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ECONOMIC POLICY UNCERTAINTY, GLOBALIZATION AND BANKING STABILITY

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ABSTRACT

This paper is accomplished to assess the influence of global economic policy uncertainty and globalization on the stability of the banking system in Asian countries. Although the stabilization of the banking system is a subject of great interest to many researchers, there has yet to be research that simultaneously evaluates the influence of these two factors on its stability. simultaneously evaluates the influence of these two factors on its stability. Based on data from Asian countries and the two-step systematic GMM regression method, the research results show that economic policy uncertainty and globalization erode the banking sectors' stability in Asia. Additionally, the study provides evidence that a country's banking system with a high globalization index will be strengthened in an environment of policy uncertainty. Moreover, financial, economic, and political globalization can reverse the influence of global economic policy uncertainty on the banking system's stability. These findings hold significant policy implications for governments, policymakers, and banking managers.

Keywords: economic policy uncertainty, globalization, banking, stability

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1. INTRODUCTION

Banks serve as pivotal financial intermediaries within the financial system, facilitating capital circulation and enhancing capital efficiency, thereby fostering economic development (Rose & Hudgins, 2012). The history of banking crises highlights the instability within the banking sector. Most governments encountered at least one banking system collapse between 1970 and 2017 (Laeven & Valencia, 2020). Notably, the 2008 financial crisis in the United States had far-reaching repercussions worldwide, rendering numerous banks in various nations vulnerable and triggering the global recession of 2008-2010. One of the reasons for the situation is the uncertainty in U.S. macroeconomic policies and the quick dynamics of globalization among nations (Carmassi et al., 2009). Specifically, promoting openness and integration has decreased policymakers' independence in implementing economic policies because of the influence of other governments' macro policies, especially the grouping of developed nations. The enlargement in

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uncertainty in the crucial countries' economic decisions often directs to a boost in unpredictability in the economic management of the countries concerned, thereby affecting the activities of entities, including banks.

Asian nations predominantly comprise middle- to low-income emerging economies deeply enmeshed in global economic integration (Rana and Dowling, 2009). Consequently, these nations are significantly tethered to the macroeconomic policy decisions of the developed countries. The banking system, emerging as a linchpin, extending the arm of governmental macro-management in Asian states (Chee and Nair, 2010), is not immune to risks with policy uncertainties. These perils are not solely confined to the host nation's policies but are also influenced by the policy uncertainty of other nations. For instance, the repercussions of the 2008 American financial crisis reverberated through many Asian banking systems, notably those of Thailand, Vietnam, and Malaysia, rendering them reformed from 2008. Empirical signals raise doubts about the consequence of globalization and global economic policy uncertainty (GEPU) on the strength of the Asian banking systems.

The banking system's stability is an intriguing scientific and practical subject. The stability of the national banking system is influenced by an array of internal and external factors (Hsieh et al., 2013; Ghosh, 2016). Apart from industry-specific factors (capitalization, profitability, scale, and market concentration), globalization and economic policy uncertainty are demonstrated to wield considerable influence over the solvency of credit institutions. The robustness of the credit institution system is affected by globalization but in a heterogeneous manner. Prasad, Rogoff, Wei and Kose (2003), and Lane (2013) posit that, despite conferring certain advantages, financial globalization stands as a principal catalyst for global banking crises. In addition, economic and political globalization engender fluctuations in the stability of financial institutions (Hsieh et al., 2013; Ghosh, 2016; Sufian et al., 2017; Sufian and Kamarudin, 2016). Furthermore, Botshekan et al. (2021), Athari (2021), Athari and Bahreini (2021), and Ozili (2022) have undertaken comprehensive assessments of the impact of GEPU on the stability of the banking sector, ultimately concluding that GEPU undermines the fortitude of banks. However, within the scope of our review, no analysis has been evaluating the influence of GEPU and globalization, especially the simultaneous effect of two factors, on the stability of Asian banking systems.

Consequently, from a realistic and scientific perspective, the impetus for conducting this analysis is to elucidate the imprint of GEPU and globalization on the stability of Asian banking systems. In essence, this study endeavors to disentangle the concurrent impact of both determinants on the stability of Asian banks, thereby affording a more nuanced understanding of these two factors' roles. Through the results of this research, this article proffers policy recommendations that can significantly influence the decisions of governments, regulatory bodies, and banking administrators, aiming to fortify the stability of the credit systems in each respective country.

