




“How does global economic policy uncertainty affect Islamic bank performance? An exploration from heterogeneous sample”

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HOW DOES GLOBAL ECONOMIC POLICY UNCERTAINTY AFFECT ISLAMIC BANK PERFORMANCE? AN EXPLORATION FROM HETEROGENEOUS SAMPLE

Abstract

This study investigates the impact of Global Economic Policy Uncertainty (GEPU) on the performance of Islamic banking, as measured by Non-Performing Financing (NPF) and Return on Assets (ROA). Utilizing quarterly data from 2014 to 2022 across three countries – Indonesia, Nigeria, and the UAE – and employing the Autoregressive Distributed Lag (ARDL) model with a Mean Group (MG) estimator, the findings indicate that GEPU does not significantly impact NPF in either the short or long term. In the short term, GEPU has the potential to reduce ROA; however, in the long term, it positively influences the profitability of Islamic banks. Specifically, in Indonesia, the results suggest an initial increase in NPF and a decrease in ROA in the short term. Conversely, in the long term, this trend reverses, with NPF declining and ROA increasing. In Nigeria, although GEPU may elevate NPF in the short term, this negative effect dissipates over time, with profitability remaining unaffected in both timeframes. In the UAE, NPF is stable in the short term, but there are indications of a long-term increase in NPF, while profitability remains stable across both short and long terms.

Keywords

GEPU, bank, resiliency, NPF, ROA, Indonesia, Nigeria, UAE

JEL Classification

E44, G21, G28, F65

INTRODUCTION

In a globally interconnected economy, an economic shock to one major entity can create ripple effects across other economies. Over the past decade, the Global Economic Policy Uncertainty Index (GEPU) has become a primary tool for measuring the impact of global uncertainty on domestic finance and economies, particularly in the banking sector. An increase in GEPU typically leads to higher borrowing costs and raises the probability of default, especially in sectors directly exposed to international markets. Such conditions put pressure on banking performance, increasing default risks and decreasing profitability. These adverse effects on banking could ultimately threaten banking stability, possibly causing risk transmission to other sectors and, in severe cases, leading to systemic repercussions.

Amid GEPU's potential to destabilize banking sectors, Islamic banking stands out with a different set of operating principles. Islamic banks typically conduct business with a higher degree of caution, eschewing speculative practices and focusing on the real sector. Furthermore, Islamic banking operates on a profit-sharing model rather than an interest-based system. Some studies suggest that these principles make Islamic banks more resilient to economic shocks. If this premise holds, Islamic banking should also show resilience to the dynamics of GEPU,

as its prudent business model is fundamentally grounded in the real sector and risk-sharing mechanisms. However, there is a notable gap in the literature on how GEPU specifically impacts the performance of Islamic banks. Thus, this study aims to analyze the effect of GEPU on the performance of Islamic banking across three countries: Indonesia, Nigeria, and the United Arab Emirates (UAE). Examining how these countries face global uncertainty offers valuable insights into the dynamics between GEPU and banking performance and highlights potential best practices and risk mitigation strategies.

1. LITERATURE REVIEW AND HYPOTHESES

The concept of uncertainty in economics can be traced back to Knight's seminal work in 1921, where he distinguished between risk – defined as situations with known probabilities – and uncertainty, where probabilities are unknown (Knight, 2012). Over time, the nature of uncertainty has been observed to fluctuate, shaped by external factors that impact investment climates and business environments (Bloom, 2016; Leahy & Whited, 1996; Ludvigson et al., 2021). Furthermore, Bernanke (1983) made a notable contribution by modeling the effects of uncertainty on business investment, focusing on how macroeconomic variables like oil price volatility and policy shifts necessitate financial strategy adjustments. Based on the review of these important works, uncertainty is closely linked to financial and economic stability. Therefore, understanding uncertainty plays a significant role in effective risk mitigation.

