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Uncertain policies, emotional markets: How policy uncertainty shapes the effect of investor sentiment on prices

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Abstract

This study examines the effect of investor sentiment on market prices with Economic Policy Uncertainty as a moderating variable, using monthly data from January 2009 to September 2025. Sentiment is measured using the Fear and Greed Index, while EPU is represented by the global index developed by Baker et al. The analysis employs Hayes PROCESS Model 1 to test the moderating effect. The results indicate that sentiment has a positive and significant impact on market prices, confirming that investors' collective perceptions and emotions are key drivers in price formation. Although EPU does not exhibit a significant direct effect, the interaction analysis and conditional effects reveal that policy uncertainty strengthens the relationship between sentiment and prices. The influence of sentiment increases consistently across low, medium, and high levels of EPU, with the greatest effect observed under the highest uncertainty. These findings suggest that the effect of sentiment is state-dependent and becomes more dominant under unstable policy conditions. This study contributes to the literature by emphasizing that understanding market price dynamics requires simultaneous consideration of psychological factors and policy uncertainty, and offers important implications for regulators and market participants in monitoring risks arising from sentiment.

Keywords

Investor sentiment, Market prices, Economic policy uncertainty, Fear and greed index, Behavioral finance

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Introduction

The development of modern financial research shows that market price movements can no longer be fully explained by fundamental variables, as psychological factors and the collective perceptions of investors have been proven to play an increasingly dominant role. In line with this, recent literature emphasizes that investor sentiment has become one of the strongest predictors of price dynamics and market volatility, particularly with advances in analytical technologies that enable the extraction of sentiment from media, news, and composite indicators [4][8][6]. Sentiment not only drives short-term

fluctuations but also reflects the broader psychological condition of the market that influences buying and selling decisions. Thus, investor sentiment has become a critical element in understanding price behavior in an era of rapid and complex information flows. This issue is especially relevant for emerging markets such as Indonesia, where information flows, herd behavior, and market psychology tend to exert stronger effects on price formation.

On the other hand, Economic Policy Uncertainty (EPU) has emerged as an increasingly central macro determinant influencing global financial market activity. The EPU index developed by [2] has become the standard for measuring policy uncertainty across countries, with empirical findings showing that policy uncertainty affects corporate decisions, investment structures, and market stability [1][3]. Recent studies also find that EPU not only affects macroeconomic conditions but also interacts with investors' psychological factors, creating situations in which market perceptions become more sensitive to changes in economic policy [12][13]. In Indonesia's context, policy changes related to fiscal reforms, monetary adjustments, and regulatory transformations frequently trigger shifts in investor sentiment, making EPU a highly relevant factor for domestic financial markets.

The latest literature indicates that the relationship between sentiment and market prices is not linear; rather, it is shaped by the level of policy uncertainty. Several studies find that when EPU is high, sentiment becomes a more dominant factor in driving prices and can amplify both positive and negative volatility [9]. Furthermore, empirical evidence suggests that policy uncertainty can alter market sensitivity to sentiment, either by strengthening sentiment effects or through other transmission mechanisms such as risk perception and market momentum [7][11][6]. For Indonesia, where policy transitions and regulatory shifts are relatively frequent, such interactions may be even more pronounced, making the examination of sentiment–EPU dynamics particularly important.

Nevertheless, research that explicitly examines the role of EPU as a moderating variable in the relationship between sentiment and market prices remains limited, especially within the context of Indonesia. Prior studies have largely positioned sentiment or EPU as single explanatory variables or as mediators within more specific contexts, such as IPO underpricing or systemic stability [10][7]. Moreover, most studies employ simultaneous or VAR-based approaches, which do not provide direct evidence of how the strength of sentiment's influence changes across different levels of EPU [5][14]. These gaps highlight the need to examine whether, and to what extent, policy uncertainty strengthens the sentiment–price relationship within a measurable and comprehensive framework, particularly in emerging economies such as Indonesia.

