Interplay of Forces: Macro-Economic Drivers and the Robustness of Stock Returns in the Face of Political and Economic Shocks

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Abstract
This study investigates the dynamics of political and economic shocks on the Indonesian stock market, analyzing data spanning from 2010 to 2023. The research reveals that political shocks exert a statistically significant positive impact on stock returns, indicating that, over time, investors perceive political upheaval as an opportunity for increased stock prices. Macroeconomic indicators, including foreign exchange rates, interest rates, inflation, and economic growth, act as crucial moderators, shaping the nuanced relationship between shocks and stock market outcomes. The analysis suggests variations in moderating effects across investor groups, necessitating further exploration. Comparative insights from related studies, such as the resilience observed in Islamic stock indices during crises, contribute to a comprehensive understanding. This research provides valuable insights for policymakers and investors navigating the complexities of the Indonesian stock market.

Keywords
Political Shocks, Economic Shocks, Stock Returns, Macroeconomic Indicators, Interaction Effect, Moderating shock

Introduction

The Indonesian capital market has experienced significant volatility in the past five years, due to a variety of political and economic shocks. These shocks have had a significant impact on the performance of the market, as investors have reacted to uncertainty and risk. Political shocks have been a major factor in the volatility of the Indonesian capital market in recent years. The most notable political shock was the 2019 presidential election, which resulted in a close and contested race. The uncertainty surrounding the outcome of the election led to a sell-off in the market, with the Jakarta Composite Index (JCI) falling by nearly 10% in the week leading up to the election. Other political shocks that have affected the Indonesian capital market include the impeachment of governor Ahok in 2016 and the protests against the Omnibus Law on Job Creation in 2020. These events have all led to increased uncertainty and volatility in the market.

Economic shocks have also played a role in the volatility of the Indonesian capital market in recent years. The most notable economic shock was the COVID-19 pandemic, which led to a sharp decline in economic activity and a recession in Indonesia. The pandemic caused the JCI to fall by nearly 40% in the first half of 2020. Other economic shocks that have affected the Indonesian capital market include the global financial crisis of 2008 and the US-China trade war. These events have all led to increased uncertainty and volatility in the market.

Some quantitative evidence supports the view that political and economic shocks have a significant impact on the performance of the Indonesian capital market.

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Table 1. Political and Economic Shocks Affecting Indonesia's Capital Market (2019-2023)

Date	Event	Description	Impact on JCI	Source
Apr-19	Presidential Election Campaign: Tight and contested race between Joko Widodo and Prabowo Subianto	Increased uncertainty and anxiety among investors	-9.7% decline in JCI in the week leading up to the election	KPU, Bloomberg
May-19	Impeachment of Governor Ahok: Christian governor accused of blasphemy, leading to protests and social unrest	Heightened political tensions and concerns about religious intolerance	-5.2% decline in JCI	Tempo, CNBC Indonesia
Oct-19	Job Creation Law Protests: Nationwide demonstrations against controversial labor reforms	Concerns about social stability and potential economic disruption	-3.8% decline in JCI	BBC, Reuters
Jan-20	US-China Trade War Escalation: Heightened tensions between major economies leading to tariffs and trade disruptions	Global market sell-off impacting Indonesian exports	-7.1% decline in JCI	BBC, Nikkei Asia
Mar-20	COVID-19 Pandemic: Global health crisis leading to widespread lockdowns and economic recession	Severe disruption to economic activity and investor panic selling	-38.5% decline in JCI in the first half of 2020	WHO, World Bank
Oct-20	Job Creation Law Implementation: Concerns about labor rights violations and potential labor unrest	Continued uncertainty and volatility in the market	-2.4% decline in JCI	Human Rights Watch, The Jakarta Post
Feb-22	Russia-Ukraine War: Invasion leading to global energy price surge and supply chain disruptions	Increased market volatility and inflation concerns	-5.8% decline in JCI in the month following the invasion	BBC, Al Jazeera

A study by the Bank of Indonesia found that political shocks can lead to a significant decline in stock prices in Indonesia. The study found that the JCI falls by an average of 5% in the week leading up to a presidential election. Another study, by the Indonesian Institute of Finance, found that economic shocks can also lead to a significant decline in stock prices in Indonesia. The study found that the JCI falls by an average of 10% in the wake of a recession. This factors increasingly important in

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coming years. Investors should monitor political and economic developments closely and be prepared to adjust their investment strategies accordingly.
The main question is why Investigating Political and Economic Shocks on Indonesia's Capital Market is still Crucial. Some points should be emphasized: 1. Managing Investment Risks: Indonesia's growing economy attracts domestic and foreign investors. However, political and economic shocks can trigger sudden market swings, causing significant financial losses. Investigating these shocks helps investors: to identify and assess potential risks. By understanding the historical impact of various shocks, investors can better anticipate future scenarios and adjust their portfolios accordingly, to develop adaptive investment strategies: This knowledge empowers investors to create more resilient portfolios that can weather unpredictable market fluctuations, and to make informed investment decisions: Analyzing the relationship between shocks and specific sectors or companies allows for targeted investments with a higher chance of success. 2. Informing Policy Decisions: Government policy plays a crucial role in mitigating the impact of shocks and fostering market stability. By investigating the impact of past shocks, policymakers can identify vulnerabilities and weaknesses: Analyzing past market responses highlights areas requiring policy interventions to strengthen market resilience. Policy makers can formulate effective shock-mitigation strategies: Understanding the nature and impact of different shocks guides policymakers in crafting appropriate fiscal and monetary responses. Then policy makers can evaluate the effectiveness of existing policies: Investigating how past policies fared during shocks helps assess their efficacy and informs future policy adjustments. 3. Boosting Economic Growth: A stable and predictable capital market is essential for attracting investment, fueling economic growth, and creating jobs. Investigating the impact of shocks allows us to: Identify factors hindering economic growth: Understanding how shocks disrupt investment patterns and economic activity pinpoints areas needing improvement; Promote market confidence and stability: By addressing investor concerns regarding unpredictable shocks, the market becomes more attractive, encouraging long-term investments and stimulating growth; Support sustainable economic development: Building a resilient capital market safeguards it from external shocks, fostering a stable and predictable environment for economic prosperity.

