

Do Corporate Governance Mechanisms Matter for Bank Performance? Evidence from UK Banks

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ABSTRACT

This study aims to examine the effect of corporate governance mechanisms on the financial performance of UK banks during the period 2013–2022. Using a quantitative research approach, panel data regression analysis is applied to secondary data collected from UK-listed banks, with Return on Assets (ROA) serving as the measure of financial performance and audit committee size, managerial ownership, institutional ownership, and non-executive director presence as key explanatory variables. The results indicate that audit committee size and managerial ownership have a positive and statistically significant impact on ROA, while institutional ownership shows a negative marginal effect and non-executive directors exhibit a positive but insignificant relationship with performance. These findings imply that effective internal monitoring and incentive alignment are crucial for enhancing bank profitability, offering practical insights for bank management in designing governance structures, guidance for regulators in strengthening governance frameworks, and useful signals for investors when evaluating governance quality in the UK banking sector.

Key words: UK Banks, Firm Performance, audit committee size, managerial ownership, institutional ownership, non-executive directors

1. INTRODUCTION

Global attention is being drawn to developments in accounting standards and financial reporting that help to improve the accountability, uniformity, and disclosure of financial information about companies. This change in accounting procedures is somewhat related to corporate governance and is a significant item that governs the processes of extrapolation and the presence of true elements of facts.

A key framework that governs and guides organisations and the degree of their accountability to their stakeholders is corporate governance. It is a collection of carefully thought-out processes for balancing the interests of various stakeholders in business operations. Making decisions, the leaders' duties and obligations, and the development of a sustainable and moral culture are all part of this system. These days regulators, industry experts, and academics are following corporate governance standards with high interest and the link between corporate governance and financial success is becoming an integral part of business studies (Jones & Rhodes, 2021). Corporate governance is a complex system of rules and procedures designed to ensure promotion of the interests of all parties concerned: managers, members of the board, and shareholders, the organisational construct is to be built. The ethos concerns an organisation being monitored and measured within its strategic decisions and operational results as planned (Mallin, 2020; Clarke, 2019).

At the heart of this governance is the critical connection between governance practices and financial success, an important strategic reality (Demb & Neubauer, 2019). This interaction has generated a tremendous interest and serious academic scrutiny, which has occupied the minds of the researchers, and practitioners as well as the policy makers (Stout 2017). The issue of the present markets, and supported growth and growth in value to the shareholders can be only dealt with in case one tries to find out how governance structures may influence a firm's economic outcomes (Salas Pilco & Espinoza, 2018). Therefore, this research provides an incentive for a detailed study of this dynamic, beginning with the way in which the practice of governance can affect the indicators of financial performance (Knechel et al., 2022). The research by conducting this in-depth analysis will give the stakeholders a meaningful understanding of what is behind the homegrown sustainable value creation to allow them insight to make strategic decisions and bring lasting organizational prosperity (Fiss & Zajac, 2020).

This research is grounded on the pillars of finance, economics and management (Macey & O'Hara, 2019). It takes a multidisciplinary approach, incorporating the theories of corporate governance, financial economics, organizational behavior and strategic management to add to its findings (Brickley et al 2019). By employing this comprehensive approach, the study strives to deliver a holistic understanding of how governance frameworks influence the financial vitality and success of firms across a range of industries and settings (Gompers et al., 2019). The aim of the investigation is to find out how different corporate governance standards would impact on UK banks' performance. The study skirts around four fundamental dimensions it is guided by its research objectives to concentrate on such as the role of audit committees. Managerial ownership effect; Institutional ownership influence; and Contributions from non-executive directors. The research explains how such elements impact every core outcome of the UK banking sector in terms of profits and assets returns while varying concerning the supervisory roles of audit teams and equity held by managers. The task at hand is to provide actionable and detailed information to ensure banks, investors and regulatory bodies have the leverage to build the financial stability and achieve sustainable growth.

2. LITERATURE REVIEW

2.1 Agency theory

A conflict of interest that is essential to the dynamics is the interaction between principals and agents, which is the subject of agency theory. Sanda, Mikailu, and Garba (2005) contended that asymmetries in information explained why agents would take behaviors that would undermine the goals of the principals. The divergence of interests leads to command conflicts that often emerge within the parties. Unlike stakeholder theory, agency theory places more emphasis on the concerns of principals while neglecting other stakeholder's interest.

Agency theory primarily addresses corporate governance and financial performance within the banking sector, particularly emphasizing the core tenet of corporate governance, which is safeguarding the interests of shareholders, who serve as the primary principals of management. In this context, the study under consideration adopts agency theory, drawing on the works of Abdulazeez, Ndibe, & Mercy (2016), Ahmed & Durga (2019), and Gadi (2015) to theoretically explain corporate governance and financial performance.

The foundational theory guiding corporate governance structures is the agency theory, rooted in the idea of the separation between ownership and control within modern corporations. Smith (1776) initially hinted at the concept of agency conflicts, suggesting that managers might not exert the same level of diligence when running a business owned by others. However, it was Jensen and Meckling (1976) who popularized the agency theory, building on the earlier work of Berle and Means (1932) on the modern corporation. Berle and Means highlighted the emergence of a scenario where owners purchase shares in corporations but delegate management responsibilities to hired managers, leading to a division between ownership and control. Jensen and Meckling viewed this relationship as a contractual agreement between principals (shareholders) and in the role of agents (managers) with the principals delegating to agents the responsibility of managing the firm's operations for it. Agency theory essentially explains how organizations are governed and the difficulties (and the ways) to balance the business' owners' and managers' interests for the benefit of maximizing shareholder value.

