

# iRASD Journal of Economics

Volume 6, Number 3, 2024, Pages 838 - 850

irasd JOURNAL OF ECONOMICS

INTERNATIONAL RESEARCH ASSOCIATION FOR SUSTAINABLE DEVELOPMENT

Journal Home Page: <u>a://journals.internationalrasd.org/index.php/joe</u>

# Economic Determinants of Stock Market Volatility in Pakistan: Exploring the Moderating Impact of Political Stability

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## ARTICLE INFO

# ABSTRACT

Article History: Received: Revised: Accepted: Available Online:	July September September September	19, 2024 26, 2024 28, 2024 29, 2024
Keywords:		
Crude Oil Price D	ynamics	
Global Oil Price In	ndex	
Foreign remittand	ce	
Inflation		
KSE 100 Stock Ir	dex Volatility	
Political Stability		
Economic Stabilit	У	
JEL Classificatio	on Codes:	
E31, E32, E44, F3	31, G01, Q41,	Q43

The study examines the effect of the variable's inflation, global oil price index price, and foreign remittances on stock market volatility represented through movement in the KSE 100 index, focusing on political stability as a moderator. The empirical evidence suggests that inflation and the global oil price index reflect insignificant direct influence on the stock market volatility. However, their influence becomes significant in the presence of political stability. Political stability increases investor confidence, reduces risk perception, and mitigates the risk of macroeconomic shocks that lead to reduced stock market volatility. The findings emphasized the critical role of governance in fostering the resilience of the financial market, especially for emerging economies like Pakistan. Future studies could probe further into the sectoral dynamics and consider other alternative variables as moderators, such as institutional quality, to provide detailed insight into the behaviors of stock market performance in developing economies tend to exhibit. These findings have many implications for policymakers, emphasizing governance stabilization policies of the macroeconomy, and reforms. diversification of markets to ensure the financial sector's stability.

#### Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.



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**Corresponding Author's Email:** <u>zahid7555@gmail.com</u> **Citation:** Masih, Z., & Irshad, H. (2024). Economic Determinants of Stock Market Volatility in Pakistan: Exploring the Moderating Impact of Political Stability. *IRASD Journal of Economics*, 6(3), 838–850. <u>https://doi.org/10.52131/joe.2024.0603.0243</u>

# 1. Introduction

Stock market volatility is a critical indicator of economic stability, particularly for emerging markets like Pakistan. The KSE 100 index is a barometer for investor attitudes, sentiment, and economic health changes (Khan, 2024). The volatility depends significantly on macroeconomic variables, inflation, crude oil price, and foreign remittance inflow. Inflation reduces the purchasing power of consumers thereby directly effecting stock prices (Mai, Saleem, & Kamran, 2023). Similarly, global oil price shocks impact production costs and trade balances to influence profitability and market behavior. Moreover, Foreign remittances are a substantial source of foreign reserves for Pakistan and influence economic growth; hence, they are major influencers in shaping investment dynamics and stock market performance (Ali & Ismail, 2024).

Other than this economic factor, one more macroeconomic factor, political stability, also plays an important role, in which political turmoil raises the volatility of the market due to the development of an atmosphere of distrust among investors (Khan, 2024). For instance, the political instability in Pakistan has disrupted economic growth, which also puts a hurdle in the way of investors and policymakers (Mustafa, Nawaz, & Rubab, 2017). Understanding such economic and political factors relationships becomes indispensable for stakeholders wishing to reduce risks and ensure market stability.

Although these variables are known individually, the aggregated effects of inflation, crude oil prices, foreign remittance inflows, and political stability on the volatility of the KSE 100 index are less explored in Pakistan. This research is focused on studying the interlinkages between these variables and their joint effect on market volatility. This research will determine how macroeconomic and political variables together influence the volatility in the KSE 100 index, focusing on the role of political stability as a moderator. This study, hence, underlines the direct and moderating effects, which put forward a nuanced understanding of the drivers of stock market volatility in Pakistan's capital market.

