

Impact of TASI Index Fluctuations on Investor Decisions in the Saudi Market Amid Current Political Developments: An Analytical Study

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ABSTRACT

The purpose of this study is to examine how regional and international political events influence the movements of the TASI Index, with a focus on the behavior of investors in the Saudi stock market during recent developments. The study aims to reveal the extent to which political instability outside Saudi Arabia contributes to market volatility and affects investor risk appetite and strategy. The research employs a quantitative, analytical approach, utilizing time series data from January 2023 to January 2025. The study uses the Augmented Dickey-Fuller test to examine data stationarity. It utilizes Generalized Autoregressive Conditional Heteroskedasticity (GARCH) and Exponential GARCH (EGARCH) models to explore volatility and asymmetric effects resulting from political circumstances. The analysis reveals that the period from 2023 to 2025 is characterized by heightened volatility in the TASI index, which closely correlates with episodes of regional political instability. Results from GARCH and EGARCH models indicate that political events drive both risk aversion and changes in investor behavior, often leading to more conservative investment decisions, such as a preference for low-risk assets amid uncertainty. The study is limited by the availability of recent data and focuses on a specific timeframe, which may not accurately reflect long-term dynamics. There is a need for adaptable frameworks to address emerging risks as the market continues to evolve. This research provides a novel perspective by integrating political risk with behavioral finance and volatility modeling in the context of the Saudi market. The results offer policymakers, investors, and market participants practical insights for developing strategies to manage risk and enhance market stability during periods of political uncertainty.

Keywords: Stock Market, Volatility, Behavior, Political Instability

INTRODUCTION

The Index (TASI) is one of the premier indices of Saudi Arabia's stock market. It reflects the performance of stocks listed on the Saudi stock exchange. Recent ups and downs in the TASI index happened during political developments in the neighborhood. Changes in external geopolitics, and nothing in Saudi Arabia, could influence investor behavior and the market. This study aims to analyze if and how the external political circumstances have influenced investor decisions in the Saudi stock market. Examples of these events are numerous, but some of the most well-known include the political events in the Middle East, such as the civil war in Palestine, Syria, and Lebanon.

Market volatility would be caused by Saudi Arabia's dependence on the energy sector, making it susceptible to changes in oil prices and supply chain disruptions. The added uncertainty from the

regional political environment may make investors hesitant and risk averse. Regarding behavioral finance theory, such volatility tends to create dissimilar responses from investors, since some choose to act conservatively and mitigate risks, while others are speculative to gain the most out of uncertainty (Al Saud, 2018; BinMakhashen et al., 2022; Bin Amin & Rehman, 2022; Abbas & Alhagyan, 2022).

The TASI index reflects investor sentiment. When the TASI changes, it doesn't just represent the failure of the investors. It also means economic and political problems. It is essential to understand how investors behave during fluctuations in the TASI index to identify trends easily. Such an understanding can allow policymakers and financial institutions to implement measures that curb market volatility and allow more stable trading environments (Abbas & Alhagyan, 2022; BinMakhashen et al., 2022; Sharif, 2019; Al Saud, 2018).

In addition, foreign investment in the stock market has complicated this behavior. Research findings indicate that foreign investors react differently to market fluctuations, depending on their risk tolerance. The relationship between these two actors, especially during political turmoil in the region, can heavily influence the liquidity and depth of the market (Sharif, 2019; Saâdaoui, 2023; Meliani & Djediden, 2024; Bin Amin & Rehman, 2022).

This study examines the impact of changes in the TASI index on investor behavior within the Saudi market during recent external political developments in the region. The focus will be on the response of traded stocks and market returns during political developments.

Objectives of the Study

The TASI index is one of the oldest and most significant indicators of the Saudi economy's health. Recently, the TASI index has become increasingly unpredictable due to political events in the region. More importantly, how much does TASI impact investor choices? Experts examine how costs, inflation, corporate profits, and other factors influence stock performance on the market. Not much attention has been given to political events, regional geopolitical stability, and countries' diplomatic relations. Little attention has been paid to political events, leaving a valuable gap in understanding their impact on TASI volatility and investor behavior.