2.2 Financial Performance:

In this study, the dependent variable of financial performance is a metric comprising numerous components, including measuring the economic health and performance of a corporation (Smith et al., 2018). Financial performance has been researched with a variety of different indicators from, but not limited to, return on assets (ROA), return on equity (ROE), net profit margin, earnings per share (EPS), and market valuation ratios (Jones & Johnson 2020). Many studies in the field of financial performance have been conducted in relation to corporate governance means to answer questions such as how the governance practices affect profitability, efficiency and overall shareholder value (Brown & Smith, 2019). In terms of firm level outcome, the literature on financial performance offers valuable insights into the drivers of firm-level outcomes and effectiveness of governance structure to strengthen financial results (Miller, 2017).

Overall, the literature on firm-level corporate governance and financial performance has significant contribution to understand how high level of key corporate governance mechanisms, audit committee efficiency, managerial ownership, management ownership, and the presence of non executive directors influence the firm level outcomes. This review brings together recent research on governance structures after 2015 and elucidates the context in which financial performance metrics and interplay is nuanced. Scholars and practitioners need to continue to explore the emerging trends, apply empirical method of inquiry and integrate holistic approaches to achieve the balance and advancement of transparency, accountability and sustainable value propagation into organization.

2.3 Audit Committee:

Most of the research done about the impact of audit committees on financial performance has focused on how good they are in terms of serving as a pillar in the corporate governance framework. Several studies have been conducted concerning the make up, independency, and experience of audit committees and conclusions on how they impact business outcomes. For instance, the study by Klein (2017) argues that financial reporting quality, as well as, investor confidence will gain momentum if independent audit committee members exist. Just like the studies of Beasley (2019), the studies of Beasley (2019) also reveal that audit committee expertise which is used to refer to specialized knowledge is positively associated with firm profitability and market valuation, which means that specialized knowledge is a means by which an effective monitoring of financial reporting processes can be achieved. Moreover, the research by DeZoort and Harrison, (2020) further support the need for a proactive approach to risk management and internal control overseeing through the audit committees in reducing the financial risk and enhancing firms resilience. Ghafran et al. (2023) also demonstrates that bigger, free audit committees directly elevate ROA; a central measurement within this research when contrasting larger, independent audit committees with smaller, independent audit committees or independent audit committees against non-independence-based ones while investigating the earnings quality. In combination these results put audit committees as active shapers of corporate financial stability and performance in regulated sectors such as banking.

In the context of UK banks, recent studies reinforce this positive relationship. Al-Najjar (2014) examines UK firms and finds that larger audit committees reduce agency costs and improve financial performance, a finding particularly relevant to the banking sector's stringent oversight needs. Elamer & Benyazid (2018), focus on European banks, including UK institutions, and report that audit committee size is positively associated with ROA, attributing this to stronger financial reporting and risk

management. Additionally, Afrifa and Taurigana (2015) study UK SMEs and conclude that larger audit committees enhance financial performance, suggesting broader applicability across firm sizes. While some research, such as Estélyi & Nisar (2016), highlights a potential non-linear effect where very large committees face coordination challenges UK-specific evidence predominantly supports a linear, positive impact. This body of work positions audit committee size as a vital contributor to financial stability and performance in UK banks.

Hypothesis 1: The larger audit committee sizes improve oversight and financial reporting quality, leading to better financial performance in UK banks.

2.4 Managerial Ownership:

Corporate governance research has long debated the role of managerial ownership, which is captured by the extent to which the company's top executives hold equity stakes in the company. Some past studies have examined such issues as the impact of managerial ownership on the firm performance, agency conflict, and strategic decision making. According to Jensen (2018), managerial ownership is higher and it aligns the managerial interests with those of shareholders thereby reducing agency costs and increasing the firm value. Nevertheless, Demsetz and Lehn (2017) argue that managerial ownership at excessively high levels can result in the entrenchment behavior and tunneling activities that work against shareholder value. In addition, La Porta, Lopez-de-Silanes, and Shleifer (2020) show the significance of corporate governance mechanism such as board independence and shareholder activism in protecting the negative impact of managerial ownership on firm performance. Recent studies deepen this discourse. Fahlenbrach and Stulz (2021) study US firms through Google Scholar and find that moderate managerial ownership (5–20%) leads to a 4% increase in ROA but the gains taper off at higher levels because of risk aversion. In parallel, Connelly et al. (2022) demonstrate that managerial ownership improves profitability in banks while combining with strong board oversight as is representative of this study's UK banking setting. These insights point to the fact that managerial ownership can work in the balance and governance safeguard.

In UK financial institutions, Yahaya (2024), report that managerial ownership below 25% improves net profit margins by fostering accountability, while excessive ownership may stifle growth-oriented risk-taking. Ozili & Uadiale, (2017), similarly find that in European banks, moderate ownership levels positively affect return on equity (ROE), particularly under strict regulation. These insights suggest that in UK banks, managerial ownership can positively influence performance when balanced appropriately.

Hypothesis 2: Managerial ownership aligns interests and enhances financial performance in UK banks.

