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Political Governance and Stock Market Performance: An Autoregressive Distributed Lag Analysis of the Nepalese Market

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Abstract

This study examined the relationship between political governance and stock market performance in Nepal from 2002 to 2022, using the Autoregressive Distributed Lag (ARDL) model. Political governance indicators—Voice and Accountability (VA), Political Stability (PS), Government Effectiveness (GE), Regulatory Quality (RQ), Rule of Law (RL), and Control of Corruption (CC)—are analyzed for their short-and long-term impacts on the Nepal Stock Exchange (NEPSE) index. The results revealed significant long-run relationships with PS and GE positively influencing market performance, while CC and RQ show negative effects. RL and VA, however, do not exhibit statistically significant impacts. The short-term dynamics, assessed through an Error Correction Model (ECM), indicated a strong adjustment mechanism, with stock markets quickly reverting to equilibrium after short-term disturbances. Diagnostic tests confirmed the model's reliability, and CUSUM and CUSUMSQ tests verify its stability over time. The study underscored the importance of PS in promoting investor confidence and market growth. Policymakers should carefully balance anti-corruption measures and regulatory improvements to avoid destabilizing the economy. These findings offered valuable insights for investors, policymakers and stakeholders on the role of political factors in shaping stock market performance in developing economies like Nepal.

Keywords: Political instability, stock market, governance, NEPSE

Introduction

The growing concerns over political instability, coupled with the stock market's critical role in driving economic growth, have sparked significant debate

about how fluctuations in political stability influence stock market performance. Political volatility often creates uncertainty, which can influence investor sentiment, capital flows and overall market behavior (Alesina & Perotti, 1996; Maghdid et al., 2024). This interplay raises pivotal questions about the extent to which political disturbances disrupt market stability, investor confidence and economic progress. As stock markets serve as key barometers of economic health, understanding how they respond to political turbulence is critical for policymakers, investors and stakeholders.

Political instability can be conceptualized as the uncertainty arising from executive instability, social unrest and political violence (Alesina & Perotti, 1996). This instability often stems from the likelihood of government collapse due to conflicts or intense competition among political parties, resulting in a cycle of frequent changes in governance that perpetuates further instability (Hussain, 2014). The dynamics of corruption control, government effectiveness, political stability or absence of violence, voice and accountability, regulatory quality and the rule of law have been linked to income levels, religious dominations, degrees of press freedom and legal origins to account for stock market performance (Asongu, 2012). Furthermore, Low et al. (2011) observe that nations with poor governance—marked by political instability, inadequate investor protection, ineffective government, weak regulatory frameworks and limited control over corruption—often exhibit higher stock returns. These shifts in leadership, policy direction and administrative continuity frequently disrupt economic activities, deter investment, and create an uncertain environment for both domestic and foreign investors (Mai et al., 2023). Social unrest and political violence—manifested through protests, strikes, or armed conflict—undermine public trust in institutions and significantly impact economic stability by disrupting business operations, supply chains, and overall market confidence (Barrett et al., 2024). Research indicates that political uncertainty generates unstable financial markets and exacerbates stock market cycles (Mnif, 2017). Thus, fostering transparency and establishing a stable political environment through effective governance practices is crucial for attracting foreign investment and promoting sustainable economic development (Asaad & Marane, 2020).

Nepal, with its shifting political environment, provides a valuable context for investigating the association between political governance factors and stock market performance (Adhikari & Phuyal, 2016; Dangol, 2008). The Nepal Stock Exchange (NEPSE), as the main equity market in the country, offers a relevant case for analyzing the influence of political instability on market behavior (Karki et al., 2023). Nepal's political climate is characterized by frequent governance changes, leadership transitions, and ongoing efforts to improve governance and

reduce corruption (Mishra, 2007; Shah, 2018; Sharma, 2012; Shrestha, 2019). Nepal's governance transitions and efforts to reform the regulatory environment and reduce corruption, creates an uncertain market environment that directly affects financial performance (Basnett et al., 2014; Khanal et al., 2005). Hence, this study aims to empirically assess the impact of key political governance factors, captured by the World Governance Indicators—such as voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption—on the stock market index (NEPSE). By focusing on Nepal, this research fills a critical gap in the literature, as much of the current research tends to focus on larger economies. As a result, it not only highlights the specific challenges of Nepal's financial markets but also provides broader insights that may be relevant to other emerging markets facing political instability.

The application of the ARDL model ensures rigorous methodology, enabling an in-depth understanding of the short- and long-run relationships between underlying variables (Pesaran et al., 2001). Employing the ARDL model allows this study to discern the short-term and long-term impacts of political instability on market performance. The ARDL approach is particularly suited for this analysis due to its flexibility in handling small sample sizes and its ability to integrate variables of a different order of integration (Haug, 2002; Menegaki, 2019; Ozturk & Acaravci, 2010).

The following sections present the theoretical background and empirical findings from other studies related to this study. Subsequently, methodology presents, including study design and framework, data sources and econometric techniques. The result and discussion section interprets these findings in light of existing theories and empirical evidence, and the conclusion outlines the implications of the study for investors, policymakers, and future research avenues in the context of emerging markets like Nepal.

Literature Review

The theoretical framework underpinning this study synthesizes insights from Political Economy Theory, Behavioral Finance Theory and Institutional Theory. Political Economy Theory examines how political institutions and governance quality influence economic outcomes, suggesting that political stability fosters investor confidence and market growth (Perotti & Alesina, 1992). Institutional Theory emphasizes the importance of strong institutions—such as regulatory frameworks and the rule of law—in shaping economic behavior and ensuring market stability. Conversely, political instability can weaken these institutions, increasing uncertainty and deterring investment (Brammer et al., 2012). Behavioral

Finance Theory explores how psychological factors affect investor decision-making, indicating that political volatility can lead to emotional reactions that disrupt rational market behavior (Ritter, 2003). Together, these theories form a comprehensive theoretical framework that guides the exploration of the intricate relationship between political instability and stock market dynamics in Nepal, offering a multilayered approach to analyzing and interpreting the empirical findings.

