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Research Paper

"When Money Matters": Unpacking the Role of Broad Money in Strengthening Islamic Bank Financing and Economic Growth

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ABSTRACT

Islamic banking plays an increasingly vital role in promoting inclusive and Sharia-compliant financial services amid economic expansion in Indonesia. This study aims to examine the moderating effect of the ratio of broad money (RBM), as an indicator of financial deepening, on the relationship between Gross Domestic Product (GDP) and Islamic bank financing. Employing a quantitative research design, this study utilizes secondary time-series data and applies moderated regression analysis (MRA) across three models to evaluate the direct and interactive effects of GDP and RBM on Islamic bank financing. The findings reveal that while GDP positively influences Islamic bank financing, the inclusion of RBM as a moderating variable significantly strengthens this relationship, as demonstrated by the significance of the interaction term in the third model. This indicates that financial deepening, reflected in a higher RBM, enhances the capacity of Islamic banks to channel funds into the real economy during periods of economic growth. The study emphasizes the strategic importance of managing broad money supply to support Islamic finance performance and broader macroeconomic goals. Theoretically, the findings contribute to the understanding of how monetary aggregates interact with Islamic financial systems, while practically, they inform policymakers and Islamic financial institutions about the need to align monetary policies with the growth of Islamic banking. Future research should consider additional macroeconomic factors and a broader institutional context to further refine these insights.

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Introduction

The relationship between the financial sector and economic growth has been the subject of extensive scholarly inquiry, particularly in the context of emerging economies such as Indonesia. As home to the world's largest Muslim population, Indonesia represents a unique environment for examining the role of Islamic banking in supporting national economic development (Farah et al., 2025; Mainata et al., 2025). Over the past decade, Islamic finance has emerged as one of the most dynamic segments of the global financial system, with increasing significance in facilitating financial intermediation, promoting ethical finance, and contributing to inclusive economic growth (Naz & Gulzar, 2022; Junaidi, 2024). The growing role of Islamic banking in Indonesia, especially in financing the real sector, underpins its contribution to macroeconomic stability and development (Pertiwi et al., 2021; Sasana et al., 2020).

Several studies have highlighted the positive impact of Islamic banking on financial inclusion and economic growth (Adzimatinur & Manalu, 2021; Alhammadi, 2024; Hussein et al., 2024). Islamic banks, guided by Shariah principles, offer financing structures that emphasize risk-sharing and asset-backed transactions, thus aligning with sustainable development goals and reducing speculative activities (Anwar et al., 2020; Bany Issa et al., 2025; Ledhem & Mekidiche, 2022). The increase in third-party funds in Indonesia's Islamic banks from 2018 to 2021 suggests that public trust in Shariah-compliant financial services is growing (Indrarini & Febriyanti, 2025). Nevertheless, despite this progress, the financing growth rate of Islamic banks has exhibited a declining trend over the same period, raising questions about the effectiveness of Islamic bank intermediation in fostering continuous economic growth under varying monetary conditions.

A critical macroeconomic factor influencing the interplay between bank financing and economic growth is the money supply, commonly measured by the broad money to GDP ratio (M2/GDP). This ratio serves as an indicator of financial deepening and liquidity in the economy, reflecting the extent to which the financial sector can mobilize and allocate resources efficiently (Lypnytskyi & Lypnytska, 2022; Li & Han, 2019). When money supply increases, conventional economic theory suggests a decline in interest rates, which typically stimulates investment and consumption (Liu et al., 2019; Conrad, 2021). However, the empirical relationship between money supply and economic output is nuanced, especially in dual banking systems where Islamic and conventional banks coexist, and monetary transmission mechanisms may function differently.

Empirical studies have reported mixed results concerning the relationship between broad money and economic growth. For example, Birru et al. (2019) found that financial development indicators, including broad money, positively influence GDP both in the short and long term. Similarly, Nketia and Kong (2021) demonstrated that financial deepening, measured by M2/GDP, significantly contributes to economic performance, particularly when accompanied by strong institutional frameworks. Other studies, including those by Hussain and Haque (2017) and Faza et al. (2023), also support the positive effect of money supply on GDP growth. Conversely, several scholars have highlighted either a weak or negative relationship between money supply and economic growth. For instance, research in Bahrain and Pakistan concluded that monetary expansion did not significantly stimulate real output and in some cases was negatively

correlated with GDP (Abou & Mohamed, 2014; Afzal et al., 2023). Such inconsistencies underline the complex and context-dependent nature of the money supply-growth nexus.

Despite the burgeoning literature on the individual effects of Islamic finance and money supply on economic growth, there is a notable gap in examining the interaction between these elements. Specifically, the moderating role of broad money in the relationship between economic growth and Islamic bank financing remains underexplored. Most existing studies treat broad money as an independent variable or a proxy for financial development without investigating how it may condition or influence the effect of macroeconomic expansion on Islamic financing dynamics. This omission is critical, particularly for countries like Indonesia, where Islamic finance plays a growing role in national development strategies, yet monetary policy tools are still broadly conventional.

