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Global Uncertainty in Moderating Macroeconomics on Banking Stability in Islamic Commercial Banks in Indonesia

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Abstract

Purpose: This study analyzes the role of the World Uncertainty Index (WUI) in moderating the influence of macroeconomic conditions namely GDP, inflation, and exchange rate on the stability of Islamic banking in Indonesia during 2015 Q1 – 2024 Q4.
Method: A quantitative approach was used through multiple linear regression and Moderated Regression Analysis with 40 quarterly data from the Financial Services Authority, Trading Economics, and FRED. Stability was measured using Z scores.
Results: Gross Domestic Product and inflation have a significant positive effect on stability with coefficients of β = 0.704421 and β = 0.191898, respectively. The exchange rate is not significant. The World Uncertainty Index has a significant negative effect with β = 18.74672. As a moderator, the World Uncertainty Index strengthens the effect of Gross Domestic Product and exchange rate and weakens the effect of inflation. The R-squared value of 0.771887 indicates a strong explanatory power of the model.
Implications: The results of the study emphasize the need for adaptive macroprudential policies to maintain the stability of Islamic banking amid increasing global uncertainty.
Originality: This study contributes by including global uncertainty as a moderating variable, thereby broadening the understanding of the determinants of Islamic banking stability.

Keywords: Islamic Banking; Inflation; Exchange Rate; World Uncertainty Index.

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Introduction

Indonesia's Islamic banking sector has grown rapidly and contributed substantially to the national economy, creating an imperative for robust financial system stability to maintain this sustainable growth trajectory (Muhlis, 2018). Nevertheless, banking stability remains a major challenge that must be maintained so that growth is sustainable and able to uphold public trust amidst economic dynamics (Etika, 2025). Historical evidence shows that the 1997 monetary crisis and the 2008 global financial crisis previously destabilized the national financial system, leading to eroded public confidence and compromised banking intermediation functions (Dewi & Saraswati, 2023). These historical lessons reveal that conventional and Islamic banks alike remain susceptible to economic shocks, underscoring the critical importance of financial system stability for Islamic banking to sustain its expansion and maximize its contribution to the national economy (Fadliani et al., 2025). because it helps expand inclusion and service coverage, while remaining within the broader framework of stability and growth of the Islamic banking sector as the backbone of the national Islamic financial system (Sudarmawan, 2022a).

A higher ROA reflects stronger returns and superior overall firm performance (Amin & Jaya, 2024). According to data spanning 2020–2024, the Return on Assets (ROA) of Islamic commercial banks demonstrates a consistent upward trajectory, rising from 1.40% in 2020 to 2.07% in 2024. This indicates a sustained enhancement in the profitability performance of Islamic banks on an annual basis. This achievement suggests that Islamic commercial banks' profitability continues to experience positive growth, thereby reinforcing financial stability and showcasing the capacity of Islamic banking to navigate the fluctuations of the national economy.

However, the decline in the asset ratio from 0.13 to 0.10 in the 2020–2024 period indicates a structural slowdown in the growth capacity of Islamic commercial banks. This weakening reflects the banks' reduced ability to expand their financing portfolios and optimally develop productive assets, which could ultimately hamper margin-based income growth. Asset stagnation also has the potential to put pressure on profitability and reduce internal capital accumulation, thereby limiting the banks' scope to strengthen their capital. In the long term, these conditions make the Islamic banking sector more vulnerable to changes in economic conditions, while also indicating fundamental challenges in maintaining stable growth and the effectiveness of Islamic banking intermediation in Indonesia. A similar trend is seen in Third-Party Funds (TPF), which dropped from 0.12 to 0.10 during the same period. This decline reflects weakening trust and participation from the public in placing funds in Islamic banks, which can impact intermediation ability and liquidity stability in banking. These conditions indicate that, despite positive developments, the weakening of assets, fluctuations in TPF, and limited market share have the potential to disrupt the long-term stability of Islamic banking (Lusiana et al., 2022). Therefore, analyzing the stability of Islamic commercial banks becomes increasingly important.