The interrelation between political governance and stock market performance has been extensively examined through empirical research, yielding insights that are both diverse and nuanced. This delves into the key findings from previous studies, setting the context for this study.

Hassan et al. (2024) examines the relationship between corruption and financial market indicators across various countries. Focusing on trading volumes, market capitalization, and trading ratios, it explores the effects of corruption while considering GDP and inflation. Using a panel data approach and econometric models, the findings reveal significant differences in how corruption impacts financial markets, highlighting its role as a key determinant of market performance.

Using MSCI indices, Mai et al. (2023) examined the effects of political instability on stock market performance in Pakistan from 1996 to 202. Their regression analysis, including two-way robustness checks via GMM methods, evidenced political stability enhances market performance. While, other governance indicators also had a positive influence, but political instability was found to disrupt economic activities, lower investor confidence, and hinder foreign investment, increasing country-specific risks.

Guenichi et al. (2022) examined the impact of political instability and the COVID-19 pandemic, as indicated by death rates, on sectoral stock market returns in Tunisia. Using a DCC multivariate GARCH model, the study assessed both mean and variance in returns. Results showed that while political instability and the pandemic had minimal negative effects on mean returns, they significantly increased return volatility. The pandemic heightened investor fear, leading to greater conditional volatility during politically unstable periods, thus raising overall risk in the Tunisian stock market.

Similarly, Chuan et al. (2022) investigated how political uncertainty influences the risk of stock price crashes among 9,091 listed companies in China from 2007 to 2020. They found that political uncertainty typically decreases the likelihood of crashes, with this effect becoming more pronounced about a year after a new official assumes office. Officials relocating from other areas notably reduce crash risks, while the abrupt exit of outgoing officials tends to elevate crash risks in their

former jurisdictions, indicating a complex relationship between governance changes and market stability.

Hoque et al. (2018) investigated the interconnections between foreign direct investment (FDI), economic growth, and stock market development, emphasizing the moderating effect of political instability. Analyzing macroeconomic data from 1993 to 2016 using the ARDL model, the study found both short- and long-term relationships. While a unidirectional relationship predominates in the long run, a bidirectional link is evident in the short run. Additionally, FDI partially mediates the relations between economic growth and stock market performance, with political instability negatively affecting these dynamics.

However, Balcilar et al. (2018) analyzed how geopolitical uncertainty affects return and volatility in BRICS stock markets using nonparametric causality-in-quantiles tests. Their results indicate that geopolitical risks (GPRs) have varying impacts across these nations, primarily influencing market volatility, especially in adverse conditions. Russia and China are particularly vulnerable to GPRs, while India shows the most resilience. The study emphasizes the need for a robust financial sector and an open economy, enabling investors to diversify and reduce country-specific risks.

Boadi and Amegbe (2017) also investigated how governance quality impacts stock market performance in various international markets. Their research, using a Fixed Effect model, analyzed data from 23 countries between 1996 and 2014. The results revealed that governance quality, assessed through indicators like Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption, plays a significant role in influencing stock market performance.

Similarly, Shrestha and Subedi (2014) analyzed factors affecting the Nepal Stock Exchange (NEPSE) index from mid-August 2000 to mid-July 2014. They found significant correlations between the NEPSE index and macroeconomic variables like inflation and broad money. Their results indicated that investors view equities as a hedge against inflation, with the NEPSE index influenced by political changes and NRB policies.

Using an instrumental variable approach, Asongu (2012) explored the link between government quality and stock market performance in Africa. The study highlighted that factors such as political stability, corruption control, regulatory quality, government effectiveness, voice and accountability, and rule of law significantly impact stock market outcomes.

Dhodiya and Shah (2011) investigated the impact of Indian politics on the stock market through a descriptive research design. Analyzing political news from 2005 to 2007 alongside daily Bombay Stock Exchange (BSE) data, they employed dummy variable analysis and the sequential probability ratio test (SPRT). While overall political news had a limited effect, specific types—especially those related to sectors and finance—significantly influenced investment decisions. Notably, negative political news had a greater impact than positive news, affecting market dynamics through direct and indirect decision-making processes.

Dangol (2008) investigated how political events affect the Nepalese stock market using event analysis. The findings indicated market inefficiency, revealing a strong link between political uncertainty and stock returns. The study showed that stock prices typically adjusted to new political information within 2 to 3 days, with positive news resulting in abnormal gains and negative news leading to losses.

Mei and Guo (2004) investigated how political uncertainty affects financial crises in 22 emerging markets, with a focus on election cycles. Their study found that eight out of nine financial crises occurred during election or transition periods. By employing profit and switching regression methods, they identified a strong correlation between elections and financial crises, highlighting increased market volatility even when accounting for economic factors. Their results suggest that political uncertainty is a key factor in the onset of financial crises.

Methods and Procedures

Study Design and Framework

This research investigates the relationship between political instability and stock market performance in Nepal using a quantitative approach with the ARDL model. This method allows for the analysis of both short and long-run connections between political indicators, including Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption (derived from the World Governance Indicators), and the Nepal Stock Exchange (NEPSE) index.

Data Sources

The analysis utilizes annual time-series data spanning from 2002 to 2022, focusing on the relevant variables. Stock market performance, represented by the NEPSE index, is sourced from the Nepal Rastra Bank database. Meanwhile, data on political indicators come from the World Bank's World Governance Indicators, which evaluate governance quality and political stability globally. The specifics of the data used in the study are presented in Table 1.

