



The Dominance of Market Expectations over Systematic Risk on Stock Prices: Evidence from Fixed-Effects Panel Regression in Indonesia's LQ45 Manufacturing Sector

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Abstract

This study investigates whether traditional market risk or forward-looking expectations dominate stock price formation in emerging markets, using evidence from Indonesia's LQ45 manufacturing sector. While previous studies generally examine risk and expectations separately, this research integrates both variables within a unified empirical framework. Using monthly panel data from five consistently listed firms during 2010–2023 (N = 840 observations), the study applies a fixed-effects panel regression model with Driscoll–Kraay standard errors to address heterogeneity, autocorrelation, and cross-sectional dependence. Market risk is proxied by beta and return volatility, whereas market expectations are measured using sentiment-based indicators. The findings reveal a significant asymmetry between the two determinants. Market risk is statistically insignificant ($\beta \approx 1.72$; $t \approx 1.32$; $p = 0.188$), indicating that conventional risk measures fail to explain contemporaneous stock price variation after controlling for firm-specific effects. In contrast, market expectations show a negative and highly significant effect ($\beta \approx -19.13$; $t \approx -2.82$; $p = 0.0049$), suggesting that pessimistic sentiment and expectation-driven factors play a dominant role in stock price formation. These results provide evidence that behavioral expectations outweigh traditional risk metrics in emerging markets. The study contributes to the asset-pricing literature by demonstrating that behavioral expectations serve as the primary transmission channel for valuation adjustments. Despite these contributions, the study is limited to a single sector and country context. Future research should extend the framework across industries, incorporate higher-frequency observations, and apply machine-learning-based sentiment measures to improve the accuracy.

Keywords: *Market risk, Investor expectations, Stock prices, Emerging markets, Panel data, Behavioral finance*

INTRODUCTION

Stock price formation in emerging markets remains an open empirical question, particularly regarding the relative roles of traditional risk factors and forward-looking investor expectations. While classical asset pricing theory emphasizes systematic risk as the primary driver of valuation, a growing body of behavioral finance suggests that expectations, proxied by sentiment and forward-looking indicators, can distort or even dominate price dynamics. This tension is especially pronounced in emerging markets, where information asymmetry, market inefficiencies, and speculative behavior are more prevalent.

The stock market serves as a critical barometer of economic performance, reflecting not only the financial health of individual firms but also the broader stability of a country's macroeconomic environment. In both developed and developing economies, stock markets play a strategic role in mobilizing savings, allocating capital efficiently, and facilitating long-term economic growth. In emerging economies, the stock market acts as a bridge between domestic and international investors, enabling capital inflows that stimulate industrial expansion and technological advancement (Bekaert & Harvey, 2017). In this regard, the Indonesian capital market has developed significantly over the past two decades, becoming an increasingly important component of the national economic infrastructure.

Indonesia offers a compelling setting to examine this issue. As one of the largest emerging

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markets in Southeast Asia, Indonesia has seen its capital market expand rapidly, with the manufacturing sector central to economic output and market capitalization. Firms in this sector are highly exposed to macroeconomic fluctuations and sensitive to shifts in investor sentiment. This dual exposure makes the sector particularly suitable for testing the competing roles of risk and expectations in shaping stock prices.

Stock prices in the manufacturing sector are not determined solely by firm-specific fundamentals such as earnings, revenue growth, or operational efficiency. Instead, they are shaped by a complex interplay of systematic risk factors and investor behavior. In emerging markets like Indonesia, this complexity is further amplified by structural inefficiencies, limited market depth, and heightened exposure to external shocks. Consequently, stock prices often exhibit greater volatility than those in developed markets (Rjoub et al., 2021). This volatility reflects not only changes in economic fundamentals but also fluctuations in investor sentiment and expectations.

Market risk has long been recognized as a primary driver of stock price movements. Rooted in classical financial theories such as the Capital Asset Pricing Model (CAPM), market risk captures a stock's sensitivity to broader market movements. Measures such as beta and volatility are widely used to quantify this risk. Beta indicates how much a stock moves relative to the overall market, while volatility measures the magnitude of price fluctuations over time (Fama & French, 2015). In emerging markets, higher market risk is often linked to greater uncertainty and lower investor confidence, leading to depressed stock valuations.

However, relying solely on traditional risk measures may provide an incomplete understanding of stock price behavior. In recent years, there has been growing recognition of the role of investor expectations in shaping market outcomes. Investor expectations, often proxied by sentiment indices, analyst forecasts, and alternative data sources such as online search behavior, reflect the psychological and behavioral aspects of financial decision-making. These expectations can significantly influence stock prices, sometimes even overriding fundamental valuations (Baker & Wurgler, 2007; Da et al., 2015).

