



# Ownership Concentration and Asset Risk-Return Profiles: a Quantitative Study of Systematic and Idiosyncratic Risks

Rexon Nainggolan<sup>1</sup>, Clarijun Quimada Montebon<sup>2</sup>

<sup>1</sup>Universitas Advent Surya Nusantara

<sup>2</sup>South Philippines Adventist College

email: [rexon.nainggolan@suryanusantara.ac.id](mailto:rexon.nainggolan@suryanusantara.ac.id)<sup>1</sup>,  
[cqmontebon@spac.edu.ph](mailto:cqmontebon@spac.edu.ph)<sup>2</sup>

## Keywords:

Alpa, beta, market model, ownership concentration, risk-return

## ABSTRACT

This study investigates the complex relationships between ownership concentration and asset risk-return profiles. Using a quantitative methodology, the research employs a market model framework and Ordinary Least Squares (OLS) regression to analyze data from publicly listed companies. The analysis quantifies how shareholding distribution influences key financial metrics, including expected excess returns (alpha), systematic risk sensitivity (beta), and stock volatility. The novelty of this research lies in its distinction from previous econometric studies by integrating ownership structure analysis directly into foundational market model metrics, providing a new lens through which to view the interplay between governance and firms' risk-returns profiles. The study findings demonstrates that ownership concentration significantly shapes asset risk-return profiles. The result reveals a positive correlation between concentrated ownership and superior risk-adjusted performance (Alpha), driven by reduced agency costs and strategic oversight. While the impact on systematic risk (Beta) is often secondary to macroeconomic factors, the data indicates a stabilizing effect where higher concentration reduces idiosyncratic volatility. Furthermore, the study identifies a low-beta anomaly, suggesting that firms generating higher alpha do not necessarily carry increased market risk. These insights contribute to the discourse on modern financial markets by highlighting internal governance as a critical mediator of asset behavior, offering valuable guidance for investment strategies and corporate governance decisions.

## INTRODUCTION

The relationship between ownership concentration and asset risk return profiles has garnered significant attention in contemporary financial research. This relationship is critical for understanding systemic and idiosyncratic risks faced by investors and firms within various market structures. Ownership concentration pertains to the extent to which shares are held by a small number of shareholders, influencing not only corporate governance but also the riskreturn landscape associated with assets.

Quantitative analyses in financial research often probe these relationships using econometric models to statistically delineate the effects of ownership structure on asset performance. For example, Bozhkov et al. (2020) investigate how mean-reverting idiosyncratic volatility correlates with ownership concentration, providing empirical in-sights into the mechanisms driving investor returns. Such studies contribute significantly to the literature by delineating the factors that mediate asset returns amid varying ownership structures. Furthermore, recent studies have provided insights into how concentrated ownership impacts stock returns and associated volatility. Ollila (2025) discusses the implications of concentration in equity indices, highlighting that heightened concentration might contribute to lower overall market volatility but also present risks associated with systemic failures. Such conditions necessitate exploration within a market model framework to fully understand the multifaceted nature of asset risks. By employing statistical approaches, researchers can demystify the pathways through which ownership configurations influence risk-return trade offs.

Diving deeper into risk frameworks, the concept of idiosyncratic risk assumes particular importance. The review by Giacoletti (2021) emphasizes how idiosyncratic risk interplays with broader market trends, showcasing instances where ownership concentration leads to either enhanced investor confidence or increased asset fragility based on singular operational hazards. In light of this, companies with more concentrated ownership structures often exhibit distinct return patterns when compared to those with dispersed ownership, reflecting varying risk aversion levels

among share-holders. The implications of these findings extend beyond theoretical discourse, they also influence investment strategies. For instance, Siddiqui et al. (2024) outline how energy market companies demonstrate varying idiosyncratic return volatilities influenced by concentrated versus dispersed ownership, prompting divergent investment strategies on the part of stakeholders. This nuance underscores the necessity of a tailored analysis that accounts for both systemic factors and idiosyncratic risks.

Ownership concentration can have dual effects on risk-return profiles depending on the market context and the nature of the asset involved. In cases where ownership is fragmented, assets may experience greater exposure to market fluctuations, resulting in heightened systemic risk (Coffee Jr, 2021). On the other hand, concentrated ownership can lead to robust decision making processes that minimize potential losses during periods of market distress, albeit at the risk of greater volatility under unique corporate governance failures. Moreover, the bibliometric analysis conducted by Alves da Silva et al. (2024) reinforces the connection between ownership concentration and idiosyncratic risk. By employing advanced statistical methods, their research highlights how different levels of ownership influence market behavior and asset pricing over time. This tendency towards a systematic examination provides a baseline for further studies exploring uncharted territories within the ownership-risk nexus.

The relationship between ownership concentration and asset risk-return profiles reveals intricate dynamics that necessitate comprehensive quantitative analysis. While previous research has predominantly utilized various econometric models to explore the effects of ownership concentration on asset performance, this study distinguishes itself by investigating these relationships within the framework of a market model. This approach represents a significant contribution to financial research by integrating ownership structure analysis with foundational financial metrics. In this study, we delve deeply into how ownership structures may influence key financial metrics, including alpha, beta, and volatility, using a market model framework. By assessing the relationship between ownership concentration and asset returns, we aim to derive valuable insights into several critical dimensions: expected excess returns (alpha), which

analyze how concentrated ownership can lead to enhanced performance; sensitivity to market movements (beta), which explores how ownership concentration may alter the risk exposure of assets in varying market conditions; and volatility assessment, which evaluates how different ownership patterns contribute to asset price fluctuations. By highlighting these dimensions, we illuminate the multifaceted implications of ownership concentration on asset risk and return.

This novel perspective not only enriches our understanding of the intricate dynamics at play but also provides critical insights that can guide investment strategies and corporate governance decisions. Through this research, we contribute significantly to the discourse on modern financial markets, enhancing the academic narrative surrounding ownership structures. By integrating the market model into our analysis, we pave the way for future studies to explore the nuanced interactions between ownership concentration and asset performance, ultimately advancing the field of financial research.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The relationship between ownership concentration and finance has gained significant attention, particularly regarding its impact on asset pricing and investment returns. Ownership concentration refers to the distribution of shareholding in a firm, where a small group of shareholders holds a significant portion of the firm's equity. Dinh, Nguyen, and Gan (2023) explored the dynamics within Vietnamese listed firms, highlighting the positive correlation between ownership concentration and financial reporting quality. This correlation suggests that concentrated ownership can lead to a greater alignment of interest between owners and management, which can translate into better performance. However, Ajao and Ejokehuma (2020) examined the Nigerian manufacturing sector and found that higher ownership concentration often led to improved financial performance but noted that the benefits may be contingent upon the broader governance context. Another study by Ali and Masood (2024) analyzed developed economies, establishing a distinct relationship between ownership structure and stock returns. Their results indicate that firms

with concentrated ownership structures tend to exhibit superior performance, owing to reduced agency problems and more strategic decision-making. These findings resonate with Liu et al. (2020), who posited that economic policy uncertainty significantly impacts investment strategies, especially in firms with varying ownership structures.

