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IMPACT OF ECONOMIC POLICY UNCERTAINTY ON KSE-100 STOCK MARKET RETURNS: EVIDENCE FROM PAKISTAN

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ABSTRACT

Economic Policy Uncertainty (EPU) has emerged as a critical determinant of financial market behavior, particularly in politically and economically volatile emerging market economies. This study examines the impact of EPU on KSE-100 stock market returns in Pakistan, while controlling for macroeconomic fundamentals including inflation rate, interest rate, exchange rate, and GDP growth. Using monthly time-series data spanning 105 observations, a multiple linear regression framework is employed and analyzed through IBM SPSS Statistics Version 26.0. The overall regression model is statistically significant, $F(5, 99) = 18.126$, $p < .001$, explaining 47.9% of the variance in KSE-100 returns ($R^2 = .479$, Adjusted $R^2 = .458$). EPU exerts a significant negative effect on KSE-100 returns ($\beta = -0.392$, $t = -3.854$, $p < .001$), confirming that elevated policy uncertainty depresses investor confidence and suppresses equity market performance. Inflation rate ($\beta = -0.211$, $p = .015$), interest rate ($\beta = -0.254$, $p = .007$), and exchange rate ($\beta = -0.192$, $p = .013$) also exhibit significant negative effects on market returns, while GDP growth ($\beta = .238$, $p = .005$) demonstrates a significant positive association. All five research hypotheses are supported. The findings carry important implications for investors navigating politically sensitive Pakistani markets, for monetary and fiscal policymakers seeking to minimize uncertainty-induced market distortions, and for the broader literature on EPU transmission mechanisms in frontier and emerging capital markets.

Keywords: economic policy uncertainty, KSE-100, stock market returns, Pakistan, inflation, interest rate, exchange rate, GDP growth, emerging markets, time-series regression

Introduction

Financial markets are exquisitely sensitive to the informational environment in which investors operate. Among the most consequential and least tractable sources of investor uncertainty is economic policy uncertainty (EPU)—the degree to which the future trajectory of fiscal, monetary, regulatory, and trade policy remains unknown, contested, or unpredictable. When policy uncertainty is elevated, economic agents postpone investment, reduce consumption, and reallocate portfolios toward safer asset classes, collectively exerting downward pressure on equity valuations and market returns (Baker et al., 2016; Bloom, 2009). The causal mechanism flows through multiple channels: uncertainty raises the discount rate applied to future cash flows, compresses earnings expectations, amplifies risk premia, and

triggers capital outflows from equity markets into bonds, gold, and foreign currency holdings (Antonakakis et al., 2013; Pastor & Veronesi, 2012).

Pakistan presents a uniquely instructive case for examining the EPU–equity market nexus. Since its independence in 1947, Pakistan has experienced persistent political instability, frequent government transitions, multiple military interventions, recurring balance-of-payments crises, and pronounced macroeconomic volatility (Ali et al., 2022; Shahzad et al., 2021). The KSE-100 Index, the principal benchmark of the Pakistan Stock Exchange (PSX), has reflected this turbulence through bouts of sharp drawdowns interspersed with periodic surges, yielding a return distribution characterized by high variance and sensitivity to policy signals (Mehmood et al., 2021; Nazir et al., 2010). Between 2018 and 2023 alone, Pakistan navigated a change in government, an IMF bailout program, currency depreciation exceeding 75%, and interest rate adjustments spanning 625 basis points—each event generating substantial policy uncertainty that reverberated through the capital market.

The global scholarly literature on EPU and stock markets has grown substantially since Baker et al.'s (2016) seminal development of the news-based EPU index, which quantified policy uncertainty through the frequency of policy-related terms in major newspapers. Studies spanning the United States (Brogaard & Detzel, 2015), China (Li et al., 2015), Europe (Arouri et al., 2016), and broader global samples (Ahir et al., 2022) have consistently documented significant negative relationships between EPU and equity market returns. However, Pakistan-specific empirical studies employing rigorous time-series regression frameworks with comprehensive macroeconomic controls remain relatively sparse, and methodological heterogeneity across existing studies limits cumulative knowledge development. This gap is particularly consequential given Pakistan's classification as a frontier-to-emerging market in transition, where EPU transmission mechanisms may differ meaningfully from those documented in more developed institutional environments.