The study will be important to investors, policymakers, and academics. To investors, it identifies how political and macroeconomic variables influence the behavior of stock markets for risk assessment and portfolio management reasons (Khan, 2024). Policymakers can use these findings to frame policies that will assure the market through inflation control, absorption of oil price shocks, and political stability to boost investor confidence. The study adds value to the existing literature on financial markets by articulating in detail how political stability might influence the ultimate linkage of financial markets in emerging economies.

# 2. Literature Review

Volatility in the stock market can be conceptualized with the help of the Efficient Market Hypothesis. According to EMH, stock prices reflect all the available information, and markets are considered efficient. Therefore, one cannot obtain consistently higher returns except with more risk (Fama, 1970). Inefficient markets exist in emerging economies like Pakistan because of less awareness among investors, political instability, and macroeconomic shocks. These inefficiencies can amplify the volatility of inflation, crude oil prices, and foreign remittance, challenging the classical assumptions emanating from EMH. The Arbitrage Pricing Theory (APT) developed by Ross (1976) is another multifactor model of stock return explanation. Applications of APT have been found to favor emerging markets. Zhu (2023) showed that APT is robust in capturing certain unique market dynamics and highlighted the moderating effects of institutional stability. Chen, Chiang, and Lin (2023) investigated political factors that argue that, while understanding systematic risk, stable governance structures reduce systematic risks and provide empirical validation for APT's relevance to unstable economies like Pakistan (Hamza, Bhatti, & Kiran, 2019).

Furthermore, seminal contributions by Roll and Ross stressed the flexibility of APT in allowing for diverse and constantly changing economic conditions within emerging markets. In this respect, their work served as a foundation for subsequent studies to establish and test the APT in highly volatile markets. Bilson, Brailsford, and Hooper (2002) extended the analysis of how political stability influences the impact of macroeconomic shocks on stock returns and added more weight to the APT as an integral part of analyzing economic and political interactions.

Despite its huge potential, APT has never been widely used in studies of emerging markets like Pakistan. Further work could employ APTs to investigate sector-specific dynamics and the interactions of political stability with different macroeconomic variables.

# 2.1. Inflation and Stock Market Volatility

Inflation erodes purchasing power and increases uncertainty, adding to volatility in stock markets. Different studies have revealed a significant relationship between the stock market's volatility and inflation (Chen et al., 2023). Empirical studies have provided mixed results on the relationship between inflation and stock market volatility. Some studies found that an increase in inflation resin high volatility as it reduces the investor's confidence, leading to uncertainty. For instance, Khan, Khan, and Gul (2023) studied the relationship between inflation, indicated by the CPI, and the KSE 100 Index. They noted that a high inflation rate makes the market volatile and that such volatility increases during economic crises.

Gajurel and Chawla (2022) extended this analysis to South Asia and proved that inflation's volatility creates a risk-averse environment among investors, adding to stock market volatility. Similarly, Bouri, Nekhili, Kinateder, and Choudhury (2023) proved that inflation impacts more volatility in some industries, such as real estate and financial industries. This underlines the need for targeted policies for managing inflation volatility.

One more study by Albulescu, Aubin, and Goyeau (2016) suggests that inflation and uncertainty in inflation negatively influence the US stock market across industries in case of Pakistan (Bhatti, ul Haq, Nawaz, Ahmad, & Fazal, 2023). It is an indication of high volatility in the stock market as a result of the high inflation. Another study has discussed that inflation does not affect the stock market directly but depends on other variables, such as the overall environment of the economy, the expectations of investors and the response of monetary policy (Madadpour & Asgari, 2019).

Ahmed, Muzib, and Hasan (2016) conducted research on the Pakistan stock market using the ARDL approach to investigate how key macroeconomic variables influence the fluctuation of stock market returns. The result indicated that inflation exhibited a positive and significant influence on this market's volatility, implying that the higher a country's inflation rate over time, the more vulnerable the market becomes to increases in volatility.