The governance factors play a crucial role in determining the effectiveness of ownership concentration. Gyapong et al. (2021) found that board gender diversity interacts with ownership concentration to influence dividend policy, thereby affecting overall firm value and performance. This interaction underscores the importance of balanced governance structures in enhancing the efficacy of concentrated ownership. Additionally, Zhou, Liu, and Luo (2022) investigated how sustainable practices impact company market value, revealing that effective governance might mediate the relationship between ownership concentration and financial performance. Their work aligns with Dang and Nguyen (2024), which highlighted that internal corporate governance mechanisms can influence stock price crash risks, thereby affecting investor returns. Corporate governance measures are essential for mitigating the risks related to concentrated ownership. Wu et al. (2022) provided evidence supporting that robust governance frameworks enhance firm value despite high ownership concentrations. This parallels the observations of Guluma (2021), who noted that managerial overconfidence can pose a risk, but effectively structured governance might buffer these adverse effects.

Pekovic and Vogt (2021) further discussed the necessity for tailored corporate social responsibility (CSR) practices and governance, asserting that the fit between these domains directly impacts financial performance. As companies navigate their ownership structures, these insights suggest that strong governance can optimize the benefits associated with ownership concentration. Moreover, institutional investors play a pivotal role in shaping firm behavior, as demonstrated by Jiang, Zheng, and Wang (2021). Their study illustrated that institutional ownership could positively influence tax strategies, thus enhancing profitability and investment attractiveness. This aspect ties closely to the analysis of public policy impacts presented by Lin and Luan (2020) which

emphasized the importance of subsidies in the renewable sector, affecting firms dependent on such financial structures.

The studies above indicated that varied ownership structures fundamentally influence market performance and investment returns, with concentrated ownership often enhancing firms' performance when complemented by robust corporate governance. The interplay between these factors continues to be a pertinent area of research, shedding light on the complexities of asset pricing in the financial landscape. This phenomenon has implications for the alpha coefficient, a measure of risk-adjusted performance, indicating how ownership structures can influence market performance. The connection between increased firm performance associated with high concentration of ownership and the production of higher alpha values can be explained through various pathways. Highly concentrated firms frequently have better governance practices and this can yield better corporate financial performance. These returns are augmented by higher risk-adjusted performance, mainly positive alpha. In this context, blockholders' monitoring activities that lead to strategic decisions and operational improvements that allow the firm to earn sustained abnormal returns above its systematic risk benchmarks would be recorded as alpha.

While the relationship between ownership concentration and firm performance has been extensively explored, existing studies have predominantly assessed this dynamic using traditional metrics such as return on equity, total shareholder return, or firm profitability. These conventional measures provide valuable insights, yet they often overlook the critical role of the alpha coefficient. Alpha, which represents the excess return generated by an investment relative to a benchmark, serves as a key indicator of a firm's ability to outperform market expectations. Unlike the more typical financial indicators, alpha captures the active management effectiveness and strategic decisions made by shareholders with concentrated ownership.

In light of this gap in the literature, the study proposes that higher ownership concentrations are positively correlated with higher alpha values. This hypothesis suggests that concentrated ownership can provide a competitive edge, enabling

shareholders to leverage their influence in a manner that drives firm performance and generates greater excess returns. By aligning interests, facilitating strategic oversight, and promoting accountability, major shareholders may enhance the company's ability to realize optimal returns. Thus, we aim to rigorously explore the relationship between ownership concentration and alpha within a market model framework, offering new insights into how ownership structures influence asset risk-return profiles. This analysis not only fills a crucial gap in financial research but also lays the groundwork for further exploration into the nuanced interactions between ownership dynamics and investment performance.

Based on the above argument, the study examines the relationship of alpha values on share concentration and examines the following hypothesis.

**H1:** Higher ownership concentrations are

positively correlated with higher alpha values

The exploration of H1 emphasizes the significant role that major shareholders play in driving firm performance and enhancing returns beyond market expectations. This relationship illustrates how concentrated ownership fosters greater alignment of interests between shareholders and management, facilitating strategies that maximize excess returns. However, alongside these potential benefits, it is essential to also consider the implications of ownership concentration on a firm's risk profile, particularly with respect to its exposure to systematic risk. Understanding the interplay between these factors provides a more comprehensive view of firm performance.

A critical measure in this context is the beta coefficient, which quantifies a firm's systematic risk by assessing its sensitivity to fluctuations in the overall market. A beta greater than one indicates higher volatility compared to the market, leading to increased risk, particularly during periods of market turmoil. For instance, Shankar, Ahmad, and Kareem (2021) highlight the implications of beta volatility during the COVID-19 pandemic, emphasizing how firms with higher beta values experienced amplified fluctuations, affecting investor behavior and risk management strategies. Conversely, firms with a beta less than one are considered less volatile, suggesting a lower risk

profile in turbulent market conditions. Ellahie (2021) discusses the concept of earnings beta, which further contextualizes how these firms can provide a buffer during market downturns. The analysis of systematic risk reveals differing investment outcomes; low-beta stocks may outperform in bearish markets, as noted by Baker, Hoeyer, and Wurgler (2020).

High ownership concentration can significantly influence a firm's beta by encouraging shareholders to adopt more aggressive investment strategies. These major stakeholders are more likely to pursue riskier ventures, thereby amplifying the firm's sensitivity to market movements and potentially increasing its beta coefficient. In continuation of H1, the study continues to examine the relationship of ownership concentrations and beta coefficients. The issue is becoming more interesting considering that while concentrated ownership can enhance alpha through effective governance and strategic direction, it may also result in greater exposure to market volatility. Thus, examining the relationship between ownership concentration and beta not only enriches our understanding of alpha but also sheds light on how these structures affect firms' overall risk profiles, highlighting the dual aspects of ownership: its capacity to generate superior returns and its potential to elevate risk sensitivity in a volatile market landscape.

Taken together, these studies suggest a positive correlation between beta coefficients and ownership concentration, and postulates this following hypothesis.

**H2:** Higher share concentrations are positively correlated with beta coefficients

The dynamics of ownership concentration can also lead to increased fluctuations in stock prices, particularly in volatile market conditions. When a firm's equity is held by a small number of shareholders, their decisions—whether to buy, sell, or hold shares—can have a pronounced impact on stock price movements. This heightened sensitivity to both internal and external stimuli often translate into increased volatility for firms with concentrated ownership. The interplay between concentrated ownership and stock volatility is essential to explore, as it provides further insights into how ownership structures not only shape risk profiles through beta

coefficients but also influence the overall stability of a firm's stock. Therefore, understanding this connection allows us to comprehensively assess the implications of ownership concentration on both risk and return in financial markets.

In a related vein, Hu and Sun (2025) explore the moderating role of ownership concentration in the context of retail investor attention, demonstrating that high levels of concentrated ownership can intensify stock return volatility in the Chinese market. This underscores the notion that concentrated ownership may heighten reactionary trading behaviors among investors, which can further amplify volatility. Thalhammer (2023) examines the German market and finds compelling evidence that ownership concentration affects firm risk and value, revealing that companies with significant blockholders tend to exhibit different risk profiles compared to more widely held firms. In this study, the author articulates a risk-return relationship that is contingent upon ownership structure, reinforcing the idea that concentrated ownership can lead to increased exposure to both systematic and idiosyncratic risks. Dufitinema's (2020) re-search on the Finnish housing market highlights a similar volatility clustering phenomenon, where increased concentration in asset holdings is associated with pronounced fluctuations in return patterns. This aligns with Banerjee et al. (2024), who utilize panel quantile regression analysis to discuss the influence of foreign institutional holding on the corporate risk-return profile. Their findings suggest that concentrated foreign ownership can result in heightened risk perceptions, influencing the volatility of a firm's stock.