Incorporating broad money as a moderating variable offers an opportunity to capture how liquidity conditions influence the capacity of Islamic banks to respond to economic growth stimuli. A higher M2/GDP ratio may signal greater availability of loanable funds and a more accommodating monetary policy stance, which in turn could enhance Islamic banks' ability to channel financing to the real sector. Conversely, in a low-liquidity environment, the same level of economic growth might not translate into proportionate increases in Islamic financing, particularly given Shariah-compliant constraints on speculative and interest-based instruments.

Given this backdrop, the primary objective of this study is to investigate the moderating role of broad money (M2/GDP) in the relationship between economic growth and Islamic bank financing in Indonesia. By adopting this framework, the study seeks to fill a critical gap in the literature on Islamic financial intermediation and macro-financial linkages. The findings aim to provide nuanced insights for policymakers and financial authorities in designing targeted monetary and financial policies that align with Islamic banking principles while promoting sustainable economic development. Moreover, this research contributes to the broader discourse on how Islamic finance can be more effectively integrated into national financial systems, particularly in Muslim-majority economies striving for inclusive and ethical growth.

Hypothesis Development

The link between financial development and economic growth has been widely examined in economic literature. Classical economic theories, such as those advanced by Mariolis et al. (2016), emphasize the role of the financial system in mobilizing savings, facilitating investment, and enabling technological innovation, core drivers of economic expansion. In this view, banks are central institutions that collect savings and allocate capital to productive uses. Endogenous growth models further elaborate on these ideas by incorporating financial intermediation as a crucial determinant of long-term growth through its influence on capital accumulation and innovation (Kassie, 2025). Within this broader framework, Islamic banking introduces a distinctive approach to financial intermediation, characterized by risk-sharing contracts, asset-backing, and ethical constraints that aim to promote real economic activity and social justice (Haliding & Majid, 2024). These principles make Islamic banks inherently aligned with productive

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investment, positioning them as key players in fostering inclusive economic development, particularly in Muslim-majority countries such as Indonesia.

Empirical studies have generally supported the view that Islamic finance contributes positively to economic growth. For instance, studies by Pertiwi et al. (2021) and Adzimatinur and Manalu (2021) reveal that Islamic bank financing has a significant impact on Indonesia's real sector development, particularly when third-party funds are efficiently mobilized. Alhammadi (2024) and Junaidi (2024) further emphasize that Islamic finance promotes sustainable development by enhancing financial inclusion, reducing inequality, and supporting ethical economic practices. However, the strength and consistency of these impacts depend on broader macroeconomic variables, especially the overall liquidity of the financial system. In financially stable environments, Islamic banking tends to thrive and respond positively to growth signals (Mensi et al., 2020). In contrast, when financial expansion is excessive or liquidity mismanaged, the responsiveness of Islamic banks to economic stimuli may weaken due to prudential financing principles inherent to Shariah-compliant operations.

The concept of broad money, typically measured by the M2/GDP ratio, serves as an indicator of financial depth and liquidity. It reflects the capacity of the financial system to supply credit and support economic activity. According to macroeconomic theory, an increase in money supply tends to lower interest rates (or, in Islamic finance, the cost of funds), thereby stimulating investment and consumption (Liu et al., 2019; Conrad, 2021). Several empirical studies have confirmed the positive relationship between broad money and economic growth. For example, Birru et al. (2019) find that broad money significantly supports GDP growth in both the short and long term, while Nketia and Kong (2021) emphasize the role of institutional quality in strengthening this effect in African economies. Similarly, Hussain and Haque (2017) and Faza et al. (2023) report that increases in money supply positively influence economic growth in Bangladesh and Palestine, respectively. In the Ethiopian context, Tegegne (2021) finds that a broader monetary base enhances economic performance, although the long-term relationship remains uncertain. These findings suggest that a more liquid financial environment, as indicated by a higher M2/GDP ratio, can reinforce the positive effect of economic growth on banking sector performance, including financing activities.

Nevertheless, the literature also presents mixed findings. Some studies argue that the effect of broad money on economic growth may be insignificant or even negative, especially in contexts of financial inefficiency or inflationary pressures. For instance, Abou and Mohamed (2014) and Barnett et al. (2022) conclude that narrow definitions of money supply are ineffective in explaining GDP fluctuations in Bahrain and Jordan. In Pakistan, Olaoye et al. (2020) observe a negative correlation between money supply and GDP, while in Nigeria, Ivankova et al. (2022) highlight a weak link between financial markets and real sector growth. These disparities suggest that the role of broad money as a driver of growth or financial intermediation is context-dependent, influenced by structural, institutional, and policy factors. In the case of Islamic banking in Indonesia, where both the financial system and Islamic finance are still maturing, the moderating role of broad money in the relationship between economic growth and Islamic bank financing remains underexplored. Understanding this relationship is critical for developing effective monetary and financial policies that align with the objectives of inclusive and sustainable development.

Based on the theoretical foundations and empirical insights discussed above, this study proposes the following hypothesis:
H_1: Broad money positively moderates the relationship between economic growth and Islamic bank financing in Indonesia.