In recent years, researchers have increasingly focused on economic policy uncertainty (EPU) and its influence on economic performance. Shabir et al. (2021) analyzed bank-level panel data from 2005 to 2019 and found that heightened EPU diminishes bank stability, with variations in impact depending on banks and market structures, particularly pronounced during financial crises. Ali et al. (2023) observed that EPU exerts a significant negative impact on financial stability (measured by the Z-score) in most developed countries. Conversely, Desalegn and Zhu (2021) found that EPU and competitive pressures together undermine financial stability. Additionally, Nguyen (2021) studying Indian commercial banks from 2000 to 2016, revealed that higher EPU in India corresponded to increased risk-taking behaviors, such as elevated bankruptcy, credit, and liquidity risks. Similarly, Tabash et al. (2022) demonstrated that EPU negatively affects debt financing while

exhibiting a positive relationship with equity financing. Several studies have shown that economic policy uncertainty (EPU) has consistently undermined financial stability. On the other hand, EPU is also in line with increased credit risk, liquidity, and bankruptcy. However, the impact varies depending on the characteristics of institutions, market structures, and macroeconomic conditions.

The Global Economic Policy Uncertainty (GEPU) index is a composite measure of EPU from major economies to provide a comprehensive picture of global uncertainty. Research indicates that GEPU exerts downward pressure on domestic stock markets. For instance, a study on Ukrainian banks from 2005 to 2015 found that rising GEPU negatively impacted bank profitability (Athari, 2021). Likewise, research on Asian banking systems highlights GEPU's tendency to exacerbate instability, even within robust banking frameworks (Chau & Oanh, 2023). These findings align with prior research (Chi & Li, 2017; Tran, 2023), emphasizing that in a globalized economy, banking performance is influenced not only by domestic uncertainty but also by global uncertainty factors. These findings clearly underscore that banking performance is influenced not only by domestic uncertainty but also by global uncertainty. This is logical, as in a globalized economy, a country's economic situation is closely tied to that of other nations, making uncertainty in one country likely to spread quickly to others. Thus, policymakers and financial industry players need to anticipate the impact of global uncertainty on domestic stability, especially in the banking sector.

Despite GEPU's potential to disrupt banking stability, no specific studies have yet examined its impact on Islamic banking. Islamic banks are often perceived as more resilient to uncertainty due to their adherence to Sharia principles. Their reliance on asset-based financing and risk-sharing ar-

rangements can guard against speculative activities and market bubbles, contributing to their apparent robustness during economic crises (Hanafi et al., 2022). However, the complexity of Islamic banking operations may also render them susceptible to uncertainty. Islamic banks face challenges in sourcing Sharia-compliant investment opportunities (Bhuiyan et al., 2020), and the compliance and operational complexities inherent to Islamic finance can strain resources, limiting adaptability to changing market conditions (Omar & Yusoff, 2019). Moreover, regulatory obstacles, such as limited expertise in Islamic finance and the requirement to adhere to global standards while maintaining Sharia compliance, add further complexity to Islamic banks' ability to navigate uncertain environments (Yartati, 2022). Thus, while Islamic banks possess unique strengths, their operational realities can expose them to vulnerabilities. Consequently, while Islamic banks are generally viewed as resilient to economic uncertainty due to their Sharia-compliant principles and risk-sharing mechanisms, they also face significant challenges that can make them vulnerable. These vulnerabilities stem from difficulties in sourcing Sharia-compliant financing and operational challenges.

Given the distinct characteristics of conventional and Islamic banking, it is essential to examine the specific impact of GEPU on Islamic banks, as the outcomes may vary. This study focuses on the effect of GEPU on Islamic banking performance, considering differences in market development levels across Indonesia, Nigeria, and the UAE. Indonesia was selected as a representative of a developing Islamic financial market, with significant government initiatives in place to support Islamic finance growth (Rani & Kassim, 2020). Nigeria represents an emerging Islamic banking market still in its formative stages (Salaudeen & Zakariyah, 2022), while the UAE serves as an established Islamic financial center with a mature market (Sharairi, 2020). This study is expected to provide comprehensive insights into how the level of market development affects the sensitivity of Islamic banking to global uncertainty by comparing Indonesia, Nigeria, and the UAE. These findings are relevant to policymakers in each country and can contribute to the development of risk mitigation strategies in the Islamic financial system globally.

Based on the literature review conducted, this study aims to analyze the impact of global economic policy uncertainty (GEPU) on the performance of Islamic banking in three countries; Indonesia, Nigeria, and the United Arab Emirates (UAE). In line with this objective, three main hypotheses are proposed for the study:

H1: GEPU affects the performance of Islamic banking in Indonesia.

H2: GEPU affects the performance of Islamic banking in Nigeria.

H3: GEPU affects the performance of Islamic banking in the UAE.

