0024,  $p = 0.349$ ) and MD (coefficient: -0.0521,  $p = 0.450$ ) suggest the need for enhanced governance structures and optimized debt allocation to improve outcomes (Abbas et al., 2021). Partnering with MDBs to adopt sustainable debt practices remains vital for long-term fiscal sustainability (Clements et al., 2021)

In Islamic-principled MDBs such as the IsDB, L\_GDP\_capita (coefficient: 0.1961,  $p = 0.031$ ) exhibits positive growth, affirming the importance of investments in education and innovation (Aghion et al., 2016; Romer, 1990). However, MDxIslamicity (coefficient: -0.0145,  $p = 0.080$ ) highlights the challenges in aligning multilateral debt with Shariah principles due to regulatory barriers and varying interpretations of Islamic finance across jurisdictions, suggesting a need for hybrid financing models (Ebrahim & Sheikh, 2016; Rehman & Askari, 2010b). Similarly, MDxTech (coefficient: -0.0246,  $p = 0.646$ ) requires reassessment to ensure technology-focused investments align with national goals (Mohamed, 2005). Strengthening governance through enhanced transparency and anti-corruption measures remains critical (Furceri & Jalles, 2020; Manasseh et al., 2022). Partnering with MDBs to align multilateral debt with Islamic finance practices and national development objectives will ensure long-term economic benefits (Azam et al., 2013; Ismail & Dewi, 2015)

## Conclusion

The study concludes that multilateral debt has a negative and marginally significant impact on economic growth. Domestic macroeconomic conditions and policies play a crucial role in moderating the effects of multilateral debt. Specifically, Islamicity, as a moderating factor, presents both constraints and opportunities. While strict adherence to Islamic principles limits reliance on conventional debt, innovative Sharia-compliant

instruments offer potential pathways for sustainable development. The study also highlights the varying impacts of geopolitical economic factors shown in MDB alignment. Countries aligned with Western-backed MDBs show mixed outcomes, while New Asian Model MDBs exhibit significant positive effects, particularly through infrastructure- and innovation-focused strategies. Countries aligned with Islamic-principled MDBs benefit from education and innovation but face challenges in integrating multilateral debt with Shariah principles, requiring strategic adjustments to achieve better outcomes.

Based on these findings, the following concrete policy recommendations are offered. First, governments in OIC member states should prioritize directing multilateral debt toward infrastructure and technology investments, as these consistently demonstrate positive moderating effects on growth in both the short and long run. Specifically, fiscal frameworks should ring-fence MDB-financed expenditure for productive capital formation rather than recurrent expenditure. Second, Islamic-principled MDB-aligned countries should accelerate the development of standardized Shariah governance frameworks at the national level to reduce regulatory inconsistencies that currently limit the scalability of sukuk and equity-based financing instruments. Regional coordination through the OIC and IsDB could facilitate the harmonization of Shariah rulings on permissible development finance instruments across member states. Third, New Asian Model MDB-aligned countries should strengthen governance frameworks alongside infrastructure investments, as the findings show that rapid infrastructure expansion without adequate institutional quality can produce negative growth outcomes. Fourth, Western-backed MDB-aligned countries should negotiate financing terms that better accommodate domestic policy priorities, thereby reducing conditionality misalignment that currently undermines the effectiveness of debt utilization. Fifth, all MDB categories should explore hybrid financing models that integrate Shariah-compliant instruments with conventional development finance, enabling Islamic-principled economies to access broader capital pools while maintaining adherence to Maqasid Shariah objectives.

## References

- Abbas, Q., Junqing, L., Ramzan, M., & Fatima, S. (2021). Role of governance in debt-growth relationship: Evidence from panel data estimations. *Sustainability (Switzerland)*, **13**(11), 5954. <https://doi.org/10.3390/su13115954>.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, **91**(5), 1369-1401. <https://doi.org/10.1257/aer.91.5.1369>.
- Aghion, P., Comin, D., Howitt, P., & Tecu, I. (2016). When does domestic savings matter for economic growth?. *IMF Economic Review* **64**(3), 381–407. <https://doi.org/10.1057/imfer.2015.41>.