Building on these developments, this study seeks to fill the remaining empirical gap by examining the effect of investor sentiment on market prices in Indonesia and the role of EPU as a moderating variable. This study not only provides a deeper understanding of the psychological dynamics in the Indonesian market but also explains how policy

uncertainty shapes market sensitivity to investor sentiment—an increasingly relevant aspect in a domestic economic environment characterized by frequent policy changes and external shocks.

Method

This study employs a quantitative approach with a causal research design to examine the effect of investor sentiment on market prices, with Economic Policy Uncertainty (EPU) serving as a moderating variable. The data used in this study are secondary and consist of monthly time-series observations from January 2009 to September 2025. Investor sentiment is measured using the Fear and Greed Index, which is widely applied as a composite indicator of market behavior based on seven technical and psychological components.

The market price variable is represented by the Indonesian stock market index, namely the Jakarta Composite Index, measured in the form of index values or monthly returns. Meanwhile, economic policy uncertainty is measured using the EPU Index developed by [2], which is the most widely used and recognized EPU measure in global financial literature. All data are converted into monthly frequency and adjusted (normalization/log transformation) when necessary to ensure variance stability.

Hypothesis testing is performed using PROCESS Macro Model 1, a moderation framework that enables the examination of the effect of investor sentiment on market prices across different levels of policy uncertainty. This model allows for the estimation of direct effects, moderated conditional effects, and the interaction between sentiment × EPU on market prices within the context of the Indonesian stock market.

Results and discussion

Results

This section presents an in-depth discussion of the empirical findings by linking them to theoretical contexts and previous literature. The analysis begins with descriptive statistics to illustrate the basic characteristics of the sentiment, market price, and economic policy uncertainty (EPU) variables throughout the observation period. These descriptive statistics provide an initial overview of data distribution patterns and the degree of variation among variables, forming the foundation for interpreting subsequent test results. Therefore, before moving to inferential analysis and the examination of relationships among variables, the following subsection first presents the descriptive data as displayed in the Table 1.

Table 1. Descriptive statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Sentiment	37.58	76.33	62.0863	8.64691
Price	1285.48	8061.06	5286.5847	1478.35188
EPU	28.08	496.66	132.2569	83.64795

The sentiment variable has a minimum value of 37.58 and a maximum of 76.33, with an average of 62.09 and a standard deviation of 8.65. This relatively high mean indicates that investor sentiment during the study period generally remained in the optimistic zone, although its variation was moderately sized. The non-extreme range suggests that shifts in sentiment occurred gradually and consistently, without excessive sharp fluctuations.

The market price variable shows a much wider distribution, with a minimum of 1,285.48 and a maximum of 8,061.06. The average price of 5,286.58 and a standard deviation of 1,478.35 indicate substantial fluctuations in the market throughout the observation period. This large variation reflects the sensitivity of market prices to changes in economic conditions, geopolitical developments, and investor behavior, suggesting that price movements captured several market phases, from periods of pressure to phases of expansion.

Meanwhile, the EPU (Economic Policy Uncertainty) variable has the widest range, from 28.08 to 496.66, with a mean of 132.26 and a standard deviation of 83.65. These values show that policy uncertainty during the study period varied considerably and experienced episodes of significant spikes. The large standard deviation indicates strong and unstable fluctuations in uncertainty, which may be associated with dynamics in fiscal and monetary policy, as well as periodically emerging geopolitical issues.

Table 2 shows that the regression model explains 23.14% of the variation in market prices (R^2 = .2314), indicating that sentiment, economic policy uncertainty (EPU), and their interaction provide a substantive contribution to price movements. Sentiment has a positive and significant effect (β = 52.62, p = .0147), meaning that increases in investor sentiment directly drive increases in market prices. EPU has a negative but insignificant coefficient (β = –10.87, p = .1492), suggesting that EPU does not directly influence prices in this model. The sentiment × EPU interaction has a positive direction and is marginally significant (p = .0943), indicating a tendency for the effect of sentiment on prices to become stronger as EPU increases.