Banking stability refers to evaluating the elements that could trigger instability within the banking system (Oktaviana & Miranti, 2024). To date, banking performance is closely linked to macroeconomic conditions, with Gross Domestic Product (GDP) as the main indicator. GDP growth and domestic market development will encourage companies to

improve their performance (Sudarmawan, 2022b). According to Financial Stability Theory (Schinasi, 2004), GDP growth, which reflects increased economic capacity, strengthens bank stability through increased savings, investment, and demand for credit/financing. Data shows that Indonesia's economy contracted by –2.1% in 2020, rebounded to 3.7% in 2021, grew by 5.3% in 2022, and stabilized around 5% in 2023–2024. This indicates a strengthening real sector that supports the financial system, in line with the findings of (Fatoni & Sidiq, 2019), (Fatoni, 2022), and (Hajdini & Hoti, 2025).

In general, the performance of banks and the macroeconomy also greatly depends on developments in the global economy. With globalization, a country's economic performance is certainly influenced by global conditions, whether regional or worldwide. Because banking and macroeconomic performance are closely linked with global uncertainty, this study therefore considers global uncertainty within its scope. We believe that changes in global conditions may weaken the positive effects of economic growth on banking performance.

In addition, inflation is also an important factor in maintaining financial stability. The Inflation and Financial Stability Theory proposed by Allen & Wood (2006) emphasizes that high inflation increases liquidity and credit risks, while the Loanable Funds Theory Dornbusch & Fischer, (1997) explains that inflation reduces savings and encourages excessive consumption. Indonesia's inflation has fluctuated from a deflation of –0.40% in 2020, soaring to 9.57% in 2022, then decreasing to 0.89% in 2024, illustrating its impact on financial stability as explained by Allen & Wood, (2006), Setiawati, (2020), and Maritsa & Widarjono, (2021), although this contrasts with Al Faqih, (2018), who discovered that inflation's impact on bank stability was insignificant. This situation highlights that GDP and inflation variables are closely interrelated with the degree of global uncertainty, which has the potential to either amplify or diminish the effect of the domestic economy on the stability of Islamic banking in Indonesia.

Other external factors influencing bank stability include exchange rate and global uncertainty. According to Mankiw, (2013), the exchange rate reflects the relative price between countries, affecting the competitiveness of domestic and imported products. Its fluctuations have a direct impact on banking stability, since excessive appreciation or depreciation can trigger liquidity and credit risks Krugman, (2008). When the exchange rate depreciates, the production costs for sectors dependent on imported raw materials such as the manufacturing and trade industries increase, ultimately depressing businessmen's profit margins and reducing their ability to fulfil financing obligations. Data shows that the rupiah tended to depreciate from Rp14,308/USD in 2021 to Rp15,855/USD in 2024, reflecting external pressures caused by global dynamics and the monetary policies of developed countries, which increase risks in the Islamic banking sector. Research by Ogunlokun & Adebisi, (2023), Kelmendi, (2024), and Priskila & Nurhasanah, (2021) underscore the significant influence of exchange rates on bank stability, while Viphindrartin et al., (2021) found different results.

On the other hand, global uncertainty, as described by Brunnermeier & Sannikov, (2014) and Danielsson et al., (2018), negatively impacts banking stability because limited information increases the risk of investment decisions (McDonald & Siegel, 1986).

Indonesia's World Uncertainty Index (WUI) rose from 0.11 (2020) to 0.21 (2024), reflecting the pressure of uncertainty on the domestic economy (Bilgin et al., 2021). Global uncertainty has the potential to moderate the relationship between macroeconomic indicators and Islamic banking stability through two main mechanisms. In conditions of inflationary pressure, global uncertainty tends to encourage banks to be more cautious in lending, thereby weakening the negative impact of inflation on stability. Conversely, when economic growth weakens, global uncertainty can actually intensify these pressures as banks further restrain expansion, increase risk assessments, and face greater potential for non-performing loans. These opposing mechanisms demonstrate that global uncertainty plays an important and dynamic role in shaping the sensitivity of the Islamic banking sector to macroeconomic volatility. Therefore, this research offers novelty and theoretical contributions to the Islamic finance literature.

