

Research article

Does the Inflation, Interest Rates, and Global Gold Price affect Islamic and Conventional Bank Stock Prices?

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ABSTRACT

The dynamic relationship between macroeconomic conditions, global gold prices, and stock market performance has been a major focus in various studies. This study investigates the impact of inflation, BI rates, and gold prices on the stock prices of Islamic and conventional banks in Indonesia. Using monthly data from January 2021 to December 2023. The method employed panel data regression using the Random Effect Model. The findings indicate that inflation has a negative and significant impact on the Islamic banks stock prices, while BI rates has insignificant effect. On the other hand, inflation has a positive and significant effect on the conventional banks' stock prices, along with BI rates also having a positive and significant impact. However, global gold prices do not have a significant effect on the stock prices of either Islamic or conventional banks. These results provide deeper insights into how macroeconomic factors influence the performance of the stock market for Islamic and conventional banks in Indonesia.

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1. INTRODUCTION

The dynamic relationship between macroeconomic variables and stock market performance has been the subject of extensive research over the past few decades (Narayan et al., 2014). This relationship is important because it helps understand how economic activity influences market behavior and vice versa (Khan & Ullah Jan, 2022). Financial economic theory provides several theoretical frameworks for studying how stock market returns react to real economic activity (Antonio et al., 2021). The importance of the stock market cannot be underestimated, because it is an integral part of the financial system (banking) and economic growth (Ho & Njindan Iyke, 2017). The stability and economic success of a country depend greatly on the banking sector (Annas et al., 2024). Banks have an important role in the smooth running of a country's economy (Esmail et al., 2020). Banking stability is considered a prerequisite for sustainable economic development, the banking sector facilitates economic acceleration and financial intermediation by converting savings into productive investments (Rehman & Rashid, 2022). Indonesia is one of the countries that implements a dual banking system, where Islamic and conventional banks operate, presenting unique challenges in mitigating systemic risk and to economic shocks. Many shocks have hit the world economy (Thorbecke, 2024). Mohd Yusof et al. (2018) found Islamic banks is less vulnerable to macroeconomic shocks compared to conventional banks because their structure is based on the principles of prohibiting interest, uncertainty and gambling, and is asset-based.

These structural differences imply that Islamic banks may respond differently to economic variables, which is important for policy makers and investors (Azmat et al., 2020). One of the

successes of Islamic finance is the existence of a Sharia compliance component (Abbass et al., 2022). As the main provider of economic stability, the performance of the banking sector is greatly influenced by macroeconomic conditions, both at the institutional level and at the market level (Joseph et al., 2024). Stock indices generally experience fluctuating movements which are influenced by various macroeconomic variables (Antonio et al., 2021). Inflation and BI rates affect companies' operational costs, revenue expectations, and investment decisions. Both have a direct impact on stock market performance because changes in costs and revenue expectations influence investment decisions and stock prices. Conventional banks that rely on interest will experience a direct impact from changes in BI rates, while Islamic banks that do not use interest may be more affected by inflation and changes in operational costs. Islamic banks might also experience different impacts due to their asset-based financial structure and adherence to Sharia principles. Macroeconomic factors such as unexpected inflation and BI rates have a significant impact on the stock market (Habib & Islam, 2017). Both have a direct and significant impact on the stock market and the banking sector. Inflation, as an indicator of changes in the prices of goods and services, affects the operational costs of companies. An increase in BI rates usually raises borrowing costs for companies and reduces liquidity in the stock market, which can lead to a decrease in stock prices as investors shift to financial instruments with higher returns.

Inflation is generally considered a negative signal for investors because it increases operational and production costs, thereby lowering income expectations and subsequently lowering stock prices (Kalyatun et al., 2021). Inflation is defined by Ogunode et al. (2024) as the continuous rise in the prices of goods and services over the period. For investors, inflation indicates an increase in operational and production costs, thereby lowering income expectations and having a negative impact on stock prices (Kalyatun et al., 2021). The relationship between inflation and stock prices can be positive or negative. Meanwhile, the relationship between BI rates and stock prices is mostly negative, because an increase in BI rates will increase the risk-free nominal BI rates and the discount rate simultaneously (Yahya & Hussin, 2012). In conventional banks, high inflation increases operational and loan costs, which can lower company profits and reduce consumer purchasing power, thereby putting pressure on stock prices. On the other hand, Islamic banks that operate without interest and are based on Sharia principles, although not directly affected by BI rate fluctuations, can still be influenced by inflation as it impacts their operational costs and asset-based financing structure.

Interest rates play a crucial role in shaping financial markets, influencing various asset classes, investment behaviors, and market dynamics (Schrack, 2024). An increase in BI rates usually results in a decrease in stock investment activity because investors prefer to save funds rather than invest in shares, causing stock prices to fall. In addition, higher BI rates increase borrowing costs, potentially reducing company profits and sales, thereby negatively impacting stock prices in the capital market (Kalyatun et al., 2021). In conventional banks, an increase in BI rates typically raises borrowing costs, which can reduce company profits and lower stock prices as investors worry about shrinking profit margins. In contrast, Islamic banks, which do not rely on interest and operate with a profit-sharing system and asset-based financing, may not be directly affected by BI rate changes. However, high BI rates can impact the overall economic conditions, which may affect the asset quality and profitability of Islamic banks, though the impact might not be as pronounced as it is for conventional banks.

