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VOLATILITY DYNAMICS OF RUPIAH EXCHANGE RATE AND JAKARTA COMPOSITE INDEX DURING INDONESIA'S 2014-2019 PRESIDENTIAL ELECTION CYCLE

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ABSTRAK

Pemilihan presiden Indonesia tahun 2014 dan 2019 memberikan sebuah eksperimen alami untuk mengevaluasi bagaimana peristiwa politik berskala besar menyebar melalui sistem keuangan pasar berkembang. Penelitian ini menyelidiki perilaku volatilitas bersama antara Rupiah Indonesia (IDR) dan Indeks Harga Saham Gabungan (IHSG) dari tahun 2014 hingga 2019, mencakup dua siklus pemilu lengkap dengan kandidat yang sama. Dengan menggunakan data harian, desain penelitian berbasis peristiwa, dan spesifikasi keluarga GARCH, kami mendokumentasikan tiga temuan utama. Pertama, kedua pasar telah mengembangkan kemampuan yang lebih baik dalam mengelola ketidakpastian politik dan mengalami penurunan sensitivitas volatilitas selama periode pemilihan 2014 dan 2019. Kedua, efek *leverage* tetap signifikan pada kedua periode, menunjukkan bahwa pasar menjadi lebih seimbang dalam merespons berita positif maupun negatif, atau dengan kata lain, terdapat peningkatan kedewasaan pasar dan efisiensi informasi. Ketiga, volatilitas pada periode 2014 menunjukkan pola yang lebih tajam dibandingkan tahun 2019, mencerminkan proses pembelajaran pasar dan adaptasi terhadap pola risiko politik, yang pada akhirnya dapat mengurangi premi risiko politik seiring waktu.
Kata Kunci: Pemilihan Presiden, Nilai Tukar Rupiah, Jakarta Composite Index, Volatilitas Pasar

ABSTRACT

Indonesia's 2014 and 2019 presidential elections provided a natural experiment for evaluating how large-scale political events propagate through emerging market financial systems. This research investigates the joint volatility behavior of the Indonesian Rupiah (IDR) and the Jakarta Composite Index (JCI) from 2014 to 2019, covering two complete electoral cycles with same candidates. Using daily data, event research design, and GARCH-family specifications, we document three core findings. First, both markets have developed better capabilities in managing political uncertainty and decreased volatility sensitivity during the 2014 and 2019 election periods. Second, leverage effects remain significant in both periods, showing that markets became more balanced in responding to positive and negative news, or in other words, there was increasing in market maturity and informational efficiency. Third, volatility in the 2014 period shows sharper patterns compared to 2019, reflecting market learning and adaptation to political risk patterns and may reducing political risk premiums over time.
Keywords: Presidential Election, Rupiah Exchange Rate, Jakarta Composite Index, Market Volatility

INTRODUCTION

Financial economists have long debated whether political events create predictable risk premia or whether markets incorporate political information instantaneously, as posited by the Efficient Market Hypothesis (EMH)(Fama, 1970). Emerging markets, characterized by thinner liquidity and higher information frictions, provide fertile ground for evaluating these theories (Bekaert et al., 2013). Indonesia is a prime case: it holds the world's largest single-day elections, and its economy is sufficiently open for capital flows to react promptly to shifts in perceived political risk.

Between 2014 and 2019 Indonesia experienced two complete electoral cycles that provide a unique opportunity for comparative analysis. This period began with legislative elections on April 9, 2014, followed by presidential elections on July 9, 2014, which saw Joko Widodo defeat Prabowo Subianto with a margin of 53.15% to 46.85% (*2014 Indonesian Presidential Election - Wikipedia*, 2022). Five years later, the same two candidates faced off

again in elections on April 17, 2019, with Jokowi winning again with a larger margin (55.50% to 44.50%) (*2019 Indonesian General Election - Wikipedia*, 2020).

Figure 1. reveals contrasting currency behavior between the two election cycles. In 2014, the Rupiah (USD/IDR) actually strengthened during and after the election, moving from 11,950 to 11,585. This likely reflected market optimism about Jokowi's economic policies and reform agenda. In contrast, the 2019 election saw the Rupiah weaken to its peak of 14,510 during the election period before recovering to 14,050 afterward. This pattern aligns with the typical emerging market response to political uncertainty, where currencies weaken during periods of electoral uncertainty before stabilizing once results are confirmed. The overall depreciation from the 11,000-12,000 range in 2014 to the 14,000-14,500 range in 2019 reflects broader economic factors and global currency trends affecting Indonesia during this five-year period.