The growing importance of investor expectations is especially pronounced in emerging markets, where information asymmetry and limited transparency can amplify the effects of sentiment-driven trading. Investors in these markets may rely more heavily on informal information channels, speculative behavior, and short-term market signals. As a result, stock prices may deviate from intrinsic value, leading to inefficiencies and potential mispricing (Shiller, 2017). This pattern underscores the need to incorporate behavioral factors into traditional financial models.

Despite extensive research on asset pricing, existing studies largely treat market risk and investor expectations in isolation. Risk-based studies focus on beta and volatility within the Capital Asset Pricing Model (CAPM) framework, while behavioral studies emphasize sentiment-driven anomalies. Empirical evidence from Indonesia shows a similar pattern, with few attempts to integrate these dimensions within a unified econometric framework. More importantly, prior studies do not explicitly address a critical theoretical question: whether expectations merely complement risk or systematically dominate it in explaining stock price variation.

This study addresses this gap by jointly modeling market risk and investor expectations using panel data on LQ45 manufacturing firms from 2010 to 2023. By applying a fixed-effects framework that controls for firm-specific heterogeneity, this research provides a direct empirical test of the relative explanatory power of these two competing factors. Unlike prior studies that focus on significance in isolation, this study explicitly evaluates dominance, thereby advancing the literature beyond fragmented analysis.

The contribution of this study is threefold. First, it introduces a comparative dominance framework that assesses whether behavioral expectations outweigh traditional risk metrics in an

emerging market. Second, it provides robust panel-based evidence using firm-level data and corrected standard errors, thereby addressing common econometric limitations in emerging-market research. Third, it offers context-specific insights for Indonesia, demonstrating how expectation-driven mechanisms operate in a structurally less efficient market environment. By reframing the interaction between risk and expectations as a testable empirical competition rather than a complementary relationship, this study contributes to the ongoing debate between classical and behavioral finance and provides new evidence on how stock prices are formed in emerging markets.

LITERATURE REVIEW

Market Risk

Market risk is the exposure of financial assets to systematic factors that affect the entire market and cannot be eliminated through diversification. It is a fundamental concept in modern finance, underpinning models such as the CAPM and the Arbitrage Pricing Theory (APT). Market risk stems from macroeconomic variables, including interest rates, inflation, exchange rates, and geopolitical events, which collectively influence investor behavior and asset prices (Fama & French, 2015).

Beta is one of the most widely used measures of market risk. It indicates how sensitive a stock's returns are to changes in the overall market portfolio. A beta greater than one suggests the stock is more volatile than the market, while a beta less than one indicates lower volatility. Empirical studies have shown that beta plays a significant role in determining expected returns, particularly in emerging markets (Estrada, 2007). However, the predictive power of beta has been debated, with some studies suggesting it may not fully capture the complexity of risk-return relationships.

Volatility, another key measure of market risk, reflects the degree of variation in stock prices over time. High volatility is often associated with increased uncertainty and risk, which can deter investors and lead to lower stock valuations. In emerging markets, volatility tends to be higher due to factors such as political instability, economic fluctuations, and limited market liquidity (Bekaert & Harvey, 2017).

Recent studies have emphasized the importance of incorporating multiple dimensions of risk when analyzing stock price behavior. For example, Bali et al. (2019) highlight that downside and tail risks provide additional insights beyond traditional volatility measures. Similarly, Ang et al. (2020) argue that volatility clustering and time-varying risk are critical to understanding market dynamics.

In the Indonesian context, research shows that market risk significantly influences stock price movements, particularly in the manufacturing sector. Companies with higher exposure to systematic risk tend to experience greater price fluctuations, reflecting investor sensitivity to macroeconomic conditions (Handayani et al., 2018). Moreover, Indonesia's integration into global financial markets has increased its vulnerability to external shocks, further amplifying market risk (Rjoub et al., 2021).

Market Expectations

Market expectations are investors' forward-looking views of future economic and corporate performance. They are shaped by a mix of information, beliefs, and psychological factors, making them inherently subjective and dynamic. Unlike market risk, which is often quantified with statistical measures, market expectations are typically captured through proxies such as sentiment indices, analyst forecasts, and alternative data sources.

Investor sentiment has emerged as a key determinant of stock price behavior. It reflects investors' overall mood and attitude toward the market, which can influence trading decisions and price movements. Positive sentiment may lead to overvaluation, while negative sentiment can result in undervaluation (Baker & Wurgler, 2007). Empirical evidence suggests that sentiment-driven trading is particularly prevalent in emerging markets, where information asymmetry and limited transparency create fertile ground for behavioral biases (Shiller, 2017).

