Bank stock price volatility in Indonesia: The impact of monetary policy, macroeconomic factors, global factors, and bank characteristics

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Abstract

Purpose – This study aims to examine the influence of monetary policy, macroeconomic factors, global factors, and bank characteristics on the volatility of banking stock returns in Indonesia.

Design/methodology/approach – Using a quantitative explanatory approach, the study analyzes quarterly panel data from 40 banks listed on the Indonesia Stock Exchange during the period 2020Q1–2024Q4, selected through purposive sampling based on data completeness. The analysis employs a dynamic panel regression model with the System Generalized Method of Moments (GMM) to address endogeneity and capture dynamic relationships among variables.

Findings – The findings reveal that the BI Rate and LIBOR have a positive and significant effect on stock return volatility, indicating that changes in domestic and global interest rates increase market uncertainty. In contrast, exchange rate stability, inflation, and the Dow Jones Index are found to reduce volatility. From the perspective of bank characteristics, total assets and the Capital Adequacy Ratio (CAR) decrease volatility, while Return on Assets (ROA) increases it.

Research limitations – The study is limited to the banking sector within a specific post-pandemic period and does not incorporate non-economic factors such as investor sentiment or governance variables.

Implications – Academically, this study enriches the literature on banking stock volatility in developing countries by demonstrating the simultaneous role of monetary, global, and bank characteristics. Future research could expand the model by incorporating variables such as market sentiment, fiscal policy, or governance indicators. Practically, these findings emphasize the importance of monetary policy coordination and strengthening bank capital in maintaining stock market stability, and provide empirical references for investors in managing banking stock risk.

Keywords: Stock Volatility, Banking, Monetary Policy, Global Factors, Panel Data.

INTRODUCTION

The banking sector plays a strategic role in the Indonesian economy as a financial intermediary and a major contributor to gross domestic product (GDP). The dominance of banking within the financial sector makes its stability crucial not only for the national economy but also for investor confidence in the capital market (Badan Pusat Statistik, 2024). One of the key indicators reflecting investment risk and market uncertainty in this sector is stock return volatility, which measures the intensity of stock price fluctuations over a given period

(Challoumis & Eriotis, 2024). Volatility arises as markets respond to new economic and financial information, and high volatility is commonly associated with greater systemic risk and investor uncertainty (Reisizadeh et al., 2025; Sánchez García & Cruz Rambaud, 2023; Zhu et al., 2023).

In recent years, the volatility of banking stocks in Indonesia has increased in line with dynamic monetary policy adjustments and global economic uncertainty. Monetary policy, implemented by Bank Indonesia through the BI Rate, aims to control money supply and maintain economic stability. Changes in the BI Rate influence financial markets through interest rate transmission, credit mechanisms, and investor expectations, thereby affecting stock price volatility, particularly in the banking sector (Sharipova & Asadova, 2023; Wahyudin, 2025). Empirically, changes in interest rates alter investor preferences between capital market instruments and deposit-based instruments, directly impacting banking stock movements (Wartoyo et al., 2024).

Macroeconomic conditions also contribute significantly to stock market dynamics. Inflation, defined as a continuous increase in the general price level, reduces purchasing power and increases economic uncertainty, often triggering tighter monetary responses and adjustments in investor portfolios (Aisyah et al., 2024; Chowdhury, 2023). Similarly, exchange rate fluctuations in a floating currency system influence capital flows, firm performance, and investor sentiment. Significant currency movements are frequently associated with foreign capital shifts, which affect banking stock volatility in domestic markets (Amanda et al., 2023; Bassar et al., 2021).

Externally, the integration of global financial markets has made domestic banking stocks increasingly sensitive to international economic developments. The Dow Jones Industrial Average (DJIA) is widely regarded as an indicator of global market conditions and investor sentiment. Its movements often transmit global financial shocks to emerging markets, including Indonesia, thereby influencing banking stock volatility (Almansour et al., 2023; Elfahmi, 2020; Novia Sari et al., 2023). In addition, the London Interbank Offered Rate (LIBOR), as a benchmark for global borrowing costs, reflects international liquidity and risk conditions. Changes in LIBOR affect banks' funding costs and profitability expectations, which in turn contribute to fluctuations in stock prices (Maechler & Moser, 2022; Menziwa, 2024).