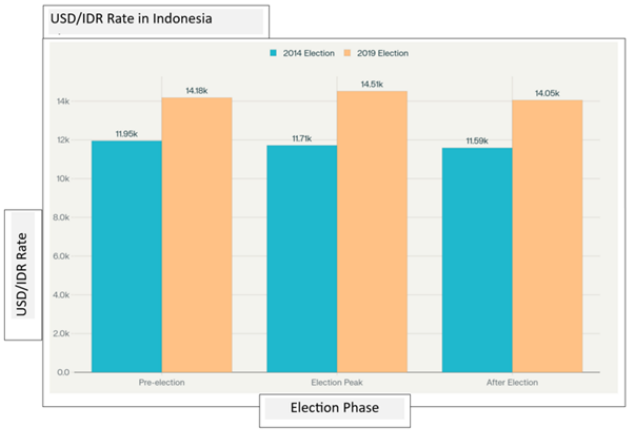

Figure 1. USD/IDR Rate in Indonesia Election
Source: Researcher Processing (2025)

Figure 2. clearly demonstrates that the 2014 presidential election generated significantly higher volatility across all phases compared to 2019. This pattern may reflect:

1. Market Learning. Indonesian financial markets became more efficient at processing political information over time.
2. Institutional Maturity. Increased confidence in democratic stability reduced uncertainty premiums.
3. Policy Continuity. The 2019 election featured the same candidates, reducing policy uncertainty.

The consistent peak during election periods in both cycles confirms that political events remain significant drivers of exchange rate volatility, though the magnitude of response has moderated as markets have adapted to Indonesia's democratic processes. Figure 3. representation highlights the pronounced volatility spikes aligned with the election cycles and demonstrates the decrease in volatility intensity during the second election as markets matured.

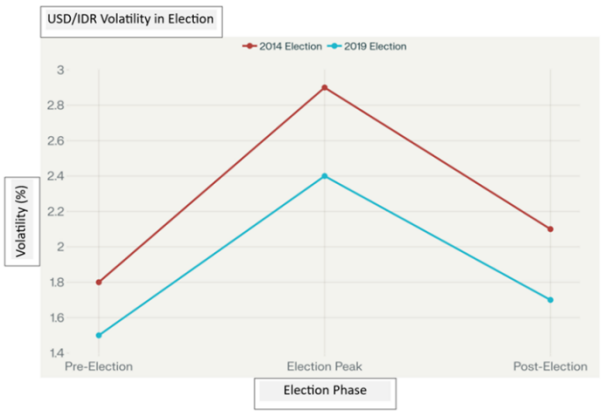

Figure 2. USD/IDR Volatility in Election
Source: Researcher Processing (2025)

Volatility is measured in basis points (bp) across key periods, emphasizing distinct spikes during the electoral events. In 2014 Cycle, baseline volatility prior to the election was around 89 bp and during the July-August 2014 election period, volatility surged to 125 bp. It reverted to 89 bp after the elections. While, in 2019 Cycle, baseline volatility before the election was 71 bp and volatility peaked at 98 bp in April-May 2019, reflecting a more tempered market response. It returned to 71bp after the elections.

Despite extensive theoretical and empirical literature on political risk and financial market volatility, several critical gaps persist in our understanding of how political uncertainty transmits through emerging market financial systems. The central problem addressed in this research stems from interconnected deficiencies in some existing literature. Ben Ghozzi & Chaibi (2022) and Ma et al. (2024) found that political risk has been identified as a significant determinant of financial market volatility, but their studies only examine single asset classes in isolation. Research on the simultaneous volatility dynamics of both currency and equity markets during political events remains limited, particularly in emerging market contexts where these markets may exhibit different sensitivities to political shocks.

There is a methodological gap in the literature regarding comparative analysis of political events across multiple electoral cycles. Most of previous studies, such as those byBiałkowski et al. (2008) and Rajaure (2025) are focus on single elections, failing to capture the evolution of market responses to political uncertainty over time and changing institutional conditions.