2. RESEARCH METHOD

2.1. Data and variables

Islamic banking performance was measured through two main variables: Risk, proxied by Non-Performing Financing (NPF), and profitability, proxied by Return on Assets (ROA). According to Hughes and Moon (2022), uncertainty can increase financing risk and the likelihood of rising NPF levels. Based on the adverse selection theory by Rothschild and Stiglitz (1976), default risk can escalate with rising borrowing costs. NPF is selected as a key indicator of bank performance, although the impact of GEPU on NPF may be limited, given that Islamic banks operate interest-free. Ali et al. (2023) also found that EPU positively affects NPLs in developed countries. ROA is chosen as an indicator of asset efficiency in generating profits, reflecting the bank's management capability. It demonstrates management's effectiveness in optimizing assets, especially under conditions of global economic uncertainty (Fajri et al., 2022; Kusumastuti & Alam, 2019).

The GEPU index is used in this study as a proxy for global uncertainty. This index is selected because it is a cumulative or aggregate measure of uncertainty indices from various countries. Additionally, since it is based on news data, GEPU captures uncertainty across multiple sectors, including finance, trade, geopolitics, and pandemics. Therefore, GEPU is a relevant proxy for measuring

uncertainty from a global perspective (Baker et al., 2016; Desalegn & Zhu, 2021).

This study employs five control variables – opacity, capital adequacy, inefficiency, bank size, and domestic economic conditions. Opacity is used to assess the role of transparency in Islamic banks' performance (Yiqiang Jin et al., 2019). Here, opacity is measured by the absolute difference between forecasted and actual ROA, with a greater difference indicating increased opacity (Fosu et al., 2017). Capital adequacy is represented by the Capital Adequacy Ratio (CAR), where a higher CAR typically supports Islamic banks' resilience to external shocks (Sang, 2021). Efficiency is measured by the Cost to Income Ratio (CIR), while bank size is measured by total assets. Domestic economic conditions are captured by the economic growth rate.

This study introduces a novel approach by examining the interaction of GEPU with inefficiency and capital adequacy. For the interaction between GEPU and inefficiency, the product of GEPU and the CIR as a proxy ($GEPU \cdot CIR$) are used, reflecting how inefficiency might amplify GEPU's impact. For the interaction of GEPU with capital adequacy, the study posits that higher capital adequacy mitigates GEPU's effects. Therefore, the interaction variable is represented as GEPU multiplied by the inverse of CAR ($GEPU \cdot CAR^{-1}$).

For the data resources, GEPU data were sourced from www.policyuncertainty.com. Additionally, all banking ratio data – such as NPF, ROA, CAR, CIR, and Asset – are obtained from the Islamic

Financial Services Board (IFSB) database. Based on data availability, the study employs quarterly data from the first quarter of 2014 to the fourth quarter of 2022. Meanwhile, economic growth data are sourced from www.ceicdata.com. In general, the operational variables can be seen in Table 1.

2.2. Research models

Referring to Pesaran and Smith (1995), this study employs the ARDL model with the Mean Group (MG) estimator to measure the short-term and long-term impact of GEPU on the stability of Islamic banking. The MG estimator is used because the sample in this study tends to be heterogeneous, comprising developing, emerging, and advanced Islamic financial markets. The MG estimator averages across each cross-section, thus allowing not only an assessment of the overall impact of GEPU on stability but also insight into its effects on each cross-section individually. Additionally, although the MG estimator assumes cross-sectional independence, it can provide robust estimates even with limited cross-sectional dependence – a plausible characteristic given that the sample may exhibit correlation. To formally ensure the robustness of the MG model, the heterogeneity of each independent variable in this study is tested using an ANOVA test. Furthermore, cross-sectional independence is tested using Pesaran's test to confirm the absence of interdependence across sections.