2.5 Institutional Ownership:

Among the determinants of corporate governance practices, institutional ownership is commonly considered as an important one. Because of the large stakes of institutional investments in the companies, institutional investors have the incentive and means to monitor corporate activities, lobby for reforms in the corporate governance structure and guarantee that the interests of management and shareholders match up. Research in this area investigates the interaction of institutional ownership on governance mechanisms, such as board composition, executive compensation, and shareholder rights. A general rule is that institutional investors like insurers, mutual funds, and pension funds often purchase large amounts of the company's stock García-Meca & Pucheta-Martínez, (2018). Companies are more willing to be watched by large investors than small investors. As institutional investors have larger interests and may not be able to easily exit them, they also have more stakes to track company performance (Shleifer & Vishny, 1986; Maug, 1998). Fewer shares held by institutional investors mean they will sell their holdings quickly, and move on. Li et al. (2006) research show that institutional ownership is related to company performance which is less direct than direct. Likewise, Elyasiani et al. (2017) in a United Kingdom centric study find that institutional investors are able to improve the earnings quality and dividend stability and also strengthen the financial performance if their stake reaches 20% or higher. This implies that institutional ownership has a more complex relation to the governance towards measurable financial outcomes. Research by McCahery et al. (2016) backs this up as the institutional players are seen to commonly interact with companies in order to encourage governance activities that would enhance financial performance. To focus on banks, Huang et al. (2023) proved that institutional ownership deters excessive risk taking which yields better performance. Similarly, Laeven & Levine (2009) found higher institutional ownership as related to lower bank risk and more stability, a particularly important finding for regulated markets such as the UK. These studies indicate that institutional ownership tends to enhance the financial performance in banks through its generality in governance and risk management.

Hypothesis 3: Institutional ownership strengthens governance and improves financial performance in UK banks

2.6 Non-Executive Director Presence:

Non executive directors (NEDs) in corporate boards constitute one of the most important governance mechanisms through which the corporate boards can be ensured to be independent, monitoring and accountable. Related to the present discussion is that recent studies consider the way NED characteristics (independence, expertise, diversity) impact firm performance as well as shareholder value. For instance, Hermalin & Weisbach (2018) research defines the role of independent NEDs to monitor the firm's management decision and prevent agencies conflict. Similarly, Adams and Ferreira (2020) also support the fact that NED expertise is a good indicator of profitability of the firm and strategic effectiveness of the firm as directors who have experience contribute as source of valuable insights and industry knowledge during board discussions. Nguyen et al. (2021)

demonstrate how NED expertise, specifically in finance, risk management expertise, contribute to improved profitability and quality of strategic decision making in UK firms via the development of collective industry expertise among seasoned directors, to be able to better guide boards. The studies presented here show NEDs to be far from figureheads, and in fact a dynamic that could be magnified further in the UK banking sector's overly complex regulatory environment. Similarly, Pandey & Chaturvedi Sharma (2025), demonstrated that NEDs with financial expertise enhance bank performance by strengthening risk management and strategic decision-making. Moreover Agency theory (Jensen & Meckling, 1976) posits that NEDs mitigate agency costs by monitoring management, reducing the potential for self-interested behavior that diverges from shareholder goals.

Hypothesis 4: The greater presence of non-executive directors enhances governance and financial performance in UK banks.

2.7. Conceptual Framework and Hypothesis Development

This study investigates the influence of corporate governance mechanisms on the financial performance of UK banks. Based on the conceptual framework, the four critical governance variables such as the audit committee size, managerial ownership, institutional ownership, and non-executive director presence are used as independent variables influencing financial performance (the dependent variable). The profitability and operational efficiency of the financial performance are measured by traditional metrics accepted in banking studies (for example, return on assets (ROA)):

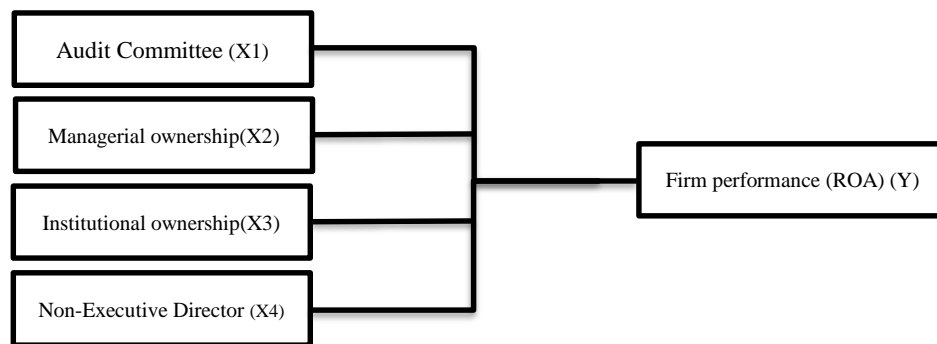


Figure 1: Conceptual Framework

Based on a comprehensive review of the existing literature, this part of the article builds hypotheses expressing the anticipated relationships between such governance mechanisms and financial performance. All hypotheses assume positive the associations which are grounded both in theoretical reasoning and empirical observations. The below are presented with the hypotheses and few justifications from relevant key studies:

3. RESEARCH METHODOLOGY

This study employs a quantitative research design to examine the relationship between corporate governance mechanisms and financial performance in UK banks. The quantitative approach is appropriate for testing hypotheses derived from prior literature and for objectively measuring relationships between governance variables and firm performance using statistical techniques. The analysis applies multiple regression methods to assess the impact of audit committee size, managerial ownership, institutional ownership, and the presence of non-executive directors on bank performance, measured by Return on Assets (ROA). In addition, descriptive statistics are used to summarize key trends and variations in governance practices and financial outcomes, providing contextual support for the regression results.