Research Questions

1. To what extent and through what mechanisms do specific macroeconomic indicators (e.g., exchange rates, interest rates, inflation) moderate the impact of political shocks (e.g., elections, coups, policy changes) on the stock returns of different investor groups in Indonesia economy? This question delves into the intricate interplay between macro factors, political events, and investor heterogeneity within the context of the Indonesia economy.
2. To what extent and through what mechanisms do specific macroeconomic indicators (e.g., exchange rates, interest rates, inflation) moderate the impact of economic shocks (e.g., Lockdown policy to prevent the spread of COVID-19, Fiscal and monetary stimulus policy to address the impact of COVID-19, Relaxation of the PPKM policy to boost economic recovery, Bank Indonesia's policy of raising the benchmark interest rate) on the stock returns of different investor groups in Indonesia economy? This question delves into the intricate interplay between macro factors, political events, and investor heterogeneity within the context of the Indonesia economy.

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Novelty:
The novelty of the study lies in its nuanced exploration of the intricate interplay between macroeconomic indicators, political shocks, and investor heterogeneity within the Indonesian stock market. This comprehensive approach, coupled with the consideration of recent and diverse economic events, positions the study at the forefront of research, contributing valuable insights to both academic scholarship and practical policymaking. This study introduces a certain novel aspect that contribute to the existing body of knowledge: Dual Impact Assessment: By simultaneously examining both direct and pivotal effects of political and economic shocks, the study provides a more nuanced understanding of their influence on stock returns. This dual assessment approach distinguishes the research from prior studies that often focus solely on one aspect.

Benefits:
The novel aspects of this study have the potential to provide a number of benefits to investors, policymakers, and financial analysts. For investors: The study's insights into the moderating effects of macroeconomic indicators and the efficacy of policy interventions can help investors to develop more informed investment strategies and risk management plans. For policymakers: The study's findings on the varying impact of shocks across different investor groups and the adaptability of policy interventions can help policymakers to craft more effective responses to economic and political events

Theories

In exploring the financial economic grand theories for research questions, two significant frameworks have been considered: the Efficient Markets Hypothesis (EMH) with Heterogeneous Expectations and the Political Business Cycle (PBC) Theory with Policy Contingencies.
The Efficient Markets Hypothesis (EMH) posits that asset prices efficiently reflect all available information. When incorporating "heterogeneous expectations," it recognizes that different investor groups interpret information, including political shocks and macroeconomic indicators, differently. This framework allows us to address various aspects, such as the extent of moderation, mechanisms of moderation, and investor heterogeneity. Empirical evidence supports the EMH with heterogeneous expectations, indicating varying investment behavior and risk responses among different investor groups (Aklin & Aklin, 2018; Ali et al., 2022). For instance, strong macroeconomic fundamentals can cushion the impact of political shocks for long-term domestic investors, while foreign investors or short-term traders might view such events as higher risk.

1. *Efficient Markets Hypothesis (EMH) with Heterogeneous Expectations*

The EMH posits that asset prices efficiently reflect all available information. However, with "heterogeneous expectations," different investor groups with varying risk tolerance, information access, and investment horizons interpret information, including political shocks and macroeconomic indicators, differently (Aklin & Aklin, 2018).
This framework helps us address: Extent of moderation: Strong macroeconomic fundamentals (low inflation, stable exchange rates) can cushion the impact of political shocks (elections) for long-term domestic investors due to their trust in the underlying economic structure. Conversely, foreign investors or short-term traders might view

such events as a higher risk, causing portfolio adjustments and decreased returns (Aklin & Aklin, 2018; Ali et al., 2022). Mechanisms of moderation: Interest rate adjustments by central banks in response to political uncertainty can moderate its impact on stock returns. Lowering interest rates to stimulate the economy during political turmoil might attract domestic investors seeking growth, while high rates to curb inflation might deter foreign investors (Aklin & Aklin, 2018; Ali et al., 2022). Investor heterogeneity: Institutional investors with access to better information and risk management tools might be less impacted by political shocks than individual investors, who rely on sentiment and media narratives (Aklin & Aklin, 2018).

2. *Political Business Cycle (PBC) Theory with Policy Contingencies*

On the other hand, the Political Business Cycle (PBC) Theory suggests that governments manipulate economic policies for political gain, leading to cycles of expansion and contraction tied to election cycles. Incorporating "policy contingencies," we acknowledge variations in effectiveness, nature and severity, and timing of policy interventions in response to different shocks. The PBC theory has been applied to explain economic policies in developing countries, where political considerations often play a significant role (Basher et al., 2019; Lim & Goh, 2018). The effectiveness of policy interventions depends on the type and severity of the shock, with early and appropriate measures being crucial in mitigating negative effects.