Many prior studies have examined the impact of financial crises, oil price fluctuations, and global economic recessions on Saudi Arabia's stock market. Despite their value, these studies lack insight into the political shock response of the TASI and its effects on these investors and their strategies. Investors often focus on such events when there is a change in any policy or regulatory reforms that impact the country. Even geopolitical events, such as wars and terrorist attacks, attract their attention. However, the literature on the effects of such events on risk aversion, speculation, and market efficiency is limited. These gaps are concerning as they can lead to significant economic and financial disruptions.

Further exacerbating this issue is the dynamic nature of Saudi Arabia's stock market. Increasingly, political and economic disputes worldwide are impacting the stock markets of countries such as Saudi Arabia. Domestic investors react differently to political developments. Some investors adjust their portfolios to mitigate political risk, while others view it as an opportunity to profit in the short term through speculation. Investor activities reveal how political risks have influenced sentiment and trading strategies in the Saudi market.

Another key limitation of the existing literature is that it uses quantitative models to forecast TASI movements. The reliance on these models underscores the dominance of statistical and econometric methods in predicting TASI movements. This paper demonstrates the relevance of government policies by examining the impact of political events on price changes in the TASI index, showing that political events have a positive effect on price changes involving both institutional and retail investors.

Lastly, political uncertainties are increasingly influencing market performance, so research is needed. With the political shifts, Saudi Arabia is reforming its economy, necessitating the development of models to assess the risk associated with political factors. When we fill this gap, it will provide policymakers, investors, and financial institutions with the tools to manage investment risk arising from political instability effectively. This research will help improve decision-making, strengthen market confidence, and enhance investor confidence in the rapidly evolving political and economic landscape. Hence, this study will examine fluctuations in the TASI index and their impact on investor behavior in the Saudi stock market, particularly on risk appetite and investment strategy.

Furthermore, analyze the impact of regional and international political events on market stability and investor sentiment, which drives TASI's volatility.

Assess how political events and significant economic factors affect the TASI index, particularly global forces outside Saudi Arabia.

Observe how Saudi investors respond to market volatility. It applies behavioral finance theory to examine herding, overreaction, and speculation.

Scope and Significance of the Study

Significance of the Study

The Saudi financial market is often impacted by fluctuations in TASI (Tadawul All Share Index). It helps investors and financial analysts analyze TASI movements and their repercussions. This research examines the impact of regional and international political events on the TASI movements. The Tadawul All Share Index (TASI) represents the stock performance of the largest companies listed on the Saudi stock market.

This study helps us understand how uncertain political conditions cause volatility in financial markets. It highlights how investors respond to shocks, creating uncertainty. The research uses behavioral finance theories to analyze investors' responses during periods of significant political upheaval. It explains risk perception, herding behavior, and other biases that influence investment decisions. This study will offer practical recommendations for psychological and strategic responses to minimize the effects of irrational trading decisions.

The study also develops models to analyze the effect of political risk on TASI volatility, aiding financial institutions and market participants in risk management. The outcome of this analysis will help policymakers create a mechanism that reduces the market risk from political and economic uncertainty, thereby enhancing resilience and firm investment growth. To conclude, through this research, we understand how some TASI indices are affected and why some investors choose to invest. Thus, this can help different groups in Saudi Arabia's financial market to tackle local and global hurdles. The outcomes will help establish a more robust and stable market environment consistent with evolving economic and political realities.

Scope

To study the impact of the TASI index movement on Saudi investors due to political incidents. The study will cover the following aspects.

1. **Geographical Scope:** The research is limited to the Saudi Stock Market (TASI), the basic index in the Saudi market. Although global market developments are considered, the emphasis is on the local market.
2. **Temporal Scope:** The analysis encompasses recent and relevant data, with a focus on the period during which significant political developments and economic shifts have impacted TASI. The period is from 1,2023 to 1,2025. This includes recent global and regional events that have affected the market, illustrating how politics and markets are increasingly converging.

LITERATURE REVIEW

Previous studies, like Bauman (2012), study the effect of inflation on TASI through a series of lectures, explaining inflation and suggesting a solution for it. This study focuses on TASI fluctuations, investor decisions, and the above political developments. Every paper discussed will be analyzed in detail to ensure it is consistent with the research title.