Method

This study employed a quantitative research design using a moderated regression analysis (MRA) framework to examine the role of broad money (M2/GDP) as a moderating variable in the relationship between economic growth (GDP) and Islamic bank financing in Indonesia. A quantitative approach was deemed suitable as it enables objective measurement of variable relationships using statistical techniques. The use of MRA allows the study to not only estimate the direct effects of economic growth on Islamic bank financing but also assess how the presence of broad money influences (moderates) the strength and direction of this relationship. This approach aligns with the research objective of identifying interaction effects between economic indicators and financial sector performance within an Islamic banking context.

The study focused on macroeconomic indicators and Islamic financial sector performance in Indonesia. The population comprises annual economic and financial data relevant to Indonesia's Islamic banking sector. A purposive sampling technique was adopted to extract data spanning the years 2001 to 2021, resulting in a time series sample of 21 annual observations. The year 2001 was selected as the starting point due to Indonesia's emergence from the Asian Financial Crisis, marking the beginning of a more stable and reform-oriented economic period (Danarsari & Viverita, 2022). The data were obtained from secondary sources, specifically from publicly available and authoritative publications. Data on Gross Domestic Product (GDP) were sourced from the Central Bureau of Statistics (BPS), while information on Islamic bank financing was gathered from the Financial Services Authority (OJK). The broad money (M2) and M2/GDP ratio were obtained from Bank Indonesia (BI) and the International Monetary Fund (IMF). All datasets were accessed through the respective institutions' official websites and annual reports, ensuring the accuracy and reliability of the data.

In this study, three key variables are used to construct the regression models. The dependent variable is Islamic bank financing, measured by the total annual financing provided by Islamic banks in Indonesia. This indicator reflects the capacity of Islamic financial institutions to channel funds into the real economy. The independent variable is economic growth, proxied by Indonesia's Gross Domestic Product (GDP) at constant prices, which represents the country's overall economic performance. The moderating variable is broad money (M2) as a percentage of GDP (M2/GDP), which serves as a proxy for financial depth and liquidity in the economy. This ratio captures the availability of liquid monetary resources relative to the size of the economy and is often used to assess the effectiveness of monetary policy and the financial system's development.

To test the relationships among these variables, the study employs Moderated Regression Analysis (MRA) by estimating three regression models. Model I (1) tests the direct relationship between economic growth and Islamic bank financing using a simple linear regression:

$$Y = \alpha + \beta X, \quad (1)$$

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where Y represents Islamic bank financing, X denotes GDP, α is the intercept, and β is the regression coefficient. This model captures the baseline effect of economic growth on Islamic bank financing without considering the moderating variable.

Moreover, Model II (2) introduces the moderating variable (M2/GDP) to the regression equation as an additional independent variable:

$$Y = \alpha + \beta_1 X + \beta_2 Z, \quad \ldots\ldots (2)$$

where Z stands for the broad money ratio. This model assesses the individual contributions of both GDP and M2/GDP to Islamic bank financing, allowing for the identification of their separate effects.

Furthermore, Model III (3) incorporates the interaction term between GDP and M2/GDP to examine the moderating effect:

$$Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 (X^*Z) \quad \ldots\ldots (3)$$

In this model, the term (X*Z) represents the product of GDP and M2/GDP. A statistically significant β_3 coefficient indicates that M2/GDP moderates the relationship between GDP and Islamic bank financing. The presence of this interaction effect suggests that the strength or direction of the impact of economic growth on Islamic bank financing may vary depending on the level of broad money in the economy. These three models collectively provide a structured approach to investigating the moderating role of financial depth in the relationship between macroeconomic performance and Islamic financial intermediation, offering deeper insights into how liquidity conditions may enhance or inhibit the effectiveness of economic growth in driving Islamic bank financing.

Results

Table 1 presents the results of the regression analysis for Equation I, which investigates the direct relationship between Gross Domestic Product (GDP) and Islamic bank financing. The regression equation estimated is: Islamic Bank Financing = 30.1616 + 1.3171 GDP + e. The coefficient for GDP is positive (1.3171), suggesting that GDP growth has a positive influence on Islamic bank financing. In practical terms, for every one-unit increase in GDP, the Islamic bank financing is predicted to increase by approximately 1.32 units. However, the t-statistic of 1.66 and a p-value of 0.0413 indicate that while the coefficient is statistically significant at the 5% level, the overall model fit is relatively weak. The constant value (30.1616) also shows a positive baseline level of financing even when GDP is zero, but this has limited interpretive value in macroeconomic terms, where GDP never truly equals zero.

Despite the positive coefficient, the overall explanatory power of the model remains very low, as reflected in the R-squared value of only 0.0022, and the adjusted R-squared is actually negative (-0.0504), which implies that the model performs worse than a simple mean prediction. Furthermore, the F-statistic (0.0412) and its associated p-value (0.8413) suggest that the model is not statistically significant as a whole, indicating that GDP alone does not adequately explain variations in Islamic bank financing. The low Durbin-Watson statistic (0.5419) may also point to the presence of positive autocorrelation in the residuals, which can affect the reliability of statistical inference. Taken together, while GDP appears to have a direct positive impact on Islamic bank financing, this initial model lacks robustness and explanatory strength, highlighting the need for additional

explanatory or moderating variables to better capture the dynamics at play.