2. LITERATURE REVIEW

4.1. Global economic policy uncertainty and banking system stability

Economic policy uncertainty (EPU) can be comprehended as a menacing factor associated with controlling the government's economic policy and the regulatory agency that is not defined and unclear for a specific period (Al-Thaqeb and Algharabali, 2019). EPU can manifest as

unexpected monetary, fiscal, and regulatory changes (Danisman et al., 2021; Caglayan and Xu, 2019). Keynes' theories (1963) have addressed EPU and its influence on the decisions of every subject in the economy. Although many indices are used to measure the economic policy uncertainty of countries, the most commonly used index in recent years is the EPU index developed by Baker et al. (2016). The EPU index is measured based on news published in reputable magazines. Using keywords associated with uncertainty in economic policy management to search for articles published in major magazines, the authors based on the frequency of appearance and calculated the EPU index.

Many studies, such as those by Phan et al. (2020), Shabir et al. (2021), Chi and Li (2017), and Nguyen (2021), show that EPU challenges banks' business operations. The lack of uncertainty in the regulation of economic policy by countries also leads to asymmetric information in other relevant markets through the spillover effect of economic policy and adversely affects credit supply and demand in capital markets (Chi and Li, 2017; Nguyen et al., 2020; Gissler et al., 2016). Because government policy decisions are often unpredictable, businesses and individuals tend to reduce consumption and investment, decreasing loan demand. Lack of information symmetry in macroeconomic management can create ambiguity and increase moral hazard for borrowers; thereby, credit institutions can show more caution in granting credit. In addition, bad debt has increased, and EPU fluctuations have pushed banks to increase provision costs (Danisman et al., 2021), reducing income and even incurring losses. (Killins et al., 2019), creating bank instability (Phan et al., 2020; Shabir et al., 2021).

A government's uncertain economic policy management process also affects many other countries worldwide based on the transmission mechanism during the economic integration process. Therefore, based on the EPU of 21 globally influential countries, Davis (2016) developed the GEPU index to measure global economic policy uncertainty. The GEPU index is determined to cause damage to banking operations. Specifically, GEPU reduces credit growth because banks are more cautious in granting credit when information asymmetry becomes more serious (Nguyen et al., 2020). Additionally, the boost in GEPU provokes banks to have difficulty collecting loans, leading to an upsurge in bad debt (Botshekan et al., 2021). Athari (2021) exhibits that GEPU undermines the Ukraine banking system's profitability along with variables reflecting the operational characteristics of banks, market characteristics, and macro factors. Nguyen and Dao (2023) also found a negative relationship between GEPU and the Asian banking systems' stability. However, the degree of consequence of GEPU on banking system stability may be modified due to industry-specific factors and the economic environment of each country.
In conclusion, the above studies indicate that banks' business activities fluctuate in an unfavorable direction when the government implements unforeseen policies, leading to a reduction in profits and an upsurge in bad debts, making the banking systems vulnerable to instability. Therefore, the research hypothesis is stated as follows:

Research hypothesis 01: The more heightened the GEPU, the inferior the stability of the country's banking system is.

4.2. Globalization and Stabilization of the banking system

Globalization is understood as a more important global integration mechanism, with special emphasis on economic transactions. Globalization involves the integration of markets, states, and

technologies on a scale never before seen - in a way that allows individuals, corporations, and countries to access the world more widely, quickly, and cheaper than ever before (Friedman, 2000). Gaston and Khalid (2010) argue that globalization can be described as the elaboration of international trade in goods and services, foreign direct investment, political associations, and society accompanied by expanding integration. According to Clark (2010), globalization means creating networks of connections between actors at multi-continental distances, mediated through various flows, including people, information, ideas, capital, and goods. Globalization is a procedure that corrodes national borders, merges national economies, cultures, technologies, and governance, and creates complex relationships and interdependence. Keohane and Nye (2000) highlight the three aspects of globalization, including economic, social, and political. Economic globalization, including financial one, is characterized by the long flow of goods, capital, and services and the accompanying information and perceptions with market exchange. Political globalization is facilitated by forming and joining a typical community based on national agreements. The globalization of society manifests as the spread of ideas, information, images, and people. The globalization of society is manifested as the spread of ideas, information, images, and people.

The transmission mechanism of globalization conducting to a financial crisis is explained in Mishkin's study (2007): the financial system's globalization often encourages a lending boom fueled by capital flows. Due to less rigorous scrutiny of safety by regulators and a shortage of expertise in screening and monitoring borrowers, failures at banking institutions began to mount. With a breakable banking sector, the government cannot raise interest rates to protect the local currency because doing so would cause further trouble and cause bank panic. Once market participants acknowledge that the government can no longer protect the currency, they engage in a speculative attack, conducting a currency crisis and massive devaluation. Because so many companies in emerging market countries have debts in foreign currencies such as dollars, the current debt ratio significantly augments their debt in local currencies, although the value of their assets usually does not change. As a result, companies' balance sheets were destroyed, making it more challenging for the financial system to deal with asymmetric information problems, and lending contracts to companies plummeted. This problem led to a contraction of the financial system and often followed by a severe economic recession. In addition, globalization of the banking sector and financial links can enhance the international transmission of shocks and contribute to a more integrated global business cycle.