Table 2. Moderated regression model coefficients

Variable	Coeff	SE	t	p	R^2
Constant	1917.7704	1417.2107	1.3532	0.1775	0.2314
Sentiment	52.6196	21.3750	2.4617	0.0147	
EPU	-10.8662	7.5050	-1.4479	0.1492	
Sentiment × EPU	0.1890	0.1124	1.6815	0.0943	

Table 3. Conditional effects of sentiment at various levels of EPU

EPU	Effect	SE	t	p
68.2688 (Low)	65.5210	15.0733	4.3468	0.000
111.0750 (Middle)	73.6105	11.9683	6.1505	0.000
186.8184 (High)	87.9245	10.3967	8.4570	0.000

Table 3 indicates that the effect of sentiment on prices becomes stronger at higher levels of EPU. At low levels of EPU, sentiment already has a significant effect (β = 65.52).

This effect increases at medium levels of EPU (β = 73.61) and reaches its highest point at high EPU levels (β = 87.92). All effects are significant at $p < .001$. Thus, policy uncertainty not only influences market dynamics but also amplifies the market's sensitivity to sentiment. This finding demonstrates that sentiment becomes an increasingly dominant factor in price formation when policy uncertainty rises.

Discussion

The results of this study show that sentiment has a positive and significant effect on market prices. This finding is consistent with recent literature that emphasizes the direct role of sentiment in driving asset prices, particularly in the digital era when sentiment indicators derived from media and big data have become increasingly accurate in capturing market perceptions. The latest bibliometric review by [4] confirms that sentiment is the most prominent market predictor in current literature, while [8] highlight that various sentiment indices exhibit stable predictive ability. Accordingly, the results of this study confirm that investor sentiment dynamics measured using the Fear and Greed Index are consistently reflected in changes in market prices within the Indonesian stock market.

Although EPU does not have a direct effect on prices, the negative direction of its coefficient aligns with literature suggesting that policy uncertainty may weaken market activity. Studies by [3] and [1] show that EPU often has indirect and context-dependent effects on markets, varying across economic environments and periods of analysis. The findings of this study indicate that policy uncertainty does not automatically reduce prices in Indonesia's market context, but instead acts as a situational factor that shapes how the market responds to other variables, particularly sentiment.

The moderating role of EPU is evident from the interaction results and conditional effects. Although the interaction term is marginally significant, the pattern of conditional effects shows that the influence of sentiment on prices becomes stronger as EPU increases. This finding is consistent with recent empirical evidence from [9], who report that policy uncertainty amplifies the impact of sentiment on market dynamics, especially price volatility. Similarly, [11] find that sentiment can serve as a primary mechanism through which policy uncertainty is transmitted to asset prices. This trend is also aligned with the findings of [7], who state that sentiment becomes more dominant under high macro-uncertainty conditions. Thus, the present study provides strong evidence that EPU acts as an enhancer of the sentiment–price relationship, rather than a direct driver of prices in the Indonesian market.

The analysis of conditional effects further reveals that at low levels of EPU, the effect of sentiment on prices is already significant; however, this effect increases at moderate levels of EPU and becomes strongest at high levels of EPU. This gradual pattern indicates that as policy uncertainty rises, the Indonesian market becomes increasingly dependent on sentiment in the price-formation process. This finding is consistent with [9], who show that sentiment plays a stronger role under high uncertainty, and is further

supported by [6], who document a close interaction between sentiment and uncertainty in determining risk premiums.

Overall, the findings of this study affirm that sentiment is a primary driver of market prices, while EPU strengthens this relationship by creating market conditions that are more sensitive to investors' perceptions and emotional reactions. Thus, this study successfully demonstrates that the effect of sentiment on prices is state-dependent—intensifying when policy uncertainty is at higher levels in the Indonesian stock market.