Beyond external and macroeconomic influences, internal bank characteristics also shape investor perceptions and market responses. The Capital Adequacy Ratio (CAR) measures a bank's ability to absorb potential losses and maintain financial stability. Banks with higher CAR are generally perceived as more stable and less risky, resulting in lower stock price volatility (Obeid, 2023; Olawale, 2024). Return on Assets (ROA), as an indicator of profitability and managerial efficiency, increases investor confidence but may also trigger speculative market reactions that influence volatility (Obeid, 2023; Yuan et al., 2022). Meanwhile, total assets reflect the size and operational capacity of a bank; larger banks are typically viewed as more resilient, which tends to reduce volatility provided risk management is adequate (Olawale, 2024; Yuan et al., 2022).

Although numerous studies have examined the influence of monetary policy, macroeconomic factors, global indicators, and bank characteristics on stock markets, empirical findings remain inconsistent. Some studies report significant effects of inflation, interest rates, and exchange rates on banking stock prices (Kyei et al., 2023), while others find insignificant relationships (Novia Sari et al., 2023). Moreover, prior research incorporating global factors tends to focus on composite stock indices rather than the specific volatility of banking sector stocks. Studies on internal bank characteristics are also more frequently associated with stock price performance than with stock return volatility as a measure of market risk (Murtiningsih & Tohirin, 2023).

Given these gaps, this study integrates monetary policy, domestic macroeconomic factors, global indicators, and internal bank characteristics into a unified analytical framework to explain banking stock return volatility in Indonesia. The novelty lies in its focus on volatility, the use of banking panel data from 2020Q1–2024Q4 reflecting recent economic dynamics, and comprehensive testing of inter-variable relationships. This study is expected to contribute to the literature on monetary economics and capital markets while providing practical insights for policymakers, banking supervisors, and investors in managing stock market volatility in the banking sector.