Table 1

Description of the Variables

Variables	Indicators	Data Sources
Dependent Variable	NEPSE Index	Nepal Rastra Bank
Independent Variables	Voice and accountability	World Governance Indicators
	Political stability	
	Government effectiveness	
	Regulatory quality	
	Rule of law	
	Control of corruption	

Econometric Techniques

This study employed the ARDL model. However, before running the ARDL analysis, both formal and informal tests were conducted to assess the time-series characteristics of the data. Previous research (Alammar & Wardeh, 2024; Gwachha & Karmacharya, 2023; Lone et al., 2023; Menegaki, 2019) suggests that stationarity is not a prerequisite for the ARDL model. Nonetheless, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests were applied to confirm the stationarity of the variables and ensure no variable was integrated of order two I(2) (Arltová & Fedorová, 2016). The ARDL bounds testing approach, originally developed by Pesaran et al. (2001), was then utilized to examine the long-term relationship between stock market performance and political stability indicators. In accordance with the ARDL framework proposed by Pesaran et al. (2001), the Akaike Information Criterion (AIC) was used for lag selection, and the presence of a long-run relationship was tested using equation (1) below.

$$\Delta \ln NI_t = \alpha_0 + \sum_{i=1}^{p} \beta_i \Delta PS_{t-i} + \sum_{i=1}^{p} \gamma_i \Delta VA_{t-i} + \sum_{i=1}^{p} \delta_i \Delta GE_{t-i} + \sum_{i=1}^{p} \theta_i \Delta RQ_{t-i} + \sum_{i=1}^{p} \eta_i \Delta RL_{t-i} + \sum_{i=1}^{p} \kappa_i \Delta CC_{t-i} + \lambda_1 PS_{t-1} + \lambda_2 VA_{t-1} + \lambda_3 GE_{t-1} + \lambda_4 RQ_{t-1} + \lambda_5 RL_{t-1} + \lambda_6 CC_{t-1} + \varepsilon_t \quad (1)$$

($\Delta \ln NI_t$ is the first difference of the natural log of NEPSE Index (dependent variable), ΔPS_{t-i}, ΔVA_{t-i}, ΔGE_{t-i}, ΔRQ_{t-i}, ΔRL_{t-i}, ΔCC_{t-i} are the first differences of

the independent variables, α_0 is the constant term, β_i, γ_i, δ_i, θ_i, η_i, κ_i are the short-run coefficients, λ_1, λ_2, λ_3, λ_4, λ_5, λ_6 are the long-run coefficients, and ε_t is the error term.)

The ARDL method involves a two-step process to evaluate the long-term relationship (Pesaran & Shin, 1995). In the first step, the existence of a long-run relationship among the variables is tested. This is achieved by calculating the F-statistic through the Wald test, where the null hypothesis suggests no co-integration or long-run equilibrium relationship between the variables.

$H_0 : \lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = \lambda_5 = \lambda_6 = 0$ (no co-integration).

While the alternative hypothesis that there is a co-integration relationship among the variables model:

$H_1 : \lambda_1 \neq \lambda_2 \neq \lambda_3 \neq \lambda_4 \neq \lambda_5 \neq \lambda_6 \neq 0$ (co-integration).

Once cointegration is established, the ARDL model estimates both the long-run coefficients and the short-run dynamics through the Error Correction Model (ECM) representation. The existence of cointegration is confirmed by the significance of the ECM term.

The Error Correction Model (ECM) for the given ARDL model follows:

$$\Delta \ln NI_t = \alpha_0 + \sum_{i=1}^{p} \beta_i \Delta PS_{t-i} + \sum_{i=1}^{p} \gamma_i \Delta VA_{t-i} + \sum_{i=1}^{p} \delta_i \Delta GE_{t-i} + \sum_{i=1}^{p} \theta_i \Delta RQ_{t-i} + \sum_{i=1}^{p} \eta_i \Delta RL_{t-i} + \sum_{i=1}^{p} \kappa_i \Delta CC_{t-i} + \phi \, \mathrm{ECM}_{t-1} + \varepsilon_t \quad (2)$$

($\Delta \ln NI_t$ is the first difference of the natural log of NEPSE Index (dependent variable), ΔPS_{t-i}, ΔVA_{t-i}, ΔGE_{t-i}, ΔRQ_{t-i}, ΔRL_{t-i}, ΔCC_{t-i} are the first differences of the independent variables, α_0 is the constant term, β_i, γ_i, δ_i, θ_i, η_i, κ_i are the short-run coefficients, ϕ is the coefficient of the error correction term (ECM_{t-1}) representing the speed of adjustment back to equilibrium, and ε_t is the error term.)

The ECM coefficient (ϕ) must be statistically significant and negative ($\phi < 0$) for the model to converge toward equilibrium. Additionally, a significant ECM coefficient indicates the presence of a stable long-run relationship and confirms co-integration between the independent and dependent variables. According to Pesaran

et al. (2001), a significant negative lagged error term serves as evidence of a stable long-run relationship. A more negative coefficient of the error correction term indicates a faster adjustment from short-run deviations back to long-run equilibrium.

The ARDL model aims to identify the Best Linear Unbiased Estimator (BLUE), making it necessary to perform diagnostic tests. Similar to previous studies (Menegaki, 2019; Pokhrel & Khadka, 2019), this research ensures the statistical robustness of the results by applying several diagnostic tests. These include the Ramsey Regression Specification Error Test for stability (Ramsey, 1969), the Breusch-Godfrey test for serial correlation (Breusch, 1978; Godfrey, 1978), the Breusch-Pagan test for heteroscedasticity (Breusch & Pagan, 1979), and the Jarque-Bera test for normality (Jarque & Bera, 1987) in the residuals. If the model is free from biases and produces reliable results, it can be used for analysis. To assess the stability of both long-run and short-run coefficients, this study also applies the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squared recursive residuals (CUSUMSQ) tests, as proposed by Brown et al. (1975). In cases of coefficient instability, options such as increasing the sample size or introducing dummy variables may be considered (Greene, 2012; Gujarati, 2009).