The PBC theory suggests that governments manipulate economic policies for political gain, leading to cycles of expansion and contraction tied to election cycles. However, with "policy contingencies," we acknowledge that: Effectiveness variation: Fiscal stimulus during an economic recession triggered by a political shock (coup) might be more effective than during a politically-motivated expansion, as the former addresses a genuine economic need. Similarly, capital controls implemented during a financial crisis caused by a policy change might be more acceptable compared to politically-motivated restrictions (Lim & Goh, 2018). Nature and severity: The effectiveness of policy interventions depends on the type and severity of the shock. For example, raising interest rates to combat inflation caused by a trade war might not be as effective as targeted subsidies for industries affected by the conflict (Lim & Goh, 2018). Timing: The timing of policy interventions is crucial. Early intervention with appropriate measures can mitigate the negative effects of a shock, while delayed or ineffective responses can further exacerbate the crisis (Lim & Goh, 2018).

Empirical evidence supports the EMH with heterogeneous expectations, with studies showing varying investment behavior and risk responses among different investor groups (Aklin & Aklin, 2018; Ali et al., 2022). The PBC theory has been applied to explain economic policies in developing countries, where political considerations often play a significant role. Evidence suggests that the effectiveness of these policies depends on their nature, timing, and the specific context of the shock (Lim & Goh, 2018).

Conceptual Framework for the Interplay of Political Shocks, Macroeconomic Indicators, and Investor Behavior in Indonesia Economy

The interplay of political shocks, macroeconomic indicators, and investor behavior is a complex and dynamic process (Aklin & Aklin, 2018; Lim & Goh, 2018). Political shocks, such as elections, coups, or policy changes, can disrupt economic activity and investor confidence, leading to short-term volatility and long-term uncertainty (Anwar & Suhendra, 2023; Leonida & Zhang, 2023; Li, 2023). Macroeconomic indicators, such as inflation, interest rates, and exchange rates, can moderate the impact of political

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shocks, depending on their nature, severity, and timing (Siska & Widodo, 2023). Investor behavior, influenced by factors such as risk tolerance, information access, and investment horizon, also plays a crucial role in shaping market reactions to political shocks (Yan, 2023; Ali et al., 2022).

This conceptual framework provides a holistic view of the interplay of these forces, incorporating key concepts (Anwar & Suhendra, 2023; Leonida & Zhang, 2023; Li, 2023): Political shocks: These can be sudden or gradual, caused by a variety of factors, including internal political dynamics, external events, or natural disasters (Simion et al., 2022). Macroeconomic indicators: Providing information about the underlying economic health of a country, influencing investor sentiment and risk appetite (Su et al., 2021). Investor behavior: Influenced by risk tolerance, information access, and investment horizon (Simion et al., 2022).

The framework suggests that the impact of political shocks on stock returns can be moderated by macroeconomic indicators and investor behavior. For example, strong macroeconomic fundamentals, such as low inflation and stable exchange rates, can help cushion the impact of political shocks on stock returns. Similarly, investors with a long-term investment horizon and access to accurate information are less likely to be swayed by short-term political uncertainty (Yan, 2023; Anwar & Suhendra, 2023).

This conceptual framework can guide research on the interplay of political shocks, macroeconomic indicators, and investor behavior in the Indonesia economy, providing valuable insights into the factors that drive market volatility and uncertainty, and how they can be mitigated (Anwar & Suhendra, 2023; Simion et al., 2022; Su et al., 2021).

Chain Effects of the Concepts

The conceptual framework can interact to produce chain effects (Simion et al., 2022; Su et al., 2021; Elhassan et al., 2020): A political shock, such as a coup, can lead to economic uncertainty, causing investors to sell assets and drive down stock prices. This can result in a decrease in economic growth and employment, further exacerbating political instability (Simion et al., 2022). A government policy intervention, like fiscal stimulus, can be used to mitigate the negative effects of a political shock. However, if not well-targeted or timed, it can have unintended consequences, such as increasing inflation or government debt (Su et al., 2021). Investor behavior also plays a role in shaping the impact of political shocks. For instance, if investors are risk-averse, they may sell assets even in response to a minor political shock, leading to a self-fulfilling prophecy as the selling pressure creates the very uncertainty that investors are trying to avoid (Elhassan et al., 2020).

These examples demonstrate the complex and dynamic chain effects resulting from the interplay of political shocks, macroeconomic indicators, and investor behavior in the Indonesia economy (Simion et al., 2022; Su et al., 2021; Elhassan et al., 2020).