The model to test the long-term relationship between variables follows equation (1). Furthermore, the short-term relationship with the error correction model follows equation (2). In this model, y

Table 1. Operational variables

Variables	Proxy
Variable dependents	
Risk	Non-Performing Financing (NPF)
Profitability	Return on Assets (ROA)
Variable independent	
Global uncertainty	Global Economic Policy Uncertainty (GEPU) Indices
Control variables	
Operational transparency	$Opacity = ROA_{actual} - ROA_{forecast} $
Bank's size	Asset
Capital adequacy	Capital Adequacy Ratio (CAR)
Inefficiency	Cost to Income Ratio (CIR)
Domestic economic conditions	Gross Domestic Product (GDP)
Interaction variables	
Uncertainty and efficiency	$GEPU \cdot CIR$
Uncertainty and Capital adequacy	$GEPU \cdot CAR^{-1}$

is the dependent variable, X is the vector of independent variables, λ and δ are the long-term coefficients, while λ^* and δ^* are the short-term coefficients. ϕ_i is the adjustment coefficient for the error correction term in unit i . ε_{it} is the error term, and α and θ are constants. The mean group estimation for each coefficient, both in the short term and long term, is obtained through equation (3) with $i = \alpha, \lambda, \delta, \lambda^*, \delta^*$.

$$y_{it} = \theta_i + \lambda_i y_{i,t-1} + \delta_i \Delta X_{i,t-1} + \varepsilon_{it}, \tag{1}$$

$$\Delta y_{it} = \alpha_i + \phi_i (y_{i,t-1} + \delta_{ij} X_{i,t-1}) + \sum_{j=1}^{p-1} \lambda_{ij}^* \Delta y_{i,t-j} \tag{2}$$

$$+ \sum_{j=0}^{q-1} \delta_{ij}^* \Delta X_{i,t-j} + \varepsilon_{it},$$

$$\bar{\gamma} = N^{-1} \sum_{i=1}^N \gamma_i. \tag{3}$$

Referring to equations (1) and (2), the primary model, which is called Model 1 of the long-term relationship between GEPU on NPF and ROA, follows equations (4) and (5). In contrast, the short-term relationship with the error correction model follows equations (6) and (7). Meanwhile, the interaction variables, $GEPU \cdot CIR$ and $GEPU \cdot CAR$ are used alternately in Models 2 and 3.

$$NPF_{it} = \theta_i + \lambda_i NPF_{i,t-1} + \delta_{1i} \Delta GEPU_{i,t-1} + \delta_{2i} \Delta Opacity_{i,t-1} + \delta_{3i} \Delta Asset_{i,t-1} + \delta_{4i} \Delta CAR_{i,t-1} + \delta_{5i} \Delta CIR_{i,t-1} + \delta_{6i} \Delta GDP_{i,t-1} + \varepsilon_{it}, \tag{4}$$

$$ROA_{it} = \theta_i + \lambda_i ROA_{i,t-1} + \delta_{1i} \Delta GEPU_{i,t-1} + \delta_{2i} \Delta Opacity_{i,t-1} + \delta_{3i} \Delta Asset_{i,t-1} + \delta_{4i} \Delta CAR_{i,t-1} + \delta_{5i} \Delta CIR_{i,t-1} + \delta_{6i} \Delta GDP_{i,t-1} + \varepsilon_{it}, \tag{5}$$

$$\Delta NPF_{it} = \alpha_i + \phi_i (NPF_{i,t-1} + \delta_{1i} GEPU_{i,t-1} + \delta_{2i} Opacity_{i,t-1} + \delta_{3i} Asset_{i,t-1} + \delta_{4i} CAR_{i,t-1} + \delta_{5i} CIR_{i,t-1} + \delta_{6i} GDP_{i,t-1}) + \sum_{j=1}^{p-1} \lambda_{ij}^* \Delta NPF_{i,t-j} \tag{6}$$

$$+ \sum_{j=0}^{q-1} (\delta_{1ij}^* \Delta GEPU_{i,t-j} + \delta_{2ij}^* \Delta Opacity_{i,t-j} + \delta_{3ij}^* \Delta Asset_{i,t-j} + \delta_{4ij}^* \Delta CAR_{i,t-j} + \delta_{5ij}^* \Delta CIR_{i,t-j} + \delta_{6ij}^* \Delta GDP_{i,t-j}) + \varepsilon_{it},$$

$$\Delta ROA_{it} = \alpha_i + \phi_i (ROA_{i,t-1} + \delta_{1i} GEPU_{i,t-1} + \delta_{2i} Opacity_{i,t-1} + \delta_{3i} Asset_{i,t-1} + \delta_{4i} CAR_{i,t-1} + \delta_{5i} CIR_{i,t-1} + \delta_{6i} GDP_{i,t-1}) + \sum_{j=1}^{p-1} \lambda_{ij}^* \Delta ROA_{i,t-j} + \sum_{j=0}^{q-1} (\delta_{1ij}^* \Delta GEPU_{i,t-j} + \delta_{2ij}^* \Delta Opacity_{i,t-j} + \delta_{3ij}^* \Delta Asset_{i,t-j} + \delta_{4ij}^* \Delta CAR_{i,t-j} + \delta_{5ij}^* \Delta CIR_{i,t-j} + \delta_{6ij}^* \Delta GDP_{i,t-j}) + \varepsilon_{it}. \tag{7}$$