Results and Discussion

The first part of this section delineates the summary statistics for the variables under the study and the second part reports the empirical findings for cointegration tests.

Descriptive Statistics

Descriptive statistics serve as the first step in the analysis, aimed at describing and summarizing the data (Bluman, 2014). This method provides insights into the characteristics and nature of the variables, as well as the distribution, interpretation, and behavior of the data series utilized in the study. It includes measurements such as central tendency and dispersion, among others, within the dataset. The descriptive statistics for the variables are displayed in Table 2.

Table 2

Descriptive Statistics of the Variables

Statistics	Ln NI	PS	RL	RQ	VA	CC	GE
Mean	6.5581	15.7419	29.1728	26.9847	32.1976	27.6633	19.0209

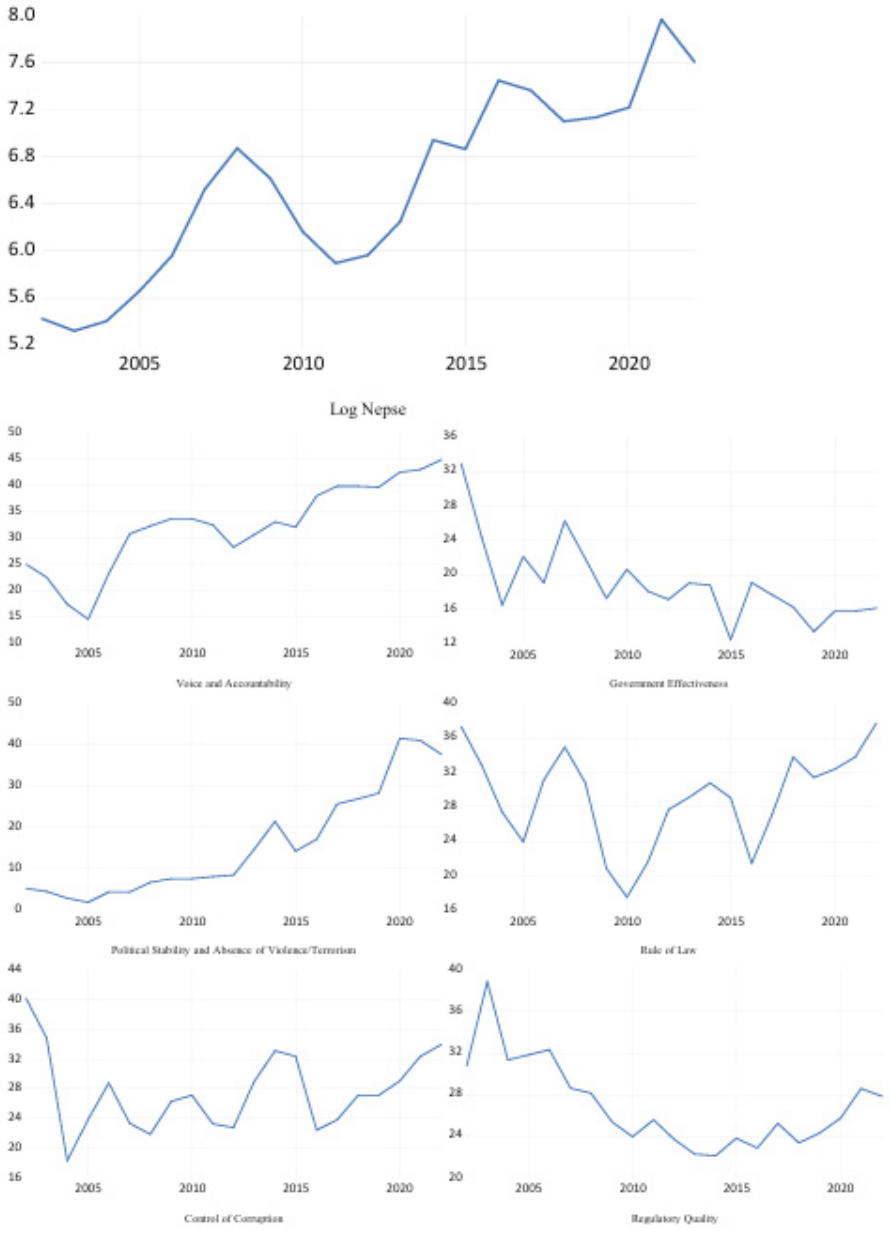
Median	6.6188	8.53	30.77	25.59	32.39	27.14	18.01
Maximum	7.9667	41.51	37.74	38.92	44.93	40.21	32.97
Minimum	5.3223	1.94	17.54	22.12	14.42	18.23	12.38
Standard deviation	0.7838	13.0040	5.5333	4.2367	8.3270	5.3602	4.6160
Skewness	-0.0499	0.8290	-0.4670	1.1121	-0.458	0.4665	1.3829
Kurtosis	1.8788	2.3543	2.4037	3.9398	2.517	2.7124	5.1952

Table 2 provides the descriptive statistics of VA, PS, GE, RQ, RL, CC and Ln NI from 2002 to 2022. The mean value of Ln NI is 6.5581, with a median of 6.6189, and it ranges from 5.3223 to 7.9667, indicating moderate variation. Its standard deviation is 0.7839, with skewness of -0.0499 and kurtosis of 1.8788. For PS, the mean is 15.7419 and the median is 8.53, with a range of 1.94 to 41.51, showing high variability; the standard deviation is 13.0041, skewness is 0.8290, and kurtosis is 2.3544. RL has a mean of 29.1729 and a median of 30.77, with minimum and maximum values of 17.54 and 37.74, reflecting moderate variation; its standard deviation is 5.5333, skewness is -0.4671, and kurtosis is 2.4037. RQ shows a mean of 26.9848 and a median of 25.59, ranging from 22.12 to 38.92, indicating moderate variability; the standard deviation is 4.2367, skewness is 1.1121, and kurtosis is 3.9399. The mean value of VA is 32.1976, with a median of 32.39, and a range of 14.42 to 44.93, showing significant variation; its standard deviation is 8.3270, skewness is -0.4581, and kurtosis is 2.5170. CC has a mean of 27.6633 and a median of 27.14, with minimum and maximum values of 18.23 and 40.21, indicating moderate variability; the standard deviation is 5.3602, skewness is 0.4666, and kurtosis is 2.7124. Finally, GE has a mean value of 19.0209, with a median of 18.01, ranging from 12.38 to 32.97, reflecting considerable variation; the standard deviation is 4.6160, with skewness of 1.3830 and kurtosis of 5.1952.