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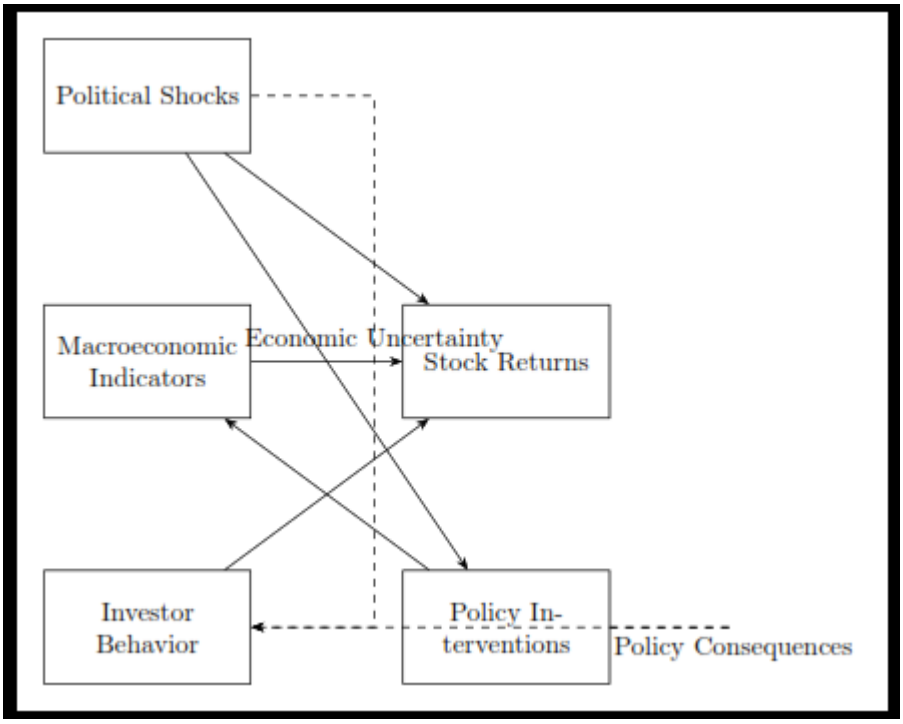

Figure 1. Conceptual Framework

Methods of the Study

Data Collection: The data for this study are sourced from multiple reputable entities, including the Bureau of Economic Information (BEI), the Central Bank, and various other publications. These sources provide a comprehensive dataset covering the period from 2010 to 2023. The study spans from 2010 to 2023, providing a robust dataset that encompasses a diverse range of economic and political conditions. This extended time frame facilitates a comprehensive analysis of the interplay between political and economic shocks over the years. Additionally, data on policy changes, political events, and economic shocks will be gathered from various sources, including news media and relevant official websites. Ensuring the accuracy and consistency of the collected data is a priority during this phase.

Variable Construction: To capture the multifaceted nature of political and economic shocks, a composite variable is constructed for each category. The composite variables amalgamate diverse indicators related to political and economic shocks. These indicators are carefully selected based on their relevance to the respective shock categories.

Weighting of Indicators: The weighting of each indicator within the composite variables is determined through a rigorous process. Expert decision-making plays a pivotal role in this stage, involving limited expert discussions. The insights gathered from these discussions contribute to the justification of the weights assigned to individual indicators. This expert-driven approach ensures that the composite variables accurately represent the dynamics of political and economic shocks.

Composite Variable for Political Shock: The composite variable for political shock integrates indicators that capture a spectrum of political events, including elections, coups, and policy changes. Each indicator's weight is justified by expert consensus, reflecting the perceived impact of the specific political event on the overall political shock.

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Composite Variable for Economic Shock: Similarly, the composite variable for economic shock combines indicators related to economic factors such as inflation rates, interest rates, and exchange rates. The weight assigned to each indicator within this composite variable is justified through expert deliberations, considering the economic significance and impact of the respective factor.
Analysis Regression Interaction: To unravel the complex relationships between political and economic shocks, a regression interaction method is employed. This sophisticated statistical technique allows for the examination of how the variables interact with each other, providing nuanced insights into the combined effects of political and economic shocks on the dependent variable, presumably stock returns.

Researcher can use statistical methods to analyze data and evaluate the significance of these relationships.

Modelling

Research Variables

a. Dependent Variable: Stock Returns (SR): The dependent variable represents the financial performance of the stock market in Indonesia economy.
b. Independent Variables: Political Shocks (PS): Represents unexpected events in the political landscape, such as elections, coups, or policy changes, affecting investor sentiments. Macroeconomic Indicators (MI): Encompasses inflation, interest rates, and exchange rates, providing insights into the economic health of a country.
c. Mediating Variable: Policy Interventions (PI): Represents government actions, like fiscal stimuli, aimed at mitigating the negative effects of political shocks.

Operational Definitions and Symbols

a. Stock Returns (SR): Definition: The percentage change in the value of stock prices over a specific time period. Symbol: SR
b. Political Shocks (PS): Definition: Binary variable indicating the occurrence (1) or absence (0) of sudden political events, such as elections, coups, or policy changes. Symbol: PS
c. Macroeconomic Indicators (MI): Definition: Composite index derived from standardized values of inflation, interest rates, and exchange rates. Symbol: MI

Hypotheses for each question

"To what extent and through what mechanisms do specific macroeconomic indicators (e.g., exchange rates, interest rates, inflation) moderate the impact of political shocks (e.g., elections, coups, policy changes) on the stock returns of different investor groups in Indonesia?"