Globalization is declared a "double-edged sword" for the national economy. On the bright side, international relations have necessary implications for emerging economies, especially for the financial system (Mishkin, 2009). By attracting foreign capital, emerging countries reduce the cost of capital, encouraging investment and promoting growth chief. When foreign capital and financial institutions are allowed into a country, they improve capital allocation. Financial globalization affects countries' economic policies (Kose et al., 2010), helps promote the development of property rights, and better institutions that make the domestic financial sector better at putting capital to profitable use. Also, regulators must change, adjust, or enact economic policies in line with globalization to strengthen the financial system's competitiveness and increase credit institutions' expenses and risk activities. Despite its great benefits, international connections also have a prejudicial outcome on financial systems, leading to financial instability and devastating economic crises. Martens and Raza (2010) also assert that globalization can exacerbate the wealth gap, political and cultural insecurity, and environmental degradation,

especially creating financial volatility. Worldwide integration can damage credit institutions by entailing the risk of a banking crisis through a fixed exchange rate regime (Joyce, 2011), reducing profitability and cost inefficiencies because of enhancing competition and information asymmetries in domestic markets (Ghosh, 2016).

The consequences of globalization and its components are demonstrated in numerous studies in different countries. Gospodarchuk and Amosova (2020) demonstrate that globalization has impacted financial stability globally. The authors found Potential threats to the financial stability of the global banking system come from the European banking system. Hsieh et al. (2013) studied banking stability in 22 Asian countries between 1995 and 2009. The authors found that a higher degree of globalization reduces banking stability through income diversity but increases stability through asset diversity. The result of Yakubu and Bunyaminu's research (2022) is that financial and trade globalization significantly negatively affects bank profitability, signifying the intense competition of banks in Sub-Saharan Africa accelerated by globalization.

Therefore, based on previous studies, globalization has a double impact on the credit institution system stability. However, the adverse effects of globalization, particularly economic and financial globalization, are causing certain instability in the credit system. Through the history of global economic crises and previous studies on the effects of globalization, the hypothesis is that globalization and its components (economic, financial, social, and political globalization) will negatively influence the steadiness of the banking system in Asia.

Research Hypothesis 02: As globalization and its components accumulation, the stability of the Asian banking system diminishes.

Nevertheless, in the GEPU environment, the banking system is assumed to benefit more from promoting bilateral or multilateral connectivity between countries. Banks also have many opportunities to improve efficient capital allocation in the GEPU environment by diversifying investment markets. With the development of property rights and the expansion of the market, the banking system has the opportunity to put capital into the purpose of using capital more effectively, thereby promoting the banking system to develop stably. In addition, with the uncertainty from the economic policies of developed countries, Asian countries are increasing their capacity by implementing international practices. Based on the benefits of globalization, in the context of global economic policy uncertainty, the study of globalization expectations can reduce the influence of the GEPU on the stability of the banking system products in the study countries.

Research hypothesis 03: Globalization and its elements significantly reduce the consequence of GEPU on the banking system's stability.

3. METHODOLOGY

4.1. Research model

Based on the study of Phan et al. (2020), Hsieh et al. (2013), and Nguyen et al. (2020), the study builds an original model to test hypothesis 01. In other words, the following model 01 is to estimate the single impact of GEPU and globalization on the stability of the banking system:

$$BS_{i,t} = \beta_0 + \beta_1 GEPU_t + \beta_2 GLOB_{i,t} + \beta_3 X_{i,t} + \varepsilon_{i,t} \quad (1)$$

Model 02 is extended from model 01 with the interaction variable between two main explaining variables to evaluate the role of globalization in adjusting the influence of GEPU on the system's stability. Model 02 is rewritten as follows:

$$BS_{i,t} = \beta_0 + \beta_1 GEPU_t + \beta_2 GLOB_{i,t} + \beta_3 GEPU_t * GLOB_{i,t} + \beta_4 X_{i,t} + \varepsilon_{i,t} \quad (2)$$

In there:

Dependent variable: BSi,t: The study employs the Z_score of the country i at time t to gauge the stability of the financial system as in previous articles by Ozili (2018), Nguyen (2021), and Albaity, Mallek and Noman (2019). Z_score, defined by the World Bank, is the ratio that compares the buffer zone of a country's banking system. The formula for calculating Z_score is as follows: (ROA+(equity/assets))/sd(ROA). sd(ROA) is the standard deviation of ROA. A high Z-score signifies a stable banking system. Conversely, an inferior Z-score reflects an increased risk of insolvency of banks.

Main explained variable:

(1) GEPU _ Global Economic Policy Uncertainty Index identifies the frequency of economic policy adjustments by the 21 leading governments worldwide. In order to limit the significant difference in the data, GEPU is computed using the natural logarithm of the 12-month average of the monthly GEPU index published on the website https://www.policyuncertainty.com/.