This research seeks to examine external determinants affecting the stability of Islamic banking in Indonesia throughout 2015–2024, a timeframe characterized by global economic fluctuations and the aftermath of the COVID-19 pandemic. Its significance stems from the necessity of comprehending how macroeconomic indicators including Gross Domestic Product (GDP), inflation, exchange rates, and global uncertainty (quantified through the World Uncertainty Index) affect the performance and robustness of Islamic commercial banks as foundations of the national financial infrastructure. This investigation distinguishes itself from prior research by not merely emphasizing domestic determinants but also incorporating global uncertainty as an indicator, an element that remains underutilized in Indonesian Islamic banking studies. From a theoretical standpoint, this research enriches the literature on bank stability through the integration of global dimensions, while from a practical perspective, it offers guidance for regulators and bank management in developing risk mitigation policies and strategies to bolster the stability of the Islamic financial system. The innovation of this research resides in its utilization of the most contemporary analytical period amidst volatile economic circumstances and the inclusion of global uncertainty as an external variable, thereby expanding the understanding of Islamic commercial bank stability in Indonesia. Thus, this study is specifically aimed at examining how global uncertainty affects the relationship between GDP, inflation, and exchange rates on the stability of Islamic commercial banks in Indonesia.

Literature Review

Gross Domestic Product (GDP) serves as the primary indicator representing a nation's economic capacity and holds a crucial role in preserving the stability of Islamic banking. In accordance with Financial Stability Theory Schinasi, (2004), f financial stability is attained when the financial system can efficiently allocate resources and effectively manage risks, even during exposure to external disruptions. Favorable economic expansion can enhance borrowers' repayment capacity, elevate asset quality, and reinforce banking profitability (Etika, 2025); (Rizki et al., 2025); (Bilgin et al., 2021); (Kelmendi, 2024). Nonetheless, the results of (Abbas et al., 2022) emonstrate that GDP per capita may exert a detrimental influence on stability, whereas Karim et al., (2016) and Ramadhina et al., (2024) stress that GDP's influence on stability in Indonesia is not consistently significant, given that internal banking factors and customer confidence levels are more influential. In Indonesia,

the impact of GDP on the stability of Islamic Commercial Banks is often insignificant due to the small market share of Islamic Commercial Banks and their more prudent operational characteristics as a result of compliance with sharia principles, so that the response of Islamic Commercial Banks to changes in economic activity tends to be more moderate. In addition, the orientation of financing towards the real sector means that the sensitivity of Islamic commercial banks to GDP fluctuations is not always in line with macroeconomic conditions. With these findings, an important question arises: How does global uncertainty affect this inconsistent relationship with GDP?

Inflation is also an important factor that can affect the stability of Islamic banking. Based on the Inflation and Financial Stability Theory Allen & Wood, (2006), uncontrolled inflation can increase liquidity and credit risks, while Loanable Funds Theory (Dornbusch & Fischer, 1997) explains that high inflation decreases savings and increases excessive consumption. Conversely, moderate inflation rates can actually support stability because the financial sector is able to adjust financing margins to maintain profitability (Az-zahra & Widarjono, 2022; Mustofa et al., 2023). However, very high inflation tends to reduce people's purchasing power and increase the risk of non-performing finance (Maritsa & Widarjono, 2021; Setiawati, 2020; Maudy et al., 2024; Nguyen, 2025). In this context, global uncertainty can be an external factor that drives inflation from moderate conditions to high pressure, for example through supply chain disruptions, increased import costs, or volatility in global commodity prices. Thus, global uncertainty has the potential to amplify the negative impact of inflation on the stability of Islamic banking, especially when these external pressures make domestic inflation difficult to control.

The exchange rate also plays an important role in the stability of Islamic banking. According to the Exchange Rate Pass-Through Theory (Krugman, 2008), depreciation of the domestic currency can increase import costs and enlarge the burden of foreign debt, which ultimately creates pressures on bank liquidity and profitability. In the context of Islamic banking, even though BUS operations are not based on foreign exchange transactions, exchange rate fluctuations still have an indirect impact on the real sector that is the object of financing, such as trade and manufacturing. Depreciation of the rupiah can increase production costs and reduce the ability of debtors to meet their financing obligations, which has the potential to disrupt financial stability. The structure of Islamic financing, such as mudharabah and musyarakah, makes Islamic banks relatively more resilient than conventional banks because the risk is shared between the bank and the debtor, so that pressure on asset quality does not fall entirely on the bank. However, exchange rate volatility still affects stability, and Global Uncertainty (WUI) can act as a moderating variable: high levels of uncertainty drive exchange rate fluctuations while strengthening or weakening the impact of exchange rate changes on the asset quality of Islamic banks. Various studies show mixed results, with Ogunlokun & Adebisi, (2023) as well as Priskila & Nurhasanah, (2021) found a positive effect of the exchange rate on stability, while Dwijayanti, (2021), Eijffinger & Karataş, (2023), and Nugraha & Manda, (2021) found a significant negative effect, and Riani et al., (2018) reported an insignificant negative result.