H1: Inflation has a significant influence on the stock market volatility

However, the finding identified the gaps relating to how inflation and political stability interact in their influence on the volatility of markets. For example, Apergis and Apergis (2022) argued that stable governance could reduce the negative impacts of inflation, making the area ripe for additional investigation within the context of Pakistan.

H2: Political Stability moderates the relationship between inflation and stock market volatility

# 2.2. Global Oil Prices Index and Stock Market Volatility

In economics, the studies related to the relationship between global oil prices and stock market volatility show substantial interconnectedness that influences financial markets globally. Fluctuation in oil prices increases the uncertainty in the stock markets and further hampers investor sentiment and economic stability (Bhatti, Chaudhry, & Bashir, 2021; Hussain & Rehman, 2022). The fluctuations in crude oil prices significantly affect production costs, corporate profitability, and market stability. Khan and et al. (2020) estimated the impact of crude oil price shocks using GARCH models on the KSE 100 index. They found strong evidence that volatility in oil prices is a significant determinant of market behaviors, especially in the energy and manufacturing sectors.

Agboola, Chowdhury, and Yang (2024) extend these results further by observing that geopolitical tensions, such as the Russo-Ukrainian conflict, increase oil price shocks and spillovers

to equity markets. They align with Kilian and Zhou (2020), which prove that aggregate demand shock resulting from oil price change has a much greater magnitude of impact than the supplyside shock on the market's volatility. These results underscore the motivation to understand regional vulnerabilities, particularly in oil-importing dependent economies like Pakistan.

H<sub>3</sub>: Global Oil Price Index has a significant influence on the stock market volatility

A study by Bastianin and Manera (2017) considered the influence of various types of oil price shocks, aggregate demand, oil supply, and oil-specific demand on the volatility of the US stock market. According to the results, the main response of stock market volatility to such shocks is significant when there are unanticipated changes in aggregate and oil-specific demand. At the same time, supply-side shocks do not show significant relevance. However, the role of political stability in moderating the volatility of oil prices in emerging markets is under-researched and, hence, a crucial gap in the literature.

H4: Political Stability moderates the relationship between global oil price and stock market volatility

## 2.3. Foreign Remittances and Stock Market Volatility

Foreign remittances are considered a crucial source of foreign exchange earnings for Pakistan and are believed to enhance the liquidity and stability of the economy. Rehman, Shah, and Rehman (2023) have evaluated its impact on wider macroeconomic variables. Greater inflows of foreign remittance obviously raise the income of individual households and, therefore, enhance the liquidity position of the economy, which in turn has the potential to dampen volatility in the stock market by lessening the inverse fluctuations in investor confidence (Rehman et al., 2023). These findings suggest that further investigation into the direct influence of foreign remittance on market dynamics may be needed.

As Stojanov, Němec, and Žídek (2019) identified, but over-dependence on specific source countries brings systemic vulnerabilities. This relates to Pakistan, as a major part of remittances comes from Gulf countries. Tauqir and Majeed (2021) underlined that the sources of remittances should be diversified to minimize exposure to geopolitical and economic risks.

The stock market could be stabilized as remittances enhance liquidity and economic stability. Stojanov et al. (2019), large remittances are associated with lesser economic volatility in recipient countries. However, the same study mentioned that economic volatility would increase with a high concentration of remittances from few source countries. This indicates the importance of diversification of sources in bringing stability to the economy (Tauqir & Majeed, 2021).