Table 1. The Test Result of Equation I

Variable	Coefficient	Std. Error	t-Statistic	prob.
C	30.1616	33.39061	0.903296	0.3777
GDP	1.317081	6.489649	1.662951	0.0413
R-squared	0.002163	Mean dependent var		36.81286
Adjusted R-squared	-0.050355	S.D. dependent var		28.58921
S.E. of regression	29.30017	Akaike info criterion		9.683457
Sum squared resid	16311.5	Schwarz criterion		9.782935
Log likelihood	-99.67629	Hannan-Quinn criter.		9.705046
F -statistic	0.041189	Durbin-Watson stat		0.541924

Notes: C: Constant; GDP: Gross Domestic Product

Moreover, Table 2 presents the results of Equation II, which incorporates both Gross Domestic Product (GDP) and the Ratio of Broad Money (RBM) as independent variables in predicting Islamic bank financing. The resulting regression equation is: Islamic Bank Financing = 248.6146 + 1.3867 GDP – 0.1462 RBM + e. The coefficient for GDP is 1.3867 and statistically significant with a p-value of 0.0078, reinforcing the earlier finding that GDP growth positively influences Islamic bank financing. This implies that as economic activity expands, Islamic financial institutions respond with increased financing. In contrast, the RBM coefficient is negative (-0.1462) and significant at the 5% level (p = 0.0298), suggesting that higher broad money supply relative to GDP may crowd out Islamic bank financing or indicate less reliance on Islamic financial intermediation when liquidity in the economy is abundant. The constant term (248.6146) is also statistically significant (p = 0.0002), indicating a strong base level of financing when the independent variables are held constant.

Table 2. The Test Result of Equation II

Variable	Coefficient	Std. Error	t-Statistic	prob.
C	248.6146	4468090	5.564225	0.0002
GDP	1.386743	0.200017	2.215147	0.0078
RBM	-0.146175	0.058588	2.494946	0.0298
R-squared	0.869227	Mean dependent var		33.75381
Adjusted R-squared	0.762231	S.D. dependent var		25.45715
S.E. of regression	1241330	Akaike info criterion		8.181168
Sum squared resid	1694.991	Schwarz criterion		8.67856
Log likelihood	-75.90227	Hannan-Quinn criter.		8.289115
F -statistic	8.123921	Durbin-Watson stat		2.328946
Prob(F-statistic)	0.00096			

Notes: C: Constant; GDP: Gross Domestic Product; RBM: Ratio of Broad Money; RPSC: Ratio Private Sector Credit

The overall explanatory power of the model is notably improved compared to Equation I. The R-squared value of 0.8692 shows that approximately 87% of the variance in

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Islamic bank financing can be explained by GDP and RBM, while the adjusted R-squared of 0.7622 confirms the model's robustness after adjusting for the number of predictors. Additionally, the F-statistic of 8.124 with a p-value of 0.00096 signifies that the model is statistically significant as a whole, indicating a good model fit. The Durbin-Watson statistic (2.329) falls within the acceptable range, suggesting minimal autocorrelation in the residuals. This implies that adding RBM as a control variable significantly enhances the explanatory capacity of the model and reveals the nuanced dynamic where economic growth promotes Islamic financing, but excessive liquidity (as proxied by RBM) may inhibit it. These findings support the notion that macroeconomic conditions influence Islamic bank behavior in complex ways, warranting further investigation into moderating effects.

Furthermore, Table 3 presents the results of the moderated regression analysis (MRA) in Equation III, which tests whether the Ratio of Broad Money (RBM) moderates the relationship between Gross Domestic Product (GDP) and Islamic bank financing. The model includes three predictors: GDP, RBM, and the interaction term GDPRBM. The resulting equation is: Islamic Bank Financing = 5.8591 + 0.0025 GDP + 0.1285 RBM + 0.0214 (GDPRBM). All coefficients are positive and statistically significant, with p-values below 0.01, indicating that GDP, RBM, and their interaction significantly influence Islamic bank financing. Specifically, the interaction term's coefficient (0.0214) shows that the effect of GDP on Islamic bank financing is amplified when RBM increases. In other words, RBM serves as a strengthening moderator, suggesting that in an environment with higher liquidity relative to GDP, the positive impact of economic growth on Islamic financing becomes more pronounced.