METHOD

This study is a non-experimental quantitative study using a dynamic panel data regression model, which aims to explain the causal relationship between monetary policy, macroeconomic factors, global factors, and bank characteristics on the volatility of banking stock returns in Indonesia. This design is relevant to the research objectives because stock return volatility is dynamic and influenced by the values of variables in the previous period. Therefore, the use of panel data allows for simultaneous analysis of cross-sectional and time series variations, making it more capable of capturing the dynamics of the banking stock market.
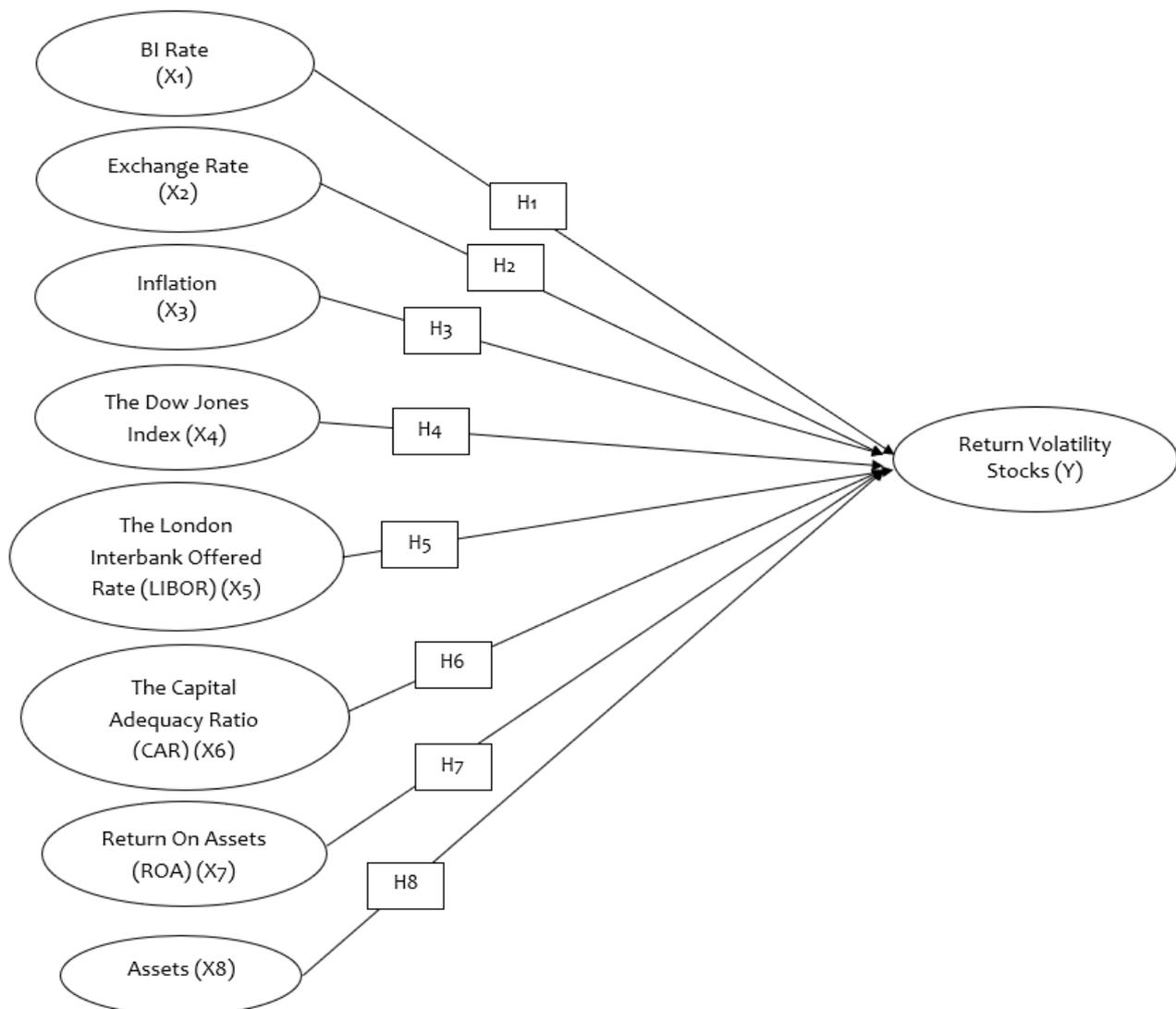

Figure 1. Research Framework
Source: Processed data (2025)

