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How Do Global Shocks Affect Exchange Rate Dynamics in ASEAN-6? Evidence from VAR Analysis

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Abstract

Despite growing global economic uncertainty, limited evidence exists on the combined transmission of geopolitical, financial, and commodity shocks to ASEAN-6 exchange rates. This study investigates the effects of the Global Geopolitical Risk (GPR) Index, the S&P 500 Index, the CBOE Volatility Index (VIX), Brent crude oil prices, and global gold prices on ASEAN-6 exchange rates using daily data from January 2023 to March 2026. A Vector Autoregression (VAR) framework is employed, incorporating Pairwise Granger Causality, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD). The findings reveal heterogeneous transmission patterns across ASEAN-6 economies. Financial market shocks, particularly the S&P 500 and VIX, exert broader and more pronounced effects on exchange rates than geopolitical risk, while the impacts of oil and gold prices vary across countries. These findings underscore the importance of country-specific exchange rate stabilization policies to mitigate the effects of external shocks and strengthen financial resilience.

Keywords: Global Geopolitical Risk; S&P 500; VIX; Brent crude oil; Gold price; Exchange rate; ASEAN-6; Vector Autoregression.

INTRODUCTION

Global geopolitical tensions have become one of the primary sources of uncertainty affecting the world economy and financial markets. The Russia–Ukraine conflict, followed by escalating tensions in the Middle East, transformed regional conflicts into global shocks that disrupted international trade, supply chains, commodity markets, and cross-border capital flows. Caldara et al. (2022) reported that the Geopolitical Risk

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(GPR) Index reached one of its highest levels in more than five decades following the Russia–Ukraine war. The Federal Reserve (2022) further estimated that heightened geopolitical risk could reduce global GDP by approximately 1.5% while increasing global inflation by around 1.3 percentage points through higher energy prices, trade disruptions, and tighter financial conditions. These developments demonstrate that geopolitical risk has become a major external shock capable of influencing domestic financial markets worldwide.

Heightened geopolitical uncertainty rapidly altered investor behaviour in global financial markets. Between 3 January and 8 March 2022, the S&P 500 declined by approximately 13%, falling from 4,796 to 4,171 points, while the CBOE Volatility Index (VIX) surged to 37.79, nearly doubling from its early-2022 level and signalling a sharp increase in market uncertainty (S&P Dow Jones Indices, 2022; CBOE, 2022). Simultaneously, Brent crude oil prices climbed to US$127.98 per barrel, their highest level since the 2008 global financial crisis (World Bank, 2022), whereas investors increasingly shifted toward gold as a safe-haven asset (Aftab et al., 2018). These developments illustrate how geopolitical, financial, and commodity shocks jointly influence exchange rates through capital flows, inflationary pressures, and trade balances (Castro & Jiménez-Rodríguez, 2020).

These global shocks are particularly relevant for ASEAN-6, whose economies are characterised by high trade openness, deep financial integration, and substantial dependence on imported energy. According to the World Bank (2025), greater trade openness accelerates the transmission of external shocks to domestic economies. Meanwhile, UNCTAD (2022) reported that ASEAN attracted approximately US$174 billion in foreign direct investment (FDI) in 2021, an increase of 42% from the previous year, highlighting the region's growing integration with global financial markets. This vulnerability is reinforced by energy dependence, as several ASEAN economies remain net energy importers, making exchange rates increasingly sensitive to fluctuations in global commodity prices and investor sentiment.

Previous studies have generally examined the impact of individual global shocks on exchange rates. Hui (2022) focused on geopolitical risk, Castro and Jiménez-Rodríguez (2020) analysed oil price shocks, Aftab et al. (2018) investigated gold as a safe-haven asset, while Neffelli & Resta (2018) examined VIX as an indicator of market uncertainty. Yilmazkuday (2025) further showed that the effects of geopolitical risk vary with countries' integration into global value chains. Although these studies provide valuable evidence, they predominantly analyse each shock in isolation, offering limited

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understanding of how multiple global shocks interact simultaneously in shaping exchange rate dynamics.