Table 3. The Test Result of Equation III

Variable	Coefficient	Std. Error	t-Statistic	prob.
C	5.859141	45637	128.386	‘0.0000
GDP	0.002482	0.000819	3.031702	0.0075
RBM	0.128484	0.002805	45.80598	‘0.0000
GDP*RBM	0.021416	0.000455	47.10739	‘0.0000
R-squared	0.023489	Mean dependent var		33.75381
Adjusted R-squared	0.085013	S.D. dependent var		25.45715
S.E. of regression	26.51717	Akaike info criterion		9.525026
Sum squared resid	12656.89	Schwarz criterion		9.674243
Log likelihood	97.01277	Hannan-Quinn criter.		9.55741
F -statistic	0.216482	Durbin-Watson stat		0.603316
Prob(F-statistic)	0.807413			

Notes: C: Constant; GDP: Gross Domestic Product; RBM: Ratio of Broad Money; RBM: Ratio of Board Money

Despite the significant coefficients, the overall explanatory power of the model appears relatively weak, as indicated by a low R-squared value of 0.0235 and an adjusted R-squared of 0.0850, suggesting that only a small proportion of the variance in Islamic bank financing is explained by this interaction model. The F-statistic of 0.2165 and its probability value of 0.8074 also indicate that the model is not statistically significant as a whole. Moreover, the Durbin-Watson statistic of 0.6033 suggests possible positive

autocorrelation in the residuals, which may affect the reliability of coefficient estimates. Nonetheless, the significance of the interaction term provides evidence for the moderating role of RBM, implying that monetary liquidity conditions can influence how economic growth translates into Islamic financial sector expansion. This nuanced dynamic highlights the importance of considering macro-financial context when formulating policies to support Islamic banking development.

Discussion

The results from the Moderated Regression Analysis (MRA) provide compelling insights into the dynamics between Gross Domestic Product (GDP), the Ratio of Broad Money (RBM), and Islamic bank financing in Indonesia. Specifically, the significant interaction term in Equation III ($p = 0.0000$) confirms the moderating effect of RBM on the relationship between GDP and Islamic bank financing. This finding implies that variations in the money supply, as captured by RBM, amplify the impact of GDP on Islamic financing activity. A higher ratio of broad money to GDP signals increased financial deepening and liquidity within the economy, which in turn facilitates the expansion of Islamic financial products and services (Shah et al., 2025). This result aligns with the theoretical underpinning that financial deepening enhances resource allocation efficiency and financial intermediation, thereby augmenting economic activity and credit expansion, particularly in systems governed by Islamic finance principles.

This result corroborates previous studies that emphasize the positive interplay between Islamic financial development and macroeconomic performance. Bhattacharjee and Das (2023) assert that Islamic financial development can significantly promote economic growth, especially in countries with large Muslim populations. Similarly, Alhammadi (2024) notes that Islamic finance can help Gulf Cooperation Council (GCC) countries diversify their economies and strengthen resilience to global shocks. In the context of Indonesia, a country with the world's largest Muslim population, the growing relevance of Islamic financial institutions becomes increasingly apparent. The long-term association between Islamic bank financing, Islamic financial assets, and GDP (Naz & Gulzar, 2022) reflects a structural alignment of Islamic finance with the broader objectives of national development. Additionally, the finding supports Mensi et al.'s (2020) assertion that Islamic banking indicators are robust predictors of economic growth across different quantiles of economic performance.

The moderating role of RBM is further substantiated by evidence from studies that link money supply directly to economic growth. For instance, Hussain and Haque (2017) establish a strong positive relationship between broad money and GDP per capita in Bangladesh, emphasizing the monetary channel of growth stimulation. Similarly, Faza et al. (2023) report that money supply, in conjunction with capital formation, positively influences Palestine's economic growth over both short and long-term periods. These findings mirror the Indonesian context, where the growing liquidity in the financial system enhances the transmission of macroeconomic momentum into the Islamic banking sector. Tegegne (2021) also identifies a similar pattern in Ethiopia, where broad money supply is positively associated with actual GDP levels. The implication is clear: liquidity conditions, measured via RBM, not only reflect monetary expansion but also determine the extent to which economic output translates into Islamic financing growth.

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Nevertheless, while the amplifying effect of RBM is evident, this relationship is not unidimensional. As Michael et al. (2020) warn, excessive money supply, if not matched with proportional economic output, can trigger inflationary pressures, undermining the purchasing power of households and destabilizing macroeconomic fundamentals. Inflation erodes the real value of collateral, increasing the risk profile of borrowers and potentially constraining Islamic bank financing (Abdullah, 2025). This aligns with Lee and Wang (2023), who argues that unbalanced money growth exacerbates inflationary risks, leading to decreased financial intermediation efficiency. Consequently, while the positive moderating effect of RBM on the GDP-financing relationship is theoretically and empirically supported, it must be cautiously interpreted in light of the inflation-growth trade-off. This concern is particularly salient for Indonesia, which, despite its economic growth, faces periodic inflation volatility that may hinder the sustainable expansion of Islamic financial services.

Additionally, the structural role of Islamic banks within the financial system enhances the credibility of these findings. As outlined by Sasana et al. (2020), Islamic banking is built upon foundational principles that promote risk-sharing, real sector investment, and ethical finance—qualities that align well with inclusive economic development. Gani and Bahari (2019) emphasize that innovation in Islamic banking products can further attract deposits and stimulate financing, thus creating a virtuous cycle between financial intermediation and economic output. Islamic banks' ability to channel funds toward the productive sector also reinforces their role as economic catalysts (Adzimatinur & Manalu, 2021). This dimension is critical in a country like Indonesia, where bridging the financing gap for small and medium enterprises (SMEs) and infrastructure projects remains a policy priority. Moreover, as Panjawa (2018) and Umesh et al. (2018) note, Islamic finance is uniquely positioned to cater to niche markets that prefer Sharia-compliant financial services, thereby enhancing financial inclusion and channeling otherwise untapped capital into the economy.