The progressions of these variables throughout the sample period are depicted in the Figure1.

Figure 1

Progressions of Variables



Econometrics Test

The first step involved the examination of the stationary properties of the data using

the Augmented Dickey-Fuller (ADF) and the Phillips-Perron (PP) tests at both levels and first-differences (Dickey & Fuller, 1979; Phillips & Perron, 1988). Table 3 present the results of ADF and PP test at both levels and first difference.

Table 3

Unit Root Test at I(0) and I(1)

Variables	At level I(0)		At level I(1)		Order of Stationarity	
	ADF Test	PP Test	ADF Test	PP Test	ADF Test	PP Test
VA	-0.503376 0.8712	-0.697702 0.8255	-3.187757 0.0368	-3.733692 0.0122	I(1)	I(1)
PS	2.617970 0.9999	1.024362 0.0100	-4.895528 0.0012	-5.019066 0.0008	I(1)	I(1)
GE	-0.412264 0.8850	-4.593990 0.0019	-6.560948 0.0000	-11.65143 0.0000	I(1)	I(0)
RQ	-1.761890 0.3871	-1.583097 0.4724	-8.591366 0.0000	-7.592854 0.0000	I(1)	I(0)
RL	-3.225753 0.0342	-2.378922 0.1596	-4.797400 0.0015	-3.268986 0.0314	I(0)	I(1)
CC	-0.930135 0.7541	-3.590570 0.0158	-8.301570 0.0000	-4.831670 0.0012	I(1)	I(0)
Ln NI	-1.099146 0.6950	-1.099146 0.6950	-3.679275 0.0137	-3.679275 0.0137	I(1)	I(0)

Table 3 displays the results of unit root tests for the selected variables, both at their original levels I(0) and after taking the first difference I(1). The ADF and PP test statistics for each variable, along with their significant p-values, provide strong evidence against the presence of a unit root in both I(0) and I(1). This confirms that the variables in the model are stationary, allowing for further cointegration testing. Following the confirmation of stationarity, the appropriate lag order was determined using the Akaike Information Criterion (AIC), Hannan-Quinn Criterion (HQ), Schwarz Criterion (SC), and Final Prediction Error (FPE) criterion (Akaike, 1974; Hannan & Quinn, 1979; Schwarz, 1978), as shown in Table 4.

Table 4

Lag order for the ARDL model

Lag	Log L	LR	FPE	AIC	SC	HQ
0	-350.2392	NA	7720335	35.72392	36.07243	35.79196
1	-252.5100	117.2751*	82202.65*	30.85100*	33.63905*	31.39525*

Table 4 shows the results of lag order selection for the ARDL model, identifying the optimal lag length. The log-likelihood values represent the model's

fit, with higher values indicating a better fit. The LR statistic tests whether the current model is significantly better than one with fewer lags, with significant values supporting this. Additionally, the FPE, AIC, SC, and HQ criteria provide measures for selecting the model, with lower values being preferred. The findings suggest that a lag order of 1 is optimal, as indicated by the significant LR statistic and the lowest values for FPE, AIC, SC, and HQ, showing that this configuration effectively captures the data dynamics. Therefore, the optimal lag length for the ARDL model, without serial correlation, is 1.

Model selection criteria, such as the AIC and BIC, are critical tools in statistical analysis, helping researchers choose the most appropriate model by balancing fit and complexity. Figure 2 presents the model selection criterion using the optimal lag length of 1 based on the AIC.

Figure 2

Model Selection Criteria

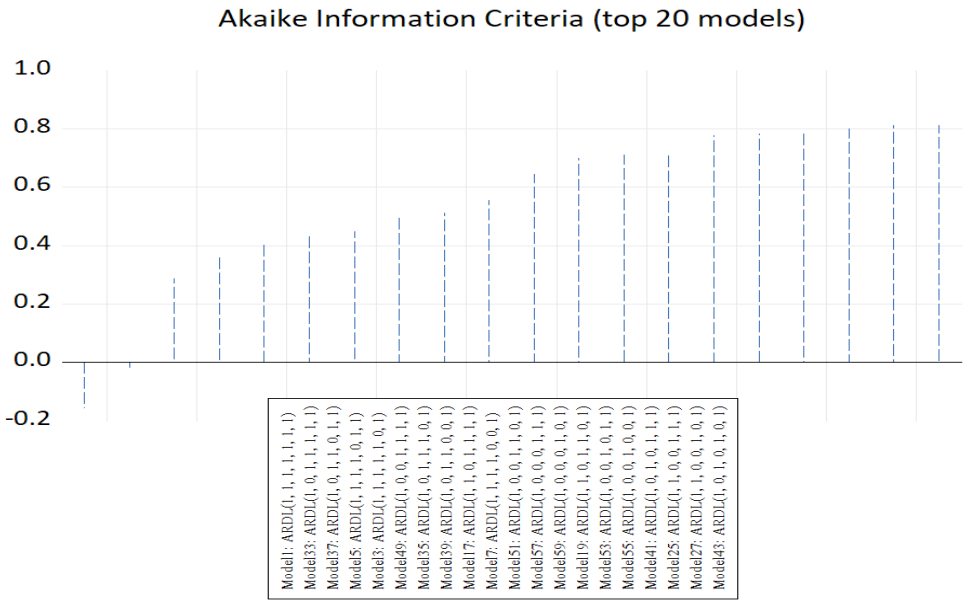


Figure 2 illustrates 20 models estimated using the AIC criterion, showcasing their respective fit and complexity. Among these, the ARDL (1,1,1,1,1,1,1) model stands out as the optimal choice, indicating that it achieves an effective balance between accurately capturing data relationships and preventing overfitting. This configuration suggests that a lag of one for each variable adequately explains the system's dynamics.