To address this gap, this study investigates the transmission of five global shocks, the Geopolitical Risk (GPR) Index, the S&P 500 Index, the CBOE Volatility Index (VIX), Brent crude oil prices, and global gold prices to the exchange rates of ASEAN-6 economies. Employing a Vector Autoregression (VAR) framework with Pairwise Granger Causality, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD), this study provides a comprehensive assessment of the causal relationships, dynamic responses, and relative importance of multiple global shocks, thereby contributing to a more integrated understanding of exchange rate dynamics in ASEAN-6.

THEORETICAL FOUNDATION

Asset Market Approach

The Asset Market Approach views the exchange rate as the price of a financial asset determined by the equilibrium between the demand and supply of domestic and foreign financial assets in international markets. According to Mishkin (2019), investors allocate their portfolios based on the expected returns and perceived risks of domestic and foreign financial assets. Changes in expected returns and risk perceptions influence international capital flows, leading to adjustments in exchange rates. From this perspective, global shocks including geopolitical uncertainty, financial market volatility, and commodity price fluctuations, affect exchange rates by altering investors' expectations, portfolio allocation, and cross-border capital flows. Therefore, the Asset Market Approach provides the theoretical foundation for understanding how external shocks are transmitted to exchange rate dynamics in ASEAN-6 economies.

Portfolio Balance Theory

The Portfolio Balance Theory extends the Asset Market Approach by emphasizing that exchange rates are determined by investors' portfolio allocation between domestic and foreign assets. Mishkin (2019) argued that investors continuously rebalance their portfolios according to changes in expected returns and risk, causing simultaneous adjustments in asset demand, capital flows, and exchange rates. Expanding this framework, Kallianiotis (2021) suggested that shifts in investor preferences induced by global uncertainty trigger portfolio rebalancing toward safer assets, commonly referred to as flight to quality. Consequently, changes in international portfolio allocation modify the

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demand for foreign currencies and become an important transmission channel through which global shocks influence exchange rate movements. This theoretical framework is particularly relevant for ASEAN-6 economies, where high financial integration increases the sensitivity of exchange rates to changes in global investor sentiment.

LITERATURE REVIEW

Previous studies generally identify geopolitical, financial, and commodity shocks as the main external drivers of exchange rate dynamics, although their effects differ across countries depending on economic and financial characteristics. Geopolitical shocks have received considerable attention in the exchange rate literature. Hui (2022) found that increases in the Geopolitical Risk (GPR) Index encourage *flight-to-quality*, altering investor demand for financial assets and currencies. Similar findings by Bossman et al. (2023), Yilmazkuday (2025) and Frikha (2025) suggest that geopolitical shocks significantly affect exchange rate volatility through changes in investor sentiment and international capital flows.

Global financial conditions also play an important role. Moore & Wang (2014) showed that fluctuations in the S&P 500 Index influence international portfolio allocation and capital flows, particularly in emerging economies. Likewise, Neffelli & Resta (2018) found that increases in the VIX encourage investors to shift from risky assets to safe assets, thereby increasing exchange rate volatility.

Commodity price shocks constitute another important transmission channel. Castro & Jiménez-Rodríguez (2020) reported that oil price shocks have heterogeneous effects on exchange rates depending on whether a country is an oil exporter or importer. Similarly, Aftab et al. (2018) showed that higher gold prices strengthen gold's role as a safe-haven asset, influencing portfolio allocation and exchange rate movements during periods of uncertainty.

Despite these findings, most studies examine geopolitical, financial, and commodity shocks separately, providing limited evidence on their simultaneous transmission and relative importance in explaining exchange rate dynamics, particularly in ASEAN economies. This study addresses this gap by jointly analysing the effects of the GPR Index, S&P 500 Index, VIX, Brent crude oil prices, and global gold prices on ASEAN-6 exchange rates using a Vector Autoregression (VAR) framework with Pairwise Granger Causality, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD).

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METHODOLOGY

Data and Variable

This study employs daily data from January 2023 to March 2026 for six ASEAN economies, namely Indonesia, Malaysia, Thailand, the Philippines, Vietnam, and Singapore (ASEAN-6). The sample period captures heightened global uncertainty associated with geopolitical conflicts and financial market volatility, while ASEAN-6 is selected because of its high trade openness and financial integration, making the region particularly vulnerable to external shocks.