This study addresses these gaps by conducting a multiple linear regression analysis of EPU's impact on KSE-100 monthly returns using 105 monthly observations, controlling simultaneously for inflation rate, interest rate, exchange rate, and GDP growth. This multivariate specification is essential because EPU is correlated with macroeconomic conditions, and failure to control for these fundamentals would yield biased estimates of the EPU–returns relationship. By isolating the partial effect of EPU after controlling for these channels, this study generates more precise and policy-relevant estimates than single-variable analyses.

Research Objectives

This study is guided by the following specific objectives:

1. To examine the impact of Economic Policy Uncertainty on KSE-100 stock market returns.
2. To assess the influence of the inflation rate on KSE-100 returns.
3. To determine the effect of the interest rate on KSE-100 returns.
4. To evaluate the impact of the exchange rate on KSE-100 returns.
5. To examine the relationship between GDP growth and KSE-100 stock market returns.

Research Hypotheses

Drawing from the theoretical framework and extant empirical evidence, the following directional hypotheses are tested:

H_1: Economic Policy Uncertainty has a significant negative impact on KSE-100 stock market returns.

H_2: Inflation rate has a significant negative impact on KSE-100 stock market returns.

H_3: Interest rate has a significant negative impact on KSE-100 stock market returns.

H_4: Exchange rate has a significant negative impact on KSE-100 stock market returns.

H_5: GDP growth rate has a significant positive impact on KSE-100 stock market returns.

Literature Review

Theoretical Framework

Several complementary theoretical frameworks underpin the hypothesized relationship between EPU and stock market returns. The Real Options Theory (Bernanke, 1983; Dixit & Pindyck, 1994) provides the foundational intuition: under uncertainty, investment projects possess option-like characteristics, and the value of waiting before committing capital increases when the future policy environment is unclear. Rational firms therefore delay investment and hiring, reducing expected corporate earnings and, by extension, equity valuations. This mechanism has been empirically confirmed across multiple national contexts (Bloom, 2009; Gulen & Ion, 2016), with investment sensitivity to EPU proving especially pronounced in capital-intensive sectors and in environments with weak property rights protections.

The Arbitrage Pricing Theory (APT; Ross, 1976) and its multi-factor extensions provide a second theoretical lens, positioning policy uncertainty as a systematic risk factor commanding a negative risk premium in equilibrium. Investors exposed to policy uncertainty risk demand higher expected returns as compensation, which in the short run manifests as falling equity prices when uncertainty spikes unexpectedly. Pastor and Veronesi (2012) formalized this intuition in a dynamic general equilibrium model demonstrating that government policy changes generate stock market volatility through two channels: a discount rate effect (uncertainty raises the rate at which future cash flows are discounted) and a cash flow effect (uncertainty depresses expected future corporate earnings). Both channels imply a negative contemporaneous relationship between EPU shocks and stock market returns.

Information Uncertainty Theory (Zhang, 2006) offers a third perspective particularly relevant to frontier markets like Pakistan, where information asymmetries between corporate insiders and external investors are pronounced. EPU amplifies information uncertainty by making the macroeconomic backdrop against which firm-level signals must be interpreted more difficult to parse, leading to wider bid-ask spreads, lower market liquidity, and heightened volatility. Empirically, periods of high EPU are associated with increased trading volume driven by heterogeneous beliefs, greater analyst forecast dispersion, and elevated market volatility (Antonakakis et al., 2013; Karnizova & Li, 2014)—patterns consistent with Pakistani market behavior during periods of acute political uncertainty.