- Al-Zuhaili, W. (2011). *Al-Wajiz fi Ushul al-Fiqh*. Dar al-Fikr.
- Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, **68**(1), 29-51. [https://doi.org/10.1016/0304-4076\(94\)01642-D](https://doi.org/10.1016/0304-4076(94)01642-D).
- Aschauer, D. A. (1989). Is public expenditure productive? *Journal of Monetary Economics*, **23**(2), 177-200. [https://doi.org/10.1016/0304-3932\(89\)90047-0](https://doi.org/10.1016/0304-3932(89)90047-0).
- Askari, H., Iqbal, Z., & Mirakhor, A. (2010). *Globalization and Islamic finance: Convergence, prospects, and challenges*. John Wiley & Sons. <https://doi.org/10.1002/9781118390467>.
- Aurangzaib., & Farooq, F. (2022). How does institutional quality moderates the impact of public debt on economic growth? Startling evidence from OIC countries. *International Journal of Management Research and Emerging Sciences*, **12**(3), 192-209. <https://doi.org/10.56536/ijmres.v12i3.287>.
- Ayana, D. I., Demissie, W. M., & Sore, A. G. (2023). Effect of external debt on economic growth in sub-Saharan Africa: System GMM estimation. *Cogent Economics and Finance*, **11**(2), 2256197. <https://doi.org/10.1080/23322039.2023.2256197>.
- Azam, M., Emirullah, C., Prabhakar, A. C., & Khan, A. Q. (2013). The role of external debt in economic growth of Indonesia - A blessing or burden? *World Applied Sciences Journal*, **25**(8), 1150–1157. <https://doi.org/10.5829/idosi.mejsr.2013.18.8.11837>.
- Az-Zuhaili, W. (1985). *Al-fiqh al-Islami wa adillatuh*. Damaskus: Dar al-Fikr, Jilid VI.
- Balassone, F., Francese, M., & Pace, A. (2013). Public Debt and Economic Growth in Italy. Economic History Working Papers **11**, Bank of Italy, Economic Research and International Relations Area. <https://doi.org/10.2139/ssrn.2236725>.
- Barbieri, K. (2024). Geopolitics and International Trade. In *The Palgrave Handbook of Contemporary Geopolitics*. [https://doi.org/10.1007/978-3-031-25399-7\\_49-1](https://doi.org/10.1007/978-3-031-25399-7_49-1).
- Barro R.J. (1990). Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy*, **98**(5), 103-125.
- Baru, S. (2012). Geo-economics and strategy. *Survival*, **54**(3), 47-58. <https://doi.org/10.1080/00396338.2012.690978>.
- Baum, A., Checherita-Westphal, C., & Rother, P. (2013). Debt and growth: New evidence for the euro area. *Journal of International Money and Finance*, **32**(1), 809-821. <https://doi.org/10.1016/j.jimonfin.2012.07.004>.
- Biekpe, N., Cassimon, D., & Mullineux, A. W. (2017). *Development finance: Innovations for sustainable growth*. Springer Nature. <https://doi.org/10.1007/978-3-319-54166-2>.
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, **87**(1), 115-143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8).
- Cameron, A., Oak, M., & Shan, Y. (2021). Peer monitoring and Islamic microfinance. *Journal of Economic Behavior and Organization*, **184**, 337-358. <https://doi.org/10.1016/j.jebo.2021.07.004>.

jebo.2021.02.001.