To investigate the long- and short-run relationships among the selected variables affecting stock market performance in Nepal, the co-integration relationship was tested using the ARDL model. The bounds test (F-statistics) was applied to assess the existence of co-integration among the model variables (Pesaran et al., 2001). The results of the ARDL bounds test for co-integration are presented in Table 5.

Table 5

ARDL Bounds Test for Cointegration

F-Bound Test			Null Hypothesis: No Levels Relationship	
Test Statistic	Value	Significance	I(0)	I(1)
			Asymptotic: n = 1000	
F-Statistic	5.522988	10%	2.12	3.23
K	6	5%	2.45	3.61
		1%	3.15	4.43
Actual Sample Size	20		Finite Sample: n = 80	
		10%	2.457	3.797
		5%	2.97	4.499
		1%	4.27	6.211

(* significant at 10%, ** significant at 5%, *** significant at 1%, I(0) show lower critical bound value and I(1) represent upper critical bound value, k is the number of independent variables for explained variable in ARDL model)

Table 5 shows that the calculated F-statistic and its associated critical values at 10%, 5% and 1%. The calculated F-statistic is 5.522988 which is above the upper bound, I(1) and is greater than the critical values at all levels of significance. Thus, the null hypothesis of no cointegration is rejected. The results of the ARDL bounds F-test suggest that there exists a long run relationship between NEPSE index with political indicators like CC, PS, GE, RQ, RL and VA in Nepal during the study period.

After establishing a co-integration relationship between the series, the long-run estimates of this relationship are reported in Table 6, shedding further light on the specific contributions of each variable.

Table 6

Long run ARDL model estimates

Dependent Variable: Ln NI				
Selected Model: (1,1,1,1,1,1,1)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
CC	-0.1288	0.0445	-2.8968	0.0274
GE	0.2327	0.1096	2.1624	0.0780
PS	0.1543	0.0579	2.2641	0.0373
RL	-0.0155	0.0298	-0.5196	0.6220
RQ	-0.1940	0.0830	-2.3375	0.0581
VA	-0.1015	0.0690	-1.4711	0.1917

(* significant at 10%, ** significant at 5%, *** significant at 1%)

Table 6 presents the estimated long-term coefficients for variables influencing the NEPSE Index based on the ARDL model. The coefficient for Corruption Control (CC) is -0.128832 (p = 0.0274), indicating that stronger corruption control is associated with weaker stock market performance. This finding aligns with previous research findings of Lai Cao Mai (2020) and Sobhy Mohamed Hassan et al. (2024), which also reported that corruption control has a significant negative impact on stock market performance, particularly affecting market capitalization, trading volumes, and trading ratios over time. However, other studies (Ahmed et al., 2021; Pham, 2020) have found that corruption control positively impacts stock market performance by fostering economic growth in developing countries over the long term.

The coefficient for Regulatory Quality (RQ) is -0.194033 (p = 0.0861), indicating a marginally significant negative effect. This suggests that while sound regulatory policies are crucial for development, improvements in regulatory quality may reveal underlying issues that negatively affect market performance. For instance, regulatory actions against corporate misconduct can lower stock prices, particularly in cases of serious violations like fraud (Jain, 2022). Regulations aimed at ensuring stability may also limit credit creation, reducing earnings potential and negatively affecting stock returns (Monday, 2023). The Government Effectiveness (GE) coefficient is 0.232660 (p = 0.0780), showing a positive relationship with stock market performance. Similar results were found by Khan et al. (2022) and Maduka et al. (2023), who emphasized that effective governance is essential for attracting investors. The Political Stability (PS) coefficient is 0.154313 (p = 0.0373), indicating

a significant positive relationship, as a stable political environment boosts investor confidence. This result is consistent with findings by Abdullah et al. (2022), Maduka et al. (2023), and Mai et al. (2023).

The Rule of Law (RL) coefficient is -0.0154670 (p = 0.6220), indicating no significant relationship with market performance. This suggests that changes in the legal framework do not have a notable impact on investor confidence and may not always lead to better market outcomes. However, Jumaah et al. (2023) highlighted that the effects of the rule of law on stock market performance can vary depending on regional governance and economic conditions. Conversely, Ahmed et al. (2021) reported a positive relationship between the rule of law and stock market development. Lastly, the Voice and Accountability (VA) coefficient is -0.101543 (p = 0.1917), indicating a negative but statistically insignificant relationship, meaning that citizen participation does not significantly impact market dynamics. Nevertheless, Jumaah et al. (2023) and Khan et al. (2022) found that voice and accountability are linked to better stock market performance, suggesting that improved governance enhances investor confidence and market stability.

The ECM regression results from the ARDL model are shown in Table 7, highlighting short-run dynamics and adjustments in response to changes in explanatory variables. The error correction term indicates how quickly the system returns to equilibrium after a disturbance, providing insights into short-term responses and overall model stability.