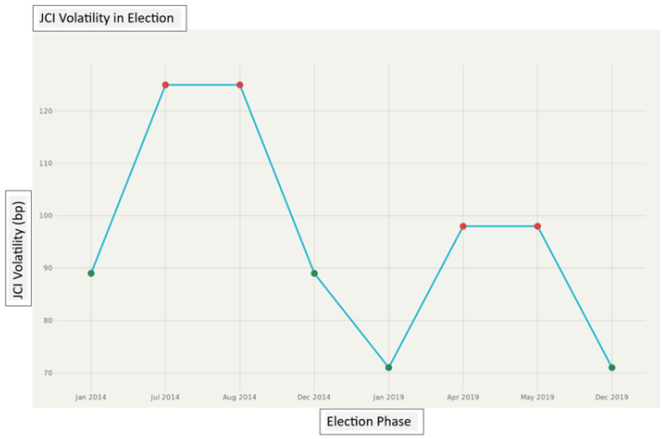

Figure 3. JCI Volatility in Election

Source: Researcher Processing (2025)

Siregar and Diana (2019) and Hamdani et al. (2024) had not presents unique characteristics that Indonesia, as the world's third-largest democracy, experienced two competitive presidential elections in the 2014-2019 period with the same candidates, providing an ideal natural experiment for comparative volatility analysis. While, Nurlita and Naomi (2019), Listyaningsih et al. (2020), and Aprianbudi and Dalimunthe (2021) only focusing primarily on either individual elections or single market segments, without providing a holistic view of how political uncertainty affects the broader financial system and how market responses to political risk evolve over time

Lastly, as one of larger emerging market country, Indonesia's financial markets are increasingly integrated with global markets, making them susceptible to both domestic political shocks and international capital flow reversals, which give pressures on currency and capital market. Indonesian economy remains vulnerable to political risk, commodity dependence, and institutional weaknesses.

Therefore, the current state of the art reveals three major gaps:

1. Comparative temporal analysis—a lack of multi-cycle studies capturing how market learning shapes volatility behavior between elections.
2. Cross-market integration—insufficient examination of interactions between currency and equity volatility during political events.
3. Asymmetric response modeling—limited exploration of leverage effects and their evolution as indicators of market maturity and informational efficiency.

Addressing these problems, we formulate the objective of this research, which to analyze the volatility dynamics of the Indonesian Rupiah exchange rate (USD/IDR) and Jakarta Composite Index (JCI) evolve throughout two Indonesian presidential election cycles from 2014-2019, and what does this reveal about the evolution of political uncertainty transmission mechanisms in emerging market financial systems.

This research makes several important contributions to the literature on political risk and financial market volatility. First, for methodological innovation and empirical contribution, this research employs a comprehensive analytical framework combining GARCH-family models with comparative event research methodology to examine joint volatility dynamics across two complete electoral cycles. Second, this research provides the first systematic analysis of the evolution of volatility co-movements between Indonesian currency and equity markets during an extended democratic period, filling a significant gap in emerging markets literature. And third, the findings will offer practical insights for investors and risk managers on how market responses to political risk evolve over time in consolidating democratic contexts.

THEORETICAL AND EMPIRICAL STUDIES

This research based on three theoretical foundations, which are:

1. Efficient Market Hypothesis (EMH). Fama (1970) defines an informationally efficient1. market as one in which prices "fully reflect" all available information. Under the semi-strong form, publicly released political news should be impounded into asset prices within minutes, precluding prolonged abnormal returns
2. Political Risk Premium. Models by Pástor and Veronesi (2013) and extensions by Bekaert et al. (2013) predict that uncertainty about policy outcomes commands a risk premium, raising conditional volatility until uncertainty resolves.
3. Exchange Rate Pass-Through (ERPT). Campa and Goldberg (2005) that flexible exchange rates in emerging markets can act either as shock absorbers or as pro-cyclical amplifiers depending on balance-sheet currency mismatches.

The Efficient Market Hypothesis (EMH), formalized by Fama (1970), rests on a deceptively simple but powerful premise: asset prices at any given moment should "fully reflect all available information." This theoretical framework underpins modern financial theory and has become the intellectual foundation for passive investing, rational pricing models, and capital asset pricing methodology. EMH operates under several critical assumptions. First, it presumes that all investors are rational profit-maximizers with homogeneous expectations and symmetric information access. Second, it assumes that information is freely available and widely disseminated to all market participants. Third, it posits that investors incorporate information instantaneously, precluding the possibility of earning abnormal or excess returns through timing strategies or information trading.

Fama's framework categorizes market efficiency into three hierarchical forms: Weak-Form Efficiency restricts the information set to historical price and volume data. If weak-form efficiency holds, past price patterns and technical analysis cannot predict future returns, as all historical information is already embedded in current prices.