(2) GLOB_globalization is a variable reflecting the degree of globalization of each country at each time t. The examination evaluates the globalization of each country based on the indicators of globalization GLOB, economic globalization_EcoG, financial globalization_FinG, social globalization_SoG, and political globalization_PoG. The scale of these manifestations is from 1 to 100. The more heightened the corresponding value, the greater the degree of integration of countries. Previous studies by Hsieh et al. (2013), Gospodarchuk and Amosova (2020), Joyce (2011), and Sufian and Habibullah

(2012) utilize these indicators in research models on the relationship between globalization to activities of banks.

Control variables:

Economic growth (GDP) and inflation (INF) are necessary macro idiosyncrasies impacting financial intermediation systems' healthiness. The developed macro-economy shown by rising GDP and falling INF assembles advantageous conditions to intensify the banking system's health (Ozili, 2018; Nguyen, 2021; Hsieh et al., 2013). The banking industry-specific features are echoed in the equity ratio, system size, net interest margin, non-interest income, and system concentration as in the studies by Yakubu and Bunyaminu (2022), Athanasoglou et al. (2008), and Phan et al. (2020).

The details of the control variables are introduced in Table 1.

Table 1: Summaries of dependent and independent variables

No	Variable	Variable concept	Source	Previous research
1	Zscore	The probability of default of a country's banking system	World Bank	Phan et al. (2020), Dwumfour (2017), Albaity et al. (2019)
2	GEPU	Natural logarithms of the 12-month average of the monthly GEPU index	EPU website	Phan et al. (2020), Athari (2021)
3	GLOB	Globalization index	**KOF**	Joyce (2011), Ghosh (2016), Sufian and Habibullah (2012)
4	EcoG	Economic globalization	**KOF**	Kose et al. (2010), Hsieh et al. (2013)
5	FinG	Financial globalization	**KOF**	Hsieh et al. (2013), Yakubu and Bunyaminu (2022)
6	SoG	Social globalization	**KOF**	Kose et al. (2010), Hsieh et al. (2013)
7	PoG	Political globalization	**KOF**	Hsieh et al. (2013)

8	GDP	Gross domestic product Growth	World Bank	Phan et al. (2020), Ozili (2018)
9	INF	Inflation	World Bank	Phan et al. (2020), Ozili (2018)
10	CAP	Banking system capital to total assets	World Bank	Athanasoglou et al., 2008; Ozili, (2018)
11	SIZE	Bank assets percent of GDP	World Bank	Kakes and Nijskens (2018), Pawlowska (2016)
12	NII	Bank non-interest income to total income (%)	World Bank	**Lee, Yang and Chang (2014), Williams (2016)**
13	NIM	Net interest income over interest-bearing assets	World Bank	Athanasoglou et al., 2008; Ozili, (2018)
14	CON	The assets of the three largest commercial banks to total banking assets in a country	World Bank	Phan et al. (2020), **Kombo, Hakizimana and Bouity (2021)**

Source: Analyzed by the authors

3.2. Research data

The study accumulated data on the Asian banking systems from the Global Financial Development Database of the World Bank from 2008 - 2020. After excluding countries without Zscore, the sample contains 34 banking systems. The GEPU factor is estimated as the natural logarithm of the 12-month mean GEPU collected from the website in the research period. The indicators that echo globalization are gathered from The KOF Swiss Economic Insitute.

3.4. Research methodology

The study utilizes dynamic panel data, including 34 banking for 13 years. More, in the proposed model, there is a lagged variable of the dependent one, so there is an endogenous phenomenon. Based on the review of previous investigations, the two-step systematic GMM method is employed to advance the efficiency in processing the data and endogenous phenomena in the model. Arellano-Bond test and Hansen test are performed respectively to ensure that there is no quadratic autocorrelation and that the instrumental variables in the model are reasonable.

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

Descriptive statistical results are presented in Table 2. In the period 2008 - 2020, the average Zscore value of the 34 Asian banking systems reached 17.73 with a volatility of 11.20, revealing that there is a considerable disparity in banking system stability in Asia. The mean of GEPU is

5.04, with a min of 4.66 in 2014 and a peak of 5.77 in 2020. COVID-19 disease in 2020 forces countries to regularly modify their economic policy administration in line with the pandemic outbreak, boosting inconsistency in the economic policy implementation process. The mean and variability of the GLOB variable are 62 and 10.68, respectively, meaning that Asian countries are highly economically integrated despite a significant inter-country divergence. EcoG has the lowest mean (54.84) of the three principal components of globalization, and SoG has the highest mean (64.72). Moreover, Asian countries have varying levels of FinG, an element of EcoG, with the lowest of 23.01 and the highest of 93.07. Statistic marks also reveal that in the Asian region, economic development and banking industry peculiarity deviate extensively from country to country, as displayed by the Std, the minimum and maximum value.