Recent advances in data analytics have enabled researchers to measure investor sentiment more accurately. Quantitative indicators and predictive modeling have become increasingly important for capturing behavioral patterns and market expectations through empirical approaches and statistical analysis (Hamzah et al., 2021). For instance, Google search intensity, social media activity, and news sentiment analysis have been used as proxies for market expectations (Da et al., 2015; Chen et al., 2022). These measures capture real-time changes in investor behavior, providing valuable insights into market dynamics.

Nguyen and Pham (2019) find that search-based sentiment significantly affects stock returns in emerging markets, indicating that investor attention plays a crucial role in price formation. Similarly, Cheema and Fianto (2024) demonstrate that investor sentiment and structural risk factors independently influence market anomalies in Southeast Asian markets. These findings underscore the importance of examining the direct effects of behavioral factors and traditional financial metrics on stock market outcomes.

Behavioral and expectation-based analyses have also become increasingly common in Indonesian quantitative studies. The use of quantitative indicators to assess market perception and decision-making behavior shows that investor responses are often shaped by external information and uncertainty signals beyond firm fundamentals (Christian et al., 2022).

In addition to sentiment, analyst forecasts and macroeconomic outlook indicators contribute to market expectations. Analysts' recommendations can influence investor decisions by providing information about future earnings and growth prospects. However, these forecasts are not always accurate and may be subject to biases (Hong & Kubik, 2003).

Integration Model

The direct effects of market risk and market expectations on stock prices are a central focus of financial research. Traditional asset pricing models primarily focus on risk-return trade-offs, assuming that investors are rational and markets are efficient. In contrast, behavioral finance emphasizes the role of psychological factors and cognitive biases in shaping market outcomes (Barberis et al., 2018). Integrating behavioral finance with quantitative modeling offers a broader perspective for explaining stock price movements. Quantitative decision-making frameworks are increasingly used to evaluate uncertainty, expectations, and strategic responses in dynamic market environments (Kurniawan & Hermawan, 2023).

Further research by Liu et al. (2021) indicates that both investor sentiment and market risk are important determinants of stock returns. These findings suggest that market risk and market expectations each contribute directly to stock price behavior. Higher levels of market risk may influence investor decisions and valuation outcomes, while investor sentiment reflects market expectations that, in turn, shape stock prices.

This integrated approach aligns with the growing recognition that financial markets are not purely driven by rational decision-making. Instead, they reflect a combination of objective risk factors and subjective expectations, which together shape price dynamics.

Conceptual Framework

Drawing on the theoretical and empirical literature, this study adopts a conceptual

framework that treats market risk and market expectations as dual determinants of stock prices. Market risk, captured by beta and volatility, reflects manufacturing firms' systematic exposure to macroeconomic fluctuations. Market expectations, reflected in sentiment indices, analyst outlooks, and volatility indices, represent investors' forward-looking perceptions.

The framework posits that both factors independently influence stock prices. Market risk affects the fundamental valuation of stocks, while market expectations influence investor behavior and market sentiment. Each variable is expected to contribute directly to stock price movements through its respective mechanisms under prevailing market conditions. Although prior literature suggests potential interaction or moderating effects between risk and sentiment, this study deliberately isolates the direct, independent effects of market risk and market expectations. This approach is designed to test which of the two variables fundamentally dominates stock price formation in a direct empirical competition, avoiding the confounding overlap that interaction terms might introduce.

This multidimensional framework provides a comprehensive lens for analyzing stock price dynamics in Indonesia's manufacturing sector. It bridges the gap between traditional financial theories and behavioral finance, offering a more holistic understanding of market behavior.