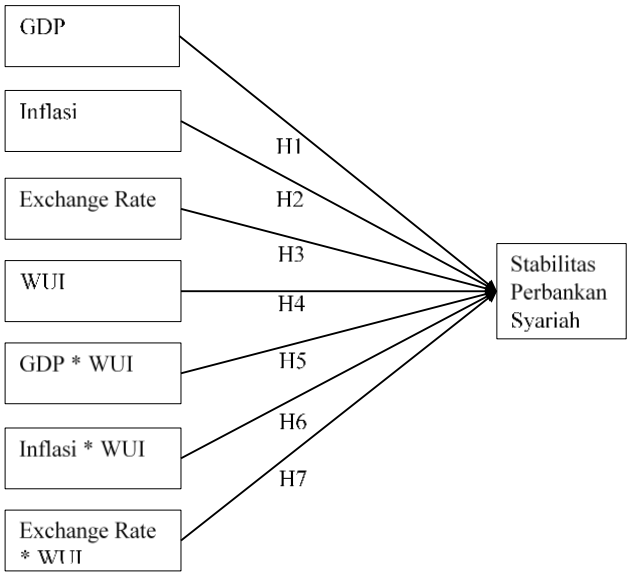
Moreover, global uncertainty, quantified through the World Uncertainty Index (WUI), constitutes a significant indicator illustrating the extent of global uncertainty that

influences economic dynamics and financial system stability. Based on Volatility Paradox Theory (Brunnermeier & Sannikov, 2014 and Danielsson et al., 2018), escalating uncertainty triggers excessive precautionary conduct and diminishes market efficiency, thereby impacting banking intermediation performance and profitability. Within a macroeconomic framework, heightened global uncertainty can decelerate GDP growth through postponed investment and consumption, generate inflationary pressures resulting from supply and demand imbalances, and amplify exchange rate volatility stemming from unstable capital movements and shifting expectations regarding global monetary policy. (Fatoni, 2022b) discovered that global uncertainty exerts a positive influence in the short term, yet negative in the long term on stability, whereas (Albaity et al., 2025; Yasin et al., 2025; and Dang et al., 2025) reveal a markedly negative impact of uncertainty on financial stability across various regions.

In this context, global uncertainty not only has a direct impact on macroeconomic conditions, but also moderates the influence of macro indicators on Islamic banking stability. For example, even though GDP is increasing, high global uncertainty can cause banks to be more cautious in providing financing, thereby weakening the positive effect of GDP on stability. Conversely, in the context of inflation, high global uncertainty can reinforce the negative effects of inflation because banks find it difficult to adjust financing margins quickly, thereby increasing the risk of non-performing loans. Thus, WUI plays an important role as a moderating variable that determines the extent of macroeconomic influence on asset quality and Islamic banking stability.

Building on previous studies, the effect of macroeconomic variables on Islamic banking stability often varies. GDP sometimes has a positive or insignificant effect, inflation can be supportive or detrimental depending on its level, and exchange rates show varying effects from positive to negative to insignificant. These conditions indicate the need to understand external factors that can explain these inconsistencies. This study introduces global uncertainty as a moderating variable to assess the extent to which WUI influences the direction and strength of the relationship between GDP, inflation, and exchange rates on Islamic banking stability, thereby providing a more comprehensive understanding of the resilience of the Islamic financial system in Indonesia. Drawing from the aforementioned theoretical explanation, the conceptual framework can be constructed as follows:

Figure 1. Conceptual Framework



Source: Processed by researchers, 2025

Method

The analytical techniques applied in this study include multiple regression (Creswell, 2012) and moderated regression analysis (MRA) (Baron & Kenny, 1986), which were processed using Eviews 12 software. This study utilizes secondary data in the form of quarterly data for the period 2015 Q1 to 2024 Q4 namely 40 observations, providing a more detailed picture of the dynamics of variable changes over time. The data was obtained from official publications of the Financial Services Authority (OJK), Trading Economics, and FRED (Federal Reserve Economic Data), ensuring that all information analyzed came from credible and verified institutions. The moderation model is formulated mathematically as follows:

$$Zscore = \beta 0 + \beta 1\ GDP + \beta 2\ Inflation + \beta 3\ ER + \beta 4\ WUI + \beta 5\ (GDP * WUI) + \beta 6\ (Inflation * Z) + \beta 7(ER * WUI) + e$$

This study uses several variables, namely:

No.	Variable	Operational Definition of Variable	Formula	Source
1	Bank Stability	Z-score describes the level of a bank's resilience to default risk, calculated from profitability (ROA), capital adequacy (CAR), and earnings volatility (σROA)(Fatoni, 2022b).	$Z - Score = (ROA + CAR) / \sigma ROA$	OJK
2	GDP	GDP growth is measured as the percentage change in real GDP between periods (Economics, 2024)	GDP Value	Trading Economics

3	Inflation	Inflation is the percentage change in the CPI, indicating an increase or decrease in the prices of goods and services (Economics, 2025b).	Inflation Value	Trading Economics
4	Exchange Rate	The exchange rate is the price of the Rupiah against the US Dollar, expressed in rupiah (USD/IDR) (Economics, 2025a)	Rp/USD Exchange Rate	Trading Economics
5	WUI	Global uncertainty index based on the frequency of the word "uncertainty" in EIU reports (Louis, 2024).	WUI Value	FRED

The stability of Islamic banking is measured using the Z-score ratio, which describes a bank's resilience to bankruptcy risk using the following formula:

$$Z - Score = \frac{ROA + CAR}{\sigma ROA}$$

In studies using aggregate banking data in the form of time series, the σROA value is obtained from calculating the standard deviation of aggregate ROA throughout the observation period. This calculation describes the degree of volatility in bank profitability over time, making it an important component in the construction of the Z-score as an indicator of banking resilience. ROA (Return on Assets) represents the bank's profitability, CAR (Capital Adequacy Ratio) signifies capital adequacy, and σROA denotes the standard deviation of ROA, which captures profitability volatility. The greater the Z-score, the more stable the banking condition as it demonstrates that the bank possesses adequate profitability and capital to absorb the risk of financial performance fluctuations. (Bilgin et al., 2021 & Etika, 2025). Thus, this study is expected to describe how domestic macroeconomic indicators interact with global uncertainty in determining the stability of Islamic banking in Indonesia.

Result and Discussion

Descriptive Analisys

Table 1. dataset of the research

	GDP	Inf	ER	WUI	St.BUS
Mean	1.088000	3.312750	14419.30	0.133743	40.46027
Median	0.795000	3.095000	14317.50	0.143344	40.50057
Maximum	5.050000	7.260000	16352.00	0.334762	51.44525
Minimum	-4.190000	1.330000	13047.00	0.000000	26.53013
Std. Dev.	2.366742	1.485830	918.1284	0.096311	8.320404
Observations	40	40	40	40	40

Based on the results of descriptive statistical analysis, the Gross Domestic Product variable shows a mean value of 1.088000 and a median of 0.795000, indicating that Indonesia's economic growth is moderate despite fluctuations with a minimum value of 4.190000 and a maximum of 5.050000. The standard deviation value of 2.366742 reflects a fairly high variation between quarterly periods. The inflation variable has a mean of 3.312750 and a median of 3.095000, indicating a moderate inflation rate with stable fluctuations. This can be seen from the maximum value of 7.260000 and the minimum value of 1.330000, as

well as the standard deviation of 1.485830, which reflects relatively good price stability during the quarterly research period. The exchange rate variable shows a mean of 14.419.30 with a range of values between 13.047.00 and 16.352.00, indicating a tendency for the rupiah to depreciate, which is still within controllable limits. The standard deviation value of 918.1284 indicates moderate variation in exchange rate movements.