H<sub>5</sub>: Foreign remittance has a significant influence on the stock market volatility

Political stability has been identified as central to investor confidence and volatility in the stock market. Empirical evidence also shows that politically stable environments cushion macroeconomic shocks' negative impacts, hence building market resilience. For instance, Alim, Khan, Zhang, Cai, and Mikhaylov (2024) argued that good governance strengthens investors' confidence and soothes the volatility effect on inflation and oil price shocks. Their results show that a political system is a robust framework for absorbing macroeconomic shocks that make the market less susceptible to volatile dynamics. Furthermore Bhatti and Khan (2023) also confirmed that good governance attracts investors to make investment.

Research studies across various countries show that political instability negatively affects the stock market's performance, and such negativity in politics reduces the stock price. Khan and et al. (2019) have focused on the interaction between foreign remittances and political

stability and how they are related, demonstrating that political stability amplifies the positive impact of remittances on market stability. Their study showed that countries with a predictable political climate gain more remittances, which acts as a buffer for market volatility during economic downturns.

They indicate that political stability creates a suitable business climate that reduces economic uncertainty, attracting foreign investment due to its resilience or absorption capability from the shock of macroeconomic factors. However, the literature has not fully explained how such political stability interacts with specific macroeconomic variables. For example, although general influences of political instability on the behavior of markets have been documented in studies such as Mustafa et al. (2017), they fail to explain how political stability may moderate the influence of variables like inflation and global oil prices on the volatility of the stock market.

**H6:** Political Stability moderates the relationship between Foreign Remittance and stock market volatility

These findings ultimately reinforce the role of political stability in fostering stability and growth within Pakistan's financial markets. The emerging evidence also indicates that political stability is important for long-term investments. A stable political environment will be highly conducive to attracting institutional investors due to the predictability of regulatory frameworks. Agboola et al. (2024) suggest that such environments buffer spillover effects from external shocks, such as geopolitical conflicts and commodity price fluctuations, by building strong policy buffers.

Therefore, political stability is among the stock market's behavior or performance determinants. Stable political conditions help build investors' confidence and, thus, market stability, while political instability is a source of uncertainty and volatility.

# 3. Methodology

The philosophy underlying this research is positivist since it aims to find evidence of the link between variables such as global oil prices, natural disasters, and political instability with the volatility of the stock market in Pakistan based on objective and quantifiable data (Park et al., 2019). Positivism emphasizes empirical evidence and statistical analysis; therefore, given the nature of this secondary data study (Dawadi, Shrestha, & Giri, 2021). The research approach is deductive, and it also fulfills the objective outlined in the study regarding testing the predetermined hypothesis on the relationship between global oil prices, inflation, foreign remittances, political instability, and volatility in the stock market of Pakistan (Casula, Rangarajan, & Shields, 2020).

The nature of the research design is quantitative and based on secondary data. This discusses how critical exogenous variables from global oil price factors, inflation and foreign remittance can influence stock market volatility in the Islamic Republic of Pakistan. Additionally, this discusses the study of the impact of political stability as a moderator. Therefore, this design is suitable for testing hypotheses through large-scale data analysis by objectively measuring the variables and statistically validating the tested results (Ghanad, 2023). This study adopts a correlational research design to determine the direction and strength of the relationships between independent variables and volatility in Pakistan's stock market (Tauqir & Majeed, 2021). The study tested whether the moderating variable of political stability significantly affects the relationships observed by applying regression analysis.

# 3.1. Model of the Study

$$V_t = \alpha + \beta_1 (GOP)_t + \beta_2 (INF)_t + \beta_3 (FR)_t + \varepsilon$$
(1)

In the above equation (1), V is stock volatility, GOP is the Global Oil Price Index, INF is inflation, and FR is foreign remittance.

$$V_t = \alpha + \beta_1 (GOP)_t + \beta_2 (INF)_t + \beta_3 (FR)_t + \beta_4 (PS)_t + \varepsilon$$
(2)

In above equation (2), PS is added, which is moderating variable political stability.