Table 1. Operationalization of Variables

No	Variable	Definition of Variable	Indicator	Unit
1	Return Volatility Stocks (Y) Symbol: RVS	The extent of fluctuations or variability in stock prices over time. This is an important concept in capital market analysis and is often used to evaluate investment risk and stock price stability (Osu & Amadi, 2022).	The magnitude of fluctuations or variations in the value or return of an asset or index of active banking in Indonesia in each period from 2020Q1 to 2024Q4.	Percent (%)
2	BI Rate (X1) Symbol: BI	The interest rate set by Bank Indonesia as the basis for determining interest rates in the financial market in general in Indonesia (Hudaya & Firmansyah, 2023).	Referring to the interest rate set by Bank Indonesia for the period 2020Q1-2024Q4.	Percent (%)
3	Exchange Rate (X2) Symbol: ER	The price or exchange rate of one currency against another (Lilley et al., 2022)	Measuring the exchange rate between two different currencies	Currency
4	Inflation (X3) Symbol: IF	The general and sustained increase in the prices of goods and services in an economy over a certain period of time (Gafurdjan, 2024).	Bank Indonesia's interest rate as a benchmark for monetary policy.	Percent (%)
5	The Dow Jones Index (X4) Symbol: DJ	The oldest and most widely quoted stock market index in the world (Alaeddini et al., 2023).	The level of financial market development in Indonesia in the period 2020Q1-2024Q4	Index
6	The London Interbank Offered Rate (LIBOR) (X5) Symbol: LDR	The benchmark interest rate used to determine the cost of interbank loans in the international money market (Wang et al., 2022).	LIBOR interest rates for various currencies (USD, EUR, GBP, etc.) and terms (e.g., 1 month, 3 months, 6 months, 12 months).	Percent (%)
7	The Capital Adequacy Ratio (CAR) (X6) Symbol: CAR	A ratio that measures a bank's capital adequacy to cover potential losses (Al-Sharkas & Al-Sharkas, 2022).	CAR percentage of 45 banks in Indonesia listed on the IDX from 2020Q1 to 2024Q4	Percent (%)
8	Return On Assets (ROA) (X7) Symbol: ROA	Measuring how efficiently banks generate profits from their total assets (Mehzabin et al., 2023).	ROA percentage of 45 Indonesian banks listed on the IDX from 2020Q1 to 2024Q4	Percent (%)
9	Assets (X8) Symbol: Asset	Used to generate income and support the bank's operational activities (Do et al., 2022).	Percentage of Assets of 45 Indonesian Banks Listed on the IDX from 2020Q1 to 2024Q4	Absolute value

Source: Data Processed, 2025

The data used in this study is quantitative secondary data. The population in this study was all banks listed on the Indonesia Stock Exchange, totaling 45 banks. However, not all banks in the population could be used as research samples. Sample selection was carried out using purposive sampling, which is selection based on certain criteria in accordance with research needs. The main criteria used were the availability and completeness of data for all research variables during the observation period. Based on these criteria, 40 banks with complete and consistent data were obtained, so these 40 banks were designated as the research sample. The data used in this study included the variables of Stock Return Volatility, BI Rate, Capital Adequacy Ratio, Total Assets, Return on Assets, Inflation, Exchange Rate, Dow Jones index, and LIBOR Interest Rate. All data were compiled in the form of quarterly panel data in accordance with the research observation period.

The research period was 2020Q1 to 2024Q4. The data sources were obtained from the Central Statistics Agency, Bank of Indonesia, the Financial Services Authority, the Indonesia Stock Exchange, and the annual reports of each bank. The selection of this period aims to capture the dynamics of the banking stock market in the post-pandemic period and fluctuating global economic conditions.

Data analysis was performed using dynamic panel data regression with the Generalized Method of Moments (GMM). This method was used because the existence of lagged dependent variables in the model has the potential to cause endogeneity problems, resulting in biased and inconsistent estimates with Ordinary Least Squares (OLS) or Fixed Effect. The GMM approach allows the use of instrumental variables to overcome endogeneity problems and produce consistent estimators.

Estimation was performed using the First-Difference GMM and System GMM approaches. System GMM was used to improve estimation efficiency, especially when the instruments in First-Difference GMM were weak. The validity and consistency of the model are tested using the Sargan Test to test the validity of the instruments and the Arellano Bond Test to ensure that there is no second-order serial autocorrelation in the residuals. This analysis technique is used to answer the research objective, which is to test the effect of each independent variable on the volatility of banking stock returns in Indonesia.

RESULT AND DISCUSSION

The following presents the results of empirical testing on the effect of monetary policy, macroeconomic factors, global factors, and bank characteristics on the volatility of banking stock returns in Indonesia. The analysis was conducted using several estimation approaches, namely Pooled Ordinary Least Square (POLS), Fixed Effect Model (FEM), and Generalized Method of Moments (GMM), to ensure consistency and robustness of the results.