The analysis includes six variables: exchange rates against the US dollar (USD), the Geopolitical Risk (GPR) Index, the S&P 500 Index, the CBOE Volatility Index (VIX), Brent crude oil prices, and global gold prices. Exchange rates represent the domestic financial indicators, whereas the remaining variables serve as proxies for global shocks. The operational definitions, measurement units, and data sources are presented in Table 1.

Table 1: Variable Definition

Variable	Proxy	Unit	Source
Exchange Rate	Local currency per USD	Exchange Rate	Central Banks
GPR	Geopolitical Risk Index	Index	Caldara & Iacoviello
S&P 500	Daily Closing Index	Index	FRED
VIX	CBOE Volatility Index	Index	CBOE
Oil Price	Brent Crude Oil	USD/Barrel	FRED
Gold Price	Gold Spot Price	USD/Troy Ounce	Investing.com

Empirical Model

Given the dynamic interactions among global shocks and exchange rates, this study employs a Vector Autoregression (VAR) model. VAR is a multivariate time-series model that treats all variables as endogenous, allowing each variable to be explained by its own lagged values and those of other variables in the system (Gujarati & Porter, 2009; Widarjono, 2013). This framework is appropriate for capturing the interdependence and dynamic transmission of global shocks across ASEAN-6 exchange rates.

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The general VAR model is specified as follows:

$$Y_t = c + \sum_{i=1}^{p} A_i Y_{t-i} + \varepsilon_t$$

Where

$$Y_t = \begin{bmatrix} EXR_{IDR,t} \\ EXR_{MYR,t} \\ EXR_{THB,t} \\ EXR_{PHP,t} \\ EXR_{VND,t} \\ EXR_{SGD,t} \\ GPR_t \\ SP500_t \\ VIX_t \\ OIL_t \\ GOLD_t \end{bmatrix}$$

Where $Y_t$denotes the vector of endogenous variables, $c$is the constant vector, $A_i$is the coefficient matrix at lag i, $p$represents the optimal lag length, and $\varepsilon_t$is the white-noise error term (Gujarati & Porter, 2009). The model includes six exchange rates against the U.S. dollar for the ASEAN-6 economies (Indonesia, Malaysia, Thailand, the Philippines, Vietnam, and Singapore) together with five global shock indicators, namely the Geopolitical Risk (GPR) Index, S&P 500 Index, CBOE Volatility Index (VIX), Brent crude oil prices, and global gold prices.

The estimated VAR model forms the basis for the Pairwise Granger Causality Test, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD). These techniques are employed to identify the direction of causal relationships, evaluate the dynamic responses of exchange rates to global shocks, and measure the relative contribution of each shock to exchange rate fluctuations across ASEAN-6 economies.

Estimation Procedure

The empirical analysis was conducted through several sequential steps. First, the stationarity properties of all variables were examined using the Augmented Dickey–Fuller (ADF) test. Nevertheless, the VAR model was estimated in levels, following Sims et al. (1990), who argued that differencing is not always necessary and may remove valuable information on the long-run co-movement among variables. This approach is also

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consistent with Juanda and Junaidi (2012), who suggested that estimating VAR in differences may lead to the loss of important dynamic information.

Second, the optimal lag length was determined using the Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Criterion (SC), and Hannan–Quinn Criterion (HQ). The stability of the estimated VAR model was subsequently verified using the Inverse Roots of the AR Characteristic Polynomial, ensuring that all characteristic roots lay inside the unit circle.

Finally, the estimated VAR model was employed to perform the Pairwise Granger Causality Test, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD). These analyses were used to identify the direction of causal relationships, evaluate the dynamic responses of ASEAN-6 exchange rates to global shocks, and assess the relative contribution of each global shock to exchange rate fluctuations over the forecast horizon.

RESULT AND DISCUSSION

Descriptive Statistics

Table 2 presents the descriptive statistics of the global shock indicators and ASEAN-6 exchange rates.