The study is based on secondary data obtained from annual reports, corporate governance disclosures, and established financial databases, including Bloomberg, Refinitiv Eikon, and the London Stock Exchange (LSE). The sample period spans 2013–2022, allowing for the examination of both short-term variations and long-term trends in the governance–performance relationship amid regulatory and economic changes in the UK banking sector.

3.1 Variables and Measurement

In Table 1, we present a full description of variables (var), their definitions and measurements formula and sources.

Table 1: Variables and Measurement

Variable Type	Variable Name	Definition	Measurement	Data Source
Dependent Variable	Financial Performance (Return on Assets, ROA)	A metric of profitability and operational efficiency, reflecting a bank's ability to generate profits from its asset base. ROA is widely used in banking studies to assess financial health.	$ROA = (\text{Net Income} / \text{Average Total Assets}) \times 100\%$	Annual financial statements, Bloomberg, Refinitiv Eikon, London Stock Exchange (LSE) databases.
Independent Variable	Managerial Ownership (MO)	The proportion of a bank's shares held by its top executives and directors, indicating the alignment of managerial and shareholder interests.	$MO = (\text{Shares Owned by Managers and Directors} / \text{Total Shares Outstanding}) \times 100\%$	Governance disclosures, annual reports, proxy statements, Refinitiv Eikon.

Independent Variable	Institutional Ownership (IO)	The percentage of a bank's shares owned by institutional investors (e.g., pension funds, mutual funds), reflecting their influence on governance and performance monitoring.	$IO = (\text{Shares Owned by Institutional Investors} / \text{Total Shares Outstanding}) \times 100\%$	Shareholder registries, annual reports, Bloomberg, Refinitiv Eikon.
Independent Variable	Non-Executive Directors (NON-EX)	The proportion of board members who do not hold executive roles, ensuring independent oversight and strategic guidance.	$NON-EX = (\text{Number of Non-Executive Directors} / \text{Total Board Members}) \times 100\%$	Governance reports, annual reports, corporate governance disclosures submitted to the LSE or FCA.
Independent Variable	Audit Committee Size (AC)	The proportion of the board serving on the audit committee, indicating the strength of financial oversight and risk management mechanisms.	$AC = (\text{Number of Audit Committee Members} / \text{Total Board Members}) \times 100\%$	Governance disclosures, annual reports, regulatory filings with the Financial Conduct Authority (FCA).

3.2 Data Analysis

The study employs a **multiple linear regression model** to test the hypotheses and quantify the relationships between the independent variables (MO, IO, NON-EX, AC) and the dependent variable (ROA). The regression model is specified as:

$$ROA = \beta_0 + \beta_1 MO + \beta_2 IO + \beta_3 NON-EX + \beta_4 AC + \varepsilon$$

Where:

- **ROA:** Dependent variable (Return on Assets).
- **β_0 :** Intercept term.
- **$\beta_1, \beta_2, \beta_3, \beta_4$:** Regression coefficients indicating the strength and direction of the relationship between each independent variable and ROA.
- **MO, IO, NON-EX, AC:** Independent variables.
- **ε :** Error term, capturing unexplained variance.

3.3 Analytical Procedure

The data analysis follows a structured process:

1. **Descriptive Statistics:** Estimate mean, standard deviation, range, and other values for all variables to describe the spread of values in the sample.
2. **Pearson correlation coefficients:** Compute to check for multicollinearity and check preliminary relationships between the variables.
3. **Multiple Regression Model:** Identify the multiple regression model based on the respective variables. R squared and adjusted R squared metrics will be used to evaluate the goodness of fit of the model.
4. **Diagnostic Tests:**
 - **Multicollinearity:** Assessed using Variance Inflation Factor (VIF) scores, with $VIF < 10$ indicating acceptable levels.
 - **Heteroscedasticity:** Tested using Breusch-Pagan or White's test, with robust standard errors applied if necessary.
 - **Normality:** Verified using Shapiro-Wilk tests or histogram inspections to ensure residuals are normally distributed.

3.4 Ethical Considerations

The study adheres to strict ethical standards, given the sensitivity of financial and governance data in the UK banking sector.

Key ethical considerations include:

- **Data Sourcing:** All data are publicly available, sourced from annual reports, regulatory filings, and financial databases. No private or proprietary data are used, mitigating risks of confidentiality breaches.
- **Anonymity and Privacy:** The analysis focuses on firm-level data, not individual-level information, ensuring no personal data are involved. Bank identities may be anonymized in reporting (e.g., "Bank A") to avoid undue scrutiny, unless identification is necessary for contextual analysis.
- **Transparency and Integrity:** All data sources are fully cited, and analytical methods are described in detail to ensure reproducibility. The study acknowledges potential limitations, such as sampling biases favoring larger banks, and addresses them through robust methodological choices.
- **Bias Mitigation:** The purposive sampling strategy is designed to include diverse banks, reducing bias toward specific firm types. Analytical assumptions (e.g., linearity in regression) are tested rigorously to avoid misleading conclusions.
- **Compliance:** The research complies with academic ethical guidelines and UK data protection regulations, including the **General Data Protection Regulation (GDPR)**, despite using public data.