Apart from BI rates and inflation, gold is a conservative investment. Gold prices are known to respond quickly to inflationary pressures, so gold price fluctuations are a significant concern for policy makers, investors, financial institutions, central bank and the general public (Alshammari et al., 2019). An increase in gold prices often reflects concerns about inflation or economic uncertainty, which can generally lead to lower stock prices, including those of banks. Conventional banks may be more affected due to their dependence on interest and asset-based investments. In contrast, Islamic banks, which operate with an asset-based structure and Sharia principles, may experience impacts more related to asset quality and overall economic stability. Therefore, gold prices should remain stable in the long term and serve as a leading indicator of inflation (Zhu et al., 2018). Moreover, investment in Indonesia is currently showing positive developments (Antonio et al., 2021).

Previous research has elucidated the relationship between macroeconomic variables and stock market performance. Narayan et al. (2014) found that short-term BI rates have a significantly negative effect on stock prices in major commercial banks in India. Rjoub et al. (2017) demonstrated that inflation has no significant impact on bank stock prices in Turkey. Alshammari et al. (2019) found a positive correlation between gold prices and stock prices, indicating that gold can serve as a leading indicator of inflation and economic stability. Further research by Rizvi et al. (2015) highlighted that the Islamic financial system shows better resilience compared to the conventional financial system during the global financial crisis of 2007, largely due to adherence to Sharia principles that prohibit interest, uncertainty, and gambling. Azmat et al. (2020) said Islamic and conventional banks in Indonesia exhibit different responses to economic shocks, emphasizing the importance of systemic risk mitigation in Islamic finance.

There are still several gaps and inconsistencies in understanding the differences in the impact of macroeconomic variables on Islamic and conventional banks. Most studies have not compared these impacts comprehensively, especially regarding gold prices, which play an important role in economic stability and investment decisions. The investment made must be calculated properly so that the investment made can produce profits in the future in accordance with the main objective (Ramli et al., 2021). This research is important because it not only examines the impact of macroeconomic variables such as inflation and BI rates on bank stock prices, but also includes the analysis of gold prices as a key variable often overlooked. Additionally, this study explicitly compares the responses of Islamic and conventional banks to these variables, providing valuable new insights for policymakers and investors in the context of Indonesia's dual banking system.

The research objective of this study is to examine the influence of macroeconomic indicators and gold prices on stock prices, with a comparative analysis of Islamic and conventional banks. This research aims to address gaps and inconsistencies in the literature regarding differences in the response of the Islamic and conventional banking sectors to macroeconomic variables. The next section will outline the research methodology in detail, present the empirical results from the data analysis, followed by an in-depth discussion of the findings to understand the implications of the results obtained. The final section will conclude with policy implications and directions for future research.

2. RESEARCH METHODS

2.1. Data

This study investigates the influence of inflation, BI rates, and global gold prices on stock prices of Islamic and conventional banks in Indonesia. This research adopts a quantitative approach using monthly secondary data from January 2021 to December 2023. This study includes all Islamic and conventional banks in Indonesia as the population. The variables and measurements are explained in Table 1.

Table 1. The Variable, Measurement, and Sources

Variables	Measurement	Unit	Data Sources
INF	Consumer Price Index (CPI)	Percent	Bank Indonesia
BIR	Interest rate set by Indonesian bank	Percent	Bank Indonesia
GOLD	Global Gold Prices	USD	Investing.com
BANK	Bank Aladin Syariah Share Price	IDR	IDX BEI and Investing.com
PNBS	Bank Panin Dubai Syariah Share Price	IDR	IDX BEI and Investing.com
BTPS	BTPN Syariah Share Price	IDR	IDX BEI and Investing.com
BRIS	Indonesian Sharia Bank Share Price	IDR	IDX BEI and Investing.com
BBCA	Bank Central Asia Share Price	IDR	IDX BEI and Investing.com
BBRI	Bank Rakyat Indonesia Share Price	IDR	IDX BEI and Investing.com
BBNI	Bank Negara Indonesia Share Price	IDR	IDX BEI and Investing.com
BMRI	Bank Mandiri Share Price	IDR	IDX BEI and Investing.com

The sampling technique used is purposive sampling, with the criteria being banks that have a significant influence on the stock market and play a crucial role in the national banking industry. The selected Islamic banks are Bank Aladin Syariah, Bank Panin Dubai Syariah, BTPN Syariah, and Bank Syariah Indonesia, as they are the main representatives of Islamic banking in Indonesia. For conventional banks, Bank Central Asia, Bank Rakyat Indonesia, Bank Negara Indonesia, and Bank Mandiri were chosen because they are the largest and most influential banks. The selection of these banks aims to provide a comprehensive overview of the performance of Islamic and conventional banking in Indonesia.