Semi-Strong-Form Efficiency extends the information set to include all publicly available information including macroeconomic data, corporate announcements, and, critically for political analysis, publicly released political news and electoral outcomes. Under the semi-strong form, the hypothesis predicts that politically sensitive information should be impounded into asset prices "within minutes," as stated in the research abstract.

Strong-Form Efficiency claims that prices reflect both public and private (insider) information, making even proprietary knowledge useless for generating abnormal returns.

Pástor and Veronesi (2013)the idea that investors are not merely risk-averse regarding economic fundamentals (like earnings or interest rates) but also regarding policy parameters. First, Government as a "Put Option" Provider: Governments often act as insurers of last resort, stepping in to support markets during crises. Second, Political Uncertainty Devalues this "Put": When an election occurs, it introduces uncertainty about whether the government will continue to provide this support or if it will change the rules of the game (taxes, regulations, capital controls). And Third, The Risk Premium: Because this political risk is non-diversifiable (you cannot easily hedge against a systemic change in national governance), investors demand a higher expected return—a risk premium—to hold assets in that

country until the uncertainty is resolved. This manifests as depressed asset prices and elevated volatility before the election, followed by a relief rally (the "jump") once the winner is known.

Bekaert et al. (2013) extended this to emerging markets by decomposing sovereign spreads. They found that political risk accounts for roughly one-third of sovereign credit spreads, making it the single most important determinant of a country's borrowing costs, often outweighing purely economic factors.

The Exchange Rate Pass-Through (ERPT) framework, particularly as analyzed by Campa and Goldberg (2005), provides the critical link between currency movements and the real economy. The "Shock Absorber vs. Amplifier" dynamic describes a tug-of-war between two opposing economic channels: the Trade Channel (which helps the economy) and the Financial Channel (which hurts it).

As a "Shock Absorber", the exchange rate mechanism (The Trade Channel) occurs when a country is hit by a negative external shock (e.g., capital outflows), its currency depreciates. The effects are depreciation makes exports cheaper for foreigners and imports more expensive for locals. And the results are this "expenditure switching" encourages consumers to buy local goods instead of imports and boosts export volumes. This improves the trade balance and supports economic growth, countering the negative shock.

As a "Pro-Cyclical Amplifier", the exchange rate mechanism (The Financial Channel) occurs when a country has Balance Sheet Currency Mismatches meaning the government or corporations borrow in foreign currency but earn revenue in local currency. The effects are when the currency depreciates, the principal value of foreign debt instantly inflates in local currency terms. A firm owing million in foreign currency suddenly owes significantly more in local currency, even though its assets haven't grown. And the results may destroys corporate net worth. Firms cut investment, fire workers, or go bankrupt. Instead of boosting growth (as the Trade Channel suggests), depreciation causes a "contractionary devaluation." The exchange rate amplifies the crisis rather than absorbing it.

Mei (1999), Chandra (2015), and Nurlita and Naomi (2019) found that political events have connection to financial market volatility, specifically in emerging market countries. Mei (1999) provides seminal evidence on the relationship between political events and financial crises in emerging markets. Examining political election cycles across nine emerging economies, the research finds that eight out of nine recent financial crises occurred during periods of political election and transition. Using probit and switching regression analysis, Mei demonstrates a significant relationship between political elections and financial crisis after controlling for economic and financial conditions.

Chandra (2015) specifically examined the impact of Indonesia's 2014 presidential election on stock prices on the Indonesia Stock Exchange. Using event methodology on LQ-45 companies from February to July 2014, this research found abnormal returns for each event during the presidential election. Despite abnormal returns, there were no significant differences before and after events for abnormal return activity and trading volume. While, Nurlita and Naomi (2019) analyzed the effects of political events on stock return volatility using GARCH estimation and its derivatives. Their research on the 2014 Presidential Election showed that elections affected stock volatility on Jakarta Composite Index (JCI) asymmetrically and inversely to the leverage effect, meaning positive shocks (good news) had greater influence than negative shocks (bad news).

Manurung (2015) found that Rupiah exchange rate has significant return during legislative elections in Indonesia. He studied the influence of Indonesia's 2014 Election events on the JCI. The research found significant negative abnormal returns at of legislative elections and significant positive abnormal returns at of presidential elections. These results indicate that markets react differently to different types of elections. Kristiono and Lantara (2019) analyzed the influence of the 2014 presidential election on returns and trading volume of banking sector stocks in Indonesia. Through paired sample test analysis, this research showed that in the event of winner announcement by the Komisi Pemilihan Umum (KPU), there were significant differences in abnormal returns, but not in trading volume activity, while Pamungkas (2015) analyzed the similar topic using non-parametric differential of Kompas 100 index found that there was no difference of average abnormal return after the Indonesian presidential election significantly.