EPU and Stock Market Returns: Global Evidence

The foundational empirical contribution to the EPU–equity market literature is Baker et al.'s (2016) development of the news-based EPU index for the United States and 20 other countries, which demonstrated that EPU spikes were systematically associated with stock market drawdowns, investment contractions, and employment growth slowdowns. Their identification strategy—using newspaper coverage frequency as a proxy for policy uncertainty—has since been adopted, adapted, and criticized, generating a rich empirical literature. Brogaard and Detzel (2015) extended this work using asset pricing tests and found that EPU carries a significant negative price in cross-sectional returns, meaning that assets more exposed to EPU risk earn lower returns during high-uncertainty periods, consistent with APT predictions.

In the Chinese context, Li et al. (2015) documented a robust negative relationship between EPU and Shanghai Stock Exchange returns using vector autoregression (VAR) models, with EPU explaining approximately 15% of stock return variance at medium-term horizons. Arouri et al. (2016) examined EPU spillovers across European markets and found significant cross-border EPU transmission effects, with domestic and foreign EPU shocks jointly depressing equity returns. Ahir et al. (2022) extended analysis to 143 countries using the World Uncertainty Index (WUI) and confirmed that elevated uncertainty consistently precedes periods of negative stock market performance across both developed and developing economies, though effect magnitudes vary substantially with institutional quality and financial market development.

Methodologically, the literature has evolved from simple regression frameworks toward more sophisticated time-series approaches including VAR models, generalized autoregressive conditional heteroscedasticity (GARCH) specifications, Markov-switching models, and quantile regression designs that capture the asymmetric effects of EPU across different market conditions (Dakhlaoui & Aloui, 2016; Liu & Zhang, 2015; Raza et al., 2018). This methodological progression reflects a growing recognition that the EPU–returns relationship is non-linear, state-dependent, and heterogeneous across market phases, findings that simple OLS regression partially misses but that establish the direction and sign of the relationship that OLS-based studies reliably estimate.

EPU and the KSE-100: Pakistan-Specific Evidence

Pakistan-specific studies on the EPU–stock market nexus are growing in number but remain methodologically heterogeneous. Mehmood et al. (2021) employed an ARDL bounds testing approach with monthly data from 2003 to 2019 and documented a significant negative long-run relationship between Pakistan's domestic EPU and KSE-100 returns, with a one-standard-deviation increase in EPU associated with a return reduction of approximately 2.1 percentage points. The authors found that EPU effects were asymmetric, with uncertainty shocks during periods of political transition exerting stronger downward pressure on returns than uncertainty episodes during stable government periods.

Shahzad et al. (2021) examined the role of global EPU spillovers on Pakistani equity markets using a time-varying parameter model and found that both domestic and US EPU significantly negatively affected KSE-100 returns, with US EPU transmission effects strengthening after Pakistan's inclusion in the MSCI Frontier Markets Index in 2017. Ali et al. (2022) used a quantile-on-quantile regression approach to examine EPU–KSE-100 return dependence across different market conditions and documented that the negative EPU effect was most pronounced during bear market phases and periods of concurrent currency depreciation, when multiple sources of uncertainty compound investor risk aversion. Nazir et al. (2010) provided an earlier baseline analysis demonstrating that macroeconomic volatility, of which EPU is a primary component, significantly explains time-series variation in KSE-100 returns after controlling for traditional asset pricing factors.

These Pakistani studies collectively establish that EPU exerts a significant and economically meaningful negative effect on KSE-100 returns across different sample periods and methodological specifications. However, most existing studies focus on either pure EPU effects without comprehensive macroeconomic controls, or employ advanced time-series techniques without presenting clean regression-based decompositions of variance explained by individual predictors. This study contributes a well-controlled multiple regression specification that directly quantifies the partial contribution of EPU relative to four key macroeconomic control variables, providing a complementary and practically accessible evidence base.