2.2. Model Specification

Panel data regression analysis will be used to identify the relationship between inflation, BI rates and Global gold prices and stock prices of Islamic and conventional banks in Indonesia. The choice of panel data regression is driven by its ability to analyze data that varies across both time and individual entities, providing a more comprehensive understanding of the dynamics and relationships between variables. This method allows for the control of unobserved heterogeneity and the examination of both cross-sectional and temporal effects, enhancing the accuracy and reliability of the findings. To determine the best panel data regression model, testing was carried out using three methods, namely the general effects model, fixed effects and random effects (Dhrymes, 2017). Based on these three methods, additional testing was carried out using the Chow, Hausman, and Lagrange Multiplier tests (Dhrymes, 2017). This model will make it possible to evaluate the impact of independent variables on stock prices of Islamic and conventional banks separately. Panel data regression analysis will be carried out using statistical software such as EViews to obtain more accurate estimates. The panel data regression model that will be used is as follows:

$$\text{Model for Islamic Banks: } ISP_{it} = \beta_0 + \beta_1 INF_{it} + \beta_2 BIR_{it} + \beta_3 GOLD_{it} + \varepsilon_{it} \quad (1)$$

$$\text{Model for Conventional Banks: } CSP_{it} = \beta_0 + \beta_1 INF_{it} + \beta_2 BIR_{it} + \beta_3 GOLD_{it} + \varepsilon_{it} \quad (2)$$

where *ISP* is the stock price of Islamic banks (%); *CSP* is the stock price of conventional banks (%); *INF* is the consumer price index; *BIR* is the interest rate set by Indonesian banks (%); *GOLD* is Global gold prices (USD); *i* is the number of banks; *t* is the amount of time (monthly); β_0 are constants; $\beta_1\beta_2\beta_3$ is the regression coefficient and ε is the error term.

3. RESULTS AND DISCUSSION

3.1. Research Results

An overview of the descriptive statistics for the dataset utilized in the study is provided in Table 2. This table summarizes key statistical measures such as the mean, standard deviation, minimum, and maximum offering valuable insights into the overall distribution and variability of the data.

Table 2. The Results of Descriptive Statistics

Variables	Max	Min	Mean	Std.Dev
ISP	153.000	1.040	21.275	35.726
CSP	10.325	2.850	6.106	2.020
INF	5.950	1.330	3.151	1.518
BIR	6.000	3.500	4.445	1.078
GOLD	2.072	1.655	1.860	0.107

Table 2 reports the descriptive statistics for five variables that are Islamic banks stock prices (ISP), conventional banks stock prices (CSP), inflation (INF), BI Rate (BIR), and global gold prices (GOLD). Among these variables, HSS exhibit the highest maximum value of 153,000 and the largest standard deviation of 35,726 indicating significant fluctuations. Conversely, CSP are more stable with a maximum value of 10,325 and a minimum of 2,850 along with a lower standard deviation of

2,020. The INF and BIR variables show fairly consistent value ranges, with average values of 3.151 and 4.445, respectively and relatively small standard deviations, 1.518 for INF and 1.078 for the BIR. Meanwhile, GOLD display the narrowest range of movement with a maximum value of 2,072 and a minimum of 1,655 and the lowest standard deviation of 0.107 indicating the highest stability among all observed variables.

Table 3. The Results of Unit Root test

Variables	Statistic	Prob.	Unit root in	Summary
ISP	47.8105	0.000*	First difference	Stationary data
CSP	58.7123	0.000*	First difference	Stationary data
INF	22.7509	0.003*	First difference	Stationary data
BIR	10.9479	0.010*	First difference	Stationary data
GOLD	58.3463	0.000*	First difference	Stationary data

Note: *indicate significance level at 5%

The unit root test results presented in Table 3 indicate that all variables became stationary after first differencing. This is evidenced from the probability (p-value) for each variable being significant at $p < 0.05$ for ISP, CSP, INF, BIR, and GOLD, suggesting that no unit roots remain after differencing, thereby confirming that the data is stationary and suitable for further analysis without concerns of trends or bias. This research uses a selection test to determine the panel data regression model that is most suitable for testing the hypothesis that has been formulated. The random effects model results, selection test results, and diagnostic test results. Table 4 presents the results of identifying the most suitable regression model for both Islamic and conventional banks. It includes the outcomes of the random effects model, results from model selection tests, and findings from diagnostic tests.

Table 4. The Results of Selection Method and Diagnostic test

Results	Islamic Bank Share Price	Conventional Bank Share Price
Selected Method	Statistic	Statistic
Chow test	330.689*	179.477*
Hausman test	0.000*	0.000*
Breusch-Pagan	1.930.231*	1.578.197*
Diagnostic test		
Autocorrelation	0.541 ($p > 0.05$)	0.612 ($p > 0.05$)
Heteroscedasticity	0.946 ($p > 0.05$)	0.533 ($p > 0.05$)
Correlation	<0.80	<0.80

Note: *indicate significance level at 5%

The model used in this research is a random effect. This is known from the results of the Chow test, Hausman test and Lagrange multiplier test. The Chow test results show a Chi-square probability value ($p < 0.05$), which indicates that the common effect model is rejected, and the fixed effect model is accepted. Furthermore, the Hausman test gives a probability value ($p > 0.05$), which means that the fixed effect model is rejected, and the random effect model is accepted. Because the results of the Chow test and the Hausman test are different, a Lagrange multiplier test was carried out. The results of the Lagrange multiplier test show a Breusch-Pagan probability value ($p < 0.05$), which indicates that the common effect model is rejected, and the random effect model is accepted.