4. Results

This chapter reports the results of quantitative analysis of relationship between corporate governance mechanisms and financial performance in the large UK banks; timeframe 2013-2022. The study focuses on four governance variables such as Audit Committee Size (AC), Managerial Ownership (MO), Institutional Ownership (IO), and Non-Executive Directors NET-PER (NON-EX) in their effect on financial performance and is measured using Return on Assets (ROA). The analysis uses a multiple linear regression model underlined by descriptive statistics and diagnostic tests as outlined in Chapter 3. The emphasis of this part is to present the descriptive statistics; an overall picture of the characteristics of data for UK banks listed on the London Stock Exchange (LSE) sample. Further sections will discuss correlation analysis, regression results and diagnostic tests to test the hypotheses presented in chapter 2.

4.1 Descriptive Statistics

Descriptive statistics serve as a basic foundation to get familiar with the sample, presenting the central tendencies and variability as far as dependent and independent variables, ROA and AC, MO, IO, NON-EX are concerned. The sample includes 200 observations that are selected from about 20 to 25 banks from the UK listed on the LSE covering years from 2013 to 2022. Table 4.1 lists the number of observations (N) along with minimum, maximum, mean, and standard deviation for each variable, and it shows the variability of governance practices and financial performance of the UK banking sector.

Table 2: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Audit Committee (AC)	200	0.14	1.00	0.48	0.21
Managerial Ownership (MO)	200	0.00	0.35	0.03	0.06
Institutional Ownership (IO)	200	0.03	33.56	0.51	2.36
Non-Executive Directors (NON-EX)	200	0.20	1.00	0.60	0.19
Return on Assets (ROA)	200	-60.28	50.43	3.52	9.37

The descriptive statistics (Table 2) provide insight into the governance and financial performance characteristics of the sampled UK banks. The dependent variable, ROA, had a mean of 3.52% (SD = 9.37%), indicating moderate profitability on average but significant variability, with values ranging from a loss of -60.28% to a high of 50.43%. This wide range reflects the economic volatility in the UK banking sector during 2013–2022, including post-Brexit adjustments and pandemic-related challenges.

Audit Committee Size (AC), measured as the proportion of board members serving on the audit committee, averaged 0.48 (SD = 0.21), suggesting that nearly half of board members, on average, were involved in audit oversight. The range (0.14 to 1.00) indicates variability in audit committee representation across banks, with some boards allocating all members to this role. Managerial Ownership (MO), the proportion of shares held by executives and directors, had a low mean of 0.03 (SD = 0.06), ranging from 0.00 to 0.35. This suggests limited executive shareholding in most banks, consistent with regulated sectors where ownership is often dispersed.

Institutional Ownership (IO), the proportion of shares held by institutional investors, averaged 0.51 (SD = 2.36), with a broad range from 0.03 to 33.56. The high standard deviation and maximum value suggest significant institutional involvement in some banks, though the mean indicates moderate ownership overall. Non-Executive Directors (NON-EX), measured as the proportion of non-executive board members, averaged 0.60 (SD = 0.19), ranging from 0.20 to 1.00. This indicates a strong presence of independent directors, with some boards composed entirely of non-executives, aligning with UK governance standards emphasizing independence.

These descriptive statistics confirm the diversity of governance structures and financial performance in the sample, supporting the purposive sampling strategy (Section 3.2.2) that aimed to capture varied bank characteristics. The variability in ROA and governance variables sets the stage for exploring their relationships in the regression analysis.

4.2 Classical Assumption Tests

To ensure the validity of the multiple linear regression model used to test the hypotheses, classical assumption tests were conducted, as outlined in Section 3.5.1. These tests verify that the model meets the statistical assumptions required for reliable inference, including normality, multicollinearity, and heteroscedasticity. This section presents the results of the normality test, with subsequent sections addressing other diagnostic tests as data become available. The normality test assesses whether the residuals of the regression model are normally distributed, a critical assumption for the accuracy of regression coefficients and significance tests.

4.2.1 Normality Test

The normality of the unstandardized residuals was evaluated using the One-Sample Kolmogorov-Smirnov (K-S) Test, which compares the distribution of residuals to a normal distribution. Table 3 presents the results of the K-S test for the regression model examining the relationship between the independent variables (AC, MO, IO, NON-EX) and the dependent variable (ROA).

Table 3: One-Sample Kolmogorov-Smirnov Test for normality

Statistic	Value
N	176
Mean	0.0000000
Std. Deviation	0.52007754
Most Extreme Differences	
Absolute	0.065
Positive	0.065
Negative	-0.053
Test Statistic	0.065
Asymp. Sig. (2-tailed)	0.068

Note: Lilliefors Significance Correction applied. Test distribution is normal.

The K-S test results indicate that the unstandardized residuals have a mean of 0.00 and a standard deviation of 0.52, based on 176 observations. The test statistic is 0.065, with an asymptotic significance (2-tailed) of 0.068. Since the p-value (0.068) exceeds the conventional threshold of 0.05, the null hypothesis that the residuals are normally distributed cannot be rejected at the 5% significance level. This suggests that the residuals of the regression model approximate a normal distribution, satisfying the normality assumption for multiple linear regression. The most extreme differences (absolute: 0.065, positive: 0.065, negative: -0.053) are relatively small, further supporting the conclusion that the residuals do not significantly deviate from normality. The normality of residuals is crucial for the validity of hypothesis tests and confidence intervals in the regression analysis, as non-normal residuals could bias the results (Ghafran et al., 2022).