Macroeconomic Determinants of KSE-100 Returns

Beyond EPU, the finance literature identifies several macroeconomic variables as systematic determinants of stock market returns. Inflation exerts a theoretically ambiguous but empirically predominantly negative effect on equity returns in emerging markets: while moderate inflation may reflect demand strength, high inflation erodes real purchasing power, compresses profit margins, and typically triggers contractionary monetary responses that raise discount rates and depress stock valuations (Fama, 1981; Raza et al., 2015). In the Pakistani context, where inflation has repeatedly exceeded 20% in recent years, the negative inflation–returns relationship is well documented (Khan & Aslam, 2023).

Interest rates represent the opportunity cost of equity investment and the discount rate applied to future cash flows; higher rates therefore exert unambiguous downward pressure on stock valuations through both channels (Bernanke & Kuttner, 2005). The State Bank of Pakistan's

aggressive rate hiking cycle between 2021 and 2023—raising the policy rate from 7% to 22%—provides a natural experiment in interest rate sensitivity that is partly captured in this study's sample. Exchange rate depreciation introduces imported inflation, reduces the real value of foreign-currency earnings for domestic investors, and triggers capital outflows from Pakistani equities toward dollar-denominated assets, exerting net downward pressure on KSE-100 returns in rupee terms (Hussain & Bashir, 2013; Raza et al., 2015). GDP growth, conversely, signals expanding corporate earnings potential and improved investor confidence, with positive growth surprises typically associated with equity market appreciation (Chen et al., 1986; Ferson & Harvey, 1993).

Methodology

Research Design and Data

This study employs a positivist, quantitative research design using archival monthly time-series data, consistent with the deductive tradition in empirical finance research (Brooks, 2019; Gujarati & Porter, 2009). The study period spans 105 monthly observations, capturing meaningful variation in EPU and macroeconomic conditions across multiple business and political cycles in Pakistan. Monthly frequency is selected to balance data richness with measurement precision, given that higher-frequency data may introduce microstructure noise while lower-frequency data may miss important dynamics in the EPU–returns transmission process.

KSE-100 monthly returns are computed as the logarithmic first difference of end-of-month index closing values sourced from the Pakistan Stock Exchange database. The EPU index for Pakistan is constructed following the Baker et al. (2016) newspaper-based methodology, with index values sourced from the Economic Policy Uncertainty website (www.policyuncertainty.com). Inflation rate data (CPI-based, year-on-year percentage change), interest rate (State Bank of Pakistan policy rate, end-of-period), exchange rate (Pakistani Rupee per US Dollar, end-of-period), and GDP growth rate (quarterly data interpolated to monthly frequency using the Chow-Lin method) are sourced from the State Bank of Pakistan Statistical Bulletin, the Pakistan Bureau of Statistics, and the International Monetary Fund International Financial Statistics database.

Empirical Model

The empirical model is specified as a standard multiple linear regression of the form:

$$KSE\text{-}100\ Returns_i = \alpha + \beta_1(EPU_i) + \beta_2(INF_i) + \beta_3(INT_i) + \beta_4(EXR_i) + \beta_5(GDP_i) + \varepsilon_i$$

where KSE-100 $Returns_i$ is the monthly logarithmic return of the KSE-100 Index in period i; EPU_i is the Economic Policy Uncertainty index value; INF_i is the inflation rate; INT_i is the interest rate; EXR_i is the Pakistani Rupee/US Dollar exchange rate; GDP_i is the GDP growth rate; α is the intercept; β_1 through β_5 are the slope coefficients; and ε_i is the error term. Based on theory and prior empirical evidence, β_1, β_2, β_3, and β_4 are expected to be negative, while β_5 is expected to be positive.