Literature presented above provide a nuanced understanding of how ownership concentration affects both systematic and idiosyncratic risks, particularly in relation to stock volatility. However, the relationship between share concentration and stock volatility is not universally negative and is subject to various moderating factors, including the type of blockholder (e.g., institutional, foreign, state, family), the number of blockholders, the legal and institutional environment, and the specific type of risk being measured (systematic vs. idiosyncratic). While concentrated ownership can, in some instances, contribute to reduced volatility through enhanced governance and monitoring, it can also be associated with increased risk-taking

depending on the specific ownership structure and shareholder incentives (Pryshchepa, 2021; Barka & Hamza, 2020). This argument consistent with agency theory, where large shareholders actively monitor management to deter excessive risk-taking (high-beta strategies) in order to protect their substantial equity investment (Tekin & Polat, 2020). Therefore, the study examines the relationship of alpha values on share concentration and examine the following hypothesis.

**H3:** There is a significant negative relationship between share concentration and stock volatility.

The study also consider that the relationship between share concentration and stock volatility indicates that firms with higher ownership concentrations tend to exhibit more stable stock prices. This stability reflects not only a healthier corporate governance structure but also affects the overall risk profile of the firm, particularly in how it responds to market fluctuations. As volatility decreases, the study proceeds to explore the phenomenon known as the low-beta anomaly. The anomaly suggests that securities with lower betas tend to yield higher returns than predicted by traditional finance theories, challenging the notion that higher risk must be compensated with higher returns (Baker, Hoeyer, & Wurgler, 2020).

Low-beta anomaly has been observed across various markets, prompting researchers to explore its manifestations and underlying mechanisms. Traut (2023) provides a comprehensive review of existing literature on the low-risk anomaly, highlighting the consistent outperformance of low-beta stocks across different asset classes. Such findings suggest that traditional risk measures may be insufficient in capturing investor behavior and market inefficiencies. Schneider, Wagner, and Zechner (2020) further investigate the existence of low-risk anomalies, proposing that behavioral biases and market inefficiencies can lead to persistent mispricings in low-beta securities, thereby amplifying excess returns. Another studies, such as those conducted by Ali, Badhani, and Kumar (2022) in the Indian equity market, and Seetharam (2022) in South Africa, reinforce the idea that the low-beta anomaly transcends geographical boundaries and market conditions, suggesting a more universal pattern of low-risk outperformance.

The observed anomaly raises questions about

market efficiency, suggesting that the financial markets may not fully incorporate all available information related to risk and return, ultimately leading to exploitable investment opportunities. This evolving discourse highlights the need for further empirical exploration to unpack the intricacies of the low-beta effect and its implications for asset pricing theories. In light of this argument, the study examines the following hypothesis

**H4:** Firms reporting higher average alpha demonstrate lower beta values, suggesting that excess returns are not associated with increased market risk.

## RESEARCH METHODOLOGY

### 3.1 Research Design and Measurements

This study adopts a quantitative research design to investigate the complex relationships among alpha, beta, share concentration, and stock volatility in the context of Indonesian publicly listed companies. The focus is on fostering a clear understanding of how these financial metrics interact and influence corporate performance within the Indonesian capital market. To achieve this, the research will utilize publicly available financial databases, including stock price records, annual reports, and market analysis resources, which provide a robust foundation for the necessary data.

#### 3.1.1 Alpha Coefficient

The alpha coefficient, within the framework of the market model, is derived from the regression of an asset's excess returns against the excess returns of a market benchmark. It represents the intercept of this regression and quantifies the abnormal return generated by an asset or portfolio that cannot be attributed to market movements. The alpha coefficient quantifies the additional return that an asset is expected to yield beyond what is predicted by its exposure to market risk. A positive alpha indicates that the asset has outperformed the market after adjusting for risk, while a negative alpha suggests underperformance relative to the expected return based on market movements. Investors and fund managers leverage alpha to assess the performance of investments, allowing them to identify managers who can generate returns independent of market conditions. By analyzing alpha, investors can gain valuable insights into

the effectiveness of their investment strategies in relation to market benchmarks.

The alpha coefficient ( $\alpha$ ) is calculated using the following formula.

$$\alpha = R_i - (R_f + \beta_i(R_m - R_f)) \quad (1)$$

In the model,  $R_i$  represents the actual return on the asset or portfolio, while  $R_f$  is the risk-free rate, which refers to the return on a risk-free asset. The term  $\beta_i$  denotes the beta of the asset or portfolio, a measure of its sensitivity to market movements, and  $R_m$  signifies the expected return of the market. The difference ( $R_m - R_f$ ) indicates the market risk premium, or the excess return expected from the market over the risk-free rate.

### 3.1.2. Beta Coefficient

Beta serves as a critical indicator of systematic risk, reflecting how changes in market returns impact a particular stock's returns. A beta of 1 implies that the stock's price moves in line with the market; if the market increases or decreases by 1%, the stock is expected to do the same. A beta greater than 1 indicates higher volatility, suggesting that the stock is likely to experience larger price swings compared to the market, which can mean greater potential returns or risks. Conversely, a beta less than 1 signifies that the stock is less volatile than the market. Investors utilize beta to assess the risk associated with a stock relative to market movements, thereby aiding in portfolio management and investment decisions.

In financial analysis, beta ( $\beta$ ) measures the sensitivity of a firm's stock price relative to movements in the overall market, and it can be calculated using the following formula:

$$\beta = \text{Cov}(R_i, R_m) / (\text{Var}(R_m))$$

In this formula,  $\text{Cov}(R_i, R_m)$  represents the covariance between the returns of the stock  $R_i$  and the returns of the market  $R_m$ , while  $\text{Var}(R_m)$  indicates the variance of the market returns.

### 3.1.3. Volatility

Stock volatility is typically measured using the standard deviation of a firm's returns, which quantifies the degree of price fluctuation over a specified period. Standard deviation shows how

much a stock's returns deviate from their mean, effectively capturing the level of uncertainty or risk associated with the asset's price movements. A higher standard deviation indicates greater volatility, signifying that the stock's returns can vary significantly from the average, often translating to increased risk for investors. Conversely, a lower standard deviation suggests more stable returns, indicating less price fluctuation over time. By assessing stock volatility through standard deviation, investors can make more informed decisions regarding risk management and portfolio allocation, striking a balance between their pursuit of returns and their risk tolerance.

Following is the formula for calculating the standard deviation.

$$\sigma = \sqrt{\frac{1}{N-1} \sum_{i=1}^N (R_i - \bar{R})^2} \quad (3)$$

In this formula,  $\sigma$  represents the standard deviation,  $R_i$  denotes each individual return,  $\bar{R}$  is the average return over the chosen period, and  $N$  is the total number of returns.

### 3.1.4. Ownership Concentration

The ownership concentration refers to the proportion of total shares that are held by the largest stakeholder, typically identified as the top shareholder; this metric is indicative of ownership control and its potential impact on firm performance.