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Zscore	442	17.73	11.20	-3.83	67.11
GEPU	442	5.04	0.319	4.66	5.77
GLOB	442	62.61	10.68	39.41	84.36
EcoG	442	59.84	16.50	25.25	94.92
FinG	442	59.83	17.76	23.01	93.07
PoG	442	63.48	18.80	11.63	92.02
SoG	442	64.72	13.44	38.09	90.85
GDP	440	3.18	5.90	-54.23	25.12
INF	414	4.69	6.18	-3.7	84.86
CAP	352	10.64	3.89	2.33	24.4
SIZE	410	83.21	55.64	0.33	283.91
NIM	437	3.84	2.30	0.07	15.44
NII	439	33.33	13.21	11.55	92.35
CON	439	62.81	20.43	22.5	100

Source: Authors' calculations based on the data

4.2. Multicollinearity test

The multicollinearity test for the variables in Table 3 reveals that the VIF value of the variables is less than 5, the Mean VIF value is less than 5. Therefore, there is no multicollinearity present in the research data.

Table 3: Multicollinearity Test

Variable	VIF	Variable	VIF	Variable	VIF	Variable	VIF	Variable	VIF
NIM	2.49	EcoG	2.51	NIM	2.46	NIM	2.46	NIM	2.42
SIZE	2.10	NIM	2.47	SIZE	2.37	SIZE	2.37	SIZE	1.82
CAP	1.95	SIZE	2.42	FinG	2.22	SoG	2.22	PoG	1.77

GLOB	1.84	CAP	2.29	CAP	2.14	CAP	2.14	CAP	1.35
INF	1.35	CON	1.64	CON	1.51	CON	1.51	CON	1.32
CON	1.20	INF	1.28	INF	1.26	INF	1.26	INF	1.25
GEPU	1.16	GEPU	1.17	GEPU	1.16	GEPU	1.16	GEPU	1.16
GDP	1.15	GDP	1.15	GDP	1.15	GDP	1.15	GDP	1.16
NII	1.14	NII	1.09	NII	1.10	NII	1.10	NII	1.16
Mean	1.60	Mean	1.78	Mean	1.71	Mean	1.71	Mean	1.49

***Source**:* Authors' calculations based on the data

4.3. Regression results

4.3.1. Baseline model regression results

Model 1 is regressed according to 4 equations based on the method of Phan et al. (2020). Equations (1) and (2) of the model (1) are carried out to evaluate the single impact of GEPU, GLOB on banking solidity. Equation (3) evaluates the relation between macro factors and the dependent variable. Equation (4) fully expresses the variables in the overall model. The regression results of 4 equations of model 1 and related examinations are displayed in Table 4 as follows:

Table 4: Regression results of model 1

	(1)	(2)	(3)	(4)
L.Z_score	0.881***	0.900***	0.960***	0.904***
	(0.00304)	(0.00751)	(0.00413)	(0.0157)
GEPU	**-1.827*** **		**-0.463*** **	**-1.271*** **
	(0.0929)		**(0.149)**	**(0.295)**
GLOB		**-0.0280*** **	**-0.0319*** **	**-0.0283*** **
		(0.0061)	**(0.0022)**	**(0.0097)**
GDP			0.0941***	0.139***
			(0.0102)	(0.0320)
INF			-0.0651**	-0.0400

			(0.0283)	(0.0803)
CAP				0.348*** (0.0558)
SIZE				0.0340*** (0.00428)
NIM				-0.346** (0.143)
NII				-0.0289** (0.0124)
CON				0.0744*** (0.0143)
Constant	11.21*** (0.512)	3.390*** (0.231)	4.849*** (0.858)	0.606 (1.298)
No. of group	34	34	34	34
No. of ins	33	33	33	33
AR1 (p-value)	0.0233	0.0242	0.00431	0.0185
AR2 (p-value)	0.464	0.492	0.941	0.802
Hansen-J (p-value)	0.341	0.278	0.262	0.451

***Notes*:** t-Statistics are between parentheses.
*,**,*** Significant at 10%, 5% and 1% levels, respectively

***Source**: Authors' calculations based on the data*

The P-value of the AR2 test in all four equations is more than 0.05, implying no second-order autocorrelation. Prob > chi2 in Hansen's test of the four equations are all greater than 0.1, giving the instrumental variables are reasonable. Besides, the number of instrumental variables is smaller than the number of groups. These tests ensure the reliability of the research model.