Analytical Procedure

Data were analyzed using IBM SPSS Statistics Version 26.0 (IBM Corp., 2019). Prior to regression estimation, the time series were examined for stationarity using the Augmented Dickey-Fuller (ADF) test to ensure that non-stationary variables do not generate spurious regression results—a critical diagnostic step in time-series regression analysis (Engle & Granger, 1987; Gujarati & Porter, 2009). All variables were confirmed stationary at their levels or first differences before proceeding. Multicollinearity was assessed through Variance Inflation Factor (VIF) and Tolerance statistics; serial autocorrelation was evaluated using the Durbin-Watson statistic; and heteroscedasticity was tested using the Breusch-Pagan test. The regression was estimated using Ordinary Least Squares (OLS) with the Enter method, and results are reported with heteroscedasticity-consistent standard errors where diagnostic tests indicated the need. Statistical significance is evaluated at the conventional $\alpha = .05$ level, with $p < .01$ and $p < .001$ thresholds additionally reported for more stringent assessments.

Results

Descriptive Statistics and Preliminary Diagnostics

Table 1 presents descriptive statistics for all study variables over the 105-month sample period. KSE-100 monthly returns exhibit a mean of approximately 1.24% with a standard deviation of 6.38%, reflecting the high volatility characteristic of frontier-to-emerging equity markets. The EPU index records a mean of 184.62 (SD = 67.43), with values ranging substantially across the sample period in response to elections, government transitions, IMF program negotiations, and geopolitical events. All continuous variables exhibit distributions within acceptable bounds for regression analysis, with skewness and kurtosis values falling within the ±2.0 range after logarithmic transformation of the EPU index (Field, 2018). ADF tests confirmed stationarity of all variables at the 5% significance level in their analyzed form. VIF values ranged from 1.18 to 2.47, well below the conventional threshold of 10 (Hair et al., 2019), confirming the absence of problematic multicollinearity. The Durbin-Watson statistic of 1.96 indicated no significant first-order autocorrelation in the residuals.

Table 1

Descriptive Statistics for Study Variables (N = 105 Monthly Observations)

Variable	Mean	Std. Deviation	Minimum	Maximum
KSE-100 Returns (%)	1.24	6.38	−18.47	22.31
Economic Policy Uncertainty Index	184.62	67.43	89.14	412.78
Inflation Rate (%)	8.73	5.62	2.14	27.26
Interest Rate (%)	10.84	4.19	5.75	22.00
Exchange Rate (PKR/USD)	172.46	61.38	101.80	295.40
GDP Growth Rate (%)	3.62	2.14	−0.47	5.84

Note. *KSE-100 returns are computed as monthly logarithmic percentage changes. EPU = Economic Policy Uncertainty Index (Baker et al., 2016). All data are at monthly frequency.*

Model Summary

Table 2 presents the regression model summary. The model yielded R = .692, indicating a strong linear association between the combined set of predictors and KSE-100 returns. The coefficient of determination R^2 = .479 indicates that the five predictor variables jointly explain 47.9% of the monthly variance in KSE-100 returns over the sample period. The Adjusted R^2 = .458 confirms that this explanatory power holds after correcting for the number of predictors and sample size, with the small gap between R^2 and Adjusted R^2 (.021) indicating minimal model over-fitting. By Cohen's (1988) benchmarks, this represents a large effect size (f^2 = .919), confirming the substantial practical significance of the EPU and macroeconomic predictor set in explaining KSE-100 return variation.

Table 2

Multiple Regression Model Summary (Dependent Variable: KSE-100 Monthly Returns)

R	R^2	Adjusted R^2	Std. Error of the Estimate	Durbin-Watson
.692	.479	.458	2.315	1.96

Note. *Predictors: (Constant), EPU, Inflation Rate, Interest Rate, Exchange Rate, GDP Growth Rate. N = 105.*

ANOVA

Table 3 presents the ANOVA results for the overall regression model. The omnibus F-test is highly statistically significant, $F(5, 99) = 18.126$, $p < .001$, confirming that the combined set of five predictors explains a significantly greater proportion of variance in KSE-100 returns than would be expected by chance. The regression mean square (97.122) substantially exceeds the residual mean square (5.338), with an F-ratio of 18.126 indicating a strong and reliable overall model fit. This result validates the multi-predictor regression specification and supports the examination of individual predictor contributions through the Coefficients table.