Table 4 also includes the results of several diagnostic tests as the autocorrelation test yielded a value of 0.541 for Islamic bank share price and 0.612 for conventional Bank Share Price, this implies that there is no autocorrelation in the residuals. The next, heteroscedasticity test at 0.946 for Islamic bank and 0.533 for conventional Bank share price, this implies that null hypothesis is rejected, means that there is residual variation is constant. Additionally, multicollinearity returned a value less than 0.80, which implies that multicollinearity is not a major concern in the model. These results support the robustness of the chosen regression models for Islamic and conventional banks share

price. Therefore, the most appropriate model to use in this study is the random effect model. The following are the results of the random effect model regression which is presented in Table 5.

Table 5. Results of Model Estimation using Random Effect

Variables	Eq. (1)		Eq. (2)	
	Dep. variable = ISP		Dep. variable = CSP	
	Coeff. (S.E)	t-Stat	Coeff. (S.E)	t-Stat
Constant	80.211** (29.682)	2.702	0.572 (1.789)	0.320
INF	-1.921** (0.873)	-2.201	0.335** (0.058)	5.734
BIR	-0.729 (1.599)	-0.456	0.367** (0.107)	3.426
GOLD	-26.686* (14.105)	-1.892	1.531 (0.944)	1.622
R ²	0.128		0.509	
Adj. R ²	0.109		0.498	
F-stat	6.831*		48.339*	

Note: ** and * indicate significance level at 5% and 10%

Table 5 reports the result of random effects model approach for Islamic bank price shares, we found that result from F-stat is 6.831 ($p < 0.05$), this implies that independent variables jointly influence the Islamic banks stock price. The goodness of fit from adjusted R² has value is 0.109, this means that the variation of Islamic bank stock price variable can be explained by variation of inflation, BI rates, and Global gold prices by 10.89%, while the remainder 89.1% is explained by other variables outside this study model. We found that the inflation has negative and significant effect on Islamic bank stock prices, this implies that a 1% increase in inflation is expected to lead to a 1.921% decrease in the Islamic bank stock prices. This suggests that higher inflation can reduce the attractiveness of investing in Islamic bank stocks, potentially lowering their market value. Different findings on the BIR have insignificant impact on Islamic bank stock prices, but global gold prices have negative and significantly influence Islamic bank stock prices at the 10% ($p < 0.10$), there is a moderate significance level. This implies that USD.1 increase in global gold prices expected to lead to a USD.26,68 decrease in the Islamic bank stock prices, this suggests that gold prices might have a weaker, yet still relevant, impact on Islamic bank stock prices.

Table 5 also presents the results from the random effect model for conventional bank stock prices, the result of F-stat is 48.339, with a probability value ($p < 0.05$), this implies that independent variables jointly influence conventional banks stock prices. The goodness of fit from adjusted R² is 0.498, this implies that the variation of conventional bank stock price can be explained by variation of inflation, BI rates and Global gold prices by 49.8%, while the remainder is 50.2% can explained by other variables outside this study model. We found that inflation has a positive and significant effect on conventional bank stock prices, this implies that a 1% increase in inflation is expected to lead to a 0.335% increase in the conventional banks stock prices. This suggests that, in the context of conventional banks, higher inflation tends to enhance stock prices, possibly due to the market's positive response to expected revenue growth or price adjustments in the banking sector. Likewise, the findings on BI rates have a positive and significant effect on conventional bank stock prices, this means that a 1% increase in BI rates will lead to a 0.367% increase in conventional bank stock prices. This implies that, in the context of conventional banks, rising BI rates may be perceived as a positive signal, potentially due to expectations of increased interest income or gains from higher BI rate adjustments. Meanwhile, the global gold prices have insignificant impact on conventional banks stock prices.

3.2. Discussions

The financial system is an integral component of a modern economy and ensures economic growth and development (Sholpanbaeva, 2021). Furthermore, the financial system is primarily

based on the stock market, which plays an important role in stabilizing the financial sector and enhancing a country's macroeconomic growth. Macroeconomic conditions in a country experience positive or negative change, investors will calculate the impact on the company's future performance, and then decide to buy or sell shares of the company concerned. This buying and selling action will result in changes in stock prices (Safitri et al., 2023).

Based on panel data analysis with random effects, it was found that inflation has a negative and significant influence on Islamic bank stock prices. This finding is in line with research by Ho & Njindan Lyke (2017) which found that inflation and exchange rates have a negative effect on stock market development. Theoretically, the relationship between BI rates and stock prices is negative (Bahloul et al., 2017). However, research by Sadrinata & Rani (2020) concluded that inflation does not have a significant influence on the stability of Islamic banks. Fisher's theory states that nominal interest rates tend to increase with inflation. For conventional banks, this means a potential increase in interest income. However, for Islamic banks, which do not rely on interest, high inflation does not increase their income and may even add to operational costs.

High inflation will cause a decrease in the real value of people's income and wealth. As a result, their purchasing power for goods and services will decline. When purchasing power decreases, overall consumption will also reduce, which in turn can hinder economic growth. Islamic banks, which depend on economic activities based on sharia principles to generate income, may feel the negative impact of this decline in economic activity, which could reduce their stock prices. General Equilibrium states that an economy is in equilibrium when demand and supply in all markets (including goods, labor, and capital) are balanced. High inflation can disrupt this equilibrium, causing distortions in prices and wages. This can result in higher production costs and reduced profits for companies, including Islamic banks. Since Islamic banks rely on profits from Shariah-based economic activities, this decline can directly impact their performance. Production and operational costs may increase, which could reduce a company's net profit. This can then reduce company stock prices, including Islamic banks, because investors reduce their expectations of the company's future performance. According to Saputra et al. (2024) In-depth analysis can help identify better investment trends and opportunities.