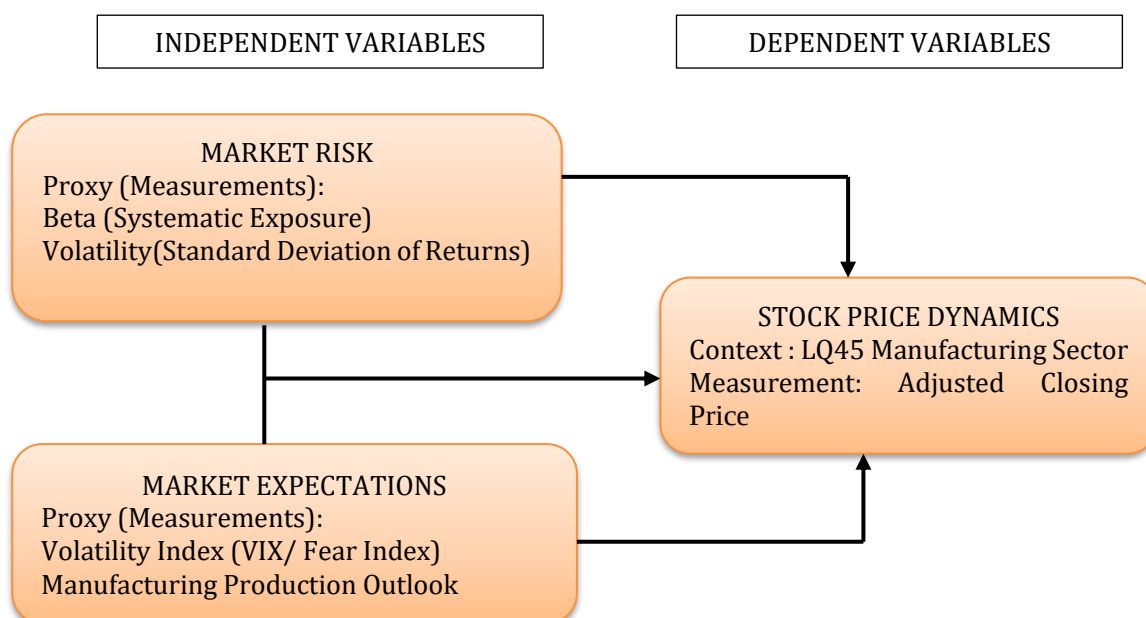


Figure 1. A conceptual framework that describes the relationship between Market Risk (volatility, beta) and Market Expectations (sentiment, outlook) on Stock Prices in the manufacturing sector.

Building on the integrated framework of classical asset pricing theory and behavioral finance, this study proposes that market risk and market expectations each independently influence stock price dynamics without necessarily moderating one another, though their explanatory power may differ. Traditional financial theory holds that systematic risk, as measured by beta and volatility, should significantly affect stock prices because investors demand compensation for greater market exposure. By contrast, behavioral finance argues that investor sentiment and forward-looking expectations may exert stronger short-term effects, particularly in emerging markets marked by information asymmetry and speculative behavior.

In Indonesia's LQ45 manufacturing sector, market expectations are expected to play a more dominant role than conventional market risk measures. Investors in emerging markets often

respond more strongly to uncertainty, pessimistic sentiment, and forward-looking signals than to historical risk indicators. Consequently, stock price movements may reflect behavioral responses rather than purely rational risk-return considerations. Accordingly, this study formulates the following hypotheses:

- H1: Market risk has a significant effect on stock prices in the LQ45 manufacturing sector.
- H2: Market expectations have a significant effect on stock prices in the LQ45 manufacturing sector.
- H3: Market expectations exert a more dominant influence on stock prices than market risk in the LQ45 manufacturing sector.

RESEARCH METHOD

This study adopts a quantitative research design using a time-series panel approach to capture cross-sectional and temporal variations in stock price determinants. The panel structure allows for enterprise-level heterogeneity analysis while accounting for dynamic interactions over time.

This data set consists of 5 manufacturing companies listed on the Indonesia Stock Exchange (IDX) that were consistently included in the LQ45 index during the period 2010–2023, with monthly observations. The company that has been consistent during the study period is PT Astra International Tbk (ASII. JK), PT Gudang Garam Tbk (GGRM. JK), PT. Indofood Sukses Makmur Tbk [INDF], PT. Indocement Tungal Prakarsa Tbk [INTP], PT. Kalbe Farma Tbk [KLBF]. The manufacturing sector was chosen because of its strategic role in the Indonesian economy and its significant representation in the capital market.

The dependent variable (DV) is each company's adjusted closing stock price. The independent variable (IV) is categorized into two main constructs. The first, Market Risk, is proxied by beta (systematic risk relative to market indices) and the volatility of stock returns (historical standard deviation of returns). The second, Market Expectations, is proxied by sentiment indices and captures investors' expectations and forward-looking perceptions.

For econometric analysis, panel regression models with fixed effects (FE) and random effects (RE) are used, with the appropriate specification determined by the Hausman test. Panel regression techniques are considered appropriate for capturing both cross-sectional and longitudinal variations, particularly in studies involving organizational and market performance indicators (Sianipar, 2021). To ensure robustness, several diagnostic tests are performed. The Driscoll-Kraay standard error is used to correct heteroscedasticity, autocorrelation, and cross-sectional dependencies in the panel data. Multicollinearity is assessed using the variance inflation factor (VIF) to ensure stable coefficient estimates. Previous quantitative studies published in AQA also emphasize the importance of robustness testing and statistical validation to improve model reliability and predictive consistency (Hamzah et al., 2021). Collectively, these methodological measures provide a rigorous framework for examining how market risks and market expectations together shape stock price dynamics in Indonesia's manufacturing sector.