Table 2: Descriptive Statistics

Variabel	Mean	Minimum	Maximum	Std. Dev.	Jarque-Bera
GPR	152.67	36.47	540.16	61.08	1826.08
SP500	5426.92	3808.10	6978.60	929.66	51.93
VIX	17.35	11.86	52.33	4.37	5137.52
OIL	77.63	59.93	127.61	9.53	421.05
GOLD	2768.79	1810.81	5521.35	911.82	160.75
EXR_IDR	15933.28	14632.00	16999.00	615.78	46.15
EXR_MYR	4.44	3.89	4.80	0.24	39.31
EXR_THB	34.28	31.11	37.30	1.58	28.88
EXR_PHP	56.98	53.77	60.74	1.39	32.79
EXR_VND	25052.41	23427.00	26432.50	986.82	62.81
EXR_SGP	1.32	1.26	1.38	0.03	65.14

Source: EViews Processed, 2026

The Geopolitical Risk (GPR) Index records the widest range, increasing from 36.47 to 540.16, while the VIX also reaches a maximum of 52.33, indicating episodes of elevated global uncertainty during the observation period. Exchange rates across

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ASEAN-6 exhibit heterogeneous average levels, with Vietnam (VND/USD) recording the highest average exchange rate and Singapore (SGD/USD) the lowest. Furthermore, the large Jarque–Bera statistics suggest that all variables are not normally distributed, which is typical of high-frequency financial time-series data and does not invalidate the estimation of the VAR model.

Unit Root Test

Table 3: Unit Root Test

Variabel	Prob. ADF	Kesimpulan
GPR	0.0000	Stasioner
SP500	0.6591	Tidak Stasioner
VIX	0.0000	Stasioner
OIL	0.9358	Tidak Stasioner
GOLD	0.9872	Tidak Stasioner
EXR_IDR	0.8359	Tidak Stasioner
EXR_MYR	0.9057	Tidak Stasioner
EXR_THB	0.5766	Tidak Stasioner
EXR_PHP	0.7665	Tidak Stasioner
EXR_VND	0.7513	Tidak Stasioner
EXR_SGP	0.5479	Tidak Stasioner

Source: EViews Processed, 2026

Among the variables, only the GPR and VIX series are stationary at the 5% significance level, whereas the remaining variables exhibit unit roots. Despite these results, the VAR model is estimated in levels, following Sims, Stock, and Watson (1990), who argue that differencing is not always required and may eliminate valuable information on the dynamic relationships among variables. Therefore, the unit root test is used to identify the time-series properties of the data, while the subsequent empirical analysis is conducted using the level specification

Optimal Lag Test

Table 4: Optimal Lag

Kriteria	Lag Terpilih
LR	4
FPE	3
AIC	**3**

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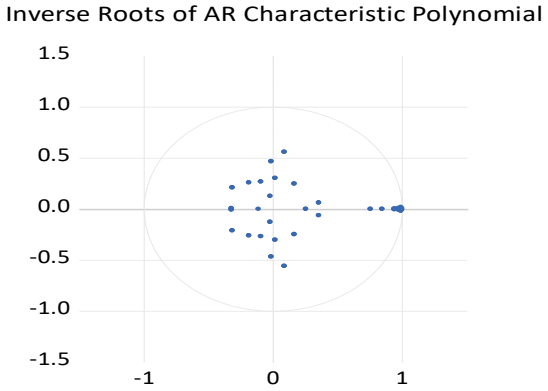
SC	2
HQ	2

Source: EViews Processed, 2026

The optimal lag selection yields mixed results across the information criteria. While the AIC and FPE select lag 3, the SC and HQ suggest lag 2, and the LR criterion indicates lag 4. In this study, lag 3 is adopted as the optimal lag length because it is supported by both the AIC and FPE. Moreover, the AIC is widely used in VAR analysis due to its ability to capture the dynamic relationships among variables. Therefore, the subsequent analyses are estimated using the VAR(3) specification.