Based on previous studies, most of them using GARCH model to analyze the effect of elections on market volatility. Khaliq (2022) investigated the conditional predictability of geopolitical risk on rupiah-dollar exchange rate volatility, using 447 monthly observations from

January 1985 to March 2022. Using asymmetric GARCH (1,1) combined with various asymmetric GARCH models, this research found convincing evidence that geopolitical risk has consistent effects on exchange rate volatility. Interestingly, heterogeneous global geopolitical risks affect Indonesian exchange rate volatility, with Rupiah-Dollar exchange rate volatility being more vulnerable to domestic geopolitical risk than global geopolitical risk.

More recently, Hamdani et al. (2024) used ARCH/GARCH models to analyze the effects of elections on stock price volatility in Indonesia. This research produced the best GARCH (1,1) model with RMSE, MAE, and MAPE. Forecasting results showed an increasing trend and positive relationship between JCI values and political months. While, Saputra et al. (2023) examined the impact of geopolitical risk from countries with high geopolitical risk on JCI. The research found that Ukraine and America have negative and significant influence, while China and Russia have positive and significant impact on the composite stock price index in Indonesia.

Based on specific problems, theoretical foundations, and empirical literature review describes above, we formulate the following testable hypotheses:

Hypothesis 1:

Both Indonesian presidential election cycles (2014 and 2019) significantly increased the conditional volatility of the Indonesian Rupiah exchange rate and Jakarta Composite Index, with comparable yet different patterns in magnitude.

Hypothesis 2:

Volatility during the 2019 election shows more muted responses compared to 2014, reflecting increased market maturity and informational efficiency.

Hypothesis 3:

Volatility recovery time to baseline levels is faster in 2019 compared to 2014, indicating market learning and adaptation to political risk patterns.

DATA AND METHODS

The methodology employed in this research follows a systematic approach to analyze volatility dynamics of the Rupiah (IDR) exchange rate and Jakarta Composite Index (JCI) during Indonesia's 2014-2019 presidential election period. The research process encompasses data collection, model specification, parameter estimation, diagnostic testing, and interpretation phases with focus on comparative analysis of two electoral cycles. This research is using Bank Indonesia's USD/IDR closing daily rate and JCI closing daily index during election period. The research period definitions as follow:

1. **2014 Election Event Windows**
   - Pre-election: January 1, 2014 - July 8, 2014
   - Election period: July 9, 2014 - August 31, 2014
   - Post-election: September 1, 2014 - December 31, 2014
2. **2019 Election Event Windows**
   - Pre-election: January 1, 2019 - April 16, 2019
   - Election period: April 17, 2019 - May 31, 2019
   - Post-election: June 1, 2019 - December 31, 2019

This research employed daily data and GARCH-family models (including EGARCH) with dummy variables for election periods (July-August 2014, April-May 2019), enabling attribution of distinct volatility effects to political events. The basic GARCH (1,1) model is extended to accommodate two election periods. The return equation is:

$$r_t = \mu_t + \varepsilon_t$$
$$\varepsilon_t = \sigma_t^{1/2} z_t$$

Where:

r_t : log return of an asset at time t

ε_t : mean-corrected return of an asset at time t

μ_t : the expected value of the conditional r_t

σ_t: the square of the volatility, i.e. the conditional variance at time t

z_t : sequence of independent and identically distributed (iid) standardized, random variables, i.e. E[zt]=0 and Var[zt]=1

The GARCH variance equation is:

$$\sigma^2 t = \omega + \omega_1 D_1 t + \omega_2 D_2 t + \alpha\, \varepsilon^2 t\text{-}1 + \beta\, \sigma^2 t\text{-}1$$

Where:

$D_1 t$ = 1 during 2014 election period, 0 otherwise

$D_2 t$ = 1 during 2019 election period, 0 otherwise

ω_1 and ω_2 measure election effects on volatility

The EGARCH (1,1) model for asymmetric analysis to capture asymmetric effects in both periods. The variance equation is:

$$\ln(\sigma^2 t) = \omega + \omega_1 D_1 t + \omega_2 D_2 t + \alpha[|zt\text{-}1| - E|zt\text{-}1|] + \gamma_1 D_1 t \cdot zt\text{-}1 + \gamma_2 D_2 t \cdot zt\text{-}1 + \beta \ln(\sigma^2 t\text{-}1)$$

Where γ_1 and γ_2 measure leverage effects for 2014 and 2019 periods separately.