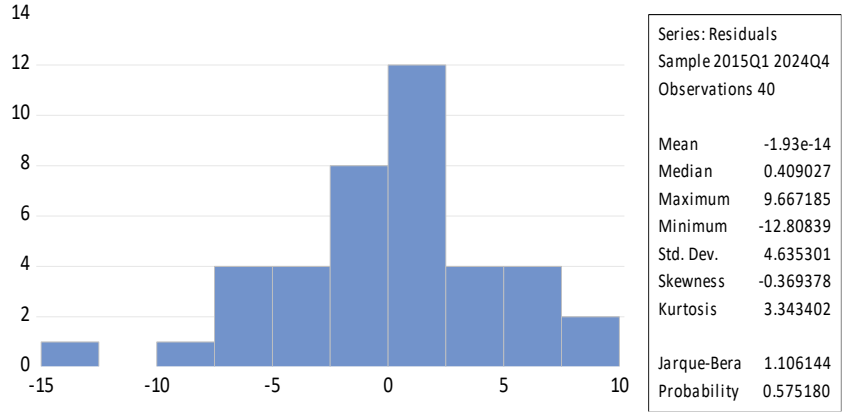
Meanwhile, the World Uncertainty Index variable has a mean of 0.133743, a median of 0.143344, and a standard deviation of 0.096311, indicating a relatively low and stable level of global uncertainty throughout the observation period. This condition indicates that external shocks that occurred during the research period could still be managed by the domestic economy. The dependent variable of Islamic banking stability shows a mean of 40.46027 and a median of 40.50057, reflecting a fairly good level of industry stability. The range of values between 26.53013 and 51.44525 and a standard deviation of 8.320404 indicate moderate variation in the achievement of stability between quarterly periods.

Overall, all quarterly variables, namely Gross Domestic Product, inflation, exchange rates, the World Uncertainty Index, and Islamic banking stability, indicate relatively stable macroeconomic conditions with a manageable level of global uncertainty. These conditions contribute to the ability of Islamic banks to maintain their performance and resilience to changes in economic conditions throughout the research period with a total of 40 quarterly observations.

Classical Assumption Test

Normality Test

Figure 1. Normality test result



Based on the results of the residual normality test using histograms and the Jarque Bera test, a Jarque Bera value of 1.106144 was obtained with a probability of 0.575180, which is greater than 0.05, so the residuals are declared to be normally distributed. The mean value of 1.93E–14 and the median of 0.049027, which is close to zero, indicate the absence of systematic bias. The skewness value of 0.369578 indicates a slight skewness, while the kurtosis of 3.343402 is close to the ideal value for a normal distribution. Thus, the regression model meets the assumption of residual normality, so the estimation results are considered valid and suitable for further inferential analysis.

Multicollinearity Test

Table 2. Multicollinearity test result

	GDP	Inf	ER	WUI
GDP	1.000000	0.149890	0.002307	-0.143861
Inf	0.149890	1.000000	-0.238637	-0.223751
ER	0.002307	-0.238637	1.000000	0.275072
WUI	-0.143861	-0.223751	0.275072	1.000000

The multicollinearity test results show that all correlations between independent variables are below 0.80, indicating that the model is free from multicollinearity. The highest correlation is recorded between the exchange rate and the World Uncertainty Index at 0.275072, while other correlations, including the relationship between GDP and inflation, exchange rate, and World Uncertainty Index, are very weak. The correlations between inflation and the World Uncertainty Index and between inflation and the exchange rate are also low. These findings indicate that each independent variable makes a different contribution without any strong dependence, so that the regression model remains valid and the estimation results can be interpreted accurately.

Heteroscedasticity Test

Table 3. Heteroskedasticity test result

Statistic Test	P-Value
Prob. F(4,35)	0.0582
Prob. Chi-Square(4)	0.0622
Prob. Chi-Square(4)	0.0903

The Breusch Pagan Godfrey test results show that the F probability value is 0.0582, the Obs R squared probability is 0.0622, and the Scaled explained SS probability is 0.0903, all of which are above 0.05. Therefore, the model is declared free of heteroscedasticity. This finding confirms that the residual variance is constant or homoscedastic, meaning that the regression model satisfies the classical assumptions and produces efficient and reliable estimates.