Results of Ordinary Least Square Panel Multiple Regression Test

Table 2. POLS estimation results

Variable	Dependent Variable (VRS)			
	Model 1	Model 2	Model 3	Model 4
L.VRS	0.9289***	0.9302***	0.9325***	0.9319***
	(0.0136)	0.0136)	0.0136)	(0.0139)
BI	0.0072***	0.0064	-0.0035	-0.0020
	(0.0028)	(0.0053)	(0.0064)	(0.0073)
CAR	-0.0000			-0.0000
	(0.0001)			(0.0001)
LN_ASSET	0.0005			0.0009
	(0.0023)			(0.0023)

Variable	Dependent Variable (VRS)			
	Model 1	Model 2	Model 3	Model 4
ROA	0.0000			-0.0000
	(0.0000)			(0.0000)
IF		0.0033		-0.0011
		(0.0024)		0.0031)
LN_KR		-0.0300		-0.0382
		(0.1292)		(0.1345)
LN_DJ			-0.0458*	-0.0512
			(0.0270)	(0.0354)
LBR			0.0029**	0.0031***
			(0.0011)	(0.0012)
C	-0.0389	0.2585	0.4721*	0.8639
	(0.0717)	(1.2232)	(0.2727)	(1.2384)
R2	0.863	0.863	0.865	0.865
No. of Cross-section	40	40	40	40
No. of Obs.	760	760	760	760

Note: Symbols * is Prob. < 10%, ** is Prob. < 5%, and *** is Prob. < 1%.
Source: Data Processed, 2025

Results of Fixed Effect Panel Multiple Regression Test

Table 3. Fixed Effect Estimation

Variable	Dependent Variable (VRS)			
	Model 1	Model 2	Model 3	Model 4
L.VRS	0.7813***	0.7963***	0.7966***	0.7760***
	(0.0251)	(0.0246)	(0.0252)	(0.0266)
BI	0.0064**	0.0072	0.0033	0.0074
	(0.0030)	(0.0052)	(0.0064)	(0.0074)
CAR	-0.0001			-0.0001
	(0.0001)			(0.0001)
LN_ASSET	-0.0227*			-0.0134
	(0.0110)			0.0125)
ROA	-0.0000			-0.0001
	(0.0001)			(0.0001)
IF		0.0007		-0.0054*
		(0.0024)		(0.0032)
LN_KR		-0.1171		-0.0364
		(0.1279)		(0.1326)
LN_DJ			-0.0694**	-0.0943**
			(0.0269)	(0.0376)
LBR			0.0010	0.0017
			(0.0012)	(0.0012)
C	0.7502**	1.1349	0.7422***	1.7807
	(0.3659)	(1.2115)	(0.2719)	(1.2307)
R2	0.6177	0.6158	0.6199	0.6230
No. of Cross-section	40	40	40	40
No. of Obs.	760	760	760	760

Note: Symbols * is Prob. < 10%, ** is Prob. < 5%, and *** is Prob. < 1%.
Source: Data Processed, 2025

Endogeneity Test

Table 4. Endogeneity Test

Variable	Model 1	Model 2	Model 3	Model 4
Prob.Durbin-Wu-HausmanTest	0.0000***	0.0000***	0.0000***	0.0000***
No of Cross-Section	40	40	40	40
No of Observation	760	760	760	760

Source: Data Processed, 2025

Preliminary estimates using the POLS and FEM methods show that the volatility of banking stock returns is dynamic, as reflected in the significance of the lag variable of stock return volatility (VRS). This finding indicates the persistence of volatility, whereby volatility in the previous period significantly affects volatility in the current period. However, the results of the endogeneity test using the Durbin Wu Hausman Test indicate endogeneity problems in all models, so that POLS and FEM estimates have the potential to produce biased estimates. Based on these findings, the main analysis was conducted using the Panel System GMM approach.