Stability Test Vector Autoregression (VAR)

Figure 1: Stability Test



Source: EViews Processed, 2026

The stability test confirms that all inverse roots lie within the unit circle (modulus < 1), indicating that the estimated VAR model satisfies the stability condition. Consequently, the model is appropriate for conducting the Impulse Response Function (IRF) and Forecast Error Variance Decomposition (FEVD) analyses

Pairwise Granger Causality

Table 5: Granger Causality Test

Variable	GPR	SP500	VIX	OIL	GOLD
EXR_IDR	→	←	←	–	←
EXR_MYR	→	←	←	↔	←
EXR_THB	–	←	←	↔	←

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EXR_PHP	←	←	→	←	–
EXR_VND	→	↔	←	–	←
EXR_SGP	–	←	↔	→	↔

Source: EViews Processed, 2026

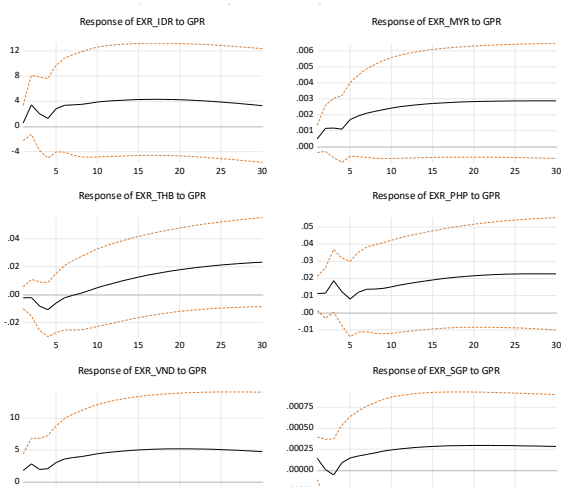
Notes:
↔ = bidirectional Granger causality.
→ = unidirectional Granger causality from the row variable to the column variable.
← = unidirectional Granger causality from the column variable to the row variable.
– = no significant Granger causality at the 5% significance level.

The Pairwise Granger causality results reveal heterogeneous transmission patterns across the ASEAN-6 exchange rates. GPR is found to Granger-cause only three currencies (Indonesia, Malaysia, and Vietnam), whereas the S&P 500 exhibits the broadest predictive influence, with significant causal relationships observed for all six exchange rates. The VIX and global gold prices also demonstrate significant causal linkages with most currencies, while Brent crude oil prices show more limited and selective effects. These findings suggest that financial market shocks exert broader predictive effects on ASEAN-6 exchange rates than geopolitical and commodity price shocks.

Impulse Response Function (IRF)

Response Exchanges Rates ASEAN-6 to Geopolitical Risks Index (GPR)

Figure 2: Response Exchanges Rates ASEAN-6 to GPR



Source: EViews Processed, 2026

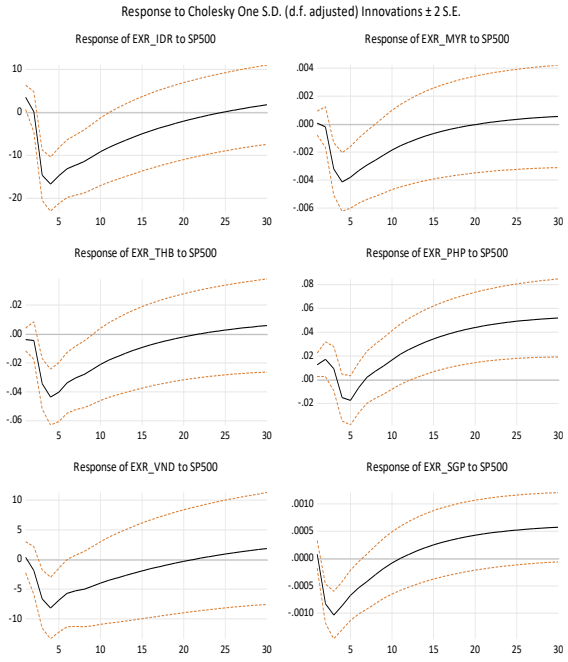
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Geopolitical Risk (GPR) generates heterogeneous responses across ASEAN-6 exchange rates. Vietnam and Indonesia exhibit the largest and most persistent responses, whereas Malaysia and Singapore experience relatively smaller fluctuations and return more quickly to equilibrium. Thailand initially responds negatively before turning positive, while the Philippines displays a more moderate response. These differences suggest that heightened geopolitical risk alters investors' portfolio allocation decisions, consistent with the Portfolio Balance Theory (Kallianiotis, 2021). This finding is in line with Hui (2022), who reports that rising geopolitical risk leads to currency depreciation in several ASEAN countries, and Yilmazkuday (2025), who finds that the exchange rate effects of geopolitical risk are heterogeneous across countries.