Table 1. Linear Regression Models: Cross-Section and Time Series

Model Type	Mathematical Equations	Index & Notation Description	Explanation
Cross-section	$Y_i = \alpha + \beta x_i + \varepsilon_i$	$(i = 1, 2, \dots, N)$ (N) : number of cross-sectional units (Y_i) : dependent variable for unit (i)	Observations are collected from multiple units (individuals, companies, regions) at a single point in time.

		(X_i): independent variable for unit (i)	
Time Series	$y_i = \alpha + \beta x_t + \varepsilon_i$	($t = 1, 2, \dots, T$) (T): the number of time periods (Y_t): dependent variables at time (t) (X_t): independent variables at time (t)	Observations are collected from a single unit (individual, company, or market) over several time periods.
Data Panel	$Y_{it} = \alpha + \beta X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$	$i = 1, 2, \dots, N; t = 1, 2, \dots, T$ Y_{it} : dependent variable for units at time it X_{it} : independent variable for units at time it μ_i : unobserved individual effects λ_t : time-specific effects ε_{it} : error term	Combine cross-sectional dimensions and time series. Allows estimation using the Pool, Fixed Effect, or Random Effects OLS model.

Source: Data processed by the author

Methodological Reinforcement: Selection and Justification of Variables

The selection of variables and proxies in this study was based on theoretical relevance and empirical priority. The dependent variable, the stock price, is represented by an adjusted closing price that reflects not only raw market valuation but also adjustments for dividends, stock splits, and corporate actions. This measure provides a consistent, comparable indicator of a company's value across time and across companies.

For the first independent construct, Market Risk, two widely recognized proxies are used: beta and volatility. Beta was chosen because it captures systematic risk relative to the broader market index (Jakarta Composite Index), in line with the Capital Asset Pricing Model (CAPM). This allows for an assessment of how a manufacturing company's returns move with the market, an important factor in investors' pricing decisions. Volatility, measured as the standard deviation of returns, is included because it captures the uncertainty and magnitude of price fluctuations, which are particularly prominent in emerging markets such as Indonesia. The combined use of beta and volatility provides a strong picture of risk exposure from both systematic and company-specific perspectives.

The second construct, Market Expectations, is captured by the sentiment index, the Indonesia Volatility Index (VIX), and the manufacturing production index. The sentiment index captures the behavioral dimension of financial markets, reflecting investor mood and views beyond fundamentals, as validated in previous studies (Nguyen & Pham, 2019; Cheema & Fianto, 2024). The VIX serves as a forward-looking indicator of implied volatility, often referred to as the "fear index," making it a powerful proxy for market expectations of future uncertainty. The manufacturing production index is included to represent macro-level expectations, as industrial output signals anticipated real economic performance and directly affects the valuation of sectoral stocks.

From a statistical perspective, panel regression with fixed and random effects allows for the control of unobserved heterogeneity. Resilience is reinforced by the Driscoll-Kraay standard errors, which are correct for heteroscedasticity, autocorrelation, and cross-sectional dependence, common challenges in emerging market datasets. Multicollinearity was further assessed using the Variance

Inflation Factor (VIF) to ensure parameter stability. Collectively, this combination of variable design and methodological rigor ensures the internal validity and robustness of the findings, aligning with the expectations of high-impact journals.

Table 2. Research Variables, Measurements, and Data Sources

Variable Type	Variable	Proxies / Measurement	Data Source
Dependent Variable (DV)	Stock Price	Adjusted closing price of each manufacturing company (monthly)	Indonesia Stock Exchange (IDX), Bloomberg, Yahoo Finance
Independent Variables	Market Risk	Market Risk = $(R_m - R_f)$	IDX, Bloomberg Terminal, Data Flow
Independent Variables	Market expectations	Market Exp = $E(R_m) - R_f$	OJK, Central Bank of Indonesia, financial statements

Source: Data processed by the author

Statistical F-Test in Panel Data Regression

The F-test plays an important role in panel data regression analysis, especially in determining whether to use Ordinary Least Squares (OLS) without dummy variables or the Fixed Effects Model (FEM). Conceptually, this test evaluates whether the inclusion of individual-specific dummy variables, which represent unobserved heterogeneity across cross-sectional units, significantly improves model fitness.