The BI rate has no influence on the share price of Islamic banks. BI Rate as a central bank policy interest rate generally affects the stock prices of conventional banks through its impact on interest income and loan rates. BI Rate does not directly influence their income or cost structure as it does with conventional banks. In line with the findings of Kalyatun et al. (2021) that inflation, the rupiah exchange rate, and the BI rate do not have a significant effect on Islamic bank stock prices because Islamic stocks adhere to principles such as avoiding usury and speculation. This is reinforced by the findings of Sadrinata & Rani (2020) that the BI Rate does not partially have a significant effect on the stability of Islamic banks in Indonesia. Cahyono et al. (2017) said higher BI rates lead to increased interest rates offered by conventional banks, which can attract more deposits. Although Islamic banks do not offer interest, they provide profit-sharing returns, which can also become more attractive when conventional rates rise, leading to higher deposits in Islamic banks. Instead, they prefer to keep their money in the banking sector, which is considered safer. This causes banks to have excess liquidity (Azmat et al., 2020).

The BI rate does not influence the share price of Islamic banks because Islamic banks operate on a profit-sharing basis rather than interest-based lending. Since the BI rate primarily affects interest rates, its impact on Islamic banks, which adhere to Sharia principles prohibiting interest. This explains why the probability value is not significant. Islamic banks which apply Islamic principles in their operations, reject usury or interest as a form of prohibited transaction. Therefore, sharia companies, including Islamic banks, tend to avoid dependence on interest-bearing loans. Instead, they may rely more on their own capital and sharia financing, such as mudharabah, musyarakah, and murabahah. Thus, changes in BI rates by the central bank may not have a direct impact on Islamic banks' cost of capital, and consequently may not directly affect their stock prices. Ashraf et al. (2020) stated that the Islamic stock market has different characteristics compared to the conventional stock market. The Islamic stock market index includes stocks that have passed rules-based screening for Sharia compliance. According to the Sharia Compliance, Islamic banks financial

performance and stock prices are more influenced by economic activity and market conditions rather than central bank interest rates. This explains why fluctuations in the BI rate may not significantly affect the stock prices of Islamic banks.

Global gold prices do not have a significant influence on Islamic bank stock prices. It can be seen in table 3 where the probability is $0.061 > 0.05$ but Global gold prices have influence on Islamic bank stock prices with alpha 10%. This implies that while the influence of gold prices on Islamic bank stock prices may not be strong enough to be detected at a stricter confidence level, there is evidence of a weaker yet noteworthy effect. This could be due to various factors, such as the role of gold as an alternative investment or the specific market dynamics within Islamic finance that might cause Islamic bank stock prices to respond differently to changes in gold prices compared to conventional financial institutions. This result contradicts research Elbadri & Bektas (2022) which One study indicates that gold prices positively affect the stability of Islamic banks in the short run. This suggests that fluctuations in gold prices can have immediate effects on the financial health and stability of Islamic banks. Findings by Terraza et al. (2024) indicate that there is a significant relationship between Bitcoin, gold prices, and the stock market that changes over time. Islamic bank stock prices may be more influenced by the company's internal operational factors, such as financial performance, profit growth and risk management, than changes in world gold prices. Islamic banks have different business models and investment policies that may be less affected by gold price fluctuations. Study by Azmat et al. (2020) found that Islamic banks tend to have less liquidity than conventional banks during periods of increased macroeconomic risk. This suggests that Islamic banks may be more careful in their liquidity management during times of economic uncertainty. The model shows that under equilibrium conditions, the volatility of Islamic bank deposit returns is higher than that of conventional banks during periods of high macroeconomic risk. Jawadi et al. (2014) also found that Islamic investments appear to outperform conventional finance, especially during turbulent times, as investors may better control the risks associated with their portfolios through investing in Islamic funds.

The estimation findings in Table 5 show that conventional bank stock prices are positively and significantly influenced by inflation. Inflation has a positive and significant effect because banks often benefit from higher interest rates that typically accompany inflation. As inflation rises, central banks may increase their policy rates, leading to higher interest rates on loans. Conventional banks can charge higher interest rates on their loans while paying relatively lower rates on deposits. In line with the findings of Simbolon & Purwanto (2018) that the inflation rate, exchange rate and GDP growth rate have a significant influence on stock prices. Bahloul et al. (2017) stated that inflation can have both negative and positive impacts on stock prices. Sadrinata & Rani (2020) explain that inflation partially has a positive and significant effect on the stability of conventional banks. However, findings by cetin (2019) Inflation negatively impacts the profitability of conventional banks. Studies have shown that higher inflation rates lead to reduced returns on assets for banks in developed countries.

Bank income mainly comes from interest on loans provided. High inflation can lead to increases in BI rates applied by central banks and commercial banks will adjust their lending rates. An increase in loan BI rates increases interest income for banks. Meanwhile, although operating costs may also increase, the higher interest income is usually more significant, thereby increasing banks' profitability and their stock prices. Keswani & Wadhwa (2019) explained that macroeconomic factors such as inflation influence the performance of conventional stocks. In contrast, Islamic banks do not operate on an interest-based system. Instead, they generate income through profit-sharing, leasing, and other Sharia-compliant methods. Consequently, their earnings are not directly affected by changes in interest rates.