Table 7

Short-run Model Estimates

Dependent Variable: Ln NI				
ECM Demonstrations of the ARDL (1,1,1,1,1,1,1) Model				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	8.852093	0.998502	8.865371	0.0001
D(CC)	-0.07595	0.010003	-7.58722	0.0003
D(GE)	0.073941	0.0111	6.661801	0.0000
D(PS)	0.060846	0.008269	8.828155	0.0000
D(RL)	-0.07871	0.015824	-4.97503	0.0012
D(RQ)	-0.07986	0.015284	-5.22526	0.0009
D(VA)	-0.09005	0.017383	-5.17297	0.0009
CointEq(-1)*	-0.72086	0.081978	-8.79328	0.0001
R-squared	0.89738	Durbin-Watson Stat.		2.814369
Adjusted R-squared	0.857718	Akaike Info Criterion		-0.75667
S.E. of regression	0.143437	Schwarz Criterion		-0.35838
Sum squared Resid.	0.246889	Hannan-Quinn Criterion		-0.58906
Log Likelihood	15.56718			

(* significant at 10%, ** significant at 5%, *** significant at 1%)

Table 7 depicting the constant term (C) has a coefficient of 0.8253 with a significant t-statistic of 8.3654, suggesting a stable intercept. The first-difference variables (D()) reflect short-run dynamics due to yearly changes: D(GE), representing changes in GE, shows a positive impact with a coefficient of 0.0789 (p = 0.0003). D(CC), likely indicating changes in CC, has a negative impact with a coefficient of -0.8580 (p = 0.0003). D(PS), representing changes in PS, shows a minimal positive effect with a coefficient of 0.0068 (p = 0.4393). D(RL), indicating changes in the RL, negatively affects the dependent variable with a coefficient of -0.0406 (p = 0.0025) and D(RQ), reflecting changes in RQ, also has a negative impact with a coefficient of -0.0799 (p = 0.002). Additionally, D(VA), represent changes in VA, positively impacts the model with a coefficient of 0.0585 (p = 0.0021). The CointEq(-1) coefficient of -0.7209 (p = 0.0001) suggests a strong and rapid adjustment back to long-run equilibrium, correcting approximately 72.09% of the disequilibrium within one period.

The Durbin-Watson (D/W) value of 2.814369 indicates absence of autocorrelation in the model, confirming the statistical integrity of the analysis. R-squared, the coefficient of determination, defines the proportion of total variations in the dependent variable. In the above ECM model, the given value of R-squared is 0.897380 explaining 89.738% goodness of fit it means the model properly explains the stock market performance. Similarly, the value of adjusted R-squared is 0.837518, explains 83.7518% goodness of fit which means 83.7518% of total variation in dependent variable is explained by regression line and the rest is due to the other factor.

Diagnostic Test

A series of diagnostic tests were conducted on the residuals to verify the adequacy of the estimated model. These included tests for normality, serial correlation, and heteroskedasticity. Additionally, the Ramsey RESET test, along with cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) tests, was utilized to evaluate the model's stability. The outcomes of these four key tests are detailed in Table 8.

Table 8

Diagnostic Test Result

Description	Test Statistics	p-Value
Normality Test	Jarque-Bera (0.0968)	0.9527
Serial correlation	F-statistic (2.0153)	0.2481
Heteroskedasticity	F-statistic (2.5276)	0.1311
Ramsey RESET test	F-statistic (0.5958)	0.4751

Table 8 presents the results of Jarque-Bera test**,** Serial Correlation test, Heteroskedasticity test and Ramsey RESET test. The Jarque-Bera test for normality yields a statistic of 0.0968 with a p-value of 0.9527, indicating that the residuals are normally distributed, as the p-value is high. The Serial Correlation test (Breusch-Godfrey test) shows an F-statistic of 2.0153 with a p-value of 0.2481, suggesting no significant serial correlation in the residuals. The Heteroskedasticity test (Breusch-Pagan test) reports an F-statistic of 2.5276 with a p-value of 0.1311, indicating that the variance of the residuals is constant, or homoscedastic. Lastly, the Ramsey RESET test for model specification shows an F-statistic of 0.5958 with a p-value of 0.4751, implying that there is no evidence of model misspecification. Overall, the results suggest that the model's assumptions are generally satisfied.

Similarly, to assess the stability of the long-run coefficients and short-run dynamics, the Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests are utilized. Figure 3 and Figure 4 present the stability of the estimated coefficients in the error correction model, along with graphical representations of the CUSUM and CUSUMSQ statistics, respectively.

Figure 3

Cumulative Sum (CUSUM)