Results of Generalized Method of Moment Regression Test

Table 5. Panel System GMM Estimation

Variable	Dependent Variable (VRS)			
	Model 1	Model 2	Model 3	Model 4
L.VRS	0.9517***	0.9429***	0.8344***	0.9556***
	(0.0025)	(0.0011)	(0.0011)	(0.0089)
BI	0.0080***	0.0074***	0.0032***	0.0053***
	(0.0003)	(0.0002)	(0.0001)	(0.0018)
CAR	0.0002***			-0.0002***
	(0.0001)			(0.0000)
LN_ASSET	-0.0067***			-0.0006
	(0.0005)			(0.0022)
ROA	0.0001***			0.0000*
	(0.0000)			(0.0000)
IF		0.0048***		-0.0037***
		(0.0001)		(0.0005)
LN_KR		0.0716***		-0.0265*
		(0.0582)		(0.0140)
LN_DJ			-0.0579***	-0.1081***
			(0.0001)	(0.0083)
LBR			0.0021***	0.0023***
			(0.0000)	(0.0002)
C	0.1487***	-0.7328***	0.6007***	1.3495***
	(0.0157)	(0.0567)	(0.0181)	(1.1983)
AR (1) (p-value)	0.0020	0.0019	0.0008	0.0021
AR (2) (p-value)	0.1403	0.1104	0.1911	0.1804
Sargan Test (p-value)	0.5404	0.9759	0.9735	0.9998
No. of Cross-section	40	40	40	40
No. of Obs.	760	760	760	760

Source: Data Processed, 2025

The GMM estimation results show that the model used meets the validity and consistency criteria, as indicated by passing the Arellano–Bond test for autocorrelation and the Sargan test

for instrument validity. Thus, the GMM estimation results are considered the most appropriate in explaining the causal relationship between variables in this study.

Research Hypothesis Conclusion
Hypothesis 1 (The Effect of BI Rate on Stock Price Volatility)

Based on the estimation results, the GMM estimation test for the BI Rate variable shows a significant positive effect on Stock Return Volatility (VRS). The coefficient value is 0.0032 to 0.0080, which means that when the BI Rate increases by one percentage point, it has the potential to cause an increase in VRS. The coefficient value is 0.0032 to 0.0080, which means that when there is an increase in the BI Rate of one percentage point, it has the potential to cause an increase in the level of stock price volatility of percentage points.

The BI Rate and stock return volatility are important aspects of economic and financial analysis. Changes in benchmark interest rate policy can have a significant impact on the stock market through various economic channels and investor behavior. A deep understanding of this relationship helps stakeholders make better investment decisions and manage risk effectively. Empirical studies also often show that changes in the BI Rate contribute to financial market fluctuations, including stock return volatility. This is also supported by previous research (Nurwulandari, 2021) in the International Journal of Economic and Finance.

Research by Stoica & Diaconaşu (2012) shows that monetary policy has a significant impact on stock markets, using econometric approaches such as VAR (Vector Autoregression). Their study confirms the existence of both short-term and long-term relationships between interest rates as a monetary policy instrument and stock prices, particularly in developing countries and the European Union.

Hypothesis 2 (The Effect of Exchange Rates on Stock Price Volatility)

Based on the estimation results, the GMM estimation test for the Exchange Rate variable shows a significant negative effect on Volatility Return Stock (VRS). Exchange rate stability reduces uncertainty in foreign capital flows and increases investor confidence in the domestic market. The coefficient value is -0.0265, which means that a 1 percent change in the exchange rate will affect the decline in the volatility of banking stock prices by -0.0265 percentage points.

According to Chen (2022), exchange rates have a negative effect on stock returns. This is due to foreign investors converting their investment returns into their home currency. When exchange rates increase, capital outflows occur because investors hold back on investing, causing stock returns to decline. In addition, Amanda et al. (2023) found that movements in foreign stock market indices and exchange rates also affect domestic capital markets, including Indonesia. Financial market globalization means that exchange rate fluctuations have the potential to create cross-market volatility as investors shift capital based on profit trends.

Hypothesis 3 (The Effect of Inflation on Stock Price Volatility)

Based on the estimation results, the GMM estimation test results show that the Inflation variable has a significant negative effect on Volatility Return Stock (VRS). The coefficient value is -0.0037, which means that a 1 percent change in inflation will cause a decrease in the volatility of bank stock prices by -0.0037 percentage points.