3. RESULT

Table 2 demonstrates that each independent variable for each country is heterogeneous based on the ANOVA test. Additionally, the cross-section independence test using Pesaran's test indicates no interdependence between cross-sections. Furthermore, Table 3 shows that the unit root test reveals the data are stationary at least in the first difference, confirming that the analysis with the MG estimator can be conducted.

3.1. Impact of GEPU on NPF and profitability (ROA)

As shown in Table 4, the Mean Group (MG) estimator reveals that GEPU does not significantly impact Non-Performing Financing (NPF) in either the short or long term across the three sampled countries. These findings underscore the resilience of Islamic banking to GEPU, suggesting an inherent robustness in the Islamic banking system that enables it to withstand external economic shocks.

Additionally, Table 2, particularly in models 1 and 3, shows that while GEPU significantly suppresses Return on Assets (ROA) in the short term, the long-term effect reverses, with a positive and significant coefficient for GEPU. This indicates that, over time, increases in GEPU may enhance profitability. Thus, this study offers a new perspective, contrasting with prior research that found uncertainty to negatively affect financial stability (Athari, 2021; Chau & Oanh, 2023). Here, the negative impact on profitability appears to be temporary, limited to the short term.

These results suggest that the Islamic banking operational model – grounded in real-sector invest-

Table 2. ANOVA test

Variable(s)	Sum of Square (SS)	df	Mean Square (MS)	F	p-value
Opacity	0.00064906	2	0.00032453	22.25	0.000
Asset	156.23607	2	78.118037	1401.52	0.000
CAR	0.22314746	2	0.11157373	25.12	0.000
CIR	2.4089233	2	1.2044616	102.65	0.000
GDP	0.01182457	3	0.00591229	13.58	0.000
Pesaran's test of cross-sectional independence					
NPF				1.552	0.1208
ROA				0.200	0.8414

ments, speculation avoidance, and profit-sharing – offers robustness against external shocks like GEPU. While GEPU may initially reduce profitability, the effect is transient; in the long term, Islamic banking profitability adapts positively to GEPU changes, as seen in the non-disruptive impact on NPF and the eventual positive response in ROA.

Table 3. Im-Pesaran-Shin (IPS) unit root test

Variable(s)	I(0)		I(1)	
	Z	p-value	Z	p-value
ROA	-1.0551	0.1457	-10.1769	0.0000
NPF	-1.3765	0.0843	-11.1304	0.0000
GEPU	-2.4132	0.0079	-12.9610	0.0000
Opacity	-3.6944	0.0001	-10.6313	0.0000
Asset	11.7787	1.0000	-5.8183	0.0000
CAR	-1.6412	0.0504	-11.6495	0.0000
CIR	-2.4466	0.0072	-11.8311	0.0000
GDP	-3.1398	0.0008	-11.2847	0.0000

3.2. Differences between countries

Based on Table 5, the impact of GEPU on Non-Performing Financing (NPF) in Indonesia reveals notable differences between the short and long term. In the short term, GEPU significantly increases NPF, indicating that global uncertainty pressures lead to higher non-performing financing. However, in the long term, GEPU positively affects profitability, suggesting that global uncertainty ultimately strengthens the position of Islamic banking in Indonesia. Overall, particularly in the long term, Islamic banking in Indonesia demonstrates strong resilience to global uncertainty shocks.

Similarly, as shown in Table 6, GEPU also raises NPF in Nigeria in the short term, though its impact on NPF is statistically insignificant in

the long term. While this does not mirror the Indonesian experience, where NPF decreases over time, the findings suggest that the effect of GEPU in Nigeria is only temporary. This indicates that Islamic banking in Nigeria, despite being in a developmental stage, is resilient against global uncertainty shocks. Additionally, no statistically significant effects are observed for profitability in either the short or long term, indicating that while short-term shocks may lead to higher NPF, they do not disrupt profitability. This further underscores the resilience of Nigeria's Islamic banking sector in the face of GEPU fluctuations.