The analysis measures the risks of TASI-listed companies under the Capital Asset Pricing Model (CAPM) by Vinodkumar and AL Jasser (2020), which is also a flexible market model. The study will help investors understand the risk-return framework and asset allocation for Saudi stocks in a turbulent environment. But this doesn't explain the political impact or investor behavior on the political front. So, while this part adds to our understanding of investment risk during TASI's up-and-down swings, it does not tell us much about the political or behavioral aspects mentioned in the study.

According to Sadouni et al (2020), TSI and indices of the U.S. have a cause-and-effect relationship. It shows the impact of global economic events on TASI and external factors affecting the Saudi market. This aligns with the title of this study, which examines global trends that affect fluctuations in TASI. Despite this, the research does not address the political developments or how such shifts impact investor decisions. While this helps understand the influence of external factors, it doesn't directly account for political instability and its impacts on market participants.

Assous et al (2020) investigate several key elements that can affect the TASI index. The results indicate that the Autoregressive Integrated Moving Average is the most appropriate model.

Bin Amin and Rehman (2022) examine the relationship between oil prices, money supply, and TASI in a nonlinear manner. It also shows how TASI movement is influenced by external economic factors, especially oil price volatility. Although it provides an intense look at economic influences, it does not consider the part of political developments or investor responses to those moves. The current study examines the impact of political

events on TASI, thereby contributing to the existing knowledge while also incorporating a consideration of external economic factors.

AL-Najjar, et al (2022). This study examines the impact of air quality on TASI performance, using machine learning models —specifically decision trees—to analyze the relationship between air quality indices (AQIs) and stock index values. By analyzing pollutants such as PM10, O3, NO2, SO2, and CO, the study finds a measurable impact of these environmental factors on TASI, underscoring a novel environmental perspective on market performance. The findings indicate that certain pollutants influence investor behavior, affecting stock performance. This study is significant as it integrates environmental factors into financial analysis, suggesting that markets are sensitive to broader external influences beyond traditional economic indicators.

Abbas, A., & Alhagyan, M. (2022). This study aims to improve the predictive accuracy of TASI by incorporating memory and stochastic volatility within the Geometric Brownian Motion (GBM) model. Using daily data from 2018, the study compares three models: one without memory and volatility adjustments, another with memory only, and a third with both memory and stochastic volatility. The research demonstrates that the model with both adjustments offers the highest predictive accuracy, emphasizing the importance of including both memory and volatility factors in financial forecasting. The authors argue that this enhanced model has significant implications for financial risk management as it provides a more reliable tool for anticipating fluctuations in TASI. This study highlights the utility of complex models for capturing the dynamics of financial markets, particularly for practitioners seeking to predict stock performance accurately.

Aloui, C., et al. (2024). The study examines the impact of investor sentiment on stock market pricing and behavior in Saudi Arabia, using wavelet analysis to explore time-frequency relationships in data from Google search volume. Results show that negative sentiment increases volatility, particularly during economic crises. This study offers valuable insights for investors and policymakers, revealing that investor sentiment plays a crucial role in stock market fluctuations. The findings underscore the importance of understanding investor psychology for risk management, as sentiment-driven behavior can exacerbate market instability during periods of uncertainty. This research offers an advanced methodological approach to analyzing the relationship between sentiment and the market.

METHODOLOGY

This study examines the influence of political instability on the stock market's returns and volatility in Saudi Arabia. The quantitative research relies on secondary time series data from January 2023 to January 2025. The study treats stock market returns as the dependent variable and collects data from the Saudi Stock Exchange. The study employs the following formula to determine stock market returns.

$$\text{Returns} = \log \left(\frac{P_t}{P_{t-1}} \right). \quad (1)$$

Given that P_t and P_{t-1} are the index closing prices on the current and previous working days, we employ a comprehensive methodology that integrates descriptive statistics, unit root testing, and GARCH modeling to examine the stock's volatility during the political event. Before modeling volatility, the data's volatility needs to be investigated. The Autoregressive Conditional Heteroskedasticity (ARCH) test is used in the study to test the data. The potential ARCH effect in the data is examined to select the best model for ARCH estimation rather than the ordinary least squares (OLS) model.