Response Exchanges Rates ASEAN-6 to S&P500 Index

Figure 3: Response Exchanges Rates ASEAN-6 to S&P500



Source: EViews Processed, 2026

The S&P 500 shock is transmitted to all ASEAN-6 exchange rates with varying intensities. Indonesia and Vietnam exhibit the largest and most persistent responses, whereas Malaysia and Singapore experience relatively small fluctuations and return more

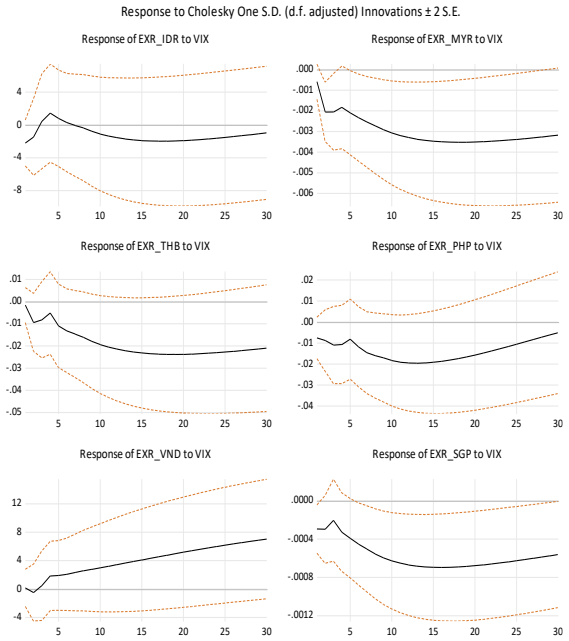
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rapidly to equilibrium. Meanwhile, Thailand and the Philippines display more moderate responses. These findings suggest that changes in global equity market performance influence investors' expectations and capital allocation decisions, thereby affecting exchange rate movements, as explained by the Asset Market Approach (Mishkin, 2019). The results are consistent with Moore and Wang (2014), who documented a dynamic relationship between stock markets and exchange rates, and Yanuar and Nyoman Suprastha (2019), who found that global equity market shocks are transmitted to ASEAN financial markets.

Response Exchanges Rates ASEAN-6 to Volatility Index (VIX)

Figure 4: Response Exchanges Rates to VIX



Source: EViews Processed, 2026

The VIX shock produces heterogeneous responses across ASEAN-6 exchange rates. Vietnam records the largest and most persistent positive response, whereas Thailand experiences the strongest negative response, followed by Indonesia and the Philippines. In contrast, Malaysia and Singapore exhibit relatively small fluctuations and

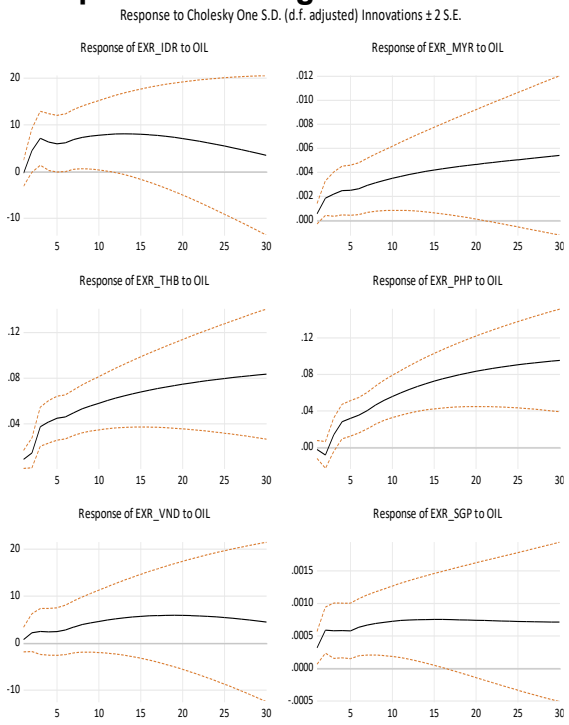
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return more quickly to equilibrium. These results indicate that heightened global financial market uncertainty alters investors' risk perceptions, leading to exchange rate adjustments, as suggested by the Asset Market Approach (Mishkin, 2019). The findings support Neffelli and Resta (2018), who identified the VIX as an *investor fear gauge*, and Alamsyah et al. (2024), hose findings suggest that adverse external news is transmitted to the rupiah exchange rate.