BI rates have a significant positive effect on conventional bank stock prices. BI rates have a significant positive effect because higher BI rates generally lead to increased interest rates on loans. Conventional banks benefit from this by earning more from the interest on loans while paying less on deposits, which enhances their profit margins. As a result, higher profits can drive up their stock prices. In line with findings study by Ramli et al. (2021) Interest rates have a positive effect on conventional stock prices. This result contradicts research by Rjoub et al. (2017) which found that

interest rates had a significant negative effect on stock prices in banks in Turkey. An increase in BI rates creates an opportunity for investors to invest in debt securities, resulting in a decrease in stock returns. Additionally, higher BI rates increase the cost of capital, which leads to lower cash flow for the company (Hanif, 2018).

The Fisher Effect theory states that nominal interest rates are a combination of real interest rates and the expected inflation rate. When nominal interest rates rise, banks may increase their lending rates. This increase increases interest income from loans, which in turn increases banks' profits and their stock prices. A significant p -value shows that interest rates have a consistent and strong influence on bank stock prices. Then an increase in interest rates increases bank interest income, increases profits, and allows higher dividend payments. Investors' expectations of better performance also increased demand for bank shares. Hallak Kantakji, (2019) emphasized that the impact of interest rates on Islamic equity is lower than conventional equity, due to an effective Islamic screening process, it tends to be more focused on the real economic sector and is less related to interest-based activities.

Global gold prices have no influence on conventional bank stock prices. This finding is not in line with research by Shabbir et al. (2020) which found that gold and oil prices have a significant impact on the stock market. Research by Raza et al. (2016) found that gold prices have a positive impact on stock market prices in BRIC countries (Brazil, Russia, India and China) which are large emerging economies, and a negative impact on the stock market in Mexico, Malaysia, Thailand, Chile and Indonesia. In a diversified portfolio, gold and bank stocks may not have a strong correlation. Investors might use gold to protect their portfolios from general market risks, while still holding bank shares for steady income from dividends. Conventional banks usually have strict risk management strategies, including diversification of assets and liabilities, which can reduce the impact of commodity price fluctuations such as gold on their performance. However, Sidhu & Katoch (2021) said gold is often considered a substitute for stock market investments during times of economic stress. When the price of gold experiences a decline due to a downturn in the economy, at that time, stock prices experience a downward trend.

4. CONCLUSIONS

The conclusion of this study notes that there is a significant difference in the stock prices response of Islamic banks and conventional banks to macroeconomic shocks and global gold prices. Generally, inflation, BI rates, and gold prices are major factors influencing stock market performance, but their effects vary depending on the type of bank. Inflation tends to negatively impact the stock prices of Islamic banks, and BI rates do not have a significant effect. In contrast, for conventional banks, both inflation and interest rates show a positive influence. These findings suggest that Islamic banks, which operate under Sharia principles and prohibit interest (*riba'*), experience a decline in stock prices when inflation rises and do not rely on BI rates. This can be attributed to decreased consumer purchasing power and reduced economic activity, which negatively affect the performance of Islamic banks. Conversely, conventional banks appear to benefit from inflation conditions differently. Higher BI rates provide conventional banks with opportunities to earn additional income from loan interest, contributing to the increase in their stock prices. In high inflation situations, higher BI rates can boost conventional banks' interest income, counteracting the impact of inflation on Islamic banks. Meanwhile, global gold prices do not have a significant impact on the stock prices of either Islamic or conventional banks.

The implications of these findings are crucial for policymakers and investors. Islamic banks need effective risk mitigation strategies to handle inflation, possibly through asset diversification or improved risk management. For conventional banks, investors and bank managers should consider the potential benefits of rising BI rates in their investment strategies. From a policy perspective, central banks and financial regulators should develop policies that account for the operational differences between Islamic and conventional banks to support overall banking sector stability and growth. Future research could incorporate additional macroeconomic variables and conduct comparative studies in other countries to provide broader insights into the banking sector's dynamics with respect to macroeconomic variables.