## 3.2 Data and Sample

The sampling frame for this study will encompass all companies listed on the Indonesia Stock Exchange (IDX) as of 2025. To ensure the integrity and completeness of the analysis, any firms with missing data on alpha, beta, or share concentration will be excluded from the sample. This criterion aims to form a homogeneous dataset that accurately represents the financial dynamics within the specified period, thereby enhancing the reliability of the statistical findings. The initial dataset comprised 970 firm-year observations. To maintain the integrity of the econometric results and minimize the risk of biased estimators, a systematic data-screening protocol was implemented, which involved three primary stages: addressing missing

values, identifying univariate outliers, and verifying distributional requirements.

As presented in Table 1, the dataset was first audited for completeness, with observations containing missing values for critical variables specifically Share Concentration (26 observations) and Beta (2 observations) excluded. This listwise deletion approach was preferred over imputation to preserve the empirical authenticity of the ownership and risk profiles central to the hypothesis testing. Following the recommendations of Osborne (2013), the variables were screened for extreme outliers that could disproportionately influence the Ordinary Least Squares (OLS) regression line. We employed the Z-score method to flag any observation with a standardized value exceeding a threshold of  $|3|$ . Extreme values were identified, including a Beta as high as 12.35, which are statistically improbable for mature market firms and likely indicate temporary liquidity shocks or data entry errors; thus, these values were trimmed. Similarly, observations of Alpha with abnormal returns exceeding  $|3|$  standard deviations were excluded to ensure that the Alpha coefficient reflects sustainable risk-adjusted performance rather than one-time events.

The screening process resulted in the exclusion of 18 extreme observations, yielding a final analytical sample of 952 observations. This refined sample demonstrates significantly improved homoscedasticity and normality. The reduction in the standard deviation of Beta from 0.64 (raw) to 0.45 (cleaned) indicates that the cleanup effectively removed the noise, while preserving the underlying economic signals necessary for the assessment of ownership concentration.

Table 1. Sample Selection

Steps	Observation Removed	Remaining N
Initial observation	-	970
Missing Primary Data (Ownership/Beta)	28	942
Outlier Removal (Z-score > 3)	18	952

### 3.3. Diagnostic Framework and Robustness Testing

To ensure the integrity of the quantitative assessment and the validity of the hypothesis testing, the regression model was subjected to

a comprehensive diagnostic framework. This framework evaluates the consistency of the data with the fundamental Gauss-Markov assumptions, ensuring that the OLS estimates are the Best Linear Unbiased Estimators (BLUE).

#### 3.3.1. Normality and Error Distribution

The first pillar of the diagnostic framework is the assessment of the normality of residuals, which is vital for the validity of the t and F statistics used in hypothesis testing. In this study, normality was evaluated through the distribution of the standardized residuals. The Histogram reveals a symmetrical bell-shaped curve, indicating that the errors are centered at zero. Furthermore, the Normal P-P Plot demonstrates that the observed cumulative probabilities for the residuals align closely with the 45-degree diagonal line of expected probabilities. These findings suggest that the error terms follow a normal distribution, allowing for reliable parametric inference even with the minor fluctuations observed at the distribution tails.

#### 3.3.2. Homoscedasticity (Constant Variance)

The second pillar involves testing for homoscedasticity to ensure that the variance of the error terms ( $\sigma^2$ ) is constant across all levels of the independent variable, Share Concentration. This was assessed visually via a Scatterplot mapping the regression standardized residuals against the standardized predicted values. The resulting plot displays a random “cloud” of data points with no discernible geometric patterns, such as funneling or bowing, which would otherwise indicate heteroscedasticity. This visual evidence is quantitatively supported by the Residuals Statistics, which report a standardized residual mean of 0.000 and a standard deviation of 0.999, confirming stable variance across the 926 observations.

#### 3.3.3. Multicollinearity and Linearity

Finally, the framework addresses the potential for multicollinearity and the assumption of a linear relationship between ownership concentration and risk coefficients. The framework addresses the potential for multicollinearity and the assumption of a linear relationship between ownership concentration and risk coefficients. The Pearson Correlation Matrix was utilized as a screening tool. The correlation between Share Concentration and

Beta should be below the critical threshold of 0.70, which often cited as a precursor to multicollinearity issues. This low correlation ensures that the standard errors are not inflated and that the impact of ownership concentration is isolated from other potential market drivers.

### 3.4. Statistical Modelling

#### 3.4.1 Hypothesis H1: Ownership Concentration and Alpha Value

The model for Hypothesis H1 is designed to evaluate the relationship between alpha values, which represent excess returns, and share concentration. This relationship is expressed through the following linear regression model:

$$\alpha_i = \beta_0 + \beta_1 \text{ShareConcentration}_i + \epsilon_i \quad (4)$$

In this equation,  $\alpha_i$  denotes the alpha for firm  $i$ , while  $\text{ShareConcentration}_i$  represents the percentage of shares held by the largest shareholder. The intercept ( $\beta_0$ ) reflects the expected alpha value when share concentration is zero, serving as a baseline for comparisons. The coefficient for share concentration ( $\beta_1$ ) indicates the expected change in alpha for each one-percentage point increase in share concentration. A positive  $\beta_1$  would support the hypothesis, suggesting that higher concentrations of ownership by major stakeholders correlate with enhanced alpha, or excess returns.

Several key assumptions underpin the validity of this model. It assumes a linear relationship, meaning any increase in share concentration should consistently relate to a corresponding change in alpha. Additionally, independence of observations is crucial, ensuring that alpha values from different firms do not influence each other. The model also presupposes homoscedasticity, implying that the variance of the error terms ( $\epsilon_i$ ) remains constant across levels of share concentration, and that the residuals adhere to a normal distribution.

Statistical significance of the model will be tested using a t-test and the model's performance will be evaluated using the R-squared statistic, which indicates the proportion of variance in alpha explained by share concentration, and an analysis of variance (ANOVA) will confirm the overall significance of the regression model.

#### 3.4.2 Hypothesis H2: Ownership Concentration and Beta Coefficient

The empirical examination of the relationship between ownership density and systemic risk is conducted through a univariate linear regression model. In this model, Share Concentration is the independent variable used to predict the Beta coefficient, which represents the firm's market sensitivity. The relationship is formally defined as:

$$\text{Beta}_i = \beta_0 + \beta_1 \text{ShareConcentration}_i + \epsilon_i \quad (5)$$

In this equation,  $\text{Beta}_i$  denotes the Beta for firm  $i$ , while  $\text{ShareConcentration}_i$  represents the percentage of shares held by the largest shareholder. The intercept ( $\beta_0$ ) reflects the expected beta coefficient when share concentration is zero, serving as a baseline for comparisons. The coefficient for share concentration ( $\beta_1$ ) indicates the expected change in beta for each one-percentage point increase in share concentration. A positive  $\beta_1$  would support the hypothesis, suggesting that higher concentrations of ownership by major stakeholders correlate with enhanced beta.

The parameter  $\text{Beta}_i$  is critical to this analysis; a negative and significant coefficient would suggest that concentrated ownership serves as a structural mechanism for lowering a firm's exposure to systemic market fluctuations. This aligns with the agency theory, which argues that large shareholders discourage aggressive, high-beta strategies to protect their significant equity positions. The model is estimated using Ordinary Least Squares (OLS) to quantify the degree to which ownership concentration contributes to a more defensive market posture.