In practice, the procedure begins by estimating two competing models: (i) a finite model assuming an identical intercept and slope across all units, and (ii) an infinite model assuming an identical slope but allowing for different intercepts across units through the inclusion of dummy variables. The fundamental question is whether the additional parameters introduced by the dummies significantly reduce the Residual Sum of Squares (RSS).

Decision rules are formalized using F-statistics, which compare the finite and infinite models. Statistically significant F-statistic indicates that the null hypothesis of a common intercept is rejected, supporting the adoption of the Fixed Effects specification. This approach is conceptually similar to the Chow test for structural discontinuity, in that both assess whether different subgroups exhibit systematically different intercepts.

Thus, the F-test serves as a diagnostic tool to assess whether heterogeneity across cross-sectional units should be explicitly accounted for by including fixed intercepts. If the test is not significant, the OLS estimator remains sufficient. Conversely, significant results imply that ignoring heterogeneity leads to estimation bias, and the Fixed Effects Model provides a superior representation of the underlying data-generating process.

FINDINGS AND DISCUSSION

Descriptive Statistics and Diagnostic Tests

The descriptive statistics reveal substantial variation across the manufacturing firms in the LQ45 index. The wide dispersion in stock prices is driven primarily by structural disparities, including firm size, capital structure, export orientation, and production efficiency. Large, well-capitalized firms tend to exhibit more stable stock price movements due to robust fundamentals and stronger investor confidence, whereas smaller firms often experience greater volatility due to perceived risks and lower liquidity. Market risk measures also show considerable heterogeneity.

Beta values vary, indicating differing sensitivities to macroeconomic shocks, including exchange rate fluctuations, inflation, and global commodity price movements. For instance, highly export-oriented firms are more sensitive to exchange rate volatility, increasing their systematic risk exposure relative to firms that operate primarily in domestic markets. Meanwhile, market sentiment indicators exhibit a cyclical pattern that closely mirrors broader macroeconomic uncertainty, shifts in monetary policy, and domestic political dynamics. During periods of heightened uncertainty, investor sentiment deteriorates, leading to cautious investment behavior and downward pressure on stock prices, whereas periods of economic recovery tend to improve sentiment and drive valuations upward.

Before estimating the main regression, rigorous diagnostic tests were conducted to validate the model. The Variance Inflation Factor (VIF) scores for all explanatory variables were well below the critical threshold of 10, and tolerance values exceeded 0.1, confirming the absence of severe multicollinearity among the regressors. This absence is crucial because it ensures that the estimated coefficients accurately reflect the individual contributions of each variable without entanglement, thereby preventing biased or unstable estimates. Furthermore, a modified Wald test failed to reject the null hypothesis of homoscedasticity, indicating that the model is free of heteroscedasticity bias. Consequently, the error variance remains constant across observations, ensuring that the estimated standard errors are highly reliable and that subsequent hypothesis testing is valid.

Model Selection

The optimal panel regression specification was determined through two fundamental diagnostic evaluations. Initially, the Chow test (an F-test for fixed effects) yielded a highly significant F-statistic, showing that the assumption of a common intercept across all cross-sectional units in a pooled OLS model is invalid. The significance of this test implies that each firm possesses unique, unobserved characteristics, such as managerial quality, firm-specific strategies, technological capabilities, and market positioning, that cannot be adequately captured by a simple pooled regression. Subsequently, the Hausman test produced significant results, firmly rejecting the Random Effects specification. This rejection occurs because there is a correlation between individual-firm effects and the regressors, indicating that the assumption of exogeneity in the Random Effects Model is violated. Together, these tests conclusively demonstrate that the Fixed Effects Model (FEM) is the most robust and appropriate estimator. By explicitly accounting for unobserved, firm-specific heterogeneity, the FEM ensures unbiased and consistent parameter estimates, providing a highly reliable econometric framework for analyzing stock price dynamics within this dataset.

Panel Regression Results

The following table presents the results of the Fixed Effects panel regression analyzing the simultaneous impact of Market Risk and Market Expectations on stock prices.

Table 3. Fixed Effects Panel Regression Results

Variable	Coefficient (β)	t-Statistic	p-Value	Significance
Market Risk	1.72	1.32	0.188	Not Significant
Market Expectations	-19.13	-2.82	0.0049	Significant ($p < 0.01$)

Note: Joint F-test $F \approx 4.14$ ($p = 0.016$); Adjusted $R^2 \approx 0.007$; $N \times T = 840$ observations.