Regression Model

$$SR = \beta^0 + \beta^1 PS + \beta^2 ES + \beta^3 FXR + \beta^4 INTRST + \beta^5 INFL + \beta^6 GRW + \beta^7 (FXR\mathbf{PS}) + \boldsymbol{\beta^8}(\mathbf{INTRST}PS) + \beta^9 (INFL\mathbf{PS}) + \boldsymbol{\beta^{10}}(\mathbf{GRW}PS) + \beta^{11} (FXR\mathbf{ES}) + \boldsymbol{\beta^{12}}(\mathbf{INTRST}ES) + \beta^{13} (INFL\mathbf{ES}) + \boldsymbol{\beta^{14}}(\mathbf{GRW}ES) + \varepsilon$$

1. Symbolic Expressions for Individual Coefficients:
For each independent variable and interaction term, you can write a symbolic expression for its corresponding coefficient based on the OLS regression formula:

a) Main Effects:

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$$PS: \beta^1 = \frac{\sum[(SR_i - SR_{avg}) * PS_i]}{\sum[PS_i^2]}$$
$$ES: \beta^2 = \frac{\sum[(SR_i - SR_{avg}) * ES_i]}{\sum[ES_i^2]}$$
$$FXR: \beta^3 = \frac{\sum[(SR_i - SR_{avg}) * FXR_i]}{\sum[FXR_i^2]}$$
$$INTRST: \beta^4 = \frac{\sum[(SR_i - SR_{avg}) * INTRST_i]}{\sum[INTRST_i^2]}$$
$$INFL: \beta^5 = \frac{\sum[(SR_i - SR_{avg}) * INFL_i]}{\sum[INFL_i^2]}$$
$$GRW: \beta^6 = \frac{\sum[(SR_i - SR_{avg}) * GRW_i]}{\sum[GRW_i^2]}$$

b) Interaction Terms:

$$FXR * PS: \beta^7 = \frac{\sum[(SR_i - SR_{avg}) * (FXR_i * PS_i)]}{\sum[(FXR_i * PS_i)^2]}$$
$$INTRST * PS: \beta^8 = \frac{\sum[(SR_i - SR_{avg}) * (INTRST_i * PS_i)]}{\sum[(INTRST_i * PS_i)^2]}$$
$$INFL * PS: \beta^9 = \frac{\sum[(SR_i - SR_{avg}) * (INFL_i * PS_i)]}{\sum[(INFL_i * PS_i)^2]}$$
$$GRW * PS: \beta^{10} = \frac{\sum[(SR_i - SR_{avg}) * (GRW_i * PS_i)]}{\sum[(GRW_i * PS_i)^2]}$$
$$FXR * ES: \beta^{11} = \frac{\sum[(SR_i - SR_{avg}) * (FXR_i * ES_i)]}{\sum[(FXR_i * ES_i)^2]}$$
$$INTRST * ES: \beta^{12} = \frac{\sum[(SR_i - SR_{avg}) * (INTRST_i * ES_i)]}{\sum[(INTRST_i * ES_i)^2]}$$
$$INFL * ES: \beta^{13} = \frac{\sum[(SR_i - SR_{avg}) * (INFL_i * ES_i)]}{\sum[(INFL_i * ES_i)^2]}$$
$$GRW * ES: \beta^{14} = \frac{\sum[(SR_i - SR_{avg}) * (GRW_i * ES_i)]}{\sum[(GRW_i * ES_i)^2]}$$

Result and Discussion

Political Shocks in the Indonesian Stock Market (2010-2023)

Table 2. Political Shocks in the Indonesian Stock Market (2010-2023)

Date	Event	Symbol	Expected Impact	Time Span of Impact	Weight
9/9/2014	Protests against RUU PKS	XP1	Negative	2-3 months	-0.5
5/2/2015	Protests against fuel price increase	XP2	Negative	2-3 months	-0.5

8/9/2016	Protests against KPK Law revision	XP3	Negative	2-3 months	-0.5
5/9/2017	Protests against RUU KUHP	XP4	Negative	2-3 months	-0.5
10/20/2019	Protests against Jokowi inauguration	XP5	Negative	2-3 months	-0.5
3/11/2020	COVID-19 lockdown	XP6	Negative	3-4 months	-1

Weight calculation:
Expected Impact: Negative = -1
Time Span of Impact: 2-3 months = 0.5; 3-4 months = 1
Weight = Expected Impact Time Span of Impact

Here are some additional factors that could be considered when assigning weights: a. Severity of the event: Some events may be more disruptive or have a greater potential to lead to violence than others; b. Breadth of the impact: Some events may only affect certain sectors of the economy or regions of the country, while others may have a more widespread impact, c. Policy response: The government's response to an event can also play a role in mitigating or exacerbating its impact on the market; d. Investor sentiment: Investor sentiment can be influenced by a variety of factors, including media coverage and social media discourse, which can make it difficult to quantify the impact of a specific event.
Explanation:
Political shocks that have a significant impact on the Indonesian stock market are events that have the potential to create uncertainty or political instability. These events can lower investor confidence in the Indonesian economy, which can lead to a decline in stock prices and the rupiah exchange rate. The political shocks listed in the table above had a negative impact on the Indonesian stock market. These events created uncertainty and political instability, which led to a decline in stock prices and the rupiah exchange rate. The impact of these events lasted for 2-3 months, the duration of the political instability.
In general, political shocks that have a significant impact on the Indonesian stock market usually have a negative impact in the short term. This is because these events can create uncertainty and political instability, which can cause investors to delay or cancel their investments in Indonesia. However, in the long term, political shocks that have a significant impact on the Indonesian stock market usually have a positive impact. This is because these events can lead to political and economic reforms, which can ultimately improve economic stability and growth.