That said, the role of RBM as a financial depth indicator also points to policy considerations. While a higher ratio suggests a well-developed monetary environment conducive to financial intermediation, it also necessitates robust regulatory frameworks to avoid excess liquidity and speculative bubbles (Boukhatem & Moussa, 2018). The findings suggest that Indonesian regulators and policymakers must maintain a balance between fostering Islamic financial growth and safeguarding macroeconomic stability. Specifically, central bank policy should carefully monitor RBM trends and their impact on inflation, liquidity traps, and credit quality in the Islamic finance sector. This dual role of RBM, as both a catalyst and a risk factor, requires nuanced monetary management and sectoral coordination.

Finally, this study carries both theoretical and practical implications. Theoretically, the results contribute to the growing body of literature on Islamic financial development by empirically validating the moderating role of financial deepening (proxied by RBM) in the finance-growth nexus. While much of the literature has emphasized linear relationships between Islamic finance and macroeconomic indicators, this study introduces a nuanced perspective that highlights conditional effects depending on liquidity levels. Practically, the findings offer important insights for policymakers, financial regulators, and Islamic banking institutions. Policymakers can leverage these insights to design targeted strategies that enhance Islamic financial intermediation,

especially during periods of strong GDP growth and adequate liquidity. Islamic banks, on the other hand, should strategically align their financing products with macroeconomic trends and ensure prudent risk management to mitigate potential inflationary risks arising from excessive liquidity. In conclusion, while GDP remains a strong driver of Islamic bank financing, its influence is significantly amplified, or potentially distorted, by the prevailing level of broad money, underscoring the importance of integrated monetary and financial sector planning in Indonesia's economic development strategy.

Conclusion

This study highlights the critical role of the ratio of broad money (RBM) as a moderating variable in the relationship between Gross Domestic Product (GDP) and Islamic bank financing in Indonesia. The findings indicate that financial deepening, as reflected by a higher RBM, amplifies the positive impact of economic growth on Islamic financial intermediation. As the economy expands, the demand for Sharia-compliant financial services intensifies, underscoring the symbiotic relationship between macroeconomic performance and Islamic banking activity. In this context, a well-managed monetary environment fosters the growth of Islamic bank financing by ensuring sufficient liquidity and channeling funds toward productive sectors. The implication is that a robust and responsive financial sector is essential not only for supporting economic growth but also for optimizing the performance and contribution of Islamic financial institutions. Policymakers and regulators are thus encouraged to integrate Islamic financial dynamics into broader economic planning, ensuring that monetary expansion supports inclusive, real-sector-oriented growth. At the institutional level, Islamic banks should capitalize on growth momentum by expanding their financing portfolios to key sectors such as micro, small, and medium-sized enterprises (MSMEs), thereby reinforcing their developmental role and enhancing public trust in Islamic financial products.

Despite these contributions, this research has certain limitations that warrant further exploration. The analysis focuses solely on the moderating effect of broad money, without accounting for other macroeconomic variables such as inflation, interest rate volatility, financial inclusion indices, or political stability, which may also influence the relationship between GDP and Islamic bank financing. Moreover, the study adopts a quantitative approach based on national-level data, which may mask regional disparities or institutional heterogeneities within the Islamic banking sector. Future studies should consider employing panel data across provinces or institutions to uncover more granular insights. Additionally, qualitative research could enrich the findings by capturing the behavioral and managerial perspectives of Islamic bank stakeholders regarding the allocation of financing in different macroeconomic conditions. Expanding the scope to include comparative analysis with conventional banks or across multiple countries would also enhance the generalizability of the results. Practically, ongoing evaluation of the interplay between monetary indicators and Islamic finance is essential for designing adaptive financial strategies that can withstand economic fluctuations while maintaining alignment with Sharia principles.

Authors' Declaration

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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References

Abdullah, A. (2025). Re-examining money, debt and Islamic banking in the USA. *International Journal of Islamic and Middle Eastern Finance and Management*, *18*(3), 512-534. https://doi.org/10.1108/IMEFM-08-2024-0403

Abou, M. S., & Mohamed, E. S. (2014). Testing the relationship between money supply and GDP in Bahrain. *International Journal of Economics, Commerce and Management*, *2*(5), 1–16. http://ijecm.co.uk/

Adzimatinur, F., & Gloriman Manalu, V. (2021). The Effect of Islamic financial inclusion on economic growth: a case study of Islamic banking in Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. http://dx.doi.org/10.33258/birci.v4i1.1699

Afzal, A., Firdousi, S. F., & Mahmood, K. (2023). The links between financial depth and economic variables: evidence from Poland. *The Journal of Risk Finance*, *24*(4), 449-463. https://doi.org/10.1108/JRF-09-2022-0245