# 3.2. Variables of the Study

Stock market volatility was measured by the change on the KSE 100 index representing the large companies listed in the Pakistan Stock Exchange (Khalid & Khan, 2017). Global oil prices were measured as average crude oil prices recorded in US dollars per barrel. The index combines global benchmarks like Brent Crude and West Texas Intermediate and is deflated to account for inflation and variation in exchange rates to achieve global comparability.

Inflation data is measured using the consumer price index, which refers to the percent change in the level of prices of a basket of goods and services that households consume, as reported by the World Bank. The proxy used to measure the foreign remittance was yearly personal transfers in US dollars through formal banking channels (Azeem, Awan, Jadoon, & Sair, 2015). The proxy used to measure the political stability was the political stability and absence of violence/terrorism index, which data has been taken from the World Data Bank. The indicator ranges from -2.5 to +2.5 and is based on several individual indicators drawn from multiple sources, including surveys, policy research, and expert assessments, that measure perceptions of the likelihood of political instability or the incidence of violence (Hussain & Ali, 2017).

# **3.3. Data Collection**

The data for this study were obtained from highly reputed and reliable sources to ensure that the analysis is accurate and valid. Data on the stock market volatility were sourced from the State Bank of Pakistan, the central financial authority that regulates and monitors the financial markets (Khalid & Khan, 2017). Foreign remittances, Global Oil Prices, Inflation and Political stability have been sourced from the World Data Bank (World Bank, 2024) due to their renowned stringent data validation and worldwide coverage. These databases have been chosen because they adopt standardized methodologies in collecting these data, which is critical for guaranteeing comparability across countries.

The data has been collected from 2000 to 2023, covering recent fluctuations and trends in economics, which are necessary for analyzing the market's status. This period captures the major global economic event, including the effects of the COVID-19 pandemic, thus setting a relevant context for the study.

# 3.4. Data Analysis

The data analysis technique is holistic, as the study used three statistical methods, descriptive statistics, correlation analysis, and regression analysis. These methods have been used comprehensively to test the relationship between various external factors and volatility in Pakistan's stock market and test for any moderation effect that might be caused by political stability. A descriptive analysis was conducted to summarize the variables' main characteristics, providing an overview of variable central tendencies and distribution (Field, 2017). Then, the correlation analysis was conducted using Pearson's correlation coefficient method to determine the strength and direction of the relationship between dependent and independent variables. This step is critical to identify the factor most strongly related to market volatility (Bhatti, Jamali, Khokhar, & Buriro, 2023; Saunders, Lewis, & Thornhill, 1996). Regression analysis, more specifically the multiple regression model, has been utilized to test the study's hypothesis, paying

significant attention to assumptions such as multicollinearity, homoscedasticity, and normality of residuals. The p-value has been considered to determine the significant influence of the independent variables, where the threshold to accept or reject the hypothesis was p > 0.05 (Khan, 2024).

# 4. Findings

Table (1) represents the descriptive statistics of the study's key variables, including stock volatility, inflation, Global Oil Price Index, Foreign remittance and Political Stability. The mean value of stock market volatility is the average change in stock price, and the standard deviation is the degree of variability around the mean value. The standard deviation for stock market volatility (0.231) is relatively high compared to its mean (0.154), reflecting the high sensitivity of market behavior to macroeconomic and political conditions. However, this should not be taken to imply causality without further examination. Similar trends are followed by the global oil price index, which also shows high variability in oil prices, which might be due to geopolitical tensions and external global events. On the other hand, the low standard deviation of foreign remittances (0.946) depicts stability in inflows and consolidates their position as a steady source of economic liquidity. The low standard deviation of the political stability (0.463) indicates some variability in the political conditions of the company. This suggests that the change in the political governance environment can influence investors' confidence and market behavior.