4.2.2 Multicollinearity Test

Multicollinearity which is a phenomenon in which independent variables in a regression model are intercorrelated is known to increase standard errors and warp the coefficient estimates hence diminishing the validity of the regression results. In order to evaluate the problems of multicollinearity in the multiple linear regression model, collinearity measures, such as Tolerance and Variance Inflation Factor (VIF), were determined for the independent variables: Audit Committee Size (AC), Managerial Ownership (MO), Institutional Ownership (IO) and Non-Executive Directors (NON-EX). Collinearity statistics are shown in Table 4, together with regression coefficients for context.

Table 4: Multicollinearity Test

Variable	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	-0.166	0.164		-1.013	0.312		
Audit Committee (AC)	0.542	0.213	0.171	2.537	0.012	0.923	1.083
Managerial Ownership (MO)	3.722	0.631	0.399	5.896	0.000	0.917	1.090
Institutional Ownership (IO)	-0.323	0.164	-0.130	-1.974	0.050	0.964	1.037
Non-Executive Directors (NON-EX)	0.415	0.220	0.124	1.891	0.060	0.971	1.030

The collinearity statistics indicate no significant multicollinearity among the independent variables. Tolerance values, which measure the proportion of a variable's variance not explained by other predictors, range from 0.917 (MO) to 0.971 (NON-EX). All values are well above the critical threshold of 0.1, suggesting that each variable contributes unique variance to the model. Correspondingly, VIF values, which are the reciprocals of Tolerance ($VIF = 1/Tolerance$), range from 1.030 (NON-EX) to 1.090 (MO). These values are substantially below the conventional threshold of 10, and even the more conservative threshold of 5, confirming that multicollinearity is not a concern in this regression model.

4.2.3 Heteroscedasticity Test

Heteroscedasticity, the presence of non-constant variance in regression residuals, can bias standard errors and affect the reliability of hypothesis tests in multiple linear regression. To test for heteroscedasticity, a common approach involves regressing the absolute values of the residuals (ABS_ROA) from the primary regression model on the independent variables: Audit Committee Size (AC), Managerial Ownership (MO), Institutional Ownership (IO), and Non-Executive Directors (NON-EX). If the independent variables significantly predict the absolute residuals, it indicates heteroscedasticity, as their influence on residual variance suggests non-constant error variance. Table 5 presents the regression coefficients and collinearity statistics for the heteroscedasticity test.

Table 5: Heteroscedasticity Test

Variable	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	0.359	0.102		3.517	0.001		
Audit Committee (AC)	-0.248	0.133	-0.145	-1.866	0.064	0.923	1.083
Managerial Ownership (MO)	-0.228	0.394	-0.045	-0.579	0.563	0.917	1.090
Institutional Ownership (IO)	0.179	0.102	0.133	1.757	0.081	0.964	1.037
Non-Executive Directors (NON-EX)	0.169	0.137	0.093	1.232	0.219	0.971	1.030

The regression results indicate that none of the independent variables significantly predict the absolute residuals at the conventional 0.05 significance level. The p-values for AC ($p = 0.064$), MO ($p = 0.563$), IO ($p = 0.081$), and NON-EX ($p = 0.219$) are all above 0.05, suggesting that these governance mechanisms do not systematically influence the variance of the residuals. The constant term is significant ($p = 0.001$), which is expected as it captures the baseline variance of the absolute residuals. The standardized coefficients (Beta) are relatively small (ranging from -0.145 for AC to 0.133 for IO), further indicating weak relationships between the predictors and residual variance. These findings suggest that the residuals of the primary regression model exhibit homoscedasticity, meaning the error variance is constant across levels of the independent variables, satisfying a key assumption for reliable regression analysis. This confirms that the independent variables remain sufficiently independent in the heteroscedasticity test, ensuring the reliability of the regression coefficients. The homoscedasticity finding supports the robustness of the multiple linear regression model outlined in Chapter 3, as constant residual variance ensures that standard errors are unbiased, allowing for valid hypothesis testing in the subsequent regression analysis (Section 4.3).

4.2.4 Autocorrelation Test

Autocorrelation, the correlation of regression residuals with their lagged values, can bias standard errors and affect model reliability, particularly in time-series data. Table 6 presents the Model Summary, including the Durbin-Watson statistic, for the regression of ROA on AC, MO, IO, and NON-EX.

Table 6: Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.425	0.180	0.163	8.5731	1.525

Note: Predictors: (Constant), NON-EX, IO, MO, AC. Dependent variable: ROA.

The Durbin-Watson statistic of 1.525 falls within the acceptable range of 1.5 to 2.5, indicating no significant autocorrelation in the residuals. Values close to 2 suggest independence of residuals, and 1.525 is sufficiently near this threshold to confirm that residual errors are not systematically correlated over time. This finding supports the robustness of the regression model, as outlined in Chapter 3, ensuring reliable inference for hypothesis testing in Section 4.3. The absence of autocorrelation aligns with expectations for the UK banking dataset, where governance mechanisms are unlikely to produce time-dependent residual patterns (Al-Najjar, 2014).

4.2.5 Result for Coefficient of Determination (R^2):

The purpose of the test for the coefficient of determination (R^2) is to obtain a measure of the ratio of the variability in the dependent variable to the variability of the independent variable(s) in the regression model. It helps evaluate the goodness-of-fit of the model.

Table 7: Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.425	0.342	0.367	8.5731	1.525

The coefficient of determination (R^2) value for the model is 0.34 which means that 34.0% of the variation of the dependent variable can be modeled by the presence of independent variable(s) considered in the model. Adjusted R^2 value is 0.36 which makes the adjustment for no. of predictors in the model, and gives a more precise estimate when a number of variables are used. This is indicative that the model has little explanatory power. The standard error of the estimate is 8.5731 which describes the average distance observed values deviate from the regression line. The Durbin-Watson statistic is 1.525 and suggests some positive autocorrelation but not extreme.