In the UAE, as seen in Table 7, the impact of GEPU on both NPF and profitability is generally insignificant. This suggests that Islamic banking in the UAE is robust and relatively insulated from global economic fluctuations. According to Sharairi (2020), this stability may be attributed to the UAE's diversified financing portfolios and robust risk management practices. However, a potential limitation for Islamic banks in the UAE is their reduced sensitivity to global economic upturns. Nonetheless, in terms of stability, Islamic banking management in the UAE appears to be the most resilient among the three sample countries.

This comparative analysis reveals that although there are variations in the short-term and long-term impacts of GEPU on NPF and profitability management across the three countries, overall, Islamic banking in Indonesia, Nigeria, and the UAE is generally resilient to GEPU, especially in the long term. In Indonesia, in particular, GEPU reduces NPF and enhances profitability over time. These findings support theoretical perspectives and empirical evidence that Islamic banking exhibits strong resilience against uncertain shocks, including global economic uncertainty.

Table 4. Regression results using the mean group estimator

Independent Variables	Dependent Variables					
	NPF			ROA		
	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Long run						
GPU	-0.00221	0.005766	-0.00078	0.003472***	0.011741**	0.009715*
Opacity	-1.29774	-1.30536	-1.30484	-0.82449	-0.83438	-0.79866
Asset	-0.03945	-0.03732	-0.04597	-0.00231	-0.00261	-0.00135
CAR	0.040152	0.02938	-	0.098462**	0.093246**	-
CIR	-0.0825	-	-0.09305	-0.02029	-	-0.01802
GPU · CIR	-	-0.03243	-	-	-0.00943	-
GPU · CAR ⁻¹	-	-	0.019737	-	-	-0.04094
GDP	-0.3319	-0.31921	-0.28199	-0.00458	-0.0049	-0.00032
Short run						
EC	-0.6105**	-0.62257**	-0.61829**	-0.71285***	-0.7101***	-0.70482***
GPU	0.021017	0.020486	0.020195	-0.00166**	0.00118	-0.00671***
Opacity	-0.02819	-0.07429	-0.07108	0.098339	0.096406	0.071992
Asset	-0.0302	-0.03818	-0.05015*	0.038695	0.035578	0.036629
CAR	-0.03529	-0.02864	-	-0.05912***	-0.0558***	-
CIR	0.022402	-	0.022341	-0.00151	-	-0.00146
GPU · CIR	-	0.008527	-	-	-0.00083	-
GPU · CAR ⁻¹	-	-	0.002468	-	-	0.026646***
GDP	0.026898	0.027533	0.028402	0.008458	0.009262	0.010425
C	0.77081*	0.720567*	0.800573	0.008389	-0.00697	0.022777

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 5. Regression results for Indonesia

Independent variables	Dependent variables					
	NPF			ROA		
	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Long run						
GPU	-0.0185079	-0.02242	-0.03351**	0.004382	0.017563**	0.012306*
Opacity	0.180166	0.164554	0.05823	0.167915	0.158368	0.210993
Asset	0.016878	0.01837	0.016664	-0.01655	-0.01633	-0.01552
CAR	-0.171**	-0.17047**	-	0.088685***	0.091564**	-
CIR	0.003941	-	0.004945	-0.03745***	-	-0.03275**
GPU · CIR	-	0.00516	-	-	-0.01466**	-
GPU · CAR ⁻¹	-	-	0.0831**	-	-	-0.0421**
GDP	-0.0547	-0.0489	-0.04703	0.038756**	0.039829**	0.039836**
Short run						
EC	-0.7093***	-0.7443***	-0.7354***	-1.14517***	-1.1343***	-1.1075***
GPU	0.013145**	0.014969	0.015586	-0.00257	0.008163	-0.01034
Opacity	-0.0927	-0.12505	-0.06369	0.09739	0.064809	0.068573
Asset	0.00784	0.005816	0.00567	0.018306	0.015865	0.017687
CAR	0.044387	0.049337	-	-0.09086**	-0.08761**	-
CIR	-0.00663	-	-0.00916	-0.03112*	-	-0.03084*
GPU · CIR	-	-0.00234	-	-	-0.01209	-
GPU · CAR ⁻¹	-	-	-0.01773	-	-	0.042847**
GDP	0.034637	0.034249	-	-0.01971	-0.01591	-0.01711
C	0.22305	0.206398	-	-0.11736	-0.16285	-0.08161