Response Exchanges Rates ASEAN-6 to Oil Price

Figure 5: Response Exchanges Rates to Oil Price



Source: EViews Processed, 2026

The Brent crude oil price shock generates positive responses in most ASEAN-6 exchange rates. Thailand and the Philippines exhibit the largest and most persistent responses, while Indonesia and Vietnam respond strongly before gradually returning toward equilibrium. By contrast, Malaysia and Singapore experience relatively limited fluctuations. These findings suggest that changes in global oil prices influence economic

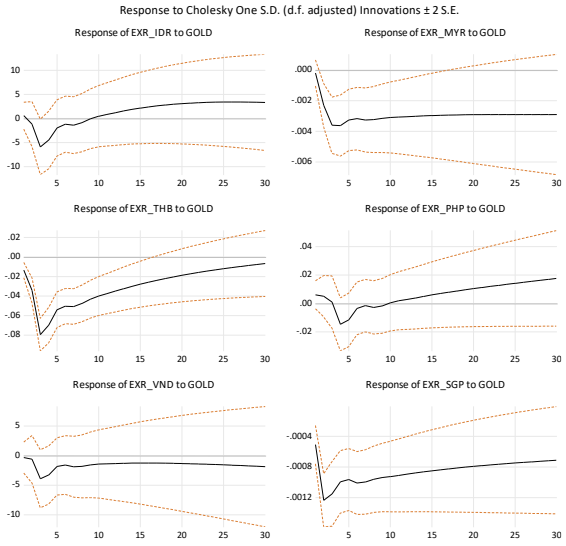
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prospects and investors' expectations, resulting in exchange rate adjustments, consistent with the Asset Market Approach (Mishkin, 2019). The results are in line with Castro and Jiménez-Rodríguez (2020) and Siddiqui and Roy (2019), who reported significant dynamic relationships between oil prices, exchange rates, and financial markets.

Response Exchanges Rates ASEAN-6 to Gold Price

Figure 6: Response Exchanges Rates ASEAN-6 to Gold Price



Source: EViews Processed, 2026

The global gold price shock generates heterogeneous responses across ASEAN-6 exchange rates. Thailand records the largest negative response, whereas Vietnam maintains a persistent negative response throughout the forecast horizon. Indonesia initially responds negatively before turning positive, while the Philippines exhibits a gradually increasing positive response. In contrast, Malaysia and Singapore experience relatively small fluctuations. These differences suggest that gold serves as a safe-haven asset, prompting investors to rebalance their portfolios during periods of heightened uncertainty, as explained by the Portfolio Balance Theory (Kallianiotis, 2021). This finding is consistent with Aftab et al. (2018), who identified gold as both a hedge and a safe-haven asset for currencies, and Triki & Ben Maatoug (2021), who found that gold's safe-haven role becomes stronger during periods of elevated geopolitical risk.

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Vaiance Decomposition

Figure 7: Variance Decomposition Global Shocks to Exchanges Rates ASEAN-6

Exchanges Rates	GPR	SP500	VIX	OIL	GOLD
EXR_IDR	0.559	4.640	0.111	2.136	0.347
EXR_MYR	1.604	1.947	2.696	3.955	3.351
EXR_THB	0.448	2.803	1.279	13.327	9.688
EXR_PHP	1.194	2.784	0.947	12.391	0.271
EXR_VND	0.901	1.220	0.562	0.971	0.226
EXR_SGP	0.425	2.912	2.650	4.159	8.583