- Caner, M., Grennes, T. J., & Köhler-Geib, F. N. (2012). Finding the tipping point - When sovereign debt turns bad. *SSRN Electronic Journal*, **May 20**, 1-17. <https://doi.org/10.2139/ssrn.1612407>.
- Cardona, M., Kretschmer, T., & Strobel, T. (2013). ICT and productivity: Conclusions from the empirical literature. *Information Economics and Policy*, **25**(3), 109-125. <https://doi.org/10.1016/j.infoecopol.2012.12.002>.
- Cecchetti, S. G., Mohanty, M. S., & Zampolli, F. (2011). The real effects of debt, September 2011. *Bank for International Settlements Working Paper*, **352**.
- Cecchetti, S. G., Mohanty, M. S., & Zampolli, F. (2012). Achieving growth amid fiscal imbalances: The real effects of debt. *Proceedings of Economic Policy Symposium - Jackson Hole*, **352**, 145-196.
- Cevik, S. (2024). Geopolitics and International Trade: The Democracy Advantage. *IMF Working Papers*, **2024**(021). <https://doi.org/10.5089/9798400266393.001>.
- Checherita-Westphal, C., & Rother, P. (2012). The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area. *European Economic Review*, **56**(7), 1392-1405. <https://doi.org/10.1016/j.euroecorev.2012.06.007>.
- Clements, B., Bhattacharya, R., & Nguyen, T. Q. (2003). External debt, public investment, and growth in low-income countries. *IMF Working Paper WP/03/249*. <https://doi.org/10.2139/ssrn.880959>.
- Cordella, T., Ricci, L. A., & Ruiz-Arranz, M. (2005). Debt overhang or debt irrelevance? Revisiting the debt-growth link. *IMF Working Papers* 2005, 223. <https://doi.org/10.2139/ssrn.873622>.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches. 4th Edition*. SAGE Publications.
- Dykas, P., Tokarski, T., & Wisła, R. (2022). The solow model of economic growth: Application to contemporary macroeconomic issues. In *Routledge Studies in Economic Theory, Method and Philosophy*. Routledge. <https://doi.org/10.4324/9781003323792>.
- Ebrahim, M. S., & Sheikh, M. (2016). Debt Instruments in Islamic finance: A critique. *Arab Law Quarterly*, **30**(2), 185-198. <https://doi.org/10.1163/15730255-12341317>.
- Ebrahimi, M., Yusoff, K., & Ismail, R. (2021). Middle East and African Student (MEAS) perceptions of Islam and Islamic moderation: A case study. *Indonesian Journal of Islam and Muslim Societies*, **11**(1), 55–80. <https://doi.org/10.18326/IJIMS.V11I1.55-80>.
- Efthimiadis, T., & Tsintzos, P. (2023). From debt to green growth: A policy proposal. *Sustainability*, **15**(4), 3506. <https://doi.org/10.3390/su15043506>.
- Égert, B. (2015). Public debt, economic growth, and nonlinear effects: Myth or reality? *Journal of Macroeconomics*, **43**, 226-238. <https://doi.org/10.1016/j.jmacro.2015.02.001>.

jmacro.2014.11.006.