Source: Data processed by the author

Using the Fixed Effects Model (FEM), the panel regression analysis provides a comprehensive evaluation of the dataset, encompassing 5 major manufacturing companies consistently listed on the LQ 45 index over 168 months, totaling 840 firm-month observations. The joint F-test yields a statistically significant result ($F \approx 4.14$; $p = 0.016$), indicating that the selected independent variables collectively explain meaningful variation in stock prices. At first glance, the adjusted R^2 of 0.0007 may appear modest; however, it is entirely typical and theoretically sound for high-frequency (monthly) financial modeling. In short-horizon asset-pricing contexts, stock returns are not purely deterministic. Instead, short-term price movements are heavily influenced by unpredictable market noise, speculative trading behavior, and unique market microstructure anomalies rather than by macroeconomic variables alone. By effectively accounting for firm-specific unobserved heterogeneity, this FEM specification isolates the true marginal impacts of the predictors.

Examining the partial effects of the individual predictors, the t-test reveals a counterintuitive but theoretically intriguing result: Market Risk has no statistically significant impact on contemporaneous stock prices ($\beta \approx 1.72$; $t \approx 1.32$; $p = 0.188$). Market risk in this context is captured by traditional metrics such as beta and historical volatility, which reflect the systematic exposure of these manufacturing firms to broader market fluctuations. This empirical finding strongly indicates that, once unique firm-specific characteristics and historical trajectories are tightly controlled for, contemporaneous exposure to aggregate systematic risk does not play a dominant or immediate role in driving monthly stock valuations. A plausible explanation for this statistical insignificance is that sophisticated investors in the Indonesian market may have already "priced in" these known macroeconomic risk exposures into stock valuations beforehand. Alternatively, the true impact of traditional systematic risk metrics might only manifest over extended, long-term investment horizons, thereby failing to register a detectable contemporaneous effect in high-frequency monthly observations.

Conversely, the regression results demonstrate that Market Expectations exert a profound, negative, and statistically significant influence on stock price dynamics ($\beta \approx -19.13$; $t \approx -2.82$; $p = 0.0049$). Within this framework, market expectations are proxied by forward-looking sentiment indices and volatility indicators that capture the market's underlying psychological mood. The robust negative coefficient indicates an inverse relationship: higher values in the expectation proxy, which structurally reflects mounting investor pessimism, heightened fear, or anticipation of tighter macroeconomic conditions, trigger a sharp, immediate decline in stock prices. This outcome strongly aligns with behavioral finance theories, which emphasize that in emerging markets like Indonesia, where information asymmetry is prevalent, psychological and informational factors often overshadow classical systematic risk metrics. Crucially, these empirical outcomes are not merely statistical artifacts. They remain exceptionally robust and valid even after applying rigorous Driscoll-Kraay standard errors. This advanced econometric correction effectively mitigates heteroscedasticity, autocorrelation, and cross-sectional dependence, which frequently plague emerging-market panel data, thereby strengthening the validity and reliability of the findings.

Discussion

These empirical findings provide crucial theoretical insights that bridge the inherent limitations of classical financial paradigms and the complex realities of modern trading behavior in emerging markets. At the core of this study is an investigation of how the LQ45 manufacturing sector, a cornerstone of Indonesia's economic growth and industrial competitiveness, responds to the dual forces of objective risk and subjective investor foresight. The statistical insignificance of

traditional market risk metrics, specifically beta and historical volatility, suggests a highly nuanced and adaptive market environment. In classical finance, models such as the Capital Asset Pricing Model (CAPM) assume that higher systematic risk is proportionally compensated by higher expected returns. However, the findings of this study critically challenge these conventional, purely rational assumptions. The data unequivocally reveal that contemporaneous exposure to aggregate systematic risk is not the primary catalyst for short-term valuation shifts in this sector.

A plausible and theoretically sound explanation for this phenomenon is that sophisticated investors in the Indonesian manufacturing sector have already fully "priced in" these known macroeconomic risk exposures. Because the LQ45 index comprises highly liquid, highly capitalized, and closely monitored firms, information about systematic risks—such as inflation trajectories, exchange rate fluctuations, and monetary policy shifts—is rapidly incorporated into valuations long before month-to-month price shocks can be observed. Furthermore, institutional investors often employ sophisticated hedging strategies to mitigate these systematic risks, effectively neutralizing their short-term impact on equity prices. This empirical result strongly indicates that the true impact of aggregate systematic risk materializes only over a much longer investment horizon. In high-frequency monthly observations, the classical risk premium is often overshadowed by market noise, rendering traditional beta ineffective as a short-term predictive tool.