Conclusion

This study confirms that investor sentiment is a consistent and significant determinant of market price movements, demonstrating that psychological dynamics captured through the Fear and Greed Index play a central role in asset price formation throughout the observation period. Although Economic Policy Uncertainty (EPU) does not exhibit a direct influence on prices, the moderation results reveal that higher levels of policy uncertainty substantially strengthen the market's sensitivity to sentiment; the greater the uncertainty, the stronger the market reacts to changes in sentiment. These findings highlight that the effect of sentiment is contextual and intensifies under unstable policy environments, underscoring the importance of understanding the interaction between investor behavior and macro-level uncertainty in explaining modern market dynamics.

Overall, this study contributes to the literature by showing that policy stability is not only relevant for economic fundamentals but also determines the extent to which sentiment influences market prices. Within the context of the Indonesian stock market (IHSG), these findings emphasize that fluctuations in investor psychology and policy uncertainty must be monitored simultaneously to understand and anticipate price movements more effectively.

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References

1. S. A. Al-Thaqeb and B. G. Algharabali, "Economic policy uncertainty: A literature review," *The Journal of Economic Asymmetries*, vol. 20, p. e00133, 2019.
2. S. R. Baker, N. Bloom, and S. J. Davis, "Measuring economic policy uncertainty," *The Quarterly Journal of Economics*, vol. 131, no. 4, pp. 1593–1636, 2016.
3. J. R. Francis and R. Chia Chee Jiun, "Economic Policy Uncertainty (EPU) and its Predictability: A Systematic Literature Review," *Global Business & Management Research*, vol. 16, no. 1, 2024.
4. N. Huynh, L. De Mello, and K. Li, "Evolution of investor sentiment: A systematic literature review and bibliometric analysis," *International Review of Economics & Finance*, p. 104115, 2025.
5. M. M. Belhoula, W. Mensi, and K. Naoui, "Impacts of investor's sentiment, uncertainty indexes, and macroeconomic factors on the dynamic efficiency of G7 stock markets," *Quality & Quantity*, vol. 58, no. 3, pp. 2855–2886, 2024.

6. G. V. Nartea, H. Bai, and J. Wu, "Investor sentiment and the economic policy uncertainty premium," *Pacific-Basin Finance Journal*, vol. 64, p. 101438, 2020.
7. X. Z. Qi, Z. Ning, and M. Qin, "Economic policy uncertainty, investor sentiment and financial stability—an empirical study based on the time varying parameter-vector autoregression model," *Journal of Economic Interaction and Coordination*, vol. 17, no. 3, pp. 779–799, 2022.
8. S. Prasad, S. Mohapatra, M. R. Rahman, and A. Puniyani, "Investor sentiment index: a systematic review," *International Journal of Financial Studies*, vol. 11, no. 1, p. 6, 2022.
9. J. Xiao, J. Jiang, and Y. Zhang, "Policy uncertainty, investor sentiment, and good and bad volatilities in the stock market: Evidence from China," *Pacific-Basin Finance Journal*, vol. 84, p. 102303, 2024.
10. M. Zhang and W. Du, "Economic policy uncertainty, investor sentiment and IPO underpricing," *International Review of Financial Analysis*, p. 104420, 2025.
11. J. Gui, N. Naktnasukanjn, X. Yu, and S. S. Ramasamy, "Research on the Impact of Economic Policy Uncertainty and Investor Sentiment on the Growth Enterprise Market Return in China—An Empirical Study Based on TVP-SV-VAR Model," *International Journal of Financial Studies*, vol. 12, no. 4, p. 108, 2024.
12. M. E. K. Agoraki, G. P. Kouretas, and N. T. Laopodis, "Geopolitical risks, uncertainty, and stock market performance," *Economic and Political Studies*, vol. 10, no. 3, pp. 253–265, 2022.
13. L. T. Orlowski, "How susceptible is the European financial stability to economic policy uncertainty?," *Journal of Policy Modeling*, vol. 45, no. 4, pp. 864–875, 2023.
14. J. L. Cross, C. Hou, and A. Poon, "International transmission of macroeconomic uncertainty in small open economies: An empirical approach," in *Recent Developments in Bayesian Econometrics and Their Applications: Festschrift in Honour of Sune Karlsson*, Cham: Springer Nature Switzerland, 2025, pp. 89–115.