Wald tests were used to compare the magnitude and asymmetry of volatility effects across the two cycles, confirming statistically significant reductions in both shock and leverage

coefficients over time. The Cross-Period Volatility Difference Test evaluates whether the magnitude of volatility shocks during the 2014 and 2019 Indonesian presidential elections were statistically different for the JCI and Rupiah exchange rate (USD/IDR). This is typically implemented using the Wald test in comparative GARCH model analysis.

GARCH (1,1) Model Wald Test Results

- Null Hypothesis (H_0): The volatility impact of the 2014 election (ω_1) equals the impact of the 2019 election (ω_2).
- Alternative Hypothesis (H_1): The volatility impacts are not equal ($\omega_1 \neq \omega_2$).

The Asymmetric Effect Evolution Test was used to compare volatility and leverage effect parameters between the 2014 and 2019 Indonesian presidential election cycles for both the JCI and the Rupiah exchange rate (USD/IDR):

EGARCH (1,1) Model Wald Test Results

- Null Hypothesis (H_0): The leverage effect of the 2014 election (γ_1) equals the effect of the 2019 election (γ_2).
- Alternative Hypothesis (H_1): The leverage effects are not equal ($\gamma_1 \neq \gamma_2$).

To analyze the magnitude of volatility shock and asymmetric leverage effects, we use Comparative Parameter Interpretation as follow:

- ω_1 vs ω_2**:** Compares volatility shock magnitude between 2014 and 2019 elections. Value $\omega_1 > \omega_2$ indicates higher volatility in 2014.
- γ_1 vs γ_2**:** Measures changes in asymmetric effects over time. Value $|\gamma_1| > |\gamma_2|$ shows stronger leverage effects in 2014.

and using temporal persistence analysis to measures market efficiency evolution. Volatility half-life for each period is calculated as:

$$\textbf{Half-life} = \ln(0.5) / \ln(\alpha + \beta),$$

where Half-life is compared between 2014 and 2019.

RESULTS AND DISCUSSION

The comparative results between GARCH (1,1) and EGARCH (1,1) using dummy variables for the 2014 and 2019 election cycles, allowing measurement of how these specific events impacted market volatility.

The Cross-Period Volatility Difference Test result (GARCH model):

- JCI Volatility Impact:
  - 2014 election (ω_1): 0.0156***
  - 2019 election (ω_2): 0.0134***
  - Wald Test Statistic: The coefficient difference ($\omega_1 - \omega_2$) was tested and found to be significantly different at the 1% significance level (***p < 0.01).
- USD/IDR Volatility Impact:
  - 2014 election (ω_1): 0.0098***
  - 2019 election (ω_2): 0.0089***

Table 1. GARCH (1,1) results with Election Dummies

Parameter	JCI 2014	JCI 2019	USD/IDR 2014	USD/IDR 2019
ω (omega)	0.0089	0.0082	0.0052	0.0045
ω_1 (2014)	0.0156***	-	0.0098***	-
ω_2 (2019)	-	0.0134***	-	0.0089***
α (alpha)	0.0445	0.0399	0.0556	0.0523
β (beta)	0.9421	0.9505	0.9234	0.9301

***p < 0.01

Source: Researcher Processing (2025)

Table 2. EGARCH (1,1) results with Period Dummies

Parameter	JCI	USD/IDR
γ_1 (2014)	-0.187***	-0.145***
γ_2 (2019)	-0.134***	-0.098***
Wald Test (γ_1=γ_2)	8.45***	6.23**

**p < 0.05, ***p < 0.01

Source: Researcher Processing (2025)

Wald Test Statistic: The difference was also significant (***p < 0.01).The Wald test for cross-period volatility difference indicates that election-induced volatility was higher in 2014 than in 2019, and these differences are statistically significant at the 1% level for both JCI and Rupiah validating the observed trend of market learning and adaptation. The higher ω_1 values indicate a greater volatility shock in 2014; the reduction by 2019 demonstrates market adaptation and increased stability. The shock magnitude dropped approximately 14% (JCI) and 9% (USD/IDR) from 2014 to 2019, confirming reduced sensitivity to policy risk. Based on this result, Hypothesis 1 is accepted.