Descriptive Statistics					
Variables	N	Minimum	Maximum	Mean	Std. Deviation
Stock Market Volatility	24	-0.385	0.57	0.154	0.231
Inflation	24	2.529	30.768	9.376	6.627
Global Oil Price Index	24	24.35	105.01	64.35	26.706
Foreign remittance	24	20.796	24.167	23.011	0.946
Political Stability	24	-2.81	-1.105	-2.156	0.463

Table 1	
Descriptive Statistics of Variab	les of the Study

*Note:* N represents the number of observations; Min and Max indicate the minimum and maximum values observed; Mean and Std. Deviation stands for the average and standard deviation of the variables, respectively. Data covers 2000 to 2023, reflecting the economic conditions post-global economic disturbances. SD = Standard Deviation.

Table (2) shows the correlation between the study variables. Inflation has a modest negative correlation with stock market volatility (r = -0.355), indicating that high inflation leads to a slight decrease in volatility. This relationship, however, does not imply that inflation directly reduces volatility; rather, this relationship may be mediated or confounded by other factors.

The global price index has a minimal negative influence on the stock market volatility (r = -0.154), exhibiting that the global price index is weakly correlated to the market behavior of Pakistan. Foreign remittance also exhibits a negative, weak association with stock market volatility (r = -0.279), indicating that foreign remittances play an important role in bringing stability to the economy by providing liquidity and helping the country deal with uncertainty associated with the financial market. Political stability has a positive and moderating correlation with the stock market volatility (r = 0.418), suggesting that a stable political environment increases the investors' confidence in the stock market.

These correlations give insight into possible relations, but they should be interpreted cautiously, as they do not establish any causality.

Correlations					
Variables	Stock Market Volatility	Inflati on	Global Oil Price	Foreign remittance	Political Stability
Stock Market Volatility	1				
Inflation	-0.355	1			
Global Oil Price Index	-0.154	.555**	1		
Foreign Remittance	-0.279	0.363	.531**	1	
Political Stability	$.418^{*}$	-0.125	654**	445*	1

# Table 2Correlation between Dependent and Independent Variable of the Study

*Note:* Pearson correlations shown; p < .05, \*p < .01. Negative values indicate inverse relationships.

Table (3) represents the impact of inflation, the global oil price index and foreign remittance on the stock market volatility with and without the political stability. In Model (1), without political stability, the coefficients for inflation (-0.0127), the Global Oil Price Index (0.0015), and foreign remittances (-0.0586) are statistically insignificant, indicating limited direct effects on stock market volatility. These findings indicate that these variables may have a limited influence on market behavior but cannot establish a significant influence in isolation. In Model (2), in which political stability has been added as the moderating variable, the influence of inflation becomes significant ( $\beta = -0.0185$ , p < 0.05). Similarly, the Global oil price index significantly influenced the stock market volatility ( $\beta = 0.0043$ , p < 0.10) in the presence of political stability at a 10% significance level.

Political stability was also found to significantly influence stock market volatility at a 5% significance level. Although these results are statistically significant, they support the hypothesis that political stability moderates macroeconomic variables' effects on volatility. However, there is also a limitation to these findings. Their relationship may be driven by factors that are not observed, and further research is needed to establish caution.

	Stock Market Volatility	Stock Market Volatility
Variables	(1)	(2)
Inflation	-0.0127	-0.0185**
	(0.0086)	(0.0072)
Global Oil Price Index	0.0015	0.0043*
	(0.0023)	(0.0024)
Foreign Remittance	-0.0586	-0.0793
	(0.0589)	(0.0506)
Political Stability		0.2565**
		(0.1187)
Constant	1.5237	2.4509**
	(1.2901)	(1.0895)
Obs.	24	24
R-square	0.17	0.484

# Table 3 Influence of Macroeconomic Variables on Stock Market Volatility

Note: The table represents the results of Ordinary Least Square. The dependent variable is stock market volatility. Column (1) represents the impact of independent variables on stock market volatility without political stability. Column (2) represents the impact of independent variables on stock market volatility with political stability as a moderating variable.