Autocorrelation Test

Tabel 4. Autocorrelation test result

Statistic Test	P-Value
Prob. F(2,26)	0.2253
Prob. Chi-Square(2)	0.1146

The F probability value of 0.2253 and the Obs R squared probability of 0.1146 are both above 0.05. This indicates that there is no autocorrelation in the regression model. The residuals in each period are independent or unrelated to each other, so the model meets the classical assumptions and the estimation results can be considered valid and can be used for further analysis.

T-Test

Tabel 5. T-statistic test result

	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.211551	0.323358	-3.746783	0.0008
GDP	0.704421	0.118750	5.931972	0.0000
Inf	0.191898	0.076930	2.494453	0.0188
ER	-0.190017	0.122541	-1.550638	0.1322
WUI	-18.74672	7.069145	-2.651908	0.0130
GDP*WUI	1.021349	0.208309	4.903047	0.0000
Inf*WUI	-1.629612	0.599294	-2.719218	0.0111
ER*WUI	0.001776	0.000438	4.050242	0.0004

The t-test results show that all variables and interactions have a significant effect on Islamic banking stability according to their respective probability values.

1) GDP has a significant positive effect with a coefficient of 0.704421, so that an increase in GDP promotes the stability of Islamic banking (p = 0.0000).
2) Inflation has a significant positive effect with a coefficient of 0.191898, indicating that controlled inflation continues to strengthen stability (p = 0.0188).
3) The exchange rate has a negative coefficient of –0.190017 but is not significant, so that the depreciation of the rupiah does not appear to affect stability (p = 0.1322).
4) WUI has a significant negative effect with a coefficient of –18.74672, indicating that global uncertainty weakens stability (p = 0.0130).
5) The interaction between GDP and WUI has a significant positive effect with a coefficient of 1.021349, meaning that global uncertainty actually strengthens the effect of GDP (p = 0.0000).
6) The interaction between inflation and WUI has a significant negative effect with a coefficient of –1.629612, meaning that global uncertainty weakens the effect of inflation (p = 0.0111).
7) The interaction between exchange rate and WUI has a significant positive effect with a coefficient of 0.001776, meaning that global uncertainty strengthens the effect of exchange rate on Islamic banking stability (p = 0.0004).

Determination Coefficient Test (R^2)

Tabel 6. Coefficient determination test

Statistic	p-value
R-squared	0.771887

The R squared value of 0.771887 indicates that 77.19 percent of the variation in Islamic banking stability can be explained by the independent variables in the model, namely GDP, inflation, exchange rate, World Uncertainty Index, and moderating interaction variables. Meanwhile, the remaining 22.81 percent is influenced by other factors outside the model. This R-squared value reflects that the model has strong explanatory power and is able to describe the relationship between variables quite accurately and reliably in explaining the dynamics of Islamic banking stability in Indonesia.

Discussion

The results of the study confirm that GDP has a positive and significant effect on bank stability, in line with Schinasi (2004) view that economic growth strengthens the ability of financial institutions to manage risk. An increase in GDP drives real sector activity, demand for financing, and profitability, thereby enhancing banking stability. Data from Indonesia for 2020–2024 shows economic recovery from –2.1% to 5%, accompanied by an increase in Islamic banking ROA from 1.40% to 2.07%, which reduces financing risk. These results are consistent with the findings (Bilgin et al., 2021; Etika, 2025; Kelmendi, 2024).

We found interesting results when global uncertainty moderated GDP. The results of the study show that the interaction between GDP and WUI has a positive and significant effect on bank stability, indicating that strong economic growth is still able to mitigate the pressure of global uncertainty. This is in line with Schinasi (2004) view that solid economic fundamentals strengthen the financial system's resilience to external shocks. Indonesia's GDP recovery from -2.1% (2020) to 5% (2024), accompanied by an increase in Islamic banking ROA from 1.40% to 2.07% despite WUI rising from 0.11 to 0.21, indicates that profitability stability has been maintained. These findings are consistent with Albaity et al. (2025); Peters (2025); Trinh & Tran, (2024) and Yousfani et al. (2025) that strong economic growth can mitigate the impact of global uncertainty on banking stability.