To address the shortcomings of the ARCH model specification, this study uses the GARCH specification for the future. This is its most noticeable flaw because the ARCH model resembles a moving average (MA) more than autoregression. Consequently, it is most suited to create the GARCH model, which incorporates the lagged conditional variance factor as an autoregressive term (Bollerslev 1986). Additionally, incorporating heteroskedasticity into the estimation process gives this model an advantage over other models. As a result, it is a practical method for predicting volatility. Because it accurately depicts the real world while forecasting financial instrument prices and rates, GARCH modeling is also recommended.

Additionally, this work uses the EGARCH model to capture the asymmetry. Nelson (1990) was the first to design this concept. The current study also empirically captured the asymmetrical impact of political events using the EGARCH model. A thorough analysis of the TASI Index, accompanied by descriptive statistics, provides crucial insights into the market's characteristics. In the following step, we assess the stationarity of the data series using a unit root test.

RESULTS AND ANALYSIS

Summary Statistics

This study commences with a detailed analysis to understand the fundamental characteristics and patterns within the dataset. Findings from TABLE 1 indicate the summary statistics for stock market returns, with an average of 0.0184225, a range of -535.658 to 548.0639, and a standard deviation of 150.3441. The skewness value of .19259 suggests a positively skewed distribution to the right, meaning the right tail is longer or fatter than the left. In practical terms, this implies that outliers with higher values in the dataset may pull the mean toward the longer tail. A kurtosis value of 4.119016, above 3, suggests a leptokurtotic distribution, indicating that more extreme values are concentrated around the mean. The average traded quantity during the period under consideration was 256.5, ranging from 1 to -512, with a standard deviation of 147.945.

Table 1: Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max	skewness	kurtosis	variance
Traded Quantity	512	256.5	147.9459	1	512	0	1.79999	21888
Return	511	.0184225	150.3441	-535.658	548.0639	.1925867	4.119016	22603.35

Figure 1 presents daily data on the TASI index for the past two years. It illustrates the fluctuation of the TASI index, which reached its highest peak in June 2024, then fell back, and gradually began to increase by the end of the year. Figure 2 shows the plot of the stock market returns of Saudi Arabia from January 2023 to January 2025. According to this data, volatility is higher at some times than others. Consequently, it validates that the predicted values of the disturbance terms vary over time. As a result, the homoscedasticity assumption must be met. The present variation, in this case, is dependent upon the past variance.