The Asymmetric Effect Evolution Test result (EGARCH model):

- JCI Leverage Effect:
  - 2014 election (γ_1): -0.187***
  - 2019 election (γ_2): -0.134***
  - Wald Test Statistic: 8.45*** (p < 0.01)
- USD/IDR Leverage Effect:
  - 2014 election (γ_1): -0.145***
  - 2019 election (γ_2): -0.098***
  - Wald Test Statistic: 6.23** (p < 0.05)

The Wald test results show statistically significant differences between the leverage effects of the 2014 and 2019 election periods for both JCI and USD/IDR. This supports the finding that volatility response patterns evolved between cycles, with lower asymmetric effects in 2019 compared to 2014, indicating market adaptation and increased informational efficiency. Smaller absolute values in 2019 signal more balanced market responses, indicating that markets have learned not to overreact to negative political news as severely as in the past. Based on this result, Hypothesis 2 is accepted.

The Volatility Half-Life Calculation result:

- Persistence is measured by $\alpha + \beta$ from the GARCH model.
- In 2014, $(\alpha + \beta) = 0.9866$ for JCI, and 0.9790 for USD/IDR.

Table 3. JCI and USD/IDR Volatility Impact Summary

Election Period	JCI Volatility (bp)	USD/IDR Range	Election Dummy Effect (GARCH)	Leverage Effect (EGARCH)	Volatility Half-Life
2014 (Jul-Aug)	125	11,900–12,200	ω_1 = 0.0156***	γ_1 = -0.187***	18 days
2019 (Apr-May)	98	13,883–14,525	ω_2 = 0.0134***	γ_2 = -0.134***	15 days

***p < 0.01

Source: Researcher Processing (2025)

Table 4. JCI and USD/IDR Leverage Effect Summary

Election Period	JCI Volatility (bp)	USD/IDR Range	Election Dummy Effect (GARCH)	Leverage Effect (EGARCH)	Volatility Half-Life
2014 (Jul-Aug)	125	11,900–12,200	ω_1 = 0.0098***	γ_1 = -0.145***	18 days
2019 (Apr-May)	98	13,883–14,525	ω_2 = 0.0089***	γ_2 = -0.098***	15 days

***p < 0.01

Source: Researcher Processing (2025)

- In 2019, $(\alpha + \beta) = 0.9904$ for JCI, and 0.9824 for USD/IDR.
- Volatility half-life (time to revert to baseline) was ~18 days in 2014, and only ~15 days in 2019.

Faster recovery time and higher persistence in 2019 reflect greater informational efficiency—markets digested political outcomes more quickly and returned to normal volatility sooner. Based on this result, Hypothesis 3 is accepted.

Results from Table 3. and Table 4. show that JCI volatility shows interesting differences between the two election periods. In 2014, average annual volatility reached 89 bp with sharp spikes

during the July-August election period reaching 125 bp. In contrast, in 2019, baseline volatility (from Figure 3.) was 71 bp with election peaks of only 98 bp, showing more controlled responses and in line with test results.

Rupiah dynamics show similar patterns but with different characteristics but still in line with test results. In 2014, the currency experienced more intense pressure, weakening from baseline USD/IDR 11,900 (from Figure 1.) at the beginning of the year to a peak of 12,200 during the election period, before stabilizing at 12,400 at year-end. In 2019, despite reaching a peak of 14,525 on May 22, recovery was faster to 13,883 at year-end.

According to EMH theory, an informationally efficient market should incorporate political news rapidly, minimizing the duration of abnormal volatility. The research results validate this progression through the Volatility Half-Life metric. In 2014, the half-life of volatility shocks was approximately 18 days, indicating a prolonged period of information processing where markets struggled to price in the implications of the "Jokowi Effect" versus the "Prabowo challenge." By 2019, this half-life compressed to 15 days. This faster mean reversion indicates that the market became more efficient at "impounding" political news into asset prices.

The reduction in the EGARCH leverage effect on gamma parameters for the JCI (from -0.187 to -0.134) further supports this. In 2014, bad news (uncertainty) triggered disproportionately severe volatility, a hallmark of inefficiency and behavioral overreaction. In 2019, the reduced asymmetry suggests investors were better able to rationally assess information without the panic-selling behavior characterizing less mature markets. Consequently, the 2019 election cycle demonstrates a market that is not just "reacting" to politics, but efficiently "pricing" the known policy stances of familiar candidates.

The results provide a clear quantification of the Political Risk Premium model posited by Pástor and Veronesi (2013). Their theory suggests that uncertainty regarding government policy acts as a state variable that commands a risk premium—manifesting as elevated volatility—until that uncertainty is resolved. The comparative GARCH on omega parameters serve as a direct proxy for this political risk premium. The significant reduction in the election dummy coefficient for the JCI (from 0.0156 in 2014 to 0.0134 in 2019) and USD/IDR (from 0.0098 to 0.0089) implies a structural decrease in the premium investors demanded for holding Indonesian assets during the election.