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

3.3. Impact of control variables

Several models tested indicate that higher capital adequacy correlates with reduced profitability in the short term. Conversely, lower capital adequacy combined with GEPU tends to positively impact profitability. This finding suggests that, in this study, a decline in CAR is often used by banks to expand financing, which in turn boosts profitability. Furthermore, various models show that CAR plays a significant role, especially in sustaining the long-term profitability of Islamic banks. Meanwhile, the increasing interaction between GEPU and the Cost to Income Ratio (CIR) leads to a decrease in profitability in the long run in Indonesia and Nigeria. This indicates that efficiency plays an important role in controlling profitability in these two countries.

The impact of control variables – opacity, inefficiency, assets, and domestic economic growth – on NPF and profitability in Islamic banking shows that most models yield insignificant results. Opacity, although indicating lower transparency, does not significantly impact NPF or profitability. However, opacity may affect profitability differently across countries: in the UAE in the long term

and in Nigeria in the short term. Inefficiency generally does not have a significant impact, though inefficiency in the UAE tends to reduce NPF in the short term, suggesting that increased operational costs may contribute to better risk management. Similarly, bank assets do not significantly affect NPF or profitability.

While economic growth is typically relevant to banking performance, it does not show a significant impact on NPF or profitability in Islamic banking in this study. However, growth affects profitability and NPF variably across countries: it supports long-term profitability in Indonesia, impacts short-term profitability in Nigeria, and influences NPF rather than profitability in the UAE. Overall, the adherence of Islamic banks to Shariah principles, strict regulatory standards, and conservative risk management enhances their resilience.

Hypotheses testing results:

H1: GEPU does not affect NPF in Indonesia but increases ROA in the long term.

H2: GEPU does not affect NPF in Nigeria but increases ROA in the long term.

Table 6. Regression results for Nigeria

Independent Variables	Dependent Variables					
	NPF			ROA		
	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Long run						
GEPU	0.008445	-0.02264	-0.00633	0.00179	0.017386	-0.00027
Opacity	-4.01286	-4.17435	-4.07561	-0.73657	-0.77138	-0.7335
Asset	0.015836	0.020349	-0.00867	0.012912	0.010965	0.013187
CAR	-0.22584	-0.2402	-	0.020492	0.013707	-
CIR	0.03317	-	0.010375	-0.04569*	-	-0.04192*
GEPU · CIR	-	0.017464	-	-	-0.02134*	-
GEPU · CAR ⁻¹	-	-	0.158729	-	-	-0.01061
GDP	-0.83733	-0.80249	-0.68843	-0.11481**	-0.11435*	-0.10137**
Short run						
EC	-0.12005	-0.12226	-0.14028	-0.5795***	-0.5793***	-0.5813***
GEPU	0.062408**	0.084299***	0.060181*	-0.00028	0.001744	-0.00494
Opacity	-0.29532	-0.27776	-0.30852	0.380957*	0.394145*	0.339836
Asset	-0.07478	-0.07673	-0.08461	-0.01845	-0.02287	-0.02012
CAR	-0.04913	-0.04232	-	-0.04501	-0.04032	-
CIR	0.18746***	-	-0.0726***	0.003547	-	0.003106
GEPU · CIR	-	-0.02376	-	-	0.000918	-
GEPU · CAR ⁻¹	-	-	0.009875	-	-	0.022409
GDP	-0.05709	-0.05676	-0.04612	0.054716**	0.05264**	0.05752**
C	0.505058	0.497181**	0.490743**	0.30073***	0.291026	0.27484**

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 7. Regression results for UAE