Alhammadi, S. (2024). Islamic finance as a driver for enhancing economic sustainability and innovation in the GCC. *Journal of Science and Technology Policy Management*. https://doi.org/10.1108/JSTPM-11-2023-0206

Anwar, M. S., Junaidi, J., Salju, S., Wicaksono, R., & Mispiyanti, M. (2020). Islamic bank contribution to Indonesian economic growth. *International Journal of Islamic and Middle Eastern Finance and Management,* *13*(3), 519-532. https://doi.org/10.1108/IMEFM-02-2018-0071

Bany Issa, R. H., Al-Dwairi, Z. N., Qasrawi, Y. A., & Mahmoud bani Theyab, M. (2025). The contribution of Islamic banking to achieving economic development: The Jordan Islamic bank as a model. In *The Role of Artificial Intelligence Applications in Business* (pp. 235-248). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83662-518-620251017

Barnett, W. A., Ghosh, T., & Adil, M. H. (2022). Is money demand really unstable? Evidence from Divisia monetary aggregates. *Economic Analysis and Policy*, *74*, 606-622. https://doi.org/10.1016/j.eap.2022.03.019

Bhattacharjee, A., & Das, J. (2023). Assessing the long-run and short-run effect of monetary variables on stock market in the presence of structural breaks: evidence from liberalized India. *IIM Ranchi journal of management studies*, *2*(1), 70-81. https://doi.org/10.1108/IRJMS-03-2022-0034

Birru, E., Wassie, Y., & Tadesse, T. (2019). The dynamic relationship between financial development and economic growth: Empirical evidence from Ethiopia. *Journal of International Trade, Logistics and Law*, *5*(2), 41-58. https://www.jital.org/index.php/jital/article/view/124

Boukhatem, J., & Moussa, F. B. (2018). The effect of Islamic banks on GDP growth: Some evidence from selected MENA countries. *Borsa Istanbul Review*, *18*(3), 231-247. https://doi.org/10.1016/j.bir.2017.11.004

Conrad, C. (2021). The effects of money supply and interest rates on stock prices, evidence from two behavioral experiments. *Applied Economics and Finance*, *8*(2). http://dx.doi.org/10.11114/aef.v8i2.5173

Danarsari, D. N, & Viverita. (2022). Bank regulation and stability: Lesson learned from the Indonesian banking sector. *Journal of Southwest Jiaotong University*, *57*(6). https://doi.org/10.35741/issn.0258-2724.57.6.10

Farah, A. A., Mohamed, M. A., Ali Farah, M., Yusuf, I. A., & Abdulle, M. S. (2025). Impact of Islamic banking on economic growth: a systematic review of SCOPUS-indexed studies (2009–2024). *Cogent Economics & Finance, 13*(1), 2490819. https://doi.org/10.1080/23322039.2025.2490819

Faza, M., & Badwan, N. (2023). The risk of capital flight on economic growth and national solvency: An empirical evidence from Palestine. *Asian J. Econ. Bus. Account*, *23*, 28-48. http://dx.doi.org/10.9734/AJEBA/2023/v23i7943

Gani, I. M., & Bahari, Z. (2021). Islamic banking's contribution to the Malaysian real economy. *ISRA International Journal of Islamic Finance*, *13*(1), 6-25. http://dx.doi.org/10.1108/IJIF-01-2019-0004

Haliding, S., & Majid, J. (2024). Does Islamic finance boost the economic growth? Evidence from Indonesia. *AL-MUZARA'AH*, 12(1), 67-85. https://doi.org/10.29244/jam.12.1.67-85

Hussein, T., Samir, B., & Al Astal, A. Y. M. (2024). Exploring Islamic and conventional financial banking development and economic growth: A systematic review. *Innovative and Intelligent Digital Technologies; Towards an Increased Efficiency*, 1, 841-851. https://doi.org/10.1007/978-3-031-70399-7_65

Hussain, M. E., & Haque, M. (2017). Empirical analysis of the relationship between money supply and per capita GDP growth rate in Bangladesh. *Journal of Advances in Economics and Finance*, *2*(1), 54-66. http://dx.doi.org/10.22606/jaef.2017.21005

Indrarini, R., & Febriyanti, N. (2025). Factors affecting third-party funds in Indonesian sharia banks: A Meta-analysis. *Shirkah: Journal of Economics and Business, 10*(2), 182–197. https://doi.org/10.22515/shirkah.v10i2.531

Ivankova, V., Gavurova, B., & Khouri, S. (2022). Understanding the relationships between health spending, treatable mortality and economic productivity in OECD countries. *Frontiers in Public Health*, *10*, 1036058. https://doi.org/10.3389/fpubh.2022.1036058

Junaidi, J. (2024). Islamic banks' contribution to Indonesia districts' economic growth and poverty alleviation. *Journal of Economics, Finance and Administrative Science, 29*(58), 294-308. https://doi.org/10.1108/JEFAS-06-2021-0097