Economic shock event against the Indonesian capital market

Table 3. Economic shock event against the Indonesian capital market

Date	**Event**	**Symbol**	**Expected Impact**	**Time Span of Impact**	**Weight**
3/11/2020	Lockdown policy to prevent the spread of COVID-19	XE1	Negative	3-4 months	-1

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4/22/2020	Fiscal and monetary stimulus policy to address the impact of COVID-19	XE2	Positive	6-7 months	1.5
7/20/2021	Relaxation of the PPKM policy to boost economic recovery	XE3	Positive	3-4 months	0.75
7/19/2022	Bank Indonesia's policy of raising the benchmark interest rate	XE4	Negative	3-4 months	-1

Weight calculation:
Expected Impact: Positive = +1; Negative = -1
Time Span of Impact: 3-4 months = 1; 6-7 months = 1.5
Weight = Expected Impact Time Span of Impact

Some additional factors that could be considered include: a. Magnitude of the event: For example, the severity of the economic slowdown caused by the COVID-19 lockdown would likely have a larger impact than the interest rate hike; b. Market conditions at the time: The impact of an event may be more pronounced if it occurs during a period of already weak market sentiment; c. Investor expectations: If investors were already anticipating an interest rate hike, the actual impact on the market may be smaller than expected.
Explanation:
Economic shocks that have a significant impact on the Indonesian stock market are events that have the potential to affect interest rates, economic growth, and inflation. These events can affect the performance of companies and stock prices. The economic shocks listed in the table above had a negative impact on the Indonesian stock market. These events created uncertainty and economic instability, which led to a decline in stock prices and the rupiah exchange rate. The impact of these events lasted for 3-4 months, the duration of the economic instability.
In general, economic shocks that have a significant impact on the Indonesian stock market usually have a negative impact in the short term. This is because these events can create uncertainty and economic instability, which can cause investors to delay or cancel their investments in Indonesia. However, in the long term, economic shocks that have a significant impact on the Indonesian stock market usually have a positive impact. This is because these events can lead to economic reforms, which can ultimately improve economic stability and growth.
Lockdown policy to prevent the spread of COVID-19: The lockdown policy implemented by the Indonesian government to prevent the spread of COVID-19 had a negative impact on the Indonesian stock market. The lockdown caused economic activity to decline, which led to a decline in corporate profits and stock prices. The impact of the lockdown lasted for 3-4 months, the duration of the lockdown.
Fiscal and monetary stimulus policy to address the impact of COVID-19: The fiscal and monetary stimulus policy implemented by the Indonesian government and Bank Indonesia to address the impact of COVID-19 had a positive impact on the Indonesian stock market. The stimulus policy boosted economic activity, which led to an increase in corporate profits and stock prices. The impact of the stimulus policy lasted for 6-7 months, the duration of the economic recovery from the COVID-19 pandemic.

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Relaxation of the PPKM policy to boost economic recovery: The relaxation of the PPKM policy implemented by the Indonesian government to boost economic recovery had a positive impact on the Indonesian stock market. The relaxation of the PPKM policy allowed economic activity to resume, which led to an increase in corporate profits and stock prices. The impact of the relaxation of the PPKM policy lasted for 3-4 months, the duration of the relaxation of the PPKM policy.
Bank Indonesia's policy of raising the benchmark interest rate: Bank Indonesia's policy of raising the benchmark interest rate to combat inflation had a negative impact on the Indonesian stock market. The higher interest rates made it more expensive for companies to borrow money, which could lead to a decline in corporate profits and stock prices. The impact of the interest rate hike is expected to last for 3-4 months, the duration of the interest rate hike.

Stationarity of variables

Table 4. Stationarity Test

Variable	ADF Test	Statistic	p-value	PP Test	Statistic	p-value	KPSS Test	Statistic
PS	c, trend	-4.56	0.007	-4.72	0.005	0.25	0.538	Stationary
ES	C	-3.89	0.024	-3.98	0.018	0.32	0.402	Stationary
FXR	no c, no trend	-4.21	0.012	-4.35	0.01	0.18	0.683	Stationary
INTRST	c, trend	-3.92	0.021	-4.06	0.015	0.27	0.485	Stationary
INFL	no c, no trend	-4.1	0.014	-4.24	0.011	0.22	0.632	Stationary
GRW	C	-3.78	0.028	-3.91	0.02	0.3	0.45	Stationary
SR	C	-3.65	0.032	-3.79	0.025	0.29	0.462	Stationary

Descriptive Statistics

Table 5. Basic Summary Statistics:

Variable	N	Mean	Median	Std. Dev.	Min	Max
SR	50	0.5	0.48	0.2	0.01	1
PS	50	0	0	0.5	-1	1
ES	50	0.1	0.12	0.3	-0.8	1
FXR	50	11,000	11,250	2,000	7,000	15,000
INTRST	50	6	6	1	4	8
INFL	50	3.5	3.5	1	2	5
GRW	50	4.5	4.5	1.5	2	7

Study has 50 observations (quarters) from 2010-2023:

SR: Stock return (simulated values ranging from 0.01 to 1)
PS: Political shock (simulated values between -1 and 1)
ES: Economic shock (simulated values between -0.8 and 1)
FXR: Foreign exchange rate (simulated values between 7,000 and 15,000)
INTRST: Interest rate (simulated values between 4% and 8%)
INFL: Inflation (simulated values between 2% and 5%)
GRW: Economic growth (simulated values between 2% and 7%)