Independent Variables	Dependent Variables					
	NPF			ROA		
Variable(s)	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Long run						
GEPU	0.003426	0.06235***	0.03749	0.004242	0.000275	0.017105
Opacity	-0.06054	0.093722	0.10285	-1.90482*	-1.89012*	-1.87347*
Asset	-0.110***	-0.1506***	-0.14589***	-0.0033	-0.00248	-0.00173
CAR	0.517296*	0.498813		0.186209	0.174466	
CIR	-0.284***	-	-0.294***	0.022269	-	0.020616
GEPU · CIR	-	-0.11992***	-	-	0.0077	-
GEPU · CAR ⁻¹	-	-	-0.18262	-	-	-0.0701
GDP	-0.1036**	-0.10622**	-0.11051**	0.062319	0.059818	0.06056
Short run						
EC	-1.002***	-1.00113***	-0.97913***	-0.41442**	-0.41604**	-0.41877**
GEPU	-0.0125	-0.03781	-0.01518	-0.00214	-0.00637	-0.00486
Opacity	0.303459	0.179946	0.158977	-0.18333	-0.16974	-0.19243
Asset	-0.02367	-0.04362	-0.07153	0.116224	0.113735	0.112318
CAR	-0.10221	-0.09293	-	-0.04151	-0.03948	-
CIR	0.122961	-	0.123449	0.023035	-	0.023354
GEPU · CIR	-	0.051682	-	-	0.008673	-
GEPU · CA ^{R-1}	-	-	0.015262	-	-	0.014682
GDP	0.103146*	0.10511***	0.106755*	-0.00963	-0.00895	-0.00914
C	1.5422***	1.45812***	1.77513***	-0.1582	-0.14909	-0.1249

Note: ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

H3: GEPU increases NPL in the UAE and boosts ROA in the long term.

4. DISCUSSION

In general, this study reveals that Islamic banks tend to resist GEPU. This resilience is likely due to their cautious approach in channeling financing and maintaining a high level of capital adequacy, which helps them withstand potential losses during periods of economic uncertainty (Hasan & Dridi, 2011). For example, during the 2008 financial crisis, Islamic banks exhibited lower financial performance volatility compared to conventional banks (Beck et al., 2013). This conservative attitude ultimately enhances stability. In contrast, traditional banking tends to follow the business cycle in its financing practices, where an expansionary business cycle can lead to excessive funding. Consequently, the impact on banking and economic stability can be substantial when adverse events occur.

Furthermore, the improved regulatory framework established after the 2008 global financial crisis, including the implementation of Basel III, is a significant factor contributing to the resilience

of banking, including Islamic banking. These regulations ensure that banks operate within manageable risk levels (Čihák & Hesse, 2010; IFSB Report, 2021). Also, Al-Hares et al. (2013) found that Islamic banking performs better during periods of high economic uncertainty compared to conventional banking. The principles of Sharia, which prohibit usury and speculation, also help reduce profitability volatility in the long run. Additionally, Abedifar et al. (2015) emphasized that Islamic banks consistently outperform conventional banks in terms of stability and resilience during recessionary phases.

Moreover, the strength of Islamic banks is bolstered by product and portfolio diversification. Islamic banks offer various financial products based on profit-sharing (Mudharabah) and partnership (Musharakah) principles. These products facilitate risk diversification, making Islamic banks less vulnerable to systemic risks and economic policy uncertainty (Hanafi et al., 2022). A study from the United Arab Emirates demonstrated that a diversified portfolio enables Islamic banks to maintain stable growth, even amid heightened global uncertainty (Mansoor Khan & Ishaq Bhatti, 2008).

CONCLUSION

This study analyzes the impact of global economic policy uncertainty (GEPU) on the performance of Islamic banking in Indonesia, Nigeria, and the United Arab Emirates (UAE). By examining the differences in the level of development of the Islamic banking market in each of these countries, the study seeks to provide comprehensive insight into the extent of Islamic banking resilience in facing the dynamics of GEPU in the context of differences in market structure.

The overall sample analysis shows that GEPU has only limited short-term effects, while in the long term, GEPU does not significantly increase NPF. On the other hand, although GEPU can potentially reduce profitability in the short term, this uncertainty drives Islamic banks' long-term profitability. Testing for each sample, especially regarding the impact of GEPU on NPF, shows some variation. However, in the long term, GEPU appears not to influence NPF in Indonesia and Nigeria. At the same time, there is an indication that GEPU may increase NPF in the UAE in the long term. Regarding profitability, as proxied by ROA, there is robust evidence that GEPU boosts profitability in the long term.

This study concludes that Islamic banking is relatively resilient to global economic policy uncertainty (GEPU). Although GEPU can have a negative impact in the short term, Islamic banking can manage its effects well in the long term. These results confirm that the principles of Islamic banking, which prioritize risk sharing and avoid speculation, can increase its resilience in facing the dynamics of global uncertainty.

AUTHOR CONTRIBUTIONS

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