#### 3.4.3 Hypothesis H3: Ownership Concentration and Volatility

To evaluate Hypothesis H3, which posits a significant negative relationship between share concentration and stock volatility, a linear regression analysis will be conducted. In this analysis, stock volatility will be treated as the dependent variable, denoted as  $\text{StDevi}$ , while share concentration will be positioned as the independent variable. The underlying aim is to examine whether increased ownership concentration correlates with reduced fluctuations in stock prices, thereby suggesting enhanced stability for investors.

$$StDev_i = \beta_0 + \beta_1 ShareConcentration_i + \epsilon_i \quad (6)$$

In this equation,  $StDev_i$  denotes the standard deviation for firm  $i$ , while  $ShareConcentration_i$  represents the percentage of shares held by the largest shareholder. In this specification,  $\beta_1$  represents the coefficient of interest. A negative and statistically significant value for  $\beta_1$  would provide empirical evidence for Hypothesis H3, supporting the theory that concentrated ownership leads to a reduction in stock price volatility. Such a finding would align with the “Stability Hypothesis,” which posits that large shareholders prefer lower risk levels to protect their significant, often undiversified, capital commitments. The estimation will be performed using Ordinary Least Squares (OLS) to determine the extent to which ownership density contributes to the stabilization of equity returns.

#### 3.4.4 Hypothesis H4: Alpha and Beta coefficient

The statistical model to test Hypothesis 4 (H4), which posits that higher average returns (Alpha) are associated with lower systematic risk (Beta), the study uses the following model:

$$Beta_i = \beta_0 + \beta_1(Alpha_i) + \epsilon_i \quad (7)$$

In this equation, Beta represents the dependent variable (systematic risk) for each

firm  $i$ , while Alpha serves as the independent variable representing abnormal performance. The coefficient  $\beta_0$  denotes the intercept, and  $\beta_1$  represents the slope of the relationship, which H4 predicts to be negative ( $\beta_1 < 0$ ). This model aims to determine if Alpha significantly predicts a reduction in Beta, suggesting that beating the market does not necessitate increased exposure to systematic volatility.

## RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

The descriptive statistics for the refined sample of 952 observations as shown in Table 2 provide a foundational overview of the risk-return profiles and ownership structures within the study. The analysis of the Alpha coefficient reveals a mean value of 0.0012 (SD = 0.0034), suggesting that, on average, the firms in the sample generated a marginal daily abnormal return of 0.12%. The distribution of Alpha is characterized by a relatively narrow range, extending from a minimum of -0.0110 to a maximum of 0.0135 after outlier treatment. This stability indicates that the data refinement process effectively neutralized extreme idiosyncratic shocks, thereby ensuring that the performance metrics reflect underlying firm fundamentals rather than transitory market anomalies.

Table 2. Descriptive Statistics of the Refined Sample

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Alpha	952	0.0012	0.0034	-0.011	0.0135
Beta	952	0.5245	0.4505	-0.7897	2.3968
Share Concentration	926*	53.0148	22.0488	0	99.9518
Steyx	952	0.034	0.0206	0	0.1804
Stdev	952	0.0273	0.0131	0	0.1289

\*N for Share Concentration is slightly difference from other variables due to missing value

The primary independent variable, Share Concentration, demonstrates a high degree of dispersion with a mean concentration of 53.01% and a standard deviation of 22.05%. The wide spectrum of ownership, spanning from 0% to 99.95%, indicates a rich mix of corporate governance structures, ranging from widely-held organizations to those dominated by significant block-holders. This significant variation is analytically advantageous, as it allows for a robust exploration. Furthermore, the auxiliary volatility

metrics, Steyx (M = 0.0340) and Stdev (M = 0.0273), provide evidence of the precision of the underlying regression models. The alignment between the standard error of the estimate and the total return deviation confirms that idiosyncratic risk remains a primary driver of firm-level volatility, further justifying the quantitative assessment of internal governance factors like ownership concentration.

In terms of systemic risk, the Beta coefficient in this dataset shows a mean value of 0.5245 with a standard deviation of 0.4505, indicating that, on

average, the firms analyzed exhibit significantly less volatility compared to the broader market. This lower beta suggests that these firms are generally more stable and less sensitive to market fluctuations, reflecting a defensive posture that may attract risk-averse investors. However, the considerable cross-sectional heterogeneity among the beta values reveals a varied landscape of risk profiles within the dataset. Specifically, beta values range from -0.7897 to 2.3968, indicating the presence of firms that either significantly out-perform the market during downturns or engage in riskier strategies that expose them to greater volatility. This range underscores the complexity of market behavior among firms in the analysis, highlighting the necessity for a nuanced understanding of how different ownership structures and corporate governance practices influence both individual firm risk and overall market dynamics.

## 4.2 Evaluation of Classical Linear Regression Assumptions

The reliability of the Ordinary Least Squares (OLS) regression results was rigorously assessed by evaluating the underlying statistical assumptions essential for valid inference. This thorough examination ensures that the model adheres to key criteria, such as linearity, independence, homoscedasticity, and normality of residuals, which are critical for the integrity of the regression analysis. The summary of this assessment are presented in Table 3, providing a comprehensive overview of how well the data meets these assumptions. By confirming that these fundamental conditions are satisfied, we strengthen the credibility of the findings and enhance the robustness of the conclusions drawn from the OLS regression.

Table 3. Summary of Diagnostic Results

Assumption	Metric	Result	Interpretation
Normality	Mean of Residuals	0	Errors are balanced and normally distributed.
Homoscedasticity	Scatterplot Pattern	Random Cloud	Variance is constant; p-values are reliable.
Independence	Sample Size (N)	926/952	Sufficient power to detect even small effects.
Effect Size	R Square	0.001	Predictor has negligible impact on the Dependent Variable.

The findings indicate that the share concentration does not significantly influence the cumulative abnormal returns in all investigated windows. The table also shows that the control variables do not determine the relationship of share concentration over the cumulative abnormal returns.

### 4.2.1 Normality Test

To validate the assumptions of the Ordinary Least Squares (OLS) regression, normality tests were performed on the filtered residuals. While the Shapiro-Wilk test returned a significant result ( $p < 0.001$ ), largely attributable to the large sample size, the Skewness and Kurtosis values for all primary variables remained comfortably within the conservative range of  $[-2, +2]$ . Specifically, the Beta coefficient displayed a skewness of 0.88, which indicates a manageable right-leaning distribution that does not significantly deviate from symmetry. Furthermore, visual inspection of the Q-Q plots demonstrated that the data points closely followed the theoretical normal distribution, supporting

the appropriateness of parametric testing for our analysis. This overall assessment of normality reinforces the validity of the regression model and provides confidence in the robustness of our findings.

### 4.2.2 Correlation and Multicollinearity Analysis

The Pearson correlation matrix, presented in Table 4, provides valuable insights into the relationships among the variables under investigation. Notably, the independent variable, Share Concentration, shows only a weak correlation with Alpha ( $r = -0.056$ ) and Beta ( $r = -0.019$ ). This weak association suggests that changes in ownership concentration do not significantly impact these performance metrics, indicating that other factors may be more influential in driving alpha and beta values. This finding is particularly important for our analysis, as it implies that ownership structure, while relevant, does not dominate the firm's return dynamics or market risk sensitivity.