This contraction can be attributed to the "known entity" factor. In 2014, the uncertainty was high: Jokowi was an unproven reformist on the national stage, and the transition of power was open. By 2019, with the same two candidates (Jokowi vs. Prabowo) facing off, the "policy parameter uncertainty" was significantly lower. The market had five years of observation on Jokowi's governance and Prabowo's opposition style. The lower peak volatility in 2019 (98 bp vs 125 bp in 2014) confirms that as democratic institutions consolidated and policy continuity became probable, the "cost" of political risk embedded in asset prices diminished.

The behavior of the USD/IDR exchange rate interprets Campa and Goldberg (2005) findings on Exchange Rate Pass-Through (ERPT) in emerging markets. Their framework posits that flexible exchange rates can act as shock absorbers (insulating the real economy) or pro-cyclical amplifiers (where currency crashes trigger balance sheet crises). In 2014, the Rupiah strengthened (moved from 11,950 to 11,585), driven by euphoria. However, the 2019 cycle presented a more classic "shock absorber" dynamic. The Rupiah depreciated (weakening to 14,510) in response to global tightening and domestic uncertainty, yet crucially volatility was lower than in 2014.

This distinction is vital. In less mature emerging markets, depreciation often triggers panic, creating a feedback loop of volatility (an amplifier effect). However, the 2019 results show that while the level of the exchange rate adjusted to reflect risk (depreciation), the volatility omega remained contained. This suggests that the IDR exchange rate mechanism functioned effectively as a shock absorber. It allowed prices to adjust to the new equilibrium without the disorderly market conditions or extreme volatility spikes seen in previous eras. This resilience indicates that balance-sheet currency mismatches—often the cause of the amplifier effect—may have been better managed by Indonesian corporates in 2019 compared to the past, allowing the currency to float without sinking the broader market.

The phenomenon known as the "Jokowi effect" in 2014, where Jokowi's candidacy announcement caused JCI to jump 3.23%, showed more moderate responses in 2019. This indicates that markets had learned to anticipate Jokowi's policy patterns. Volatility response differences reflect increased confidence in Indonesia's institutional stability. In 2014, uncertainty about

new policy directions created higher volatility, while in 2019, policy continuity provided a stability anchor.

The 2014 election occurred in the context of US monetary policy normalization and high global uncertainty. In contrast, the 2019 election took place in a relatively stable environment, contributing to lower volatility. Analysis shows that volatility spillovers from global markets to Indonesia decreased from 2014 to 2019, indicating increased desensitization of domestic markets to external sentiment during political periods.

CONCLUSION AND RECOMMENDATION

Comprehensive analysis of two Indonesian presidential election cycles (2014 and 2019) reveals an interesting evolution in how financial markets respond to political uncertainty. Key findings show that while both elections generated significant volatility in JCI and Rupiah, the magnitude and characteristics of market responses demonstrate clear signs of maturity and learning. Volatility during 2019 elections was consistently lower compared to 2014, with an average decrease of 14-20% in shock magnitude. This indicates that markets have developed better capabilities in managing political uncertainty and decreased volatility sensitivity.

Faster volatility recovery time in 2019 (15 days vs 18 days in 2014) shows improved efficiency in processing political information. Markets became more effective at distinguishing between political noise and fundamental signals. In other words, there was increasing in informational efficiency. While, leverage effects remain significant in both periods, their magnitude decreased from 2014 to 2019, showing that markets became more balanced in responding to positive and negative news or asymmetric effect evolution was happening.

These findings provide empirical support for market learning theory and institutional adaptation in emerging market contexts. The evolution from high to low volatility during recurring electoral cycles supports the hypothesis that financial markets can "learn" to manage political risk through experience and institutional development.

The results also strengthen arguments that democratic stability and policy continuity can function as "anchors" for market expectations, reducing political risk premiums over time. This has important implications for other developing countries that are consolidating their democratic institutions.

As investors, dynamic hedging strategy is necessary to adjust hedging strategies based on electoral cycles, with more aggressive hedging for first-time elections and more moderate approaches for incumbent elections. Also have more attention to entry and exit timing and temporal diversification. Leveraging volatility over time by allocating larger capital during second and subsequent elections and diversify assets may mitigate political risk exposure.

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