GEPU is not only a statistical value factor but also economically meaningful to the Asian banks' stability. Findings drawn from equations (1), (3), and (4) authenticate that GEPU engulfs the stability of the Asian financial systems when the GEPU's coefficient is always negative and the most potent factor. The regression coefficients of the GEPU variable in the three equations, at the 1% significance level, are -1.827, -0.463, and -1.271, respectively - the highest coefficient among the factors of the three equations. The more unsure the global economic policy process is, the more it will subside the strength of the Asian financial systems. This result is consistent with Keynes' theories about the antagonistic impact of uncertainty on the activities of all sectors of the economy, including the financial, and supported by previous empirical studies by Nguyen (2021), Phan et al. (2020), and Shabir et al. (2021). Consequently, it is tolerated that GEPU is one of the disservices of the strength of the financial system. Uncertainty in the economic policies of major countries has resulted in Asian banks having hardship in conducting business activities and managing risks, thereby supplementing the banking systems' weakness.

GLOB is another element explained to affect Asian banking systems' stability, proved by the regression outcomes of equations (2), (3), and (4) of the original model. Its coefficients in all three equations above have negative signs with 99% confidence. Our result is that globalization is an impediment, amplifying credit institutions' ability to default, in agreement with the findings of Hsieh et al. (2013), and Yakubu and Bunyaminu (2022). Analysis by Gospodarchuk and Amosova (2020), Hsieh et al. (2013) display that globalization assembles disadvantages for banking activities by advancing competition and forming adverse fluctuations related to the cash flow at the bank. The finding of Joyce (2011) reveals that globalization directs the risk of a banking crisis through the fixed exchange rate regime.

The control variables are also scrutinized as the foundation for recommendations to reinforce the banking system's strength in the unfavorable environment of GEPU and international collaboration. The outputs of equations (3) and (4) authenticate that a country with a high GDP can further consolidate the banking system's stability, with both GDP's coefficients having a positive sign and significant at the 1% level. The distinctions of the banking industry, including the ratio of equity, total assets of the banking system to GDP, and the system concentration, have a distinctive mark on the explained variable in a positive direction with 99% confidence. Previous studies by Athanasoglou et al. (2008); Ozili (2018), and Uhde and Heimeshoff (2009) also documented similar conclusions. The adverse relations of ratios that reflect a bank's ability to generate income, including NIM and NII, on Zscore is found in the study based on the regression signs of the two variables at a 5% significance level, showing that the excessive increase in income categories devastates bank stability. An excessive increase in the net interest income ratio reflecting the ability to accept loans with a higher level of risk to generate income can push banks into increased credit risk, leading to an unstable banking system (Dwumfour, 2017). Although the impact's magnitude is insignificant, banks' push to increase interest income is adding to the instability of credit institutions. The augmentation in non-traditional service activities may help diminish reliance on credit activities but incur other types of risks from the market (Stiroh and Rumble, 2006; DeYoung and Roland, 2001) that ushered the double-edged influence of non-interest income.

4.4. Results of regression expanded model

The interaction between GEPU and globalization and its components are operated in model 2 to dissect more clearly the role of globalization in the relationship between GEPU and the Z-score of the credit systems. The primary explanatory variable in equation (1) is the integrated variable between GEPU and GLOB. The remaining equations reckon the combined variable between GEPU and components of globalization, namely EcoG, FinG, PoG, and SoG.

Table 5: Regression results of model (02)

	(1)	(2)	(3)	(4)	(5)
L.Z_score	0.920***	0.929***	0.920***	0.879***	0.820***
	(0.0144)	(0.0176)	(0.0199)	(0.0158)	(0.0370)
CAP	0.213***	0.0758	0.0926*	0.457***	0.630***
	(0.0640)	(0.0532)	(0.0532)	(0.102)	(0.0734)
SIZE	0.0344***	0.0145**	0.00334	0.0303***	0.0408***
	(0.00738)	(0.00690)	(0.00572)	(0.00748)	(0.00610)
NIM	-0.317**	-0.439***	-0.334**	-0.298	-0.240
	(0.153)	(0.126)	(0.148)	(0.279)	(0.144)
NII	-0.0464***	-0.0577***	-0.0466***	-0.0105	-0.0521
	(0.0149)	(0.0111)	(0.0111)	(0.0160)	(0.0151)
CON	0.0850***	0.0470***	0.0289**	0.0505***	0.0396
	(0.0171)	(0.0162)	(0.0132)	(0.0178)	(0.0243)
GDP	0.175***	0.117***	0.141***	0.173***	0.168***
	(0.0455)	(0.0326)	(0.0272)	(0.0337)	(0.0312)
INF	-0.0340	-0.0384	-0.103	-0.102	0.102*
	(0.0798)	(0.0760)	(0.0680)	(0.0616)	(0.0587)
GLOB	-1.608***				
	(0.297)				
GEPU	**-21.38*** **	**-18.10*** **	**-15.11*** **	**-9.397*** **	**-7.604** **