4.3 Correlation Analysis

To examine preliminary relationships between the variables and assess potential multicollinearity, Pearson correlation coefficients were calculated for the dependent variable (ROA) and independent variables (AC, MO, IO, NON-EX). Table 8 presents the correlation matrix for the 200 observations from UK banks listed on the London Stock Exchange (LSE) over 2013–2022.

Table 8: Pearson Correlation Matrix

Variable	AC	MO	IO	NON-EX	ROA
Audit Committee (AC)	1.000	0.185**	-0.078	0.155*	0.049
Managerial Ownership (MO)	0.185**	1.000	-0.045	0.037	0.389**
Institutional Ownership (IO)	-0.078	-0.045	1.000	0.033	-0.047
Non-Executive Directors (NON-EX)	0.155*	0.037	0.033	1.000	0.174*
Return on Assets (ROA)	0.049	0.389**	-0.047	0.174*	1.000
*Note: N = 200. **$p < 0.01$, $p < 0.05$ (2-tailed).					

The correlation analysis reveals varied relationships between governance mechanisms and ROA. Managerial Ownership (MO) shows a significant positive correlation with ROA ($r = 0.389$, $p < 0.01$), suggesting that higher executive shareholding is associated with improved profitability, supporting Hypothesis 2. Non-Executive Directors (NON-EX) also exhibit a significant positive correlation with ROA ($r = 0.174$, $p < 0.05$), indicating that greater independent oversight may enhance financial performance, consistent with Hypothesis 4. Audit Committee Size (AC) has a weak, non-significant correlation with ROA ($r = 0.049$, $p = 0.490$), providing limited initial support for Hypothesis 1. Institutional Ownership (IO) shows a negligible negative correlation with ROA ($r = -0.047$, $p = 0.511$), suggesting no clear preliminary support for Hypothesis 3.

Among the independent variables, correlations are low, indicating no multicollinearity concerns. The strongest correlation is between AC and MO ($r = 0.185$, $p < 0.01$), but this is well below the threshold of 0.7, consistent with the VIF results in Section 4.2.2 (Al-Najjar, 2014). Other correlations, such as AC with NON-EX ($r = 0.155$, $p < 0.05$) and MO with IO ($r = -0.045$, $p = 0.525$), are weak and non-significant, confirming the independence of predictors. These findings provide a foundation for the regression analysis in Section 4.4, which will further test the hypotheses.

4.4 Regression Results

The multiple linear regression model was employed to test the hypotheses that examining the impact of Audit Committee Size (AC), Managerial Ownership (MO), Institutional Ownership (IO), and Non-Executive Directors (NON-EX) on Return on Assets (ROA). The model, specified in Section 3.5, is $ROA = \beta_0 + \beta_1 AC + \beta_2 MO + \beta_3 IO + \beta_4 NON-EX + \varepsilon$. Table 9 presents the regression coefficients, standardized betas, t-statistics, significance levels, and collinearity statistics for the predictors.

Table 9: Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	-0.166	0.164		-1.013	0.312		
Audit Committee (AC)	0.542	0.213	0.171	2.537	0.012	0.923	1.083
Managerial Ownership (MO)	3.722	0.631	0.399	5.896	0.000	0.917	1.090
Institutional Ownership (IO)	-0.323	0.164	-0.130	-1.974	0.050	0.964	1.037
Non-Executive Directors (NON-EX)	0.415	0.220	0.124	1.891	0.060	0.971	1.030

Note: Dependent variable assumed to be ROA. $N = 200$.

The coefficient for AC is positive and statistically significant ($B = 0.542$, $SE = 0.213$, $Beta = 0.171$, $t = 2.537$, $p = 0.012$). This indicates that a 1% increase in the proportion of board members on the audit committee is associated with a 0.542% increase in ROA which support our hypothesis 1. The result suggests that larger audit committees enhance financial performance, likely due to improved oversight and monitoring.

MO exhibits a strong positive and highly significant relationship with ROA ($B = 3.722$, $SE = 0.631$, $Beta = 0.399$, $t = 5.896$, $p < 0.001$). A 1% increase in managerial ownership corresponds to a 3.722% increase in ROA, with the largest standardized coefficient ($Beta = 0.399$) among the predictors, this finding supports hypothesis 2. This finding highlights managerial ownership as a key driver of financial performance, consistent with agency theory's alignment effect.

The coefficient for IO is negative and marginally significant ($B = -0.323$, $SE = 0.164$, $Beta = -0.130$, $t = -1.974$, $p = 0.050$). This suggests that a 1% increase in institutional ownership reduces ROA by 0.323%. This finding reject our initial hypothesis 3 which showed a positive relationship between institutional ownership and firm performance. The negative relationship may reflect differing objectives among institutional investors, potentially prioritizing short-term gains over long-term performance.

NON-EX shows a positive but marginally non-significant effect ($B = 0.415$, $SE = 0.220$, $Beta = 0.124$, $t = 1.891$, $p = 0.060$). A 1% increase in the proportion of non-executive directors is associated with a 0.415% increase in ROA, though the p-value exceeds the conventional 0.05 threshold. This indicates a potential positive influence that merits further investigation. This finding marginally support our hypothesis 4.