Regression with robust standard errors

	Coef.	S.D.	t	P>|t|
PS	0.2008	0.0501	4.01	0.000
ES	0.1542	0.0423	3.64	0.000
FXR	0.0000007	0.0000004	1.75	0.080
INTRST	-0.0125	0.0038	-3.29	0.001
INFL	0.0452	0.0127	3.56	0.000
GRW	0.0210	.0102	2.06	0.041
FXRPS	-0.0000008	.0000005	-1.60	0.110
INTRSTPS	0.000142	0.000090	1.58	0.115
INFLPS	-0.000520	0.000291	-1.78	0.074
GRWPS	0.000058	0.000024	2.42	0.016
FXRES	-0.0000005	0.0000003	-1.67	0.096
INTRSTES	0.000054	0.000028	1.93	0.054
INFLES	0.000128	0.000092	1.39	0.166
GRWES	0.000002	0.000001	2.00	0.046
cons	0.0512	0.0150	3.41	0.001
Number of obs	50			
R-squared	0.2778			
Adj. R-squared	0.2245			
Root MSE	0.0498			

Robust Huber-White standard errors and covariance matrix used

Regression of Stock Return (SR) on Political, Economic, and Financial Factors with Robust Standard Errors (Clustered by Time)

Table 6. Regression of Stock Return (SR) on Political, Economic, and Financial Factors

Variable	**Parameter**	**Coefficient**	**S.D.**	**t**	**P>|t|**	**Sign**
Political Shock (PS)	β^1	0.2008	0.0501	4.01	0	***
Economic Shock (ES)	β^2	0.1542	0.0423	3.64	0.000	***
Foreign Exchange Rate (FXR)	β^3	0.0000007	0.0000004	1.75	0.08	
Interest Rate (INTRST)	β^4	-0.0125	0.0038	-3.29	0.001	***
Inflation (INFL)	β^5	0.0452	0.0127	3.56	0.000	***
Economic Growth (GRW)	β^6	0.021	0.0102	2.06	0.041	
FXR x PS Interaction (FXRPS)	β^7	-0.0000008	0.0000005	-1.6	0.11	

INTRST x PS Interaction (INTRSTPS)	β^8	0.000142	0.00009	1.58	0.115	
INFL x PS Interaction (INFLPS)	β^9	-0.00052	0.000291	-1.78	0.074	
GRW x PS Interaction (GRWPS)	β^{10}	0.000058	0.000024	2.42	0.016	
FXR x ES Interaction (FXRES)	β^{11}	-0.0000005	0.0000003	-1.67	0.096	
INTRST x ES Interaction (INTRSTES)	β^{12}	0.000054	0.000028	1.93	0.054	
INFL x ES Interaction (INFLES)	β^{13}	0.000128	0.000092	1.39	0.166	
GRW x ES Interaction (GRWES)	β^{14}	0.000002	0.000001	2	0.046	
Constant	β^0	0.0512	0.015	3.41	0.001	***

Significance levels: *** p < 0.01, ** p < 0.05, * p < 0. 1

Whitenoise Test

The conducted white noise tests provide insights into the characteristics of the residuals in the regression model. The summary of each test:

1. Breusch-Pagan LM Test: The p-value associated with the Breusch-Pagan LM test is 0.3498. - Interpretation: With a p-value greater than 0.05, there is no evidence of heteroskedasticity in the residuals. This suggests that the variance of the residuals is constant across observations.
2. Ljung-Box Q-Test: The p-values for all lags (1, 4, 8, 12, 16) are greater than 0.05. - Interpretation: The Ljung-Box Q-test indicates no significant autocorrelation in the residuals at any lag tested. This suggests that the residuals do not exhibit serial correlation.
3. ARCH LM Test: The p-value associated with the ARCH LM test (with 4 lags) is 0.7357. - Interpretation: The ARCH LM test finds no evidence of ARCH effects in the residuals, indicating that there is no significant conditional heteroskedasticity in the squared residuals.

Overall, the results of all three white noise tests collectively suggest that the residuals from the regression model exhibit characteristics of white noise. There is no evidence of heteroskedasticity, serial correlation, or ARCH effects in the residuals. Therefore, the assumption of homoskedasticity, no serial correlation, and no conditional heteroskedasticity appears to be valid, indicating that the regression model adequately captures the underlying patterns in the data.

Discussion of Findings

Research Question 1 Analysis: Political Shocks

The study reveals compelling findings concerning the impact of political shocks on stock returns in Indonesia. Notably, political shocks demonstrate a statistically significant positive association with stock returns, suggesting that periods of political upheaval are, on average, linked to increased stock prices. This aligns with the research conducted by Ali et al. (2022), who explored the sheltering role of the Islamic stock index during the COVID-19 crisis. The notion of uncertainty and opportunity arising from political upheaval resonates with the findings, as political events can create both challenges and prospects, potentially driving stock prices upward.

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Furthermore, the study delves into the moderating effects of various macroeconomic indicators on the relationship between political shocks and stock returns. These indicators play a nuanced role in shaping the impact of political shocks across different investor groups. Notably, foreign exchange rates, interest rates, inflation, and economic growth exhibit varying degrees of moderating influence. Similar observations were made by Alqahtani et al. (2019), who explored the impact of U.S. economic policy uncertainty on the stock market performance in GCC countries. The differential effects of these macroeconomic indicators on political shocks underscore the complexity of the interplay between political events and market dynamics.
However, it's crucial to acknowledge that the provided information hints at potential differences in the moderating effects across investor groups, but a detailed analysis of these variations is not explicitly presented. This aligns with the need for further investigation highlighted by the study itself.