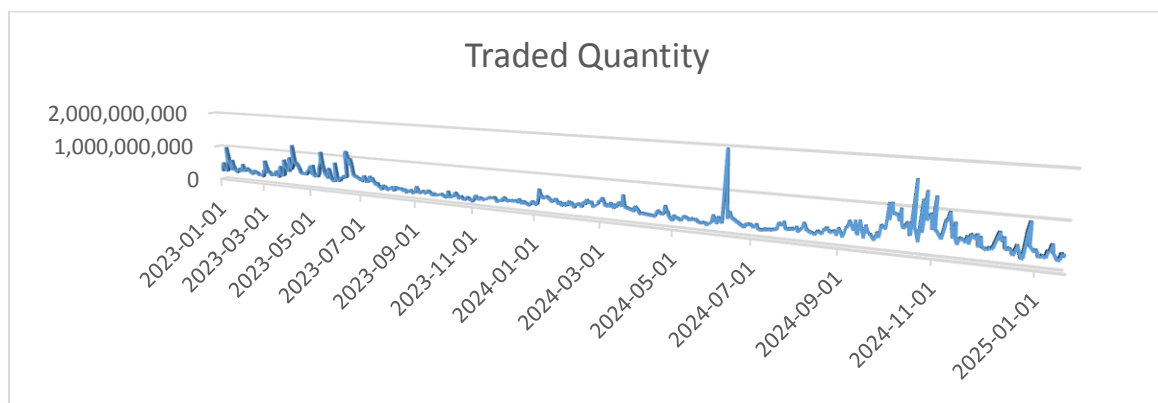


Figure 1. Traded quantity for the period 2023-2025

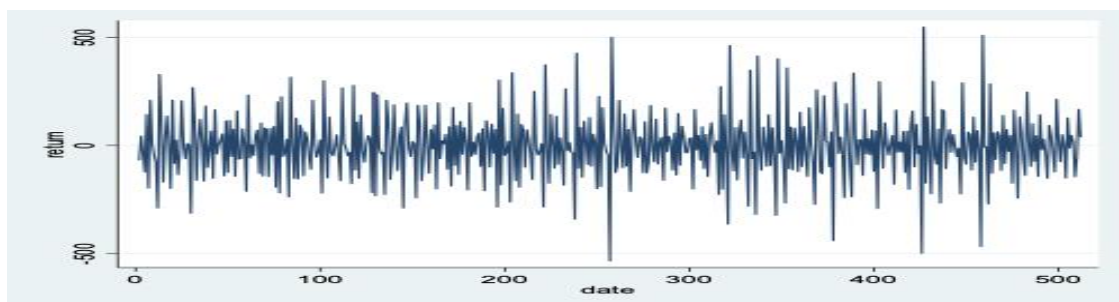


Figure 2. Plot of the stock market returns for the period January 2023 to January 2025

Empirical Results

The TASI Index time series was assessed for stationarity using the Augmented Dickey-Fuller test. After applying the differencing technique, we verified the significance level of the results. The ADF's p-value is 0.000, indicating statistical significance (Table 2). This indicates that our data is level stationary (Khan & Mihaisi, 2022). Here is the result of our first diagnostic test.

Table 2: Result of the augmented Dickey-Fuller test:

<i>number</i>	<i>Variable</i>	<i>coef</i>	<i>Std.Err</i>	<i>T- value</i>	<i>P-value</i>
1.	Return L1.	-2.155625	.0708529	-30.42	0.000
	LD	.4133982	.0405742	10.19	0.000
	cons	-.0303392	5.185614	-0.01	0.995

Heteroskedasticity test (ARCH, GARCH, EGARCH)

One of the fundamental assumptions of the traditional linear regression model is that the variance of the standard error term is constant and has a mean of zero. Violating this assumption leads to heteroskedasticity, which must be handled because results are unreliable in such cases. The ARCH model tests whether residuals exhibit consistent variance over time or exhibit trends in volatility.

Table 3: Presenting the ARCH test:

Variable	coef	OPG Std.Err	Z	P> Z
Return				
_L1.	-.539045	.0393709	-13.69	0.000
_cons	-2.905889	6.126143	-0.47	0.635
ARCH				
_L1	.0866824	.0716803	1.21	0.227
_L2	.0840882	.0488611	1.72	0.085
L3	-.0854855	.022791	-3.77	0.000
_cons	14595.28	17.13	17.13	0.000

The ARCH model is considered more appropriate when data exhibit heteroskedasticity. In Table 3, the ARCH test indicates that after three lags, the heteroskedasticity test strongly rejects the null of constant variance in the residuals, with a p-value of 0.000. The second and third lags are significant, while the first lag is insignificant. Therefore, we reject the null hypothesis H0: no ARCH effect and accept the alternative hypothesis H1: there is an ARCH effect.

Table 4 presents the GARCH result.

The data exhibit volatility due to the ARCH effect, according to the results. Hence, the ARCH effect impacts the stock market returns.

Henceforth, we analyze and estimate the GARCH model. This model captures the most stylized facts regarding index returns because the ARCH impact is present in stock market returns. The GARCH model findings are shown in Tables 4 and 5.

Table 4: Presenting the GARCH test

Variable	coef	OPG Std.Err	Z	P> Z
Return				
_cons	-6.697286	6.900615	-0.97	0.332
—				
ARCH				
_L1	.2688979	.0737423	3.65	0.000
Garch				
L1	-.2387098	.1205009	-1.98	0.048
__cons	21042.89	3139.212	6.70	0.000

Results from the GARCH (1, 1) model for stock market returns. A p-value of (0.000) for the GARCH (1,1) model shows that ARCH AND GARCH have a substantial impact. Additionally, the variance equation indicates that the data exhibits generalized autoregressive conditional heteroskedasticity (GARCH) and autoregressive conditional heteroskedasticity (ARCH) effects, as evidenced by the significant p-values. The existence of GARCH indicates the long-term persistence of volatility.