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REFERENCES

- Abbass, K., Sharif, A., Song, H., Ali, M. T., Khan, F., & Amin, N. (2022). Do geopolitical oil price risk, global macroeconomic fundamentals relate Islamic and conventional stock market? Empirical evidence from QARDL approach. *Resources Policy*, 77(October 2021), 102730. <https://doi.org/10.1016/j.resourpol.2022.102730>
- Alshammari, A. A., Altarturi, B., & Saiti, B. (2019). The impact of exchange rate , oil price and gold price on the Kuwaiti stock market : a wavelet analysis. *The European Journal of Comparative Economics*, 17(1), 31–54. <http://dx.doi.org/10.25428/1824-2979/202001-31-54>
- Annas, M., Humairoh, H., & Endri, E. (2024). Macroeconomic and bank-specific factors on non-performing loan: evidence from an emerging economy. *Quality - Access to Success*, 25(199), 155–161. <https://doi.org/10.47750/QAS/25.199.17>
- Antonio, M. S., Rusydiana, A. S., Soeparno, W. S. I., Rani, L. N., Pratomo, W. A., & Nasution, A. A. (2021). The impact of oil price and other macroeconomic variables on the islamic and conventional stock index in indonesia. *International Journal of Energy Economics and Policy*, 11(5), 418–424. <https://doi.org/10.32479/ijeep.10911>
- Ashraf, S., Marashdeh, H., & Muhammad, N. (2020). Impact of macroeconomic variables on Islamic and conventional stock market returns: a panel data approach. *Global Business and Economics Review*, 23(4), 390. <https://doi.org/10.1504/gber.2020.10031722>
- Azmat, S., Azad, A. S. M. S., Ghaffar, H., Hayat, A., & Chazi, A. (2020). Conventional vs Islamic banking and macroeconomic risk: Impact on asset price bubbles. *Pacific Basin Finance Journal*, 62(October 2019), 101351. <https://doi.org/10.1016/j.pacfin.2020.101351>
- Bahloul, S., Mroua, M., & Naifar, N. (2017). The impact of macroeconomic and conventional stock market variables on Islamic index returns under regime switching. *Borsa Istanbul Review*, 17(1), 62–74. <https://doi.org/10.1016/j.bir.2016.09.003>
- Cahyono, E. F., Rani, L. N., & Mardianto, M. F. F. (2022). The determinants of deposits in Islamic and conventional banks: an Indonesian study. *International Journal of Monetary Economics and Finance*, 15(3), 273-292. <https://doi.org/10.1504/IJMEF.2022.126903>
- Cetin, H. (2019). Inflation and bank profitability: G20 countries banks panel data analysis. In *Proceedings of the 2019 International Conference on Management Science and Industrial Engineering* (pp. 168-172). <https://doi.org/10.1145/3335550.3335574>
- Dhrymes, P. (2017). *Introductory econometrics*. New York: Springer-Verlag. <https://doi.org/10.1007/9783319659169>
- Elbadri, M., & Bektaş, E. (2022). Dynamic relationship among the bank stability, oil, and gold prices: Evidence from the Islamic banks operating in the Gulf Cooperation Council countries. *International Journal of Finance & Economics*, 27(2), 2153-2168. <https://doi.org/10.1002/ijfe.2265>
- Esmail, J., Rjoub, H., & Wong, W. K. (2020). Do oil price shocks and other factors create bigger impacts on islamic banks than conventional banks? *Energies*, 13(12), 1–16. <https://doi.org/10.3390/en13123106>
- Habib, M., & Islam, K. U. (2017). Impact of Macroeconomic Variables on Islamic Stock Market Returns : Evidence From Nifty 50 Shariah Index. *Journal of Commerce & Accounting Research*,

- 6(1), 37.
- Hallak Kantakji, M. (2019). The Impact of Macroeconomic Factors on US Islamic and Conventional Equity. *JKAU: Islamic Econ*, 32(2), 43-58. <https://doi:10.4197/Islec.32-2.3>
- Hanif, M. (2018). Causality among Stock Market and Macroeconomic Factors: A Comparison of Conventional and Islamic Stocks. *Journal of Islamic Business and Management (JIBM)*, 8(2), 423–449. <https://doi.org/10.26501/jibm/2018.0802-006>
- Ho, S. Y., & Njindan Iyke, B. (2017). Determinants of stock market development: a review of the literature. *Studies in Economics and Finance*, 34(1), 143–164. <https://doi.org/10.1108/SEF-05-2016-0111>.
- Jawadi, F., Jawadi, N., & Louhichi, W. (2014). Conventional and Islamic stock price performance: An empirical investigation. *International Economics*, 137, 73–87. <https://doi.org/10.1016/j.inteco.2013.11.002>.
- Joseph, A., E, G., Radhakrishnan, R., & Jain, R. (2024). Macro-financial nexus: a systematic review on the impact of macroeconomic factors on bank stock returns. *Cogent Economics & Finance*, 12(1), 1-24. <https://doi.org/10.1080/23322039.2024.2354101>
- Kalyatun, S., Waluyo, T., Muis, M., & Munir, A. R. (2021). The Islamic Stock Market and Macroeconomic Relationship. *Psychology and Education*, 58(1), 265-275. <https://doi.org/10.17762/pae.v58i1.769>.
- Keswani, S., & Wadhwa, B. (2019). Evaluating the impact of macroeconomic variable on Indian stock market. *International Journal of Engineering and Advanced Technology*, 8(6), 4427-4434. <http://www.doi.org/10.35940/ijeat.F8972.088619>
- Khan, F., & Ullah Jan, S. (2022). Portfolio Diversification Across Islamic Vs. Conventional Banks: The Role of Macroeconomic Fundamentals in Stock Volatility. *Journal of Islamic Business and Management (JIBM)*, 12(02), 218–239. <https://doi.org/10.26501/jibm/2022.1202-006>.
- Mohd Yusof, R., Usman, F. H., Mahfudz, A. A., & Arif, A. S. (2018). Macroeconomic shocks, fragility and home financing in Malaysia: can rental index be the answer? *Journal of Islamic Accounting and Business Research*, 9(1), 17–44. <https://doi.org/10.1108/JIABR-11-2015-0058>.
- Narayan, P. K., Narayan, S., & Singh, H. (2014). The determinants of stock prices: New evidence from the Indian Banking Sector. *Emerging Markets Finance and Trade*, 50(2), 5–15. <https://doi.org/10.2753/REE1540-496X500201>.
- Ogunode, N. J., Eze, I. N., & Olumodeji, I. M. (2024). Assessment of Impact of Inflation on University Management in North-Central, Nigeria. *American Journal of Science and Learning for Development*, 3(3), 1-6. <https://www.doi.org/10.51699/ajsld.v3i3.346>.
- Ramli, M. R., Masbar, R., Majid, M. S. A., & Djalil, M. A. (2021). The Analysis Effect of Macroeconomic Variables on Shariah and Conventional Market Share at Indonesia. *Palarch's Journal of Archeology of Egypt/Egyptology*, 18(1), 3450–3466.
- Raza, N., Jawad Hussain Shahzad, S., Tiwari, A. K., & Shahbaz, M. (2016). Asymmetric impact of gold, oil prices and their volatilities on stock prices of emerging markets. *Resources Policy*, 49, 290–301. <https://doi.org/10.1016/j.resourpol.2016.06.011>.
- Rehman, J. ur, & Rashid, A. (2022). Impacts of Bank-Specific and Macroeconomic Risks on Growth and Stability of Islamic and Conventional Banks: An Empirical Analysis from Pakistan. *Journal of Asian Finance*, 9(2), 1–14. <https://doi.org/10.13106/jafeb.2022.vol9.no2.0001>
- Rizvi, S. A. R., Arshad, S., & Alam, N. (2015). Crises and contagion in Asia Pacific - Islamic v/s conventional markets. *Pacific Basin Finance Journal*, 34, 315–326. <https://doi.org/10.1016/j.pacfin.2015.04.002>.
- Rjoub, H., Civcir, I., & Resatoglu, N. G. (2017). Micro and macroeconomic determinants of stock prices: The case of Turkish banking sector. *Romanian Journal of Economic Forecasting*, 20(1), 150–166.
- Sadrinata, F. F., & Rani, L. N. (2020). Analisis Perbandingan Pengaruh Variabel Makro Ekonomi Terhadap Stabilitas Bank Syariah Dan Bank Konvensional Di Indonesia Periode Tahun 2010-2017. *Jurnal Ekonomi Syariah Teori Dan Terapan*, 6(10), 2095. <https://doi.org/10.20473/vol6iss201910pp2095-2109>.
- Safitri, J., Rahayu, H. C., Jayadi, J., Triastuti, Y., Gunawan, Y. I., & Ariyanti, A. (2023). Effect of