Instead, the dominant, negative, and statistically significant role of Market Expectations strongly reinforces the principles of behavioral finance as a critical pillar in modern asset pricing. In emerging markets like Indonesia, the classical assumption of perfectly rational actors often breaks down. These markets are frequently hampered by pervasive information asymmetry, limited market depth, and various structural inefficiencies. Under these suboptimal conditions, investors, both institutional and retail, tend to rely heavily on psychological sentiment, speculative heuristics, and forward-looking outlooks rather than purely fundamental financial metrics or historical risk data.

When overall market expectations deteriorate, as empirically captured in this study through proxies such as the volatility index (VIX), declining analyst sentiment, or pessimistic manufacturing outlooks, the market undergoes rapid, severe repricing. The robust negative coefficient associated with market expectations signifies that mounting fear and anticipation of tighter macroeconomic conditions trigger immediate risk aversion. This heightened state of psychological caution prompts investors to withdraw capital rapidly or hoard liquidity, driving stock prices downward irrespective of the underlying company's operational health, balance sheet strength, or fundamental production efficiency. In essence, the perception of future economic reality becomes more influential than current empirical reality, leading to sentiment-driven sell-offs that completely bypass rational valuation models.

This phenomenon is further amplified by the specific characteristics of emerging economies, where herd behavior and trend-following strategies are prevalent. Because high-quality, transparent information is not always symmetrically available to all market participants, investors look to aggregate sentiment as a directional signal. If the prevailing mood shifts toward pessimism, the resulting herd mentality exacerbates downward price pressure, creating a self-fulfilling prophecy in which fear fundamentally alters the market capitalization of otherwise highly stable manufacturing firms. This highlights a profound temporal heterogeneity in asset pricing: while classical risk metrics may govern long-term capital allocation, psychological factors and immediate sentiment completely overshadow them in the short run.

Ultimately, this research provides compelling, rigorous evidence that short-term stock price dynamics in Indonesia's leading manufacturing firms are predominantly governed by behavioral biases and investor sentiment. By demonstrating that psychological market expectations significantly outweigh the effects of conventional systematic risk, this study advocates for a hybrid

analytical framework in financial economics. It shows that to fully comprehend and predict emerging-market valuations, researchers, portfolio managers, and regulatory bodies must move beyond traditional risk-return trade-offs. They must deeply integrate forward-looking behavioral indicators into their models, recognizing that the market's collective psychological mood is a far more immediate, volatile, and powerful driver of capital flows than objective macroeconomic risk.

CONCLUSIONS

This study examined how market risk and market expectations jointly shape stock price dynamics in Indonesia's LQ45 manufacturing sector. Contrary to assumptions in traditional asset pricing models, empirical evidence shows that contemporaneous market risk, as measured by beta and volatility, has no statistically significant effect on short-term stock valuations. Instead, market expectations and investor sentiment have a profound, statistically significant negative impact on stock prices. These findings show that in emerging markets marked by information asymmetry, short-term stock price dynamics are driven primarily by behavioral biases and forward-looking investor sentiment, which overshadow classical systematic risk metrics.

Theoretical and Practical Implications

Theoretically, this research bridges a critical gap between classical financial models and behavioral finance. It suggests that while the Capital Asset Pricing Model (CAPM) may provide a foundational framework for long-term risk-return trade-offs, short-horizon market mechanisms in emerging economies are largely driven by sentiment-induced repricing rather than immediate risk exposures. In practical terms, these insights offer vital takeaways for market participants and regulatory bodies. For investors and portfolio managers, the findings underscore the need to look beyond conventional risk indicators. Integrating sentiment analytics and forward-looking expectation proxies into investment strategies is crucial for anticipating short-term market corrections. For policymakers and regulatory authorities, the dominant role of market expectations highlights the need for transparent communication, consistent policy frameworks, and robust information disclosure. Proactive expectation management is essential to prevent sentiment-driven market overreactions, mitigate unwarranted panic, and foster sustainable stability in capital markets, thereby attracting both domestic and foreign investment.

LIMITATION & FURTHER RESEARCH

While this study provides robust empirical insights, it is constrained by certain parameters. The scope is confined to the Indonesian manufacturing sector, which may limit the generalizability of the findings to other industries or countries with different macroeconomic and institutional risk structures. Furthermore, while the proxies used for risk and sentiment are consistent with prior literature, they represent only a subset of available metrics. Consequently, these limitations pave the way for future scholarly inquiry. Subsequent research should expand the empirical scope through cross-country comparative analyses to explore how different institutional environments moderate the relationship between systematic risk and investor expectations. Methodologically, future studies would benefit significantly from employing high-frequency trading data to better capture immediate investor reactions. Additionally, integrating advanced machine learning techniques to extract real-time sentiment from digital platforms and news analytics will provide a more granular and sophisticated measurement of market expectations in the era of digital information flows.

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