Table (4) shows the results of the robustness analysis. To test the robustness of the findings, the dataset has been restricted from 2000 to 2010. The reasons behind choosing this period include major global events such as the dot-com bubble burst (2000 - 2001), the post-9/11 economic uncertainty, and the Global Financial Crisis. Also, Pakistan itself experienced

significant economic and political instability, including changes in macroeconomic policies and regime changes. This analysis aimed to determine if a similar relationship between the dependent and independent variables can be established under different political and economic conditions.

The sensitive analysis findings remained similar, ensuring the robustness of the results. Inflation retained its negative significance influence on the volatility of a stock market when the impact was moderated by political stability, implying that stable government dampens the uncertainty of stock markets related to inflation. Similarly, the global price index also exhibited a significant positive influence on the stock market volatility in the presence of political stability, indicating that stable governments helped absorb the impact of any external price shock on volatility.

Foreign remittances remained insignificant in explaining the stock market's volatility, further solidifying their role as a stabilizing economic factor rather than a direct driver of market fluctuations. In addition, political stability remained significant in enhancing the market's predictability and investor confidence in both the restricted and full datasets.

	Stock Market Volatility	Stock Market Volatility
Variables	(1)	(2)
Inflation	-0.0056	-0.0515**
	(0.0396)	(0.0190)
Global Oil Price Index	0.0046	0.0140*
	(0.0097)	(0.0056)
Foreign Remittance	0.1063	0.4493*
	(0.2129)	(0.1997)
Political Stability		0.9736**
		(0.3163)
Constant	-1.917	-8.120**
	(4.4890)	(4.0070)
Obs.	11	11
R-square	0.333	0.864

#### Table 5 Robustness Analysis

*Note:* The table represents the results of the Ordinary Least Square for the sample restricted to the timeframe 2000 - 2010. The dependent variable is stock market volatility. Column (1) represents the impact of independent variables on stock market volatility without political stability. Column (2) represents the impact of independent variables on stock market volatility with political stability as a moderating variable.

# 5. Discussions

The analysis shows that inflation decreases the volatility of stocks because inflation indicates the uncertainty it creates within financial markets. However, the influence was not significant in the absence of political stability. Political stability diminishes some of the uncertainties associated with inflation and leads to more predictable behaviors on the market. In the context of Pakistan, stable governance lowers investor risk perception, where inflation is linked to structural hurdles of fiscal deficit and energy price shock. These findings support the theoretical framework of APT, which emphasizes governance for the moderation of the effect of macroeconomic variables on financial markets (Fama, 1970; Khan & et al., 2019). However, this is highly dependent on Pakistan's peculiar economic condition, such as its reliance on imported energy and vulnerability to political instability.

The global oil price index is also related to volatility in the stock market, with the relationship stronger in the case of political stability. A politically stable environment establishes a framework for deemphasizing the risk factors due to oil price fluctuations; investors may perceive the market as more robust and resilient against various exogenous shocks. These

results align with the existing literature on the interlinking of macroeconomic variables and their resilience at the market level (Agboola et al., 2024; Khan & et al., 2020).

Political stability is critical in market behaviors, serving as a moderator variable that impacts the strength of macroeconomic variables affecting stock volatility. Where there is political stability, confidence among investors is high, and hence risk perception is low, thereby allowing the absorption of macroeconomic shocks to be effective. The finding highlights the relationship between governance and market resilience, which is highly relevant to Pakistan's political and economic context. These findings of the study are supported by previous studies documenting the role played by governance towards financial market stability (Alim et al., 2024; Mai et al., 2023).

Stable governance provides a predictable policy environment that leads to the reduced negative impact of inflation, global oil prices, and other external shocks on the stock market behavior. These results are robust within Pakistan, but in order to generalize the results, it is must consider the prevailing structures of local governance and economic conditions. Each emerging economy, having the specific quality of institutions and dependence on the market, receives a varying impact on political stability and would, therefore, be differently moderated. Thus, policies taken will be specifically adapted to reap the same effect.