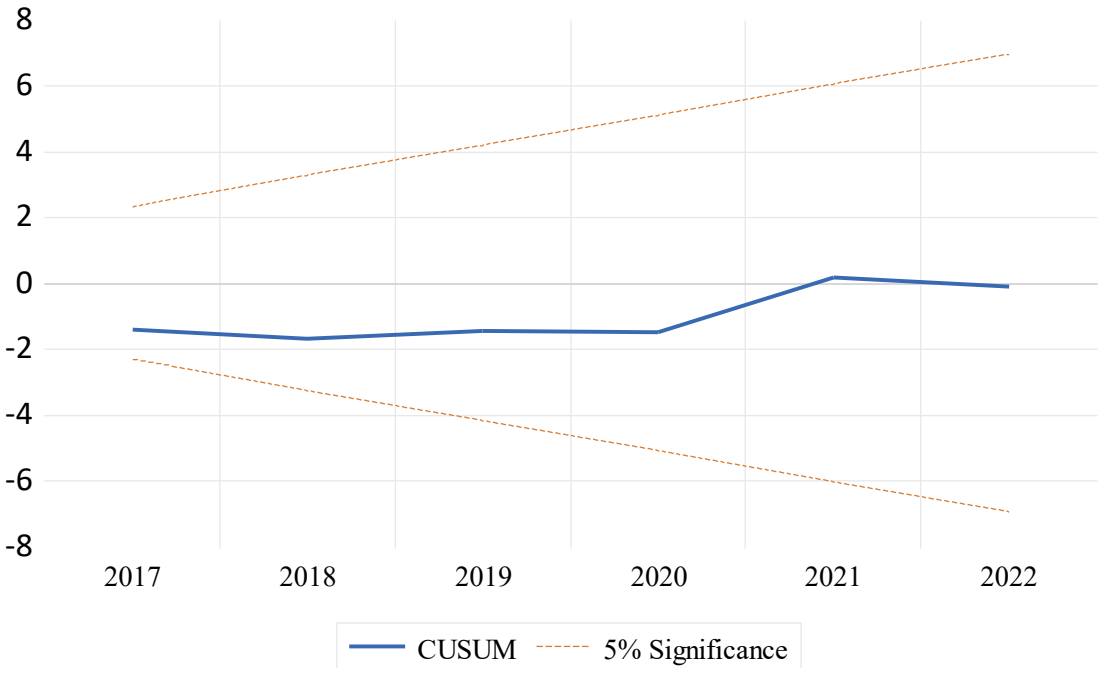


Figure 4

Cumulative Sum of Square (CUSUMSQ)

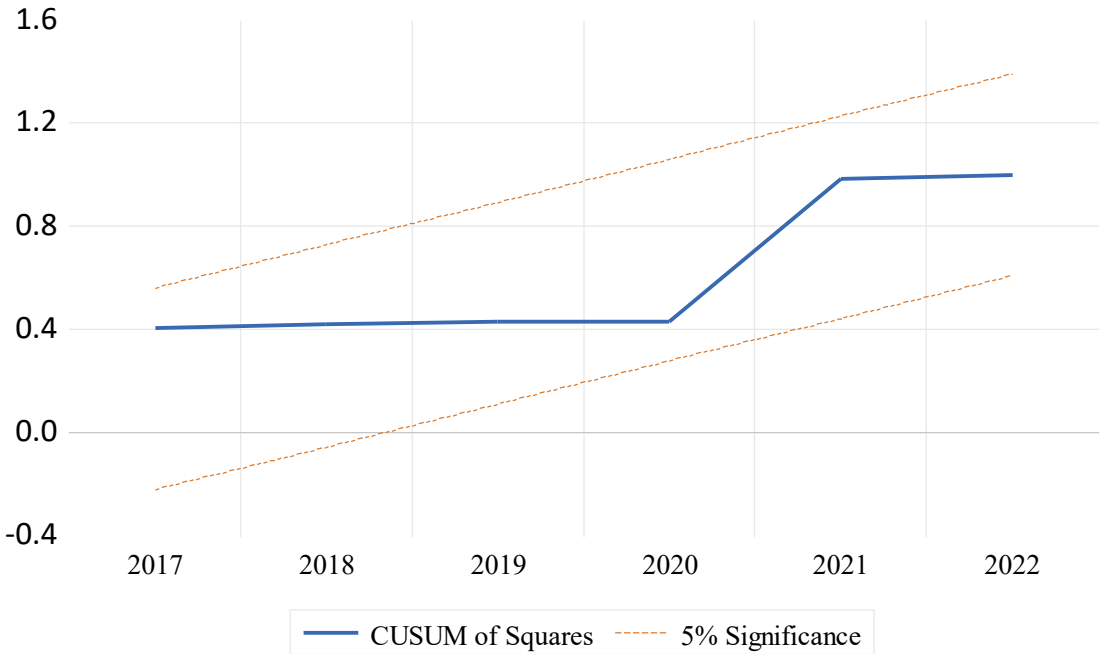


Figure 3 illustrates the plot of the CUSUM test, while Figure 4 presents the CUSUM Square test. Both plots display the CUSUM and CUSUMSQ statistics, which remain within the critical bounds established at a 5% significance level, indicated by two straight lines drawn at this level. Since the statistics do not exceed these critical lines, the null hypothesis asserting that all coefficients in the error correction model are stable cannot be rejected. This finding confirms the stability of the estimated model, indicating that the relationships among the variables remain consistent over the observed period. Overall, the stability indicated by the CUSUM and CUSUMSQ tests enhances the credibility of the findings presented in this study.

Conclusion

This study explores the complex connection between political instability and stock market performance in Nepal from 2002 to 2022, using the ARDL model to analyze both short-term and long-term interactions. The results provide important insights into how various political governance indicators—specifically VA, PS, GE, RQ, RL and CC—impact the Nepal Stock Exchange (NEPSE) index.

The analysis confirms a long-run relationship between political indicators and stock market performance, as shown by the ARDL bounds test. Notably, PS and GE

demonstrate a significant positive correlation with NEPSE performance. Conversely, the study identifies a significant negative relationship between CC and RQ and market performance, indicating that while anti-corruption measures are crucial, they may also expose underlying economic weaknesses that increase market volatility. Additionally, the RL and VA show a negative but insignificant relationship with stock market performance.

Furthermore, the study's Error Correction Model (ECM) findings indicate a strong tendency to return to equilibrium after short-term deviations, underscoring the stability of the long-run relationship between the analyzed variables. The robustness of these findings is validated through comprehensive diagnostic tests that check for normality, serial correlation, heteroscedasticity, and model specification.

Policymakers should prioritize strategies that promote political stability and enhance governance effectiveness, achieved through inclusive political dialogue and transparent decision-making. Continuous improvements in government efficiency are vital, to ensure accountability. While combating corruption is necessary, such efforts should avoid destabilizing the economy, striking a balance between reform and market stability. Additionally, refining regulatory frameworks is essential for fostering a supportive business environment that encourages investment without excessive restrictions. Future research should also consider the interactions between various macroeconomic factors and political elements affecting market performance and include comparative analyses with other emerging markets for deeper insights. Overall, this research highlights the importance of political governance in shaping financial markets in Nepal, and by implementing these recommendations, stakeholders can enhance market stability and promote sustainable economic development for both investors and the broader economy.

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