Previous research by Chowdhury (2023) shows that inflation has a positive relationship with stock price volatility. This occurs because an increase in inflation is usually accompanied by an increase in the money supply, which can then raise interest rates (discount rates), causing stock prices to fall. Economic uncertainty due to inflation also encourages investors to sell their shares, thereby increasing volatility in the capital market.

These findings indicate that in the context of the banking sector in Indonesia, rising inflation can actually stabilize stock volatility, possibly due to strict banking regulations and the role of Bank Indonesia in maintaining financial system stability through more controlled monetary policy instruments. Additionally, banking stocks are often considered a hedging instrument against inflation because this sector can adjust credit interest rates in line with inflation. Thus, although previous theories and studies have shown a positive relationship between inflation and stock price volatility, the results of this study reveal that in the domestic context and the banking sector, inflation acts as a suppressor of volatility, highlighting the importance of the role of monetary stabilization in the national financial market.

Hypothesis 4 (The Effect of the Dow Jones on Stock Price Volatility)

Based on the results of testing using the GMM model, it can be seen that the Dow Jones variable has a negative and significant effect on the volatility of banking stock prices, with a coefficient of -0.1081 to -0.0579, which means that a 1 percent change in the Dow Jones will cause a decrease in the volatility of banking stock prices of - 0.1081 to -0.0579 percentage points.

This decline in volatility can be interpreted to mean that when the Dow Jones experiences strengthening or stability, global risk perception towards the financial sector tends to decline. As a result, markets in developing countries such as Indonesia, which have strong links to global investors, also experience a decline in pressure on stock price fluctuations, especially in sectors that have significant exposure to foreign capital, such as banking.

Furthermore, research by Almansour et al. (2023) confirms that there is a close relationship between the Dow Jones index and various sustainability indices. This indicates the existence of a transmission mechanism between major global indices and other stock indices in various countries. When shocks occur in the US market, the impact can spread to other markets through investor interconnectedness and global market integration mechanisms.

Thus, the results of this study are in line with the theory of global market interconnectedness and previous studies that confirm that the Dow Jones is a significant indicator that influences the dynamics and volatility of banking sector stock prices in developing countries such as Indonesia. The decline in this index not only impacts the financial sector in the US, but also triggers reactions in the Indonesian market, both through the actions of foreign investors and herd behavior among local investors.

Hypothesis 5 (The Effect of LIBOR on Stock Price Volatility)

Based on the results of testing using the GMM model, it can be seen that the LBR variable has a positive and significant effect on the volatility of banking stock prices, with a coefficient of 0.0021 to 0.0023. This means that a 1 percent change in LBR will affect the increase in systemic risk of banks by 0.0021 to 0.0023 percentage points.

When LIBOR interest rates rise, financing costs for banks also increase, which can narrow their profit margins. This pressure often creates uncertainty in the market, which is ultimately reflected in increased volatility in banking sector stock prices. Through market mechanisms, an increase in LIBOR tends to make banking stocks less attractive to investors due to high funding costs that limit credit expansion and pressure bank profitability. Additionally, significant movements in LIBOR can also alter market expectations, prompting rapid reactions from investors in the form of intensive selling or buying, thereby increasing stock price fluctuations.

These findings are also consistent with previous research by Maechler & Moser (2022), which found that an increase in LIBOR interest rates can reduce the attractiveness of investment in the stock market, as investors tend to shift their investments to fixed-income instruments such as bonds that offer higher returns. The impact is a decline in demand for banking stocks and increased stock price volatility. Overall, the results of this study reinforce that LIBOR is one of

the main determinants of banking stock price volatility in the global financial market. Therefore, monitoring the dynamics of LIBOR interest rates is important, not only for monetary authorities, but also for market participants and bank risk management in anticipating potential market turmoil stemming from changes in international funding costs.

Hypothesis 6 (The Effect of CAR on Stock Price Volatility)

The variable car has a negative and significant effect with a coefficient of -0.0002 to 0.0002, which means that a 1 percent change in car will affect a decrease in the volatility of banking stock prices by 0.0002 to 0.0002 percentage points.