# 5.1. Conclusion

This paper has pointed out a link between inflation, the global oil price index, foreign remittance, political stability, and the stock market's volatility. While the direct influences of the variables of inflation and global oil price index prices were insignificant, their influence became highly significant in the presence of political stability, thereby underlining the crucial role of political stability in acting as a moderator to institute resilience in the market. Political stability enhances investors' confidence, dampens negative macroeconomic shocks, and reduces stock market volatility.

These findings are aligned with the existing theories of Arbitrage Pricing Theory, which focuses on exogenous factors in market dynamics and other literature related to governance and economic resilience. However, these results are embedded in Pakistan's political and economic context. The dependence on imported energy, vulnerability to inflationary shocks, and aspects of governance define the specifics of the dynamics observed in this research. The role played by political stability in shaping the influence of macroeconomic variables will vary across different emerging economies based on their local governance frameworks, economic structures, and market dependencies.

# 5.2. Policy Implications

This study highlighted that political stability and the management of macroeconomic policies reduce volatility in a stock market. The suggested governance reforms help to build political stability in a better way for the government to be transparent, reduce corruption in the government, and provide continuity of policy for sustainable development. Monetary and fiscal policies should be directed to deal with inflation through inflation-targeting frameworks while strengthening the central bank's independence. The economies should also diversify in energy sources, such as renewable energy, to reduce overdependence on volatile oil prices that should cushion the economy against external shocks.

These recommendations also provide a wider framework for financial stability for other emerging markets. Countries dependent on remittance can increase their economic resilience by bringing remittances into formal channels and leveraging such inflows into productive investments like infrastructure and technology. Additionally, Sectoral diversification can lessen the dependence of acutely sensitive sectors on macroeconomic changes. There is a dire need to set up sound institutional frameworks in Pakistan and the comparable markets and nurture investor-friendly environments.

# 5.3. Limitations and Future Directions

The study has used secondary data gathered from reputed and credible sources. However, real-time perception and subtle changes in investor behavior failed to be captured, which might have provided additional insights into market dynamics. Although the study used important determinants of stock market volatility, such as political stability, it ignored some important factors, including institutional quality and regulatory framework, that can increase a holistic understanding of stock market volatility. Moreover, the analysis is limited to the context of Pakistan, which limits the generalization of the findings to other emerging markets with different economic and political structures. Also, a short observation period confines the possibility of observing long-term trends or cyclic patterns in market behavior, which are critical for understanding the full scope of volatility determinants.

Future studies should focus on these limitations identified in this research to provide broader facts regarding the determinants of stock market volatility. The key area that needs the focus of future study is to explore the impact of the quality of institutions and regulatory frameworks on the stock market since these are important in bringing about market conditions and building confidence among investors. Investigating how these factors interact with political stability and macroeconomic variables provides deeper insights into the drivers of financial market behavior. The research should also be extended beyond Pakistan in the future by covering cross-country analyses, especially among emerging markets characterized by diverse governance structures and economic conditions. Such a comparison will outline similarities and differences, offering valuable insight to policymakers in different regions. Sectoral analyses, specifically energy and financial sectors, may further clarify how macroeconomic variables affect market dynamics differently across industries. Another important area that calls for an in-depth investigation is the impacts of global economic changes caused by the COVID-19 pandemic, geopolitical tensions, and the shift to renewable energy sources. Lastly, considering investor sentiments, technological developments, and the flow of FDI as potential additional moderators would help build a more nuanced, multidimensional understanding concerning the volatility of a stock exchange.

## **Authors' Contribution**

Zahid Masih: Conceptualization, Data Collection, Literature Review, Writing – Original Draft Preparation.

Hira Irshad: Statistical Analysis – Review & Editing.

## **Conflict of Interests/Disclosures**

The authors declared no potential conflict of interest w.r.t the article's research, authorship and/or publication.

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