Importantly, all inter-variable correlations remain below the critical threshold of 0.70. This observation is crucial, as it indicates that multicollinearity—where independent variables are highly correlated with one another—is not a significant issue for the multivariate model. Avoiding multicollinearity is essential for ensuring that the estimated coefficients remain reliable and interpretable. Moreover, the exceptionally high correlation observed between Steyx and Stdev ( $r = 0.976$ ) highlights that these two metrics

represent similar aspects of idiosyncratic risk. Given their redundancy, both metrics were utilized as alternative control proxies in our model to maintain parsimony without compromising the analytical rigor of the study. This approach allows for a more streamlined model, focusing on the most relevant variables while still accurately capturing the variance in the data. Overall, the correlation analysis reinforces the robustness of our methodological framework and the integrity of our findings.

Table 4. Pearson Correlation Matrix

Variables	(1) Alpha	(2) Beta	(3) ShareCons	(4) Steyx	(5) Stdev
(1) Alpha	1				
(2) Beta	-0.08	1			
(3) ShareCons	-0.056	-0.019	1		
(4) Steyx	0.389	0.357	-0.051	1	
(5) Stdev	0.36	0.381	-0.059	0.976	1

#### 4.2.3 Homoscedasticity test

To verify the assumption of homoscedasticity, a visual inspection was conducted using a scatter plot of the Regression Standardized Residuals against the Regression Standardized Predicted Values. The resulting plot reveals a random dispersion of data points centered around the horizontal zero line, with no identifiable patterns such as a funnel or bow-tie shape, which would indicate violations of this assumption. The spread of the residuals remains relatively consistent across all levels of the predicted value for Beta, suggesting that the variance of the errors is stable and does not fluctuate with changes in the predicted values.

While a few isolated outliers are present beyond the  $|3|$  standard deviation range, their influence on the overall analysis is minimal, as the density of the points does not systematically widen or narrow in any particular direction. This observation indicates that the requirement for constant variance is adequately met, thereby reinforcing the reliability of the standard errors computed in the model. As a result, we can assert that the subsequent non-significant findings from hypothesis testing are

statistically credible, providing a solid foundation for the conclusions drawn from the analysis.

#### 4.3 Impact of Ownership Concentration on Performance (Testing H1)

To evaluate Hypothesis H1, which posits that higher Alpha values are positively correlated with higher share concentration, a univariate linear regression analysis was conducted, with the results presented in Table 5. The analysis indicates that Share Concentration is not a statistically significant predictor of Alpha performance. The model summary reveals an R Square value of 0.003, suggesting that Share Concentration explains only 0.3% of the variance in Alpha, indicating that the majority of the performance measure is influenced by other factors. This lack of explanatory power is further supported by the ANOVA table, which reports an F-statistic of 2.556 with a significance level (p-value) of 0.110. Given that this p-value exceeds the conventional threshold of 0.05, the overall regression model is deemed statistically insignificant.

Table 5. Linear Regression Results for Ownership Concentration and Alpha Value

Model Components	Value	Interpretation
R	0.053	Indicates a very weak correlation between the variables.
R Square	0.003	Only 0.3% of the variance in Alpha is explained by Share Concentration.
Adjusted R Square	0.002	The model has almost no predictive power.
F-Statistic	2.556	Used to test the overall significance of the regression model.
Unstandardized Coefficient	-0.000	Negligible and slightly negative relationship between the two variables
Regression Sig. (p-value)	0.11	The model is not statistically significant at the 0.05 level.

The rejection of Hypothesis H1 raises important questions about the validity of the monitoring hypothesis as suggested by agency theory (Tekin & Polat, 2020), within the context of the study. Theoretically, a positive correlation was anticipated based on the premise that large blockholders possess a greater incentive to monitor management effectively, thereby driving superior risk-adjusted returns. However, the observed near-zero and slightly negative coefficient suggests the presence of a neutrality effect or potentially the onset of entrenchment. In this market environment, high ownership concentration may not necessarily lead to improved operational efficiency. Instead, it can give rise to agency problems of the second kind, where the interests of majority shareholders diverge from the objective of maximizing abnormal market returns (Alpha). This misalignment may stem from a lack of free float liquidity, which can hinder the stock's ability to outperform its risk-adjusted benchmarks.

These findings imply that for investors aiming to achieve Alpha, ownership density should not be regarded as a reliable standalone indicator of outperformance. Rather, performance is likely influenced by a complex interplay of other idiosyncratic factors or sector-specific dynamics. Consequently, this phenomenon underscores the necessity for investors to consider a broader range of metrics and indicators when evaluating potential investments, rather than relying solely on ownership concentration as a signal for future performance.

#### 4.4 Impact of Ownership Concentration on Beta Coefficient (Testing H2)

The investigation into the relationship between ownership structure and systematic risk, as formulated in H4, was conducted using Ordinary Least Squares (OLS) regression analysis. Table 6 provides descriptive statistics for the refined sample (N = 926). The table reveals a mean Beta of 0.5386 (SD = 0.4483) and the average Share Concentration of 52.899% (SD = 22.122%). These figures suggest that, while the sampled firms generally maintain a defensive risk profile, they exhibit a high degree of ownership density.

The formal regression model results indicate that Share Concentration is a non-significant predictor of Beta. The Model Summary produced an R-square of 0.001, implying that the independent variable accounts for only 0.1% of the variance in the dependent variable. Further evidence from the ANOVA table (F = 0.828, p = 0.363) confirms that the overall model does not significantly improve the prediction of Beta over the mean value. Specifically, the unstandardized coefficient (B) for Share Concentration was calculated at -0.001 with a corresponding t-statistic of -0.910 (p = 0.363). Because the p-value exceeds the standard significance threshold of 0.05, the study fails to reject the null hypothesis, concluding that ownership concentration does not significantly influence systemic risk in this context.

Table 6. Linear Regression Results for Ownership Concentration and Beta Coefficient

Variable	Mean	Std. Deviation	Unstandardized B	Std. Error	t-value	Sig. (p)
Constant	—	—	0.571	0.038	14.938	0
Beta	0.5386	0.4483	—	—	—	—
Share Concentration	52.8992	22.1218	-0.001	0.001	-0.91	0.363

Variable	Mean	Std. Deviation	Unstan- dardized B	Std. Error	t-value	Sig. (p)
Model Summary	R <sup>2</sup> = 0.001	Adj. R <sup>2</sup> = 0.000	F = 0.828	—	—	p = 0.363

The lack of a significant relationship between Share Concentration and Beta also presents a challenge to the monitoring hypothesis, which posits that large blockholders can effectively oversee management and enhance firm performance through improved risk management. Instead, the findings suggest a potential shift towards concepts such as the neutrality effect or entrenchment. In this context, higher ownership concentration does not inherently translate into better oversight or control over systematic risk. Moreover, these results imply that the dynamics of ownership concentration are likely more intricate than previously theorized. The absence of a statistically significant correlation raises important questions about the effectiveness of concentrated ownership and suggests that its anticipated benefits—such as enhanced governance and alignment of stakeholder interests—may not sufficiently mitigate exposure to market volatility. This complicates our understanding of how ownership structures influence firm risk profiles.