A high level of capital adequacy increases a bank's resilience to risk and reduces investor risk perception. These results are consistent with previous studies that state that capital adequacy plays an important role in maintaining the stability of banking sector stock prices (Obeid, 2023; Olawale, 2024). With sufficient capital buffers, banks are considered capable of surviving volatile market conditions and complying with prudential regulations, thereby calming investors and promoting rational expectations. Conversely, if the CAR is low, investors tend to view banks as entities that are vulnerable to shocks, which ultimately increases stock price volatility.

Hypothesis 7 (The Effect of ROA on Stock Price Volatility)

The ROA variable has a positive and significant effect with a coefficient of 0.0000 to 0.0001, which means that a 1 percent change in ROA will cause a 0.0000 to 0.0001 percentage point increase in the volatility of banking stock prices.

In general, a high ROA indicates that a bank is able to manage its assets efficiently to generate profits. However, the finding that ROA has a positive effect on volatility suggests that the market may overreact to changes in profitability performance.

In the short term, investors tend to react to profit fluctuations, which creates uncertainty and potential speculation on stock prices. This is in line with Obeid (2023) view, which states that volatility is not only influenced by fundamental performance but also by market expectations and psychology.

Hypothesis 8 (The Effect of Assets on Stock Price Volatility)

Variable assets have a negative and significant influence with coefficients ranging from -0.0067 to -0.0006, which means that a 1 percent change in assets will cause a decrease in the volatility of banking stock prices by 0.0067 to 0.0006 percentage points.

These results indicate that the larger the size of the bank, the lower the volatility of its stock price tends to be. This is in line with the view that banks with large assets are considered more stable and have stronger financial capacity to deal with market risks (Olawale, 2024). Large total assets reflect a bank's ability to diversify risk, expand its portfolio, and increase investor confidence. However, as stated byYuan et al. (2022), asset growth also needs to be accompanied by good governance and risk management. Otherwise, aggressive asset growth can actually increase risk and add to market uncertainty.

CONCLUSION
Conclusion

The volatility of banking stock prices in Indonesia is significantly influenced by monetary policy, macroeconomic factors, global factors, and internal bank characteristics. Empirical results show that the BI Rate and global interest rates (LIBOR) increase the volatility of banking stocks, confirming the role of interest rate policy and global financial conditions as sources of market uncertainty. Conversely, exchange rate stability, inflation, and global stock market conditions as

reflected in the Dow Jones index contribute to reducing stock price volatility. In terms of bank characteristics, total assets and Capital Adequacy Ratio (CAR) have been shown to reduce volatility, indicating that the size and strength of a bank's capital increase the perception of stability in the eyes of investors. However, Return on Assets (ROA) actually increases stock volatility, suggesting that increased profitability can trigger a more aggressive market response in the short term. Overall, these findings underscore the importance of monetary policy coordination, macroeconomic stability, and strengthening banking fundamentals in maintaining the stability of the banking stock market in Indonesia.

Limitations

This study has limitations in terms of its scope, which is restricted to the banking sector listed on the Indonesia Stock Exchange with an observation period of 2020Q1–2024Q4, so the results reflect post-pandemic conditions and may not necessarily describe a more stable economic situation. In addition, the variables used are limited to monetary, macroeconomic, global, and quantitative bank characteristics, without including non-economic factors such as investor sentiment or governance. Although the System GMM method was used, the estimation results still depend on the quality of the instruments and model specifications.

Research Implications

Academically, this study enriches the literature on banking stock volatility in developing countries by demonstrating the simultaneous role of monetary, global, and bank characteristics. Future research could expand the model by incorporating variables such as market sentiment, fiscal policy, or governance indicators. Practically, these findings emphasize the importance of monetary policy coordination and strengthening bank capital in maintaining stock market stability, and provide empirical references for investors in managing banking stock risk.

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