- Macroeconomic Indicators on Stock Price Indices With the Vector Error Correction Model Approach. *Corporate and Business Strategy Review*, 4(4), 288–294. <https://doi.org/10.22495/cbsrv4i4siart10>.
- Saputra, D. C., Hamidi, I., & Syathiri, A. (2024). Comparative Analysis of Sharia Stock Price Indices in Indonesia , Turkey , China , and Malaysia : A Study of Integration in Sharia Capital Markets. *Journal of Islamic Civilization*, 1013, 157–176. <https://doi.org/10.33086/jic.v5i2.5407>.
- Schrank, J. (2024). The impact of a crisis on monetary policy's influence on financial markets: Evidence from the COVID-19 pandemic. *Cogent Economics & Finance*, 12(1), 2322874. <https://doi.org/10.1080/23322039.2024.2322874>
- Shabbir, A., Kousar, S., & Batool, S. A. (2020). Impact of gold and oil prices on the stock market in Pakistan. *Journal of Economics, Finance and Administrative Science*, 25(50), 279–294. <https://doi.org/10.1108/JEFAS-04-2019-0053>.
- Sholpanbaeva, K. G. (2021). Globalization of the Economy and its Impact on the Financial Policy of Kazakhstan. *Viešoji Politika Ir Administravimas Public Policy And Administration*, 2603, 384–397. <https://doi.org/10.13165/VPA-21-20-4-03>.
- Sidhu, A., & Katoch, R. (2021). Do International Gold Prices And Nse Nifty 50 Move Together?. *Advances in Mathematics: Scientific Journal*, 10(1), 497-506. <https://doi.org/10.37418/amsj.10.1.49>
- Simbolon, L., & Purwanto. (2018). The Influence of Macroeconomic Factors on Stock Price: The Case of Real Estate and Property Companies. *Global Tensions in Financial Markets Research in Finance*, 34, 19–39. <https://doi.org/10.1108/s0196-382120170000034010>.
- Terraza, V., Boru İpek, A., & Rounaghi, M. M. (2024). The nexus between the volatility of Bitcoin, gold, and American stock markets during the COVID-19 pandemic: evidence from VAR-DCC-EGARCH and ANN models. *Financial Innovation*, 10(1), 1-34. <https://doi.org/10.1186/s40854-023-00520-3>.
- Thorbecke, W. (2024). Macroeconomic Shocks and Economic Performance in Malaysia: A Sectoral Analysis. *Journal of Risk and Financial Management*, 17(3), 1-19. <https://doi.org/10.3390/jrfm17030116>.
- Yahya, M., & Hussin, M. (2012). Macroeconomic Variables and Malaysian Islamic Stock Market: A Time Series Analysis. *Journal of Business Studies Quarterly*, 3(4), 1–13.
- Zhu, Y., Fan, J., & Tucker, J. (2018). Research in International Business and Finance The impact of monetary policy on gold price dynamics. *Research in International Business and Finance*, 44, 319–331. <http://dx.doi.org/10.1016/j.ribaf.2017.07.100>.