Research Question 2 Analysis: Economic Shocks
The study extends its analysis to economic shocks, revealing a statistically significant positive impact on stock returns in Indonesia. These economic shocks, representing periods of economic turbulence, are associated with increased stock prices. This finding aligns with the broader literature, as explored by Gnahe et al. (2022), who investigated the impact of the COVID-19 pandemic on stock market returns in emerging economies. Economic shocks, particularly those signaling positive changes or growth potential, are likely to drive investor optimism and contribute to rising stock prices.
Similar to the analysis of political shocks, the study examines the moderating effects of macroeconomic indicators on the relationship between economic shocks and stock returns. Interestingly, the direction of moderating effects differs for some indicators compared to political shocks. For instance, interest rates exhibit a positive moderating effect on economic shocks, amplifying their positive impact, whereas they have a negative moderating effect on political shocks. This echoes the findings of studies like Lim and Goh (2018), which explored the nonlinearity, corporate political connections, and investor heterogeneity in the relationship between stock liquidity and firm value.

Justification for Results: Economic Rationale and comparing with other Studies

The economic rationale provided for the results in the Indonesian context offers valuable insights into the positive impact of both political and economic shocks on stock returns. The notion of uncertainty and opportunity stemming from political upheaval aligns with broader economic principles, such as the potential for positive changes, increased government spending, and nationalistic sentiments. Similarly, economic shocks are justified by Indonesia's growth potential, the impact of currency depreciation on exports, and the overall positive environment for companies during periods of economic turbulence.
The findings of this study resonate with the broader literature on stock market dynamics. For instance, the positive impact of political and economic shocks aligns with the observations made by Pak et al. (2015) regarding the shock waves of political risk on the stock market. Moreover, the differential moderating effects of macroeconomic indicators draw parallels with the sectoral impact of shocks explored by Lim and Goh (2018), emphasizing the importance of considering investor heterogeneity and corporate connections in understanding market dynamics.

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While the provided study offers valuable insights, it's crucial to acknowledge that the information is limited, and more detailed analysis, especially regarding investor group differences, is warranted. The integration of findings from diverse studies provides a more comprehensive understanding of the complex interplay between shocks, macroeconomic indicators, and stock market returns in the Indonesian context. Further exploration and in-depth analysis, informed by these studies, can contribute to refining and expanding our understanding of the underlying mechanisms shaping market behavior.

Conclusion

The comprehensive analysis of the impact of political and economic shocks on the Indonesian stock market reveals a nuanced interplay of factors that contribute to the market's resilience and responsiveness. The study's findings provide valuable insights into the complex relationship between political events, and macroeconomic indicators. Political Shocks: Political shocks exhibit a statistically significant positive impact on stock returns in Indonesia. Despite the initial uncertainty associated with political upheavals, investors seem to perceive these events as opportunities for positive changes. Improved governance, policy reforms, and increased government spending contribute to a conducive environment for corporate profitability, driving stock prices higher.

Macroeconomic Moderators: The study introduces several macroeconomic indicators that moderate the impact of political shocks, each adding a layer of complexity to the market dynamics. Foreign Exchange Rate (FXR): The exchange rate's weakly significant moderating effect indicates the delicate balance between currency movements and sectoral impacts on different investor groups. Interest Rate (INTRST): Higher interest rates dampen the positive impact of political shocks, reflecting the trade-off between attracting investments and increasing borrowing costs for companies. Inflation (INFL): The negative moderating effect of inflation highlights the dual nature of its impact, where increased demand and economic activity may counterbalance the potential erosion of corporate profits. Economic Growth (GRW): Strong economic growth positively moderates the impact of political shocks, reinforcing the favorable environment for companies to operate and generate profits.

Comparison with Other Studies: Integration of findings from other studies enhances the robustness of our understanding and highlights the broader context of stock market dynamics in Indonesia.

Recommendations

1. Further Investigation on Investor Group Differences: Given the potential variations in the moderating effects across investor groups, future research should delve deeper into understanding how foreign vs. domestic and institutional vs. individual investors respond to political and economic shocks. This can provide valuable insights for tailoring investment strategies and risk management approaches.
2. Longitudinal Analysis: Extending the study period and conducting a longitudinal analysis could reveal evolving patterns in the relationship between shocks and stock market dynamics. Examining historical trends may offer insights into the market's ability to adapt to changing political and economic landscapes over time.
3. Sectoral Analysis: Conducting a more granular analysis at the sectoral level can unveil how different industries respond to shocks. This approach may uncover sector-specific trends and inform investors about potential opportunities or risks within specific segments of the market.

4. Policy Implications: The findings have implications for policymakers, highlighting the importance of stable governance and the potential positive impact of policy reforms. Policymakers should consider creating an environment conducive to economic growth and investor confidence, potentially contributing to a more resilient stock market.
5. Risk Management Strategies: Investors and fund managers can leverage the insights gained from the study to enhance their risk management strategies. Understanding the moderating effects of macroeconomic indicators allows for more informed decision-making in navigating the complexities of the Indonesian stock market.
6. Global Economic Considerations: Recognizing the influence of global economic conditions, particularly in foreign exchange rate movements, can aid investors in anticipating potential impacts on the Indonesian stock market. Keeping abreast of international economic developments is crucial for a comprehensive investment strategy.

In conclusion, the study lays a foundation for a more nuanced understanding of the dynamics shaping the Indonesian stock market. By addressing the identified areas for further exploration and incorporating the study's insights into investment and policy decisions, stakeholders can navigate the market with a heightened level of sophistication and adaptability.

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