- Ezeaku, H. C., Egbo, O. P., Nwakoby, I., & Onwumere, J. U. J. (2020). Effectiveness of bilateral and multilateral concessional debts on economic growth in Africa. *International Journal of Emerging Markets*, **15**(2), 344-361. <https://doi.org/10.1108/IJOEM-09-2018-0493>.
- Ezinwa, C. E., Anidiobu, G. A., & Agu, B. O. (2016). Responsiveness of Economic Growth to External Debt in Nigeria. *Journal of Policy and Development Studies*, **10**(3), 1-19. <https://doi.org/10.12816/0032096>.
- Frank, A. G. (1966). The Development of Underdevelopment. *Monthly Review*, **18**(4), 341-350. [https://doi.org/10.14452/mr-018-04-1966-08\\_3](https://doi.org/10.14452/mr-018-04-1966-08_3).
- Furceri, D., & Jalles, J. T. (2020). Structural Reforms and Fiscal Sustainability. In *Economic Growth and Structural Reforms in Europe*. Cambridge University Press. <https://doi.org/10.1017/9781108782517.010>.
- Harahap, M. A., Elanda, Y., A. Majid, M. S., Marliyah, M., & Handayani, R. (2022). Bagaimana utang mendorong terjadinya krisis? Solusi dari sistem keuangan Islam. *Reslaj: Religion Education Social Laa Roiba Journal*, **4**(3), 724-737. <https://doi.org/10.47467/reslaj.v4i3.905>.
- Hudson, R. (2016). Rising powers and the drivers of uneven global development. *Area Development and Policy*, **1**(3), 279-294. <https://doi.org/10.1080/23792949.2016.1227271>.
- Ibrahimov, Z., Hajiyeva, S., Seyfullayev, I., Mehdiyev, U., & Aliyeva, Z. (2023). The impact of infrastructure investments on the country's economic growth. *Problems and Perspectives in Management*, **21**(2), 415-425. [https://doi.org/10.21511/ppm.21\(2\).2023.39](https://doi.org/10.21511/ppm.21(2).2023.39).
- Ignatyeva, I., & Isaev, B. (2019). Modern trends in geo-economics and geopolitics. *Proceedings of the International Conference Communicative Strategies of Information Society (CSIS 2018)*. <https://doi.org/10.2991/osis-18.2019.104>.
- Ismail, N., & Dewi, B. R. (2015). Maqasid syariah's view and its solution on foreign debt in Indonesia. *Global Review of Islamic Economics and Business*, **1**(3), 229-239. <https://doi.org/10.14421/grieb.2014.013-06>.
- Kilby, C. (2023). Chris Humphrey. 2022. Financing the future: Multilateral development banks in the changing world order of the 21st Century. (Oxford: Oxford University Press). Laura Francesca Peitz. 2023. The Dual Nature of Multilateral Development Banks: Balancing Development and Financial Logics. (Cambridge, UK: Cambridge University Press). *The Review of International Organizations*. Springer. <https://doi.org/10.1007/s11558-023-09496-2>.
- Krugman, P. (1988). Financing vs. forgiving a debt overhang. *Journal of Development Economics*, **29**(3), 253-268. [https://doi.org/10.1016/0304-3878\(88\)90044-2](https://doi.org/10.1016/0304-3878(88)90044-2).
- Kumar, M. S., Woo, J., Gerson, P., Baldacci, E., Caceres, C., Calligari, G., Escolano, J., Mauro,

- P., Hasanov, F., Ghosh, A., Kim, J. II, Leigh, D., Giovanni, J. Di, Hauk, W., & Wooldridge, J. (2010). Public Debt and Growth; by Manmohan S. Kumar and Jaejoon Woo; IMF Working Paper 10/174; July 1, 2010. **IMF Working Paper**, (WP/10/174).
- Luttwak, E. N. (1990). From geopolitics to geo-economics: Logic of conflict, grammar of commerce. **The National Interest**, **20**, 17-23.
- Maksum, M., & Hidayah, N. (2023). The mechanism of avoiding riba in Islamic financial institutions: Experiences of Indonesia and Malaysia. **Juris: Jurnal Ilmiah Syariah**, **22**(2), 235-244. <https://doi.org/10.31958/juris.v22i2.6952>.
- Manasseh, C. O., Abada, F. C., Okiche, E. L., Okanya, O., Nwakoby, I. C., Offu, P., Ogbuagu, A. R., Okafor, C. O., Obidike, P. C., & Nwonye, N. G. (2022). External debt and economic growth in Sub-Saharan Africa: Does governance matter? **PLoS ONE**, **17**(3), e0264082. <https://doi.org/10.1371/journal.pone.0264082>.
- Mavrogiannis, C., & Tagkalakis, A. (2023). The short-term effects of structural reforms and institutional improvements in OECD economies. **Bank of Greece Working Paper No. 306**. <https://doi.org/10.2139/ssrn.4381994>.
- Mohamed, M. A. A. (2005). The impact of external debts on economic growth: an empirical assessment of the Sudan: 1978-2001. **Eastern Africa Social Science Research Review**, **21**(2), 53-56. <https://doi.org/10.1353/eas.2005.0008>.
- Mohamed, M. M. A., Liu, P., & Nie, G. (2022). Causality between technological innovation and economic growth: Evidence from the economies of developing countries. **Sustainability (Switzerland)**, **14**(6), 3586. <https://doi.org/10.3390/su14063586>.
- Mtiraoui, A. (2019). Islamic financial development between trend and stability in the mena region. **Application on Panel Data**. 02494748, 1-17. <https://doi.org/10.2139/ssrn.3442889>.
- Muturi, D. (2023). Infrastructure investment and economic development. **Journal of Poverty, Investment and Development**, **8**(2), 90-99. <https://doi.org/10.47604/jpid.2074>.
- Myers, S. C. (1977). Determinants of corporate borrowing. **Journal of Financial Economics**, **5**(2), 147-175. [https://doi.org/10.1016/0304-405X\(77\)90015-0](https://doi.org/10.1016/0304-405X(77)90015-0).
- Naveed, A., & Wang, C. (2023). Innovation and labour productivity growth moderated by structural change: Analysis in a global perspective. **Technovation**, **119**, 102554. <https://doi.org/10.1016/j.technovation.2022.102554>.
- Nur, I., Asiyah, B., Puspitarini, R., & Umam, S. (2019). Probing Islamic values of business principles and ethics. **International Journal of Scientific Research and Management**, **7**(10), 1412-1423. <https://doi.org/10.18535/ijssrm/v7i10.em06>.
- Panizza, U., & Presbitero, A. F. (2014). Public debt and economic growth: Is there a causal effect? **Journal of Macroeconomics**, **41**, 21-41. <https://doi.org/10.1016/j.jmacro.2014.03.009>.
- Pattillo, C., A. Poirson W., H., & Ricci, L. A. (2021). What are the Channels Through