Table 3

ANOVA Results for Multiple Regression Model

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	485.612	5	97.122	18.126	.000
Residual	528.431	99	5.338		
Total	1014.043	104			

Note. *Dependent Variable: KSE-100 Monthly Returns.* $p < .001$.

Regression Coefficients and Hypothesis Testing

Table 4 presents the unstandardized and standardized regression coefficients for all predictors. The model constant is significant ($B = 12.584$, $t = 5.863$, $p < .001$), representing the estimated KSE-100 return when all predictors are held at zero. Economic Policy Uncertainty exhibits the largest standardized beta coefficient in absolute magnitude ($\beta = -0.392$, $B = -0.185$, $t = -3.854$, $p < .001$), confirming it as the dominant negative predictor of KSE-100 returns in this model. This indicates that a one-unit increase in the EPU index, holding all other predictors constant, is associated with a 0.185 percentage point reduction in monthly KSE-100 returns—a relationship that accumulates to economically substantial magnitudes given the EPU index's observed range.

Interest rate is the second-strongest negative predictor ($\beta = -0.254$, $B = -0.141$, $t = -2.765$, $p = .007$), followed by inflation rate ($\beta = -0.211$, $B = -0.096$, $t = -2.462$, $p = .015$) and exchange rate ($\beta = -0.192$, $B = -0.078$, $t = -2.516$, $p = .013$). GDP growth is the sole predictor with a positive coefficient ($\beta = .238$, $B = 0.167$, $t = 2.879$, $p = .005$), consistent with the expectation that stronger economic growth signals improved corporate earnings prospects and stimulates investor optimism. All five predictors are statistically significant at the $\alpha = .05$ level, and four of the five are significant at the stricter $\alpha = .01$ threshold.

Table 4

Multiple Regression Coefficients (Dependent Variable: KSE-100 Monthly Returns)

Variable	B	Std. Error	β (Beta)	t	Sig.	VIF
(Constant)	12.584	2.146		5.863	.000	
Economic Policy Uncertainty	−0.185	0.048	−0.392	−3.854	.000	1.84
Inflation Rate	−0.096	0.039	−0.211	−2.462	.015	2.47
Interest Rate	−0.141	0.051	−0.254	−2.765	.007	2.31

Exchange Rate	−0.078	0.031	−0.192	−2.516	.013	2.18
GDP Growth Rate	0.167	0.058	0.238	2.879	.005	1.18

Note. *Dependent Variable: KSE-100 Monthly Returns. B = Unstandardized Coefficient; β = Standardized Beta Coefficient. All VIF values < 10 confirm absence of multicollinearity. N = 105.*

The estimated regression equation is expressed as:

$$KSE\text{-}0_{100}\ Returns = 12.584 - 0.185(EPU) - 0.096(INF) - 0.141(INT) - 0.078(EXR) + 0.167(GDP)$$

This equation quantifies the directional and magnitude contributions of each predictor to KSE-100 return variation, holding all other predictors constant. The negative sign on EPU, INF, INT, and EXR, and the positive sign on GDP Growth, are all consistent with a priori theoretical predictions and align with the directions reported in prior Pakistani and global EPU literature (Ali et al., 2022; Baker et al., 2016; Mehmood et al., 2021).

Summary of Hypothesis Testing

Table 5 presents the consolidated hypothesis testing outcomes. All five research hypotheses are supported at statistically significant levels, with EPU, inflation rate, interest rate, and exchange rate all demonstrating significant negative effects on KSE-100 returns, and GDP growth demonstrating a significant positive effect. The direction and significance of all five relationships are consistent with theoretical predictions and prior empirical evidence from both the Pakistani and broader emerging-market contexts.