Table 5: Presenting the EGARCH test

Variable	coef	OPG Std.Err	Z	P> Z
Return				
_cons	-44.64408	6.279752	-7.11	0.000
EGARCH				
_L1	-.9536724	.1117624	-8.53	0.000

EARCH_a				
L1	-.4727891	.0864741	-5.47	0.000
EGARCH				
L1	.5779161	.061833	9.35	0.000
_cons	4.219316	.617625	6.83	0.000

Further, we estimate the EGARCH model for additional confirmation, given its ability to capture asymmetric volatility patterns. The negative and A significant coefficient indicates an Asymmetric influence, confirming the earlier results' conclusion that political instability raises volatility.

DISCUSSION OF THE RESULT ANALYSIS

By combining the results of GARCH modeling, the unit root test, and descriptive statistics, we conclude that TADAWUL's past performance shows different levels of volatility. Descriptive statistics reveal a positive skewness, indicating the presence of outliers with abnormally high values that contribute to increased volatility. The findings of the unit root test guarantee stationarity considerations. With its noteworthy p-values in the variance and mean equations, the GARCH and EGARCH models support the idea that volatility persists over time and that financial market returns affect current returns. The heteroskedasticity test emphasizes identifying heteroskedasticity to ensure the model's reliability. By forecasting the variance, we can explicitly see the high-volatility cluster, which fluctuates up and down —known as volatility spikes— in the ARCH and GARCH models (Figure 3).

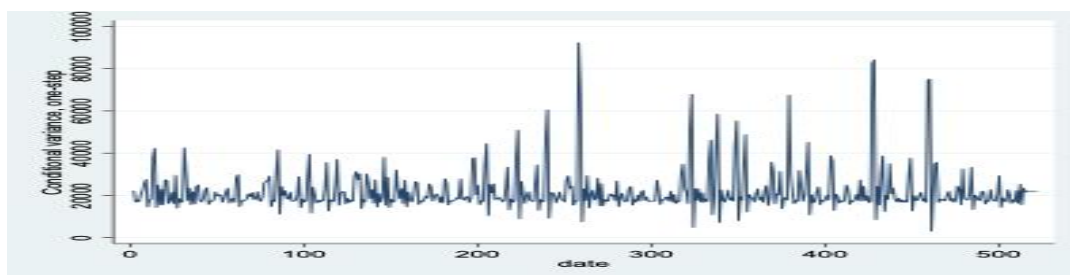


Figure 3. Plot of the forecasting variance for the period of January 2023 to January 2025

According to this study, political instability is often triggered by unforeseen events, such as power shifts, terrorist attacks, and pandemics, which introduce economic and systemic unpredictability. Decision-making becomes more unpredictable in such a scenario, which causes shifts in investor behavior. Market volatility worsens as investors become more risk-averse and adjust their portfolios in response to political events. Additionally, governmental stability fosters an environment where businesses can make informed strategic choices as they mature and evolve, ultimately benefiting the stock market.

Other Determinants That May Affect Tadawul Volatility

There are several reasons why the Tadawul (TASI) index may fluctuate, negatively impacting investor sentiment, market stability, and the overall stock market. The combination of economic, political, and financial factors causes volatility that influences short-term and long-term decisions. The key factors causing TASI volatility are:

Geopolitical events and political uncertainty significantly impact the Saudi stock market. Trade wars, sanctions, military conflicts, and shifts in diplomacy can prompt a swift exodus of capital as investors seek safer havens. Increased geopolitical risk often leads to market volatility as investors react quickly to changes. Market participants exhibit volatility in their behavior during escalating geopolitical events. Similarly, foreign exchange markets often exhibit panic behavior, leading to significant price adjustments and increased exchange rate volatility (They, 2023).

There is a strong association between TASI and key macroeconomic variables, including economic growth, inflation, interest rates, and monetary policy. When prices increase significantly, central bank interest rate hikes depress investors by raising borrowing costs and reducing companies' potential earnings. On the other hand, growth-oriented measures such as government expenditure initiatives, infrastructure investment, and easy monetary policy can foster favorable market sentiment. According to the research by Bin Amin & Rehman (2022) and Sharif (2019), over time, domestic macroeconomic trends and global economic shifts have become significant drivers of market volatility, necessitating that investors adopt adaptive strategies.