- Which External Debt Affects Growth? *IMF Working Paper WP/04/15*. <https://doi.org/10.2139/ssrn.878838>.
- Prebisch, R. (1962). *The economic development of Latin America and its principal problems*. United Nations Department of Economic Affairs.
- Qayyum, U., Din, M. ud, & Haider, A. (2014). Foreign aid, external debt and governance. *Economic Modelling*, **37**, 41–52. <https://doi.org/10.1016/j.econmod.2013.08.045>.
- Ray, R. (2021). Who controls multilateral development finance? *Global Governance*, **27**(1) 118-143. <https://doi.org/10.1163/19426720-02701006>.
- Rehman, S. S., & Askari, H. (2010a). An economic Islamicity Index (EI2). *Global Economy Journal*, **10**(3), 1-39. <https://doi.org/10.2202/1524-5861.1680>.
- Rehman, S. S., & Askari, H. (2010b). How Islamic are Islamic countries? *Global Economy Journal*, **10**(2), 1-40. <https://doi.org/10.2202/1524-5861.1614>.
- Reinhart, C. (2010). This time is different chartbook: Country histories on debt, default, and financial crises. In *Decade of Debt*. Peterson Institute for International Economics. <https://doi.org/10.3386/w15815>.
- Reinhart, C. M., Reinhart, V. R., & Rogoff, K. S. (2012). Debt overhangs: Past and present. *National Bureau of Economic Research Working Paper Series, No. 18015*.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, **98**(5), 71-102. <https://doi.org/10.3386/w3210>.
- Roubini, N., & Sachs, J. (1989). Government spending and budget deficits in the industrial countries. *NBER Working Paper Series No. 2919*. <https://doi.org/10.2307/1344465>.
- Sellar, C., Grandi, S., & Jafri, J. (2019). *Geofinance between political and financial geographies*. Edward Elgar Publishing. <https://doi.org/10.4337/9781789903850.00007>.
- SESRIC. (2025). *OIC economic outlook 2025: Pathways to stability amid tariff impacts*.
- Simón, P., & Guinjoan, M. (2018). The short-term and long-term effects of institutional reforms on party system nationalization. *Comparative European Politics*, **16**(1), 1-21. <https://doi.org/10.1057/s41295-017-0100-3>.
- Straub, S., & Terada-Hagiwara, A. (2011). Infrastructure and growth in developing Asia. *Asian Development Review*, **28**(1), 119-56. <https://doi.org/10.1142/s0116110511500065>.
- Suharli, S., Wahab, A., & Habbe, A. H. (2022). Application of Islamic economic principles in realizing management banking without interest. *Dinasti International Journal of Education Management and Social Science*, **3**(2), 277-288. <https://doi.org/10.31933/dijemss.v3i2.1071>.
- Yeboah, E. (2025). Economic growth in ECOWAS: Linear and nonlinear dynamics of domestic investment, trade openness, inflation, and infrastructure access. *African Development Review*, **37**(4), 1-14. <https://doi.org/10.1111/1467-8268.70035>.