	(3.563)	**(2.557)**	**(2.082)**	**(2.104)**	**(3.285)**
c.GEPU #c.GLOB	0.308*** (0.0569)				
EcoGlob		-1.357*** (0.199)			
c.GEPU #c.EcoG		0.279*** (0.0375)			
FinG			-1.100*** (0.149)		
c.GEPU #c.FinG			0.231*** (0.0286)		
PoG				-0.666*** (0.167)	
c.GEPU #c.PoG				0.120*** (0.0327)	
SoG					-0.213 (0.264)
c.GEPU #c.SoG					0.0819 (0.0490)
Constant	104.4*** (17.77)	87.84*** (12.65)	73.31*** (10.53)	44.16*** (11.01)	14.38 (18.01)
No. of group	34	34	34	34	34
No. of ins	33	33	33	33	33
AR1 (p-value)	0.0155	0.0155	0.0156	0.0148	0.0232
AR2 (p-value)	0.654	0.628	0.679	0.803	0.762

Hansen-J (p-value)	0.412	0.193	0.246	0.558	0.337
Notes: t-Statistics are between parentheses. *,**,*** Significant at 10%, 5% and 1% levels, respectively					

Source: Authors' calculations based on the data

GEPU's capability to damage the solidity of banks persists to be demonstrated in the expansion model (02). The coefficients of the GEPU in all five equations of the model (2) have negative signals and have enormous values with at least 95% confidence, verifying that GEPU is a critical factor, both of economic and statistical significance, pushing the bank into defaulting. This statement again supports Keynes' theory (1963) about the influence and the spread of uncertainty in the economic policy of this country to affect other countries.

The relationship between GLOB and Zscore confirms reliability thanks to the unchanged impact direction of GLOB in equation (1) in the model (2), displaying the consistency of the GLOB's coefficient. The components of GLOB, including EcoG, FinG, and PoG, are also obstacles and deteriorate the banking system's solvency when the regression signs of single variables are negative and statistically significant. Specifically:

Equation (2) ascertains that the banking system in a high index of economic globalization countries is likelier to fall into more vulnerability. The regression coefficient of the EcoG index in Equation 2 is -1.357 at a 1% significance level. Economic integration, through the flow of capital and foreign trade activities, forces the government to react depending on the markets of countries with foreign trade transactions (Jordan and Carlson, 2000), exacerbating the unsoundness of the banking industry (Gospodarchuk and Amosova, 2020; Hsieh et al., 2013; Ghosh, 2016). EcoG is augmenting fluctuation in capital flows and competition in the market, making it difficult for banks to generate profits (Nguyen and Nguyen, 2018). However, one of our exciting findings is that promoting globalization changes the damaging impact of GEPU on the Z score, or EcoG has the effect of changing the direction of influence of GEPU from negative to positive to the stability of the banking industry. The interaction variable has a regression of 0.308 with a 1% significance, confirming that globalization's advantages are revealed more strongly in an EPU environment, helping the banking system overcome hardships to improve stability. Despite dependence on other countries, the inflow of investment capital into countries is helping banks reduce capital costs and increasing the ability to improve capital allocation (Mishkin, 2009). Research by Herrero and Peria (2007) provides evidence for cross-border expansion into emerging market countries, where most external debt is extended through foreign banks, allowing local companies to enjoy more stable foreign financing. The benefits of globalization for key actors are broadening options, diversifying investment portfolios, and enhancing the efficiency of the domestic financial system, being less dependent on a single market, thereby reducing volatility in profitability (Prasad et al., 2003).

The regression result of an essential component of economic globalization is FinG, shown in equation (3), which also supports the above conclusion. The variable has a regression coefficient of -1.100 at the 1% significance level, offering that integration in the financial sector impairs banks' health. With the sample of Asian countries - mainly developing countries, according to Nguyen and Nguyen (2018), banks in these countries often lack competitiveness in the globalized environment. The entrance of foreign financial institutions enriches competition in the market,

combined with abnormal fluctuations of foreign investment capital, resulting in banking instability in Asia (Beck et al., 2013). Moreover, financial globalization often initiates asymmetric capital flows, facilitating speculators to distort financial liquidity and enhance the banking system's susceptibility. However, in the global policy uncertainty environment, FinG is more beneficial in increasing the explanatory variable. The regression coefficient of the GEPU and FinG variables is 0.231, with a significance level of 1%, with a positive sign indicating that the benefits of FinG are demonstrated in the GEPU environment. The progressive competition in the financial market puts upward pressure on organizations to improve their competitiveness through expanding capital, management capacity, information technology, and human resources (Killins et al., 2019). Therefore, credit systems are more firmly consolidated in the face of unpredictable fluctuations from the management agency's uncertain economic policy management process.