The Saudi stock market is witnessing new volatility patterns owing to increased participation by foreign investors, facilitated by regulatory reforms and the inclusion of Saudi equities in major global indices. (Bin Amin & Rehman, 2022; Sharif, 2019) Foreign capital flows in and out for many reasons, from global risk appetite to the US. US Fed policies, and emerging market trends. When foreign capital unexpectedly exits the market, it can worsen the fall. However, when it enters in droves, liquidity improves. The market reaction to economic and political changes worldwide (BinMakhashen et al., 2022; Saâdaoui, 2023) is influenced mainly by institutional investors' behavior.

Market liquidity is essential for maintaining market stability, as lower liquidity increases price fluctuations, making stock prices more volatile and vulnerable to shocks (BinMakhashen et al., 2022; Saâdaoui, 2023). Low trading volumes lead to erratic price movements and high volatility. On the other hand, periods of high trading activity, such as algorithmic trading, speculative activity, or major economic announcements, can generate price spikes. The liquidity of any financial market is heavily affected by the presence of institutional capital and the volume of retail investors.

The company's financial assessment, as well as the sector's growth, becomes the most critical factor in price movement. When there are positive earnings reports in particular industries, such as banking, petrochemicals, and real estate, investors are assured, which reduces their volatility. However, if financial performance in critical sectors is weaker than expected or there are unforeseen shocks, it will lead to a sell-off. Furthermore, sector performance will depend on industry-specific risks, such as supply chain disruptions, technological advancements, and regulatory changes (Meliani & Djediden, 2024; Bin Amin & Rehman, 2022).

Regulatory and policy changes are vital to investor confidence and market stability. The stock market, tax, and foreign investment policies and regulations can positively or negatively impact TASI (Tadawul All Share Index). When policies encourage the effective organization of enterprises, investor sentiment tends to improve. However, unforeseen government rules can confuse investors and lead to market drops. Policy changes have a significant impact in emerging countries, which depend upon predictable policies (Sharif, 2019; Saâdaoui 2023).

The proliferation of algorithmic trading and automated fund management strategies has heightened TASI's susceptibility to rapid price shifts. Investors utilize high-frequency trading (HFT) and sophisticated algorithms to place orders and execute trades in milliseconds, causing prices to fluctuate in response to economic and geopolitical news. Although trading by systems makes the market more efficient by allowing a higher order rate, it may also cause flash crashes and volatility spikes. In addition, as more traders use A.I. in their trading strategies, it will be essential to understand its effects on market stability better (BinMakhashen et al., 2022; Abbas & Alhagyan, 2022).

By examining the significant factors, this research helps understand TASI volatility and investors' behavior. Recognizing the main determinants of share price volatility would help investors, policymakers, and financial analysts navigate Saudi Arabia's rapidly changing market environment. The findings highlight the need for adaptive investor behavior that incorporates economic and political uncertainties into investment decisions for stakeholders in the corporate financial landscape.

CONCLUSION

This study examines how movements in the TASI index influence investors' decisions in the Saudi stock market amid geopolitical events. The analysis also includes predictions on the TASI index. It occurred during the political uncertainty from 2023 to 2025. The outcome reveals how changes in socioeconomic conditions affect people's behavior in the stock market. To sum up, the uncertainty of politics in the place plays a unique role in the markets. Unlike earlier research, this study could contribute to comprehending TASI index volatility by merging political risks to financial behaviors and models.

Earlier studies have focused on the economic factors affecting TASI index volatility. According to Meliani and Djediden's (2024) research, political risks and regulatory changes increasingly influence the sentiments of emerging market investors, including those in Saudi Arabia. This study confirms that volatility's unpredictability and impact strengthened and augmented the unpredictability and volatility of market behavior, unlike earlier studies that tested these factors independently.

Another noteworthy contribution of this study is its examination of investor behavior during periods of uncertainty. The results of the Augmented Dickey-Fuller test indicate that the data are stationary. Further, the ARMA, GARCH, and EGARCH models were used. The data show volatility for the ARCH effect. The existence of GARCH also implies long-run volatility persistence. The EGARCH test confirms the prior result of the high volatility effect.