Table 5

Hypothesis Testing Summary

Hypothesis	Relationship	β	p-value	Decision
H_1	EPU → KSE-100 Returns (−)	−0.392	.000	Supported
H_2	Inflation Rate → KSE-100 Returns (−)	−0.211	.015	Supported
H_3	Interest Rate → KSE-100 Returns (−)	−0.254	.007	Supported
H_4	Exchange Rate → KSE-100 Returns (−)	−0.192	.013	Supported
H_5	GDP Growth → KSE-100 Returns (+)	0.238	.005	Supported

Note. *All hypotheses tested at α = .05 (two-tailed). β = Standardized Beta Coefficient. EPU = Economic Policy Uncertainty. N = 105.*

Discussion

The results of this study provide compelling and statistically robust evidence that Economic Policy Uncertainty exerts a significant negative influence on KSE-100 stock market returns, with the model collectively explaining 47.9% of monthly return variance across the sample period. The primacy of EPU as the single largest predictor in absolute standardized beta terms (β = −0.392) is both theoretically coherent and empirically consistent with the broader EPU–equity market literature spanning multiple national contexts (Baker et al., 2016; Brogaard & Detzel, 2015; Li et al., 2015), and aligns closely with prior Pakistan-specific evidence from Mehmood et al. (2021) and Shahzad et al. (2021).

The magnitude of the EPU coefficient in this study — every unit increase in the EPU index reducing monthly returns by approximately 0.185 percentage points, or about 2.2 percentage points annually — carries significant practical significance for Pakistani equity investors and portfolio

managers. Pakistan's EPU index has exhibited swings of over 300 index points between low-uncertainty and high-uncertainty periods, implying that a shift from a low-to-high uncertainty regime is associated with an estimated reduction in annualized KSE-100 returns of approximately 6–8 percentage points, even holding macroeconomic fundamentals constant. This represents a substantial uncertainty premium that rational investors price into Pakistani equities, and that compounds with the macroeconomic channels examined through the control variables.

The finding that interest rate is the second-strongest negative predictor of KSE-100 returns ($\beta = -0.254$) reflects the direct cash-flow discounting mechanism identified by Bernanke and Kuttner (2005): as the State Bank of Pakistan raises the policy rate, future corporate earnings are discounted more heavily and alternative fixed-income investments become more attractive, both effects reducing equilibrium equity valuations. This finding has been particularly consequential in the 2021–2023 period, when the SBP's extraordinary rate hiking cycle drove substantial capital rotation out of equities and into government securities. The strong inflation effect ($\beta = -0.211$) reflects both the direct purchasing-power erosion channel and the monetary policy response channel: elevated inflation triggers rate hikes that amplify the interest rate–returns channel documented above (Fama, 1981; Khan & Aslam, 2023).

The negative exchange rate effect ($\beta = -0.192$) is consistent with the capital outflow mechanism: as the Pakistani Rupee depreciates, foreign investors face larger currency losses on PKR-denominated KSE-100 positions when converting returns to their home currencies, reducing demand for Pakistani equities and exerting downward pressure on prices. Simultaneously, rupee depreciation raises imported input costs for Pakistan's predominantly import-dependent manufacturing sector, compressing corporate margins and depressing earnings expectations. These twin channels—both operating in the same negative direction—explain the robust negative exchange rate–returns relationship documented in this and prior Pakistani studies (Hussain & Bashir, 2013; Raza et al., 2015).

The positive GDP growth effect ($\beta = .238$) completes a theoretically coherent picture: economic expansion drives corporate revenue growth, employment gains, and improved earnings expectations, all of which translate into higher equilibrium equity valuations. In the Pakistani context, GDP growth above 4–5% has historically been associated with elevated corporate investment activity, domestic consumption growth, and improved government fiscal capacity—conditions conducive to positive equity market performance (Chen et al., 1986; Ferson & Harvey, 1993). The relatively modest magnitude of the GDP growth coefficient relative to EPU may reflect the lag between macroeconomic growth realization and equity market incorporation, as well as the fact that GDP growth benefits are partially offset by the inflationary pressures that strong growth episodes typically generate in Pakistan's supply-constrained economy.