Source: EViews Processed, 2026

Forecast Error Variance Decomposition (FEVD) was employed to assess the relative contribution of each global shock to exchange rate fluctuations across the ASEAN-6 over the 30-day forecast horizon. Overall, the results indicate that the explanatory power of global shocks varies substantially across countries. Among the five external shocks, Brent crude oil prices account for the largest share of exchange rate variation in several ASEAN economies, particularly Thailand (13.327%) and the Philippines (12.391%). In contrast, Global Geopolitical Risk (GPR) contributes only a relatively small proportion of exchange rate fluctuations, with its highest contribution observed in Malaysia (1.604%), suggesting that geopolitical shocks primarily influence exchange rates through indirect channels rather than direct price adjustments.

The contributions of financial market variables are more heterogeneous across countries. The S&P 500 explains a relatively large proportion of exchange rate variation in Indonesia (4.640%), while the VIX contributes most strongly in Malaysia (2.696%) and Singapore (2.650%), indicating that financially integrated economies are more responsive to changes in global market sentiment and uncertainty. Meanwhile, global gold prices exert the greatest influence on Thailand (9.688%) and Singapore (8.583%), reflecting the importance of gold as a safe-haven asset during periods of heightened global uncertainty.

Overall, the FEVD results suggest that commodity price shocks, particularly oil prices, explain a larger share of exchange rate fluctuations than geopolitical shocks, while financial market indicators such as the S&P 500 and VIX play a more important role in economies with greater financial integration. These findings are broadly consistent with

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the Asset Market Approach, which argues that changes in global asset prices and investors' expectations are transmitted to exchange rates through international capital flows . They also support the Portfolio Balance Theory (Kallianiotis, 2021), whereby geopolitical risk and gold prices affect exchange rates primarily through portfolio reallocation decisions rather than direct trade channels.

CONCLUSION

This study examines the transmission of five global shocks, Global Geopolitical Risk (GPR), the S&P 500 Index, the Volatility Index (VIX), Brent crude oil prices, and global gold prices to the exchange rates of ASEAN-6 using a Vector Autoregression (VAR) model with daily data from January 2023 to March 2026. Based on the Pairwise Granger Causality, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD) analyses, three main conclusions can be drawn.

First, the transmission of global shocks to ASEAN-6 exchange rates is heterogeneous. The causal relationships, response patterns, and persistence differ across countries, indicating that the effects of external shocks depend on each country's economic structure and degree of financial integration. While the S&P 500 exhibits the broadest causal linkages across ASEAN-6, the impacts of GPR and Brent crude oil prices are more country-specific.

Second, global financial market shocks play a more prominent role than geopolitical risk in explaining exchange rate dynamics. The FEVD results indicate that the S&P 500 and VIX account for a larger share of exchange rate fluctuations in several ASEAN economies, particularly Indonesia, Malaysia, and Singapore, whereas the direct contribution of GPR remains relatively limited. These findings suggest that investor sentiment and global financial conditions have become increasingly important transmission channels for exchange rate movements.

Third, commodity price shocks affect ASEAN-6 exchange rates unevenly. Brent crude oil prices explain a substantial proportion of exchange rate variation in Thailand and the Philippines, while global gold prices contribute more strongly in Thailand and Singapore. This evidence implies that each ASEAN economy is exposed to different external vulnerabilities depending on its energy dependence, trade structure, and financial market integration. Consequently, no single global shock dominates exchange rate dynamics across all ASEAN-6 countries.

Overall, the findings demonstrate that exchange rate movements in ASEAN-6 are shaped by multiple global shocks operating through different transmission mechanisms.

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Therefore, policymakers should strengthen macroeconomic resilience while closely monitoring developments in global financial markets, geopolitical conditions, and international commodity prices. Given the heterogeneous responses across countries, policy measures should also consider country-specific sources of external vulnerability rather than relying on a uniform policy approach.

This study is subject to several limitations. It focuses on six ASEAN countries over the period January 2023–March 2026 and considers exchange rates as the only domestic financial indicator. Future research could extend the sample period, include additional emerging economies, and incorporate other domestic financial indicators, such as stock market indices and domestic gold prices, to provide a more comprehensive understanding of global shock transmission.

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