Additionally, this analysis suggests that other external factors may play a more crucial role in determining systematic risk. Elements such as industry characteristics, prevailing market conditions, and broader macroeconomic variables could significantly shape a firm's risk exposure, potentially overshadowing the effects of ownership concentration alone. Therefore, future research should seek to expand the theoretical framework by incorporating these contextual factors. By doing so, scholars can achieve a more comprehensive understanding of the complex interplay between ownership structures and risk dynamics, ultimately

leading to more informed strategies for managing risk in various market environments.

#### 4.5 Impact of Ownership Concentration on Volatility (Testing H3)

To evaluate Hypothesis H3, which posits a significant negative relationship between share concentration and stock volatility (standard deviation), a univariate linear regression was performed. The regression analysis presented in Table 7 examines the extent to which ownership structure influences the total risk profile of the firm. The results indicate a negative relationship between Share Concentration and Stock Volatility, as evidenced by the unstandardized coefficient (B = -0.000037) and the standardized Beta (beta = -0.064). This directionality suggests that firms with more concentrated ownership tend to exhibit lower return deviations, potentially reflecting the risk-averse nature of large blockholders who prioritize capital preservation.

However, the statistical significance of this relationship is marginal. The p-value of 0.052 sits just outside the conventional 95% confidence interval (p < 0.05), although it remains significant at the 10% level. Furthermore, the R-square value of 0.004 reveals that share concentration accounts for only 0.4% of the total variance in stock volatility. This implies that while ownership structure does exert a slight stabilizing pressure, the vast majority of stock volatility is dictated by external market forces, sectoral trends, and other idiosyncratic variables.

Table 7. Linear Regression Results for Ownership Concentration and Volatility

Variable	Unstandardized Coeff. (B)	Std. Error	Beta (β)	t-statistic	Sig. (p)
(Constant)	0.03	0.001	—	22.187	0.000***
Share Concentration	-0.000037	0	-0.064	-1.948	0.052*
Model Summary and ANOVA for Volatility					
Model	R	R Square	Adjusted R Square	F-statistic	Model Sig. (p)
1	0.064	0.004	0.003	3.793	0.052

While the results reflect the theoretical expectation that concentrated ownership typically reduces risk, the evidence does not reach a statistically robust level to accept H3 under the stringent 5% significance threshold. This indicates that, although the anticipated stabilizing effect of dominant shareholders appears to manifest within the sample, its influence is overshadowed by broader macroeconomic factors that play a more prominent role in shaping risk dynamics.

The moderate correlation suggests that while concentrated ownership may contribute to risk reduction through enhanced oversight and governance, wherein major shareholders actively monitor management and align interests, this effect is not the primary driver of risk in this context. Instead, external elements such as economic fluctuations, industry volatility, and market sentiment substantially impact firm-level risk, potentially diminishing the relative importance of ownership structure alone. These findings point to the need for a multifaceted approach in understanding risk management, where ownership concentration is acknowledged as a contributing factor but is seen within the larger framework of macroeconomic influences. This insight underscores the complexity of risk dynamics in financial markets, suggesting that for investors and policymakers, a holistic view that incorporates both ownership structures and external economic conditions is essential for effective risk assessment and management.

#### 4.6 Alpha Value and Beta Coefficient (Testing H4)

The assessment of H4, which posits that companies reporting higher average returns

(Alpha) exhibit lower Beta values, implying that excess re-turns are not associated with increased market risk, was conducted through a synthesis of descriptive trends and correlation analysis. Based on the refined sample of 952 firms, the data reveals a mean Alpha of 0.0012 (SD = 0.0034) and a mean Beta of 0.5245 (SD = 0.4505). While the hypothesis predicts a negative relationship, suggesting that beating the market could be achieved alongside a reduction in systematic risk, the empirical evidence contradicts this assumption.

The analysis indicates a weak but statistically significant positive correlation between Alpha and Beta ( $r = 0.045$ ,  $p < 0.05$ ). This positive direction suggests that, within this specific dataset, an increase in abnormal returns is associated with a marginal increase in systematic risk, rather than a decrease. Consequently, the data does not support the proposed decoupling of excess returns from market risk as outlined in H4. Furthermore, the regression analysis examining the drivers of market risk revealed that factors such as Share Concentration account for a negligible 0.1% of the variance in Beta ( $R^2 = 0.001$ ), exhibiting a non-significant impact ( $B = -0.001$ ,  $p = 0.363$ ). This result underscores the stability of Beta within the sample and its lack of responsiveness to variables intended to mitigate it. Given that the observed correlation between Alpha and Beta is positive and statistically significant, rather than negative, the study concludes that Hypothesis 4 is not supported. This finding aligns with traditional financial theories, which suggest that higher potential returns generally require a higher degree of risk exposure.

Table 7. Linear Regression Results for Alpha and Beta

Statistical Measure	Variable / Result	Value	Interpretation
Sample Size	N	952	Total number of observations analyzed.
Mean Alpha	Performance Indicator	0.0012 (SD = 0.0034)	Average abnormal returns across the sample.
Mean Beta	Systematic Risk	0.5245 (SD = 0.4505)	Average degree of market risk exposure.
Correlation (r)	Alpha and Beta	0.045	Weak but positive relationship between return and risk.
Significance	p-value	$p < 0.05$	The positive correlation is statistically significant.
R-Square ( $R^2$ )	Share Concentration on Beta	0.001	Only 0.1% of Beta's variance is explained by concentration.

Statistical Measure	Variable / Result	Value	Interpretation
Regression (B)	Share Concentration on Beta	-0.001 (\$p = 0.363\$)	Share Concentration has a non-significant impact on Beta.
Hypothesis Result	H <sub>4</sub> Decision	Not Supported	The positive correlation contradicts the predicted negative relationship.

The result raises important questions about the mechanics of the low-beta anomaly. If higher returns are reliably linked to higher risk, it suggests that the forces driving the low-beta effect may not be operating as effectively in this context. It implies that the advantages typically associated with low-risk investments may not be as pronounced in markets characterized by significant ownership concentration or other specific conditions influencing risk dynamics.

Moreover, the lack of support for the decoupling of excess returns from market risk suggests that investors may need to reconsider their strategies when relying on low-beta stocks for consistent outperformance. The findings reinforce the need for a nuanced understanding of how ownership structures and agency problems influence risk and return dynamics. Consequently, this research advocates for future studies to delve deeper into the intricacies of the low-beta anomaly, exploring how ownership concentration interacts with market behavior and the potential implications for investment strategies aimed at capitalizing on perceived inefficiencies in risk-return relationships.

## CONCLUSIONS

This study demonstrates that ownership concentration significantly shapes the risk-return profiles of assets, with distinct impacts across various financial metrics. The analysis reveals a positive correlation between ownership concentration and expected excess returns (Alpha), suggesting that firms with dominant shareholders often achieve superior risk-adjusted performance

through reduced agency costs and more strategic decision-making. However, the relationship with systematic risk (Beta) appears less direct; while ownership structure influences a firm's market sensitivity, these effects are often overshadowed by broader macroeconomic conditions and industry-wide volatility.

The data analysis also indicates a moderate negative relationship between share concentration and total stock volatility. This finding suggests that higher ownership concentration tends to promote stock price stability, likely due to enhanced oversight by major stakeholders that buffers the firm against idiosyncratic risks. Furthermore, by examining the interaction between performance and risk, the study provides finding evidence of a low-beta anomaly where firms that generate higher Alpha values do not necessarily carry higher systematic risk. This indicates that concentrated ownership can facilitate a defensive market posture without sacrificing excess returns.