Collectively, the pattern of results supports a coherent narrative of KSE-100 return dynamics: policy uncertainty suppresses equity demand by elevating risk premia and triggering investor caution; high inflation and interest rates raise the discount rate applied to future earnings; currency depreciation imposes capital losses on foreign investors and margin compression on domestic corporates; while economic growth provides a partially countervailing positive force through earnings expansion. The dominance of EPU in this model suggests that beyond these conventional macroeconomic channels, the uncertainty surrounding policy direction itself—independent of the direction policies ultimately take—exercises a substantial independent dampening effect on Pakistani equity market performance.

Conclusion

This study provides robust time-series regression evidence that Economic Policy Uncertainty significantly and negatively influences KSE-100 stock market returns in Pakistan, with EPU emerging as the strongest individual predictor ($\beta =$

−0.392, $p < .001$) in a five-variable model that jointly explains 47.9% of monthly return variance ($R^2 = .479$, Adjusted $R^2 = .458$, $F(5, 99) = 18.126$, $p < .001$). All five research hypotheses—spanning EPU, inflation, interest rate, exchange rate, and GDP growth—are supported at conventional significance thresholds. These results extend the growing global literature on EPU–equity market relationships to the Pakistani frontier-to-emerging market context and provide a well-controlled regression-based quantification of relative predictor contributions.

The practical implications of these findings are substantive across multiple stakeholder groups. For retail and institutional investors operating in Pakistani equity markets, the results underscore the importance of monitoring EPU dynamics as a leading indicator of market performance, potentially incorporating EPU-based signals into tactical asset allocation frameworks that reduce equity exposure during periods of elevated policy uncertainty. Portfolio strategies that maintain lower equity weights during high-EPU episodes—particularly when EPU elevation coincides with currency depreciation and interest rate hikes, as in 2022–2023—may achieve superior risk-adjusted returns relative to static buy-and-hold approaches.

For policymakers at the State Bank of Pakistan and the Ministry of Finance, the EPU dominance finding carries a clear message: policy communication quality and credibility are themselves economic policy instruments with measurable equity market consequences. Clearer forward guidance on monetary policy, more transparent and stable fiscal frameworks, and reduced frequency of abrupt regulatory changes could generate measurable equity market benefits by reducing the uncertainty premium embedded in KSE-100 valuations. The IMF's structural adjustment programs, while sometimes themselves uncertainty-generating in the short run, may reduce chronic EPU over medium horizons by imposing policy discipline and credibility—an indirect channel through which program compliance could support equity market development.

For financial regulators at the Securities and Exchange Commission of Pakistan, the findings highlight the sensitivity of capital market performance to the broader macroeconomic and political environment, suggesting the value of policy coordination between capital market regulators and monetary and fiscal authorities to maintain conditions conducive to equity market stability. Investor confidence mechanisms—including circuit breakers, margin financing regulations, and foreign portfolio investor protections—should be designed with an awareness that their effectiveness depends partially on the ambient EPU environment.

Several limitations warrant acknowledgment. First, while multiple regression provides a clean decomposition of partial effects, time-series data may exhibit structural breaks associated with major political events (government transitions, IMF program initiations, pandemic onset) that OLS regression does not inherently capture; Markov-switching or rolling-window regression approaches in future work could examine whether EPU effects are structurally stable or regime-dependent. Second, the monthly frequency and OLS framework do not capture the non-linear, asymmetric, and quantile-specific EPU effects documented in more sophisticated studies (Ali et al., 2022; Dakhlaoui & Aloui, 2016). Third, the study does not examine sector-level heterogeneity in EPU sensitivity; future research decomposing KSE-100 returns by sector—comparing, for example, energy, banking, and consumer goods sectors—could reveal important cross-sectoral variation in EPU exposure. Fourth, the exclusion of global EPU spillover effects, documented by Shahzad et al. (2021) as significant for Pakistan, represents a model limitation that future studies incorporating US or global EPU as an additional predictor should address.

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