Additionally, greater regulation can further stabilize volatility in the Saudi financial market, according to research. Encouraging transparency in the market will help investors feel less uncertain and may lead to more

reassuring player statements. The study highlights the importance of timely policy action and regulatory change in response to political and economic events and avoiding excessive volatility that could lead to fallout from speculation.

To sum it up, the research finds an area of financial modeling and political risk assessment to fill the gap. The findings show that apart from the economy, Saudi Arabia's political affairs impact the country's financial markets. Similarly, the politics of countries such as the US and the EU affect emerging markets and commodities worldwide. It shows that political affairs drive the market. Thus, it has a critical impact on the market.

LIMITATIONS

Data availability is a significant limitation of the study. Also, there is a need for an adjustable set of rules as a framework to maintain and ensure that it evolves and adjusts to emerging risks.

FUTURE RESEARCH

Future research should also consider other factors that affect stock market volatility. Also, the investor psychology and how artificial intelligence can reduce risk exposure. It should offer novel approaches for improving investment strategies in uncertain market conditions and study new models that predict how economic factors, technology, and investor capability can be adapted to reduce risks arising from fluctuating, volatile market conditions.

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Abbreviations

GARCH Generalized Auto-Regressive Conditional Heteroskedasticity.

EGARCH Exponential Generalized Auto-Regressive Conditional

ARCH Heteroskedasticity. Autoregressive

Availability of Data and Materials

All data generated or analyzed during this study are available for sharing when the appropriate request is directed to the corresponding author.

Conflicts of Interest

No potential conflict of interest

REFERENCES

- Abbas, A., & Alhagyan, M. (2022). The effect of incorporating memory and stochastic volatility into geometric brownian motion in forecasting the performance of Tadawul All Share Index (TASI). *Advances and Applications in Statistics*, 74, 47-62. <https://doi.org/10.17654/0972361722017>
- Al Saud, S. K. (2018). ISLAMIC CALENDAR EFFECT ON THE SAUDI STOCK MARKET (TASI). *Multi-Knowledge Electronic Comprehensive Journal For Education And Science Publications (MECSJ)*, 14, 26. <https://doi.org/10.13140/RG.2.2.28735.56488>
- Bin Amin, M. F., & Rehman, M. Z. (2022). Asymmetric linkages of oil prices, money supply, and TASI on sectoral stock prices in Saudi Arabia: a non-linear ARDL approach. *SAGE Open*, 12(1), 21582440211071110. <https://doi.org/10.1177/21582440211071110>
- BinMakhashen, G. M., Bakather, A. A., & Bin-Salem, A. A. (2022). An Investigation of Forecasting Tadawul All Share Index (TASI) Using Machine Learning. In *2022 7th International Conference on Data Science and Machine Learning Applications (CDMA)* (pp. 19-24). IEEE. <https://doi.org/10.1109/CDMA54072.2022.00009>
- Bollerslev, T. (1986). Generalized autoregressive conditional heteroskedasticity. *Journal of Econometrics*, 31(3), 307-327. [https://doi.org/10.1016/0304-4076\(86\)90063-1](https://doi.org/10.1016/0304-4076(86)90063-1)

- Bauman (2012), Khan, R., & Mihaisi, S. M. K. A. (2022). Major determinants that perform a predominant role globally in the furtherance of SMEs: ARDL and bound testing approach. *International Journal of Multidisciplinary: Applied Business and Education Research*, 3(3), 441–453. <https://doi.org/10.11594/ijmaber.03.03.14>
- Meliani, Y., & Djediden, L. (2024). Asset Pricing Movements Shaped by Investors' Behaviour A DCC-GARCH Perspective on Saudi Arabia's TASI Index. *khazzartech. Khazartk Industrial Economics*, 14(2), 120-144. <https://asjp.cerist.dz/en/article/259092>
- Saâdaoui, F. (2023). Using wavelets in the measurement of multiscale dependence between Saudi and selected foreign stock markets. *International Transactions in Operational Research*, 30(5), 2277-2301. <https://doi.org/10.1111/itor.13019>
- Sharif, S. (2019). How foreign investors influence stock markets? The Saudi Arabian experience. *Middle East Development Journal*, 11(1), 105-123. <http://dx.doi.org/10.2139/ssrn.2815839>