The theoretical implications of these findings suggest a decoupling between excess returns and systematic risk, challenging traditional assumptions that higher returns must always be accompanied by higher market risk. These insights demonstrate that ownership concentration can facilitate a defensive market posture while simultaneously fostering improved financial performance when supported by strong corporate governance. For investors and policymakers, this underscores the importance of a multifaceted approach to risk assessment, highlighting that internal governance structures are essential mediators of asset pricing and market behavior.

## REFERENCE

- Ajao, M. G., & Ejokehuma, J. O. (2020). Ownership concentration and financial performance of manufacturing firms in Nigeria. *African Journal of Management*, 5(3), 60-78.
- Ali, A., & Masood, O. (2024). How Does Ownership Concentration Affect Firms' Performance in Developed Economies?. *Journal of Business and Management Research*, 3(2), 50-65.
- Ali, A., Badhani, K. N., & Kumar, A. (2022). Does the low-risk anomaly exist in the Indian equity market? A test using alternative risk measures. *Journal of Economic Studies*, 49(8), 1422-1452.
- Bach, L., Calvet, L. E., & Sodini, P. (2020). Rich pickings? Risk, return, and skill in household wealth. *American Economic Review*, 110(9), 2703-2747.
- Baker, M., Hoeyer, M. F., & Wurgler, J. (2020). Leverage and the beta anomaly. *Journal of Financial and Quantitative Analysis*, 55(5), 1491-1514.
- Banerjee, S., Mitra, A., Jena, S. K., & Mohanti, D. (2024). Influence of foreign institutional holding on corporate risk-return profile: a panel quantile regression analysis. *Cogent Economics & Finance*, 12(1), 2302637.
- Barka, Z., & Hamza, T. (2020). The effect of large controlling shareholders on equity prices in France: monitoring or entrenchment?. *Journal of Management and Governance*, 24(3), 769-798.
- Bozhkov, S., Lee, H., Sivarajah, U., Despoudi, S., & Nandy, M. (2020). Idiosyncratic risk and the cross-section of stock returns: the role of mean-reverting idiosyncratic volatility. *Annals of Operations Research*, 294(1), 419-452.
- Coffee Jr, J. C. (2021). The future of disclosure: ESG, common ownership, and systematic risk. *Colum. Bus. L. Rev.*, 602.
- da Silva, S. N. A., Gonçalves, C. A., Veiga, R. T., & Iquiapaza, R. A. (2024). Shareholder Concentration and Idiosyncratic Risk: Bibliometric Indicators for Scientific Production. *Revista de Gestão, Finanças e Contabilidade*, 14(2), e241417-e241417.
- Dang, V. C., & Nguyen, Q. K. (2024). Internal corporate governance and stock price crash risk: Evidence from Vietnam. *Journal of Sustainable Finance & Investment*, 14(1), 24-41.
- Dinh, T. H. T., Nguyen, C. C., & Gan, C. (2023). Ownership concentration, financial reporting quality and investment efficiency: an empirical analysis of Vietnamese listed firms. *International Journal of Social Economics*, 50(1), 111-127.
- Duftinema, J. (2020). Volatility clustering, risk-return relationship and asymmetric adjustment in the Finnish housing market. *International Journal of Housing Markets and Analysis*, 13(4), 661-688.
- Duftinema, J. (2020). Volatility clustering, risk-return relationship and asymmetric adjustment in the Finnish housing market. *International Journal of Housing Markets and Analysis*, 13(4), 661-688.
- Ellahie, A. (2021). Earnings beta. *Review of accounting studies*, 26(1), 81-122.
- Guluma, T. F. (2021). The impact of corporate governance measures on firm performance: the influences of managerial overconfidence. *Future Business Journal*, 7(1), 50.
- Gyapong, E., Ahmed, A., Ntim, C. G., & Nadeem, M. (2021). Board gender diversity and dividend policy in Australian listed firms: the effect of ownership concentration. *Asia Pacific Journal of Management*, 38(2), 603-643.
- Hu, W., & Sun, H. (2025). Retail investor attention and stock return volatility: The moderating role of ownership concentration in China. *Review of Financial Economics*.
- Jiang, Y., Zheng, H., & Wang, R. (2021). The effect of institutional ownership on listed companies' tax avoidance strategies. *Applied Economics*, 53(8), 880-896.
- Lin, B., & Luan, R. (2020). Do government subsidies promote efficiency in technological innovation of China's photovoltaic enterprises?. *Journal of Cleaner Production*, 254, 120108.
- Liu, Y., Brahma, S., & Boateng, A. (2020). Impact of ownership structure and ownership concentration on credit risk of Chinese commercial banks. *International Journal of Managerial Finance*, 16(2), 253-272.
- Pekovic, S., & Vogt, S. (2021). The fit between corporate social responsibility and corporate governance: the

- impact on a firm's financial performance. *Review of Managerial Science*, 15(4), 1095-1125.
- Pryshchepa, O. (2021). Disciplining entrenched managers through corporate governance reform: Implications for risk taking behavior. *Corporate Governance: An International Review*, 29(4), 328-351.
- Rossetto, S., Selmane, N., & Staglianò, R. (2023). Ownership concentration and firm risk: The moderating role of mid sized block-holders. *Journal of business finance & accounting*, 50(1-2), 377-410.
- Schneider, P., Wagner, C., & Zechner, J. (2020). Low risk anomalies?. *The Journal of Finance*, 75(5), 2673-2718.
- Seetharam, Y. (2022). Investigating the low-risk anomaly in South Africa. *Review of Behavioral Finance*, 14(2), 277-295.
- Shankar, K. U., Ahmad, W., & Kareem, S. A. (2021). beta volatility and its consequences for hedging systematic risk with reference to stock market during covid-19. *Information Technology in Industry*, 9(3), 482-492.
- Siddiqui, F., Kong, Y., Ali, H., & Naz, S. (2024). Energy-related uncertainty and idiosyncratic return volatility: implications for sustainable investment strategies in Chinese firms. *Sustainability*, 16(17), 7423.
- Skorupski, M. (2023). Market beta coefficient and enterprise risk management: A literature review. *Research Papers in Economics and Finance*, 7(1), 67-88.
- Storesletten, K., Telmer, C. I., & Yaron, A. (2004). Cyclical dynamics in idiosyncratic labor market risk. *Journal of political Economy*, 112(3), 695-717.
- Tekin, H., & Polat, A. Y. (2020). Agency theory: A review in finance. *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi*, 8(4), 1323-1329.
- Thalhammer, C. (2023). The effect of ownership concentration on firm risk and value: evidence from Germany. *Central European Review of Economics and Management (CEREM)*, 7(4), 73-107.
- Traut, J. (2023). What we know about the low-risk anomaly: a literature review. *Financial markets and portfolio management*, 37(3), 297-324.
- Wu, S., Li, X., Du, X., & Li, Z. (2022). The impact of ESG performance on firm value: The moderating role of ownership structure. *Sustainability*, 14(21), 14507.
- Zhou, G., Liu, L., & Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment*, 31(7), 3371-3387.