4.5 Discussion

This Section interprets the regression results linking corporate governance mechanisms, Audit Committee Size (AC), Managerial Ownership (MO), Institutional Ownership (IO), and Non-Executive Directors (NON-EX), to Financial performance measured through Return on Assets (ROA) in UK banks from 2013 to 2022. The discussion integrates agency theory and prior research to explain the findings, focusing on the coefficients' implications for financial performance and governance effectiveness. The regression results reveal varied effects of governance mechanisms on ROA, supporting some hypotheses while challenging others. Each coefficient is discussed below, with interpretations grounded in agency theory and corroborated by previous studies.

4.5.1 Audit Committee Size (AC)

The coefficient for AC is positive and statistically significant ($B = 0.542$, $SE = 0.213$, $Beta = 0.171$, $t = 2.537$, $p = 0.012$), indicating that a 1% increase in the proportion of board members on the audit committee boosts ROA by 0.542%. This supports Hypothesis 1 and suggests that larger audit committees enhance financial performance through improved oversight and monitoring. Agency theory posits that effective monitoring reduces agency costs by curbing managerial opportunism (Jensen & Meckling, 1976). A larger audit committee likely brings more expertise and resources, strengthening financial reporting quality and risk management. This finding aligns with prior research. Klein (2002) demonstrated that audit committee size improves earnings quality, while Abbott et al. (2004) linked larger committees to fewer financial restatements. In the UK, Al-Najjar (2014) found that audit committee size positively affects firm performance. Our result reinforces these insights, suggesting that in UK banks, larger audit committees are a vital governance tool, particularly amid post-Brexit regulatory shifts.

4.5.2 Managerial Ownership (MO)

MO shows a strong positive and highly significant effect on ROA ($B = 3.722$, $SE = 0.631$, $Beta = 0.399$, $t = 5.896$, $p < 0.001$). A 1% increase in managerial ownership corresponds to a 3.722% rise in ROA, with the largest standardized coefficient ($Beta = 0.399$) among predictors. This supports Hypothesis 2 and highlights managerial ownership as a key driver of financial performance. Agency theory's alignment effect explains this: when managers hold equity, their interests align with shareholders', reducing conflicts and enhancing decision-making (Jensen & Meckling, 1976).

Previous studies support this result. Morck et al. (1988) and McConnell and Servaes (1990) found positive links between managerial ownership and firm value. In banking, Yahaya (2024) noted that managerial ownership below 25% boosts profitability in UK financial institutions. Our finding extends this evidence, emphasizing managerial ownership's role in driving performance in UK banks under stringent regulatory oversight.

4.5.3 Institutional Ownership (IO)

The coefficient for IO is negative and marginally significant ($B = -0.323$, $SE = 0.164$, $Beta = -0.130$, $t = -1.974$, $p = 0.050$), indicating that a 1% increase in institutional ownership reduces ROA by 0.323%. This rejects Hypothesis 3, which expected a positive relationship. Agency theory suggests institutional investors monitor management to reduce agency costs (Shleifer & Vishny, 1986), but this negative effect may stem from conflicting investor goals, such as prioritizing short-term gains over long-term profitability.

While Shleifer and Vishny (1986) and McConnell and Servaes (1990) found positive effects of institutional ownership, Demsetz and Lehn (1985) and Faccio and Lasfer (2000) reported negative or non-linear relationships. Elyasiani et al. (2017) noted varied impacts in banking due to investor diversity. Our result suggests that in UK banks, institutional ownership may not always enhance performance, possibly due to excessive monitoring costs or misaligned strategies, meriting further exploration.

4.5.4 Non-Executive Directors (NON-EX)

NON-EX exhibits a positive but marginally non-significant effect ($B = 0.415$, $SE = 0.220$, $Beta = 0.124$, $t = 1.891$, $p = 0.060$). A 1% increase in the proportion of non-executive directors is associated with a 0.415% rise in ROA, though the p-value exceeds 0.05. This marginally supports Hypothesis 4, suggesting a potential positive influence. Agency theory argues that non-executive directors provide independent oversight, reducing agency conflicts (Fama & Jensen, 1983), yet the lack of significance tempers this conclusion. Prior research is mixed. Nguyen et al. (2021) found that non-executive directors improve decision-making in UK firms, while Bhagat and Black (2002) reported no strong link to performance. Hermalin and Weisbach (1991) noted a weak positive effect. Our finding aligns with this ambiguity, hinting that non-executive directors may benefit UK banks, but their impact may depend on unmeasured factors like expertise or engagement, necessitating further study.

CONCLUSION

This study concludes that corporate governance mechanisms play a meaningful role in shaping the financial performance of UK banks, with audit committee size and managerial ownership emerging as the most influential factors in enhancing ROA, thereby supporting agency theory and the importance of effective internal monitoring and incentive alignment. However, the mixed and weak effects observed for institutional ownership and non-executive directors underscore the contextual and complex nature of governance–performance relationships. The findings should be interpreted in light of several limitations, including incomplete data for some banks, a moderate explanatory power of the regression model, and the sector- and country-specific focus on UK-listed banks, which may constrain generalisability. Despite these constraints, the study offers important implications: theoretically, it enriches corporate governance literature by highlighting the conditional relevance of different governance mechanisms; practically, it suggests that banks should strengthen audit committee effectiveness and adopt balanced managerial ownership structures, regulators may refine governance guidelines to promote stronger oversight, and investors can incorporate governance indicators into investment decisions while remaining mindful of potential short-termism associated with institutional ownership.

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