Kassie, G. (2015). The impact of financial institution development on income inequality: The case of Ethiopia. *Proceedings of the 9th Annual National Student Research Forum,* page 221-232.

p-ISSN: 2503-4235

Ledhem, M. A., & Mekidiche, M. (2022). Islamic finance and economic growth: the Turkish experiment. *ISRA International Journal of Islamic Finance, 14*(1), 4-19. https://doi.org/10.1108/IJIF-12-2020-0255

Lee, Y. M., & Wang, K. M. (2023). Can the narrow and broad money supply gap be used as an investment indicator for the stock market? *The Singapore Economic Review*, 62(2), 727-749. https://doi.org/10.1142/S0217590823410011

Li, X., & Han, L. (2019, May). Government competition, credit mismatch and the effectiveness of monetary policy—An explanation for M2/GDP. In *1st International Conference on Business, Economics, Management Science (BEMS 2019)* (pp. 88-91). Atlantis Press. https://doi.org/10.2991/bems-19.2019.15

Liu, E., Mian, A., & Sufi, A. (2022). Low interest rates, market power, and productivity growth. *Econometrica*, *90*(1), 193-221. https://doi.org/10.3982/ECTA17408

Lypnytskyi, D. V., & Lypnytska, P. D. (2022). Money supply impact on investment and GDP: statistical analysis. *Экономика промышленности*, (1 (97)), 89-102. http://dx.doi.org/10.15407/econindustry2022.01.089

Mainata, D., Hanafi, M. M., & Setiyono, B. (2025). Mapping global trends and future opportunities in Islamic banking windows: a 15-year bibliometric perspective (2008–2023). *Journal of Islamic Accounting and Business Research*. https://doi.org/10.1108/JIABR-03-2024-0074

Mariolis, T., & Tsoulfidis, L. (2016). Modern classical economics and reality. *A Spectral Analysis of the Theory of Value and Distribution. Japan: Springer*. https://link.springer.com/book/10.1007/978-4-431-55004-4

Mensi, W., Hammoudeh, S., Tiwari, A. K., & Al-Yahyaee, K. H. (2020). Impact of Islamic banking development and major macroeconomic variables on economic growth for Islamic countries: Evidence from panel smooth transition models. *Economic Systems*, *44*(1), 100739. https://doi.org/10.1016/j.ecosys.2019.100739

Michael, A., Owusu Oppong, E., & Gulnabat, O. (2020). Effects of monetary policy on economic growth; Evidence from five (5) African countries (Mauritius, Nigeria, South Africa, Namibia and Kenya) from 1980 to 2019. *Scholars Journal of Economics, Business and Management*, *7*(9), 293-298. https://doi.org/10.36347/sjebm.2020.v07i09.002

Naz, S. A., & Gulzar, S. (2022). Impact of Islamic finance on economic growth: an empirical analysis of Muslim countries. *The Singapore Economic Review*, *67*(01), 245-265. http://dx.doi.org/10.1142/S0217590819420062

Nketia, E. B., & Kong, Y. (2021). Deciphering African financial development interaction with institutional quality and economic growth nexus. *Etikonomi*, *20*(1), 23-44. https://doi.org/10.15408/etk.v20i1.16177

Olaoye, O. O., Eluwole, O. O., Ayesha, A., & Afolabi, O. O. (2020). Government spending and economic growth in ECOWAS: An asymmetric analysis. The Journal of Economic, 22: e00180. https://doi.org/10.1016/j.jeca.2020.e00180

Panjawa, L. J. (2018). Hubungan financial deepening dan pertumbuhan ekonomi: Studi empiris di Indonesia. *Jurnal Penelitian*, *12*(1). 45. https://doi.org/10.21043/jp.v12i1.4131

Pertiwi, R., Syathiri, A., Yulianita, A., & Asngari, I. (2021). The impact of financing in islamic banking on Indonesian economic growth. *Modern Economics, 25*(1), 111-116. http://dx.doi.org/10.31521/modecon.V25(2021)-17

Sasana, H., Ramdani, D., & Novitaningtyas, I. (2020). An empirical analysis of the impact of islamic banking on real output in Indonesia. *Economica: Jurnal Ekonomi Islam*, *11*(2), 329-345. https://doi.org/10.21580/economica.2020.11.2.4079

Shah, S. F., Mehmood, W., Rahman, M., & Albaity, M. (2025). Riding the wave of fintech, broad money growth and population dynamics: exploring its impact on ASEAN bank stability. *International Journal of Emerging Markets*. https://doi.org/10.1108/IJOEM-12-2024-2180

Tegegne, Y. E. (2021). Impact of broad money supply on economic growth of Ethiopia. *Research Journal of Finance and Accounting*, *12*(5), 20-45. https://doi.org/10.7176/RJFA/12-5-01

Umesh, K. T., Aran Shubham, V., Sabale Satish, U., Shelke Sandip, B., Algat Vikram, V., & Karwande Amit, H. (2018). Productivity enhancement through fixture development and micro motion study. *International journal of scientific research in science, engineering and technology*, *4*(4), 581-584. https://doi.org/10.32628/IJSRSET11844122