The results of the study show that inflation has a positive and significant effect on bank stability, in line with Allen & Wood (2006) theory that moderate inflation can increase stability through nominal asset and profit growth. In Islamic banking, stable inflation maintains the value of financing assets, drives demand, and strengthens profit margins. Empirically, Indonesia's inflation fluctuations from -0.40% (2020) to 9.57% (2022) and then down to 0.89% (2024) reflect the effectiveness of monetary control in supporting banking stability. These findings are consistent with Az-zahra & Widarjono (2022) and Mustofa et al. (2023) which confirms that controlled inflation improves banking performance.

When global uncertainty moderates inflation, the results of the analysis show that the interaction between inflation (Inf) and WUI has a negative and significant effect on bank stability, indicating that global uncertainty weakens the impact of inflation, in line with the inflation financial stability trade-off Allen & Wood (2006). Indonesia's inflation surge from –0.40% (2020) to 9.57% (2022), coupled with an increase in WUI, has proven to put pressure on Islamic banking performance, as reflected in the decline in DPK growth (0.17 to 0.09) and assets (0.16 to 0.10). These findings are in line with Awdeh et al. (2024); Wu et al. (2020) dan Zoller-Rydzek et al. (2025) which states that high inflation and global uncertainty worsen banking stability and efficiency.

The results show that exchange rates have a negative but insignificant effect on bank stability, so the third hypothesis is rejected. This means that exchange rate fluctuations do not directly affect the stability of Islamic banking, in line with the Exchange Rate Pass-Through Theory Krugman (2008) that the impact of exchange rates can be mitigated by the resilience of the financial system. Empirically, the weakening of the rupiah from IDR 14,582/USD (2020) to IDR 15,855/USD (2024) did not disrupt the performance of Islamic banks due to their minimal exposure to foreign exchange, supporting the findings Viphindrartin et al. (2021).

An interesting finding is that the interaction between the exchange rate (ER) and WUI has a positive and significant effect on bank stability, thus accepting H_7. This finding shows that global uncertainty actually strengthens the sensitivity of the exchange rate to banking stability, in line with the exchange rate channel of uncertainty. Although the rupiah weakened from IDR 14,582/USD (2020) to IDR 15,855/USD (2024) and WUI increased, the stability of Islamic banks remained intact, as reflected in ROA of 2.07% and the recovery of DPK in 2024. This indicates the adaptive capacity of Islamic banks in managing risk amid global turmoil. These results are in line with Fatoni (2022b); Bilgin et al. (2021) and Tiwari et al. (2025) which confirms that global uncertainty modulates the impact of exchange rates on financial stability.

The results of the study confirm that WUI has a negative and significant effect on bank stability thus accepting H_4, indicating that increased global uncertainty puts pressure on liquidity, disrupts intermediation, and reduces banking performance, in line with Brunnermeier & Sannikov (2014) and Danielsson et al. (2018). Empirically, the increase in Indonesia's WUI from 0.11 (2020) to 0.21 (2024) due to the pandemic, geopolitical conflicts, and global policy changes was followed by a decline in Islamic banking assets and DPK after 2022. Consistent with (Albaity et al. 2025; Bilgin et al. 2021; Dang et al. 2025) These findings underscore the importance of strengthening macroprudential risk management to maintain bank stability amid external pressures.

Conclusion

Based on all the research findings listed in the manuscript, it can be concluded that the stability of Islamic banking in Indonesia during the 2015–2024 period is greatly influenced by domestic macroeconomic dynamics as well as global uncertainty pressures. Solid economic growth has proven to strengthen banking resilience, while controlled inflation has helped maintain asset quality and profitability. However, exchange rate depreciation did not have a significant direct impact, although it remained a variable to watch due to its increased sensitivity when global uncertainty intensified. On the other hand, the World Uncertainty Index played an important role as an external factor that tended to put pressure on stability, while also moderating the relationship between macroeconomic variables and Islamic banking performance in different patterns. These findings confirm that the resilience of Islamic banking is not only determined by domestic economic conditions, but also by the financial system's ability to respond to global shocks. Therefore, strategies to strengthen stability need to be directed at strengthening macroeconomic fundamentals, increasing liquidity resilience, and strengthening macroprudential policies that are responsive to the dynamics of global uncertainty. Overall, this study provides a more comprehensive understanding of the factors that shape Islamic banking stability and opens up space for the development of more adaptive and sustainability-oriented financial system policies.

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