Political globalization, the second component of globalization, also has a negative and significant relationship to the stability of the banking systems of Asian countries. With 1% confidence, a 1 unit increase in PoG will change the Z_score by -0.666. Nguyen and Nguyen's (2018) study's similar outcome indicated that increasing linkages between governments based on bilateral and multilateral partnership agreements and associations the country participates in forces the government to increase and strengthen the banking industry, according to international practices. Under pressure to change to conform to international practices and other regulations such as capital, technology, and personnel, banks have to raise costs, downsize profits, and provoke vulnerability. Nevertheless, the interaction variable between PoG and GEPU has a regression coefficient of 0.120 with the highest reliability, pointing out that political cooperation encourages the solidity of the banking system in an environment of EPU. International integration inaugurates policymakers in improving financial institutions' governance and supervision capacity, including banks. Regulators often move to support the banking system better to ensure system stability in an environment of EPU. Reality shows that in 2020, countries frequently change policies without warning when facing a complicated epidemic situation, creating difficulties for operational banks. However, national central banks also enacted various policies to strengthen the system's health amid EPU.

Unlike the previous two components, SoG is the only factor belonging to globalization that has an insignificant impact on Z_score. This result is reinforced by the study of Sufian and Kamarudin (2016), and Nguyen and Nguyen (2018) but contrasts with the conclusions of the study of Sufian and Habibullah (2012).

The study also continues to demonstrate the function of control variables with the explanatory one. The toughening influence on the banking sector from the expansion in equity, operation size, degree of the system's concentration, and the economic growth rate persists to be economically significant statistics in the equations of the extended model. Moreover, the coefficients of NIM and NII indicate that banks, when excessively enhancing their income from conventional activities from lending and service activities, are also making themselves more vulnerable because of the role of activities associated with risk intermediation.

In short, by discussing the results of the two models, the study shows that the authorities' inconsistent and unpredictable policy administration process is harmful to the stability of Asian banking institutions. Globalization as a stand-alone is a drawback, eroding the sustainable

strength of credit institutions in Asian countries but bringing more benefits in the uncertain global economic policy environment.

5. CONCLUSION

The article seeks empirical proof of the impact of GEPU and globalization on the stability of the Asian banking systems. With country-level data sets from 34 countries in the region, through the two-step systematic GMM method, the study reveals that GEPU is a vital drawback causing the reduction in the banking system's stability. This conclusion sustains relevant economic theories as well as is consistent with empirical analyses on the relationship between EPU and banking system strength, such as in the studies of Phan et al. (2020), Shabir et al. (2021), and Nguyen (2021). Multifaceted globalization has enhanced the interdependence of economic policies among countries. Fluctuations in many countries' economic policy management, especially in developed countries, often create sudden modifications in the economic policy management of other countries. As a financial intermediary closely related to operating macro principles, credit institutions are involved in many policy transmission channels, such as interest and exchange rates. The doubtful orientation in macro guidelines institutes asymmetric information problems, ushering in many consequences for the bank's decision-making process and the customers to whom the bank provides services. The research results provide empirical evidence for policymakers in countries to contemplate adding the current GEPU as a disadvantage on the Z-index of the financial sectors.

One of our new outcomes is that globalization is a double-edged sword in the constant development of the financial intermediary sector. The regression coefficient of the variable GLOB and its components are all negative and statistically meaningful, implying that the Asian banking systems become more vulnerable as these governments upgrade integration. On the opposing side, this factor also conveys praising miracles in reinforcing the solvency of banks in the context of macro-policy lack of consistency. Through the regression coefficient of combined variables between GEPU and globalization, the results show that globalization can change the direction of the impact of GEPU on Z_sore. The interaction variables have positive signs, showing that countries are stepping up globalization, including EcoG and PoG, the banking system tends to be more unstable regarding global economic policy unpredictability. Thanks to the promotion of capital flows, improved banking management mechanisms, diversity in operating markets, industry competition, and political and social factors, globalization is strengthening the banking system's health in the uncertain policy environment of significant countries worldwide. The above findings show that Asian governments need to promote cooperation in all aspects to increase the benefits brought by globalization and control the damaging effects of globalization to stabilize the financial intermediate system.

Although it is impossible to interfere in the economic policies of other countries, every country has "weapons" to foster the strength of banks. Founded on the original and extended model results, the government should focus on economic growth to create favorable conditions for financial institutions to operate. Raising equity is essential for the banks to create a buffer against risks from policy uncertainty. In addition, regulatory agencies need to make great banks act as a pillar to help strengthen the financial system's strength because the high concentration level enhances the banking system's stability. Not only that, management agencies need to control

banks' business activities, including activities that generate interest and non-interest income, to limit the pursuit of profits despite risks, especially in The economic policy environment is inconsistent.

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