

AUDITING | RESEARCH ARTICLE

The Role of Political Connections and Management Risk Appetite on Financial Distress in the Indonesian Banking Sector

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ABSTRACT

In heavily regulated banking sectors, understanding how managerial risk preferences and political linkages influence systemic financial stability is paramount. This study examines the effects of management risk appetite and political connections on financial distress, and tests political connections as a moderating variable among publicly listed banks in Indonesia during 2019–2024, controlling for bank age, board size, institutional ownership, and net interest margin. Using purposive sampling, 42 banks were selected, yielding 252 firm-year observations analyzed via panel data regression using a Random Effects Model. The results reveal that management risk appetite has no significant direct effect on financial distress, suggesting that strict regulatory oversight tempers internal risk preferences. In contrast, political connections significantly exacerbate financial distress, undermining overall bank health. Political connections do not significantly moderate the impact of management risk appetite on financial distress. Among the control variables, net interest margin significantly improves financial stability. This study contributes to the corporate governance literature by providing empirical evidence from an emerging market on the destabilizing role of political ties in banking distress. The findings offer practical insights for regulators and bank boards to strengthen oversight on political connections. However, the model exhibits limited explanatory power. Future research should incorporate broader governance mechanisms and specific political tie dimensions to extend these findings.

Keywords: Financial Distress, Political Connection, Management Risk Appetite.

JEL Code: E44, F31, F37, G15

I. Introduction

The banking sector plays a strategic role in maintaining macroeconomic stability by acting as a financial intermediary that channels capital to corporations, governments, and households. Because banks are deeply interconnected within the broader financial ecosystem, bank failure constitutes the culmination of financial distress, which can trigger severe systemic contagion across the economy (Citterio, 2024). Consequently, the banking industry is subjected to stringent regulatory frameworks. Yet, financial institutions in emerging markets remain susceptible to distress driven by aggressive internal decision-making and external political influences. Within this environment, management risk appetite and political connections represent two critical determinants of bank stability. Management risk appetite reflects an executive team's propensity to undertake risky investments in pursuit of strategic goals (Jin, 2024). When excessive risk appetite

lacks prudent governance, asset quality deteriorates and financial distress intensifies. Simultaneously, board political connections significantly shape corporate governance in emerging economies like Indonesia, where politically connected boards may alter risk perceptions or weaken regulatory enforcement (Papadimitri et al., 2021). Recent occurrences of credit defaults and governance breaches in Indonesia highlight how weak risk discipline combined with political exposure can erode overall bank soundness.

Grounded in Behavioral Agency Theory (Pepper & Gore, 2013) and Resource Dependence Theory (Pfeffer & Salancik, 1978), bank financial stability is shaped by the dynamic interplay between internal risk preferences and external institutional dependencies. Management risk appetite constitutes a holistic profile spanning firm-level financial structures, such as liquidity and leverage ratios and individual board demographic characteristics, including gender diversity, age, tenure, share ownership, and academic qualifications (Jin, 2024). Concurrently, political connections serve as strategic bridges to external resources and regulatory protection, but can simultaneously exacerbate agency conflicts by introducing non-commercial objectives and expanding board inefficiencies (Nuswantara et al., 2023; Papadimitri et al., 2021). Bank financial distress, evaluated through the comprehensive CAMEL framework encompassing capital adequacy, asset quality, management efficiency, earnings performance, and liquidity, reflects the ultimate vulnerability of banks to these internal and external governance forces (Agelita et al., 2025; Ferdiansyah & Widyarti, 2022).

Despite the critical nature of managerial risk choices and political exposure, empirical literature examining their combined impact on bank distress remains limited and inconclusive. Existing studies on political connections yield contradictory findings, one line of research argues that political ties mitigate financial distress by facilitating superior access to capital, information, and institutional support (Hadiputra & Windijarto, 2023), whereas another contends that political connections heighten distress risk by elevating agency costs and diluting monitoring effectiveness (Nuswantara et al., 2023; Prihatiningtias & Adiwicaksana, 2024). Furthermore, empirical studies on management risk appetite have largely focused on bank market valuation and liquidity rather than directly investigating its relationship with financial distress. Most importantly, the potential moderating role of political connections in exacerbating or dampening the effect of management risk appetite on bank financial distress remains unexplored in empirical research.

To address these theoretical and empirical gaps, this study systematically analyzes the effects of management risk appetite and board political connections on financial distress among publicly listed commercial banks in Indonesia during the 2019–2024 period. Specifically, this research examines whether management risk appetite directly heightens financial distress risk, evaluates the direct impact of political connections on bank soundness, and tests the hypothesis that board political connections serve as a moderating variable that exacerbates the relationship between management risk appetite and financial distress. To isolate these effects, the empirical model incorporates essential control variables, including board size, net interest margin, institutional ownership, and bank age. By clarifying how internal risk preferences interact with external political ties, this study provides systematic insights into risk management, corporate governance, and banking stability within emerging markets.

II. Literature Review and Hypothesis Development

2.1. Behavioral Agency Theory

Behavioral Agency Theory (BAT), conceptualized by Pepper & Gore, (2013), extends traditional agency frameworks by incorporating managerial risk preferences, loss aversion, time discounting, and subjective perceptions of risk-reward trade-offs into corporate decision-making. In the banking sector, BAT provides a theoretical lens to explain how management risk appetite defined as the degree and nature of risk top executives are willing to assume in pursuing strategic objectives which directly influences credit allocation, asset quality, and exposure to financial distress (Handi & Rulindo, 2025; Jin, 2024). When executive risk appetite exceeds the bank's underlying risk-bearing capacity, behavioral agency conflicts intensify, driving aggressive,

short-term gain-seeking decisions at the expense of long-term solvency (Abid et al., 2021; Citterio, 2024). Furthermore, BAT clarifies how structural board features such as political connections, defined as formal or informal ties between board members and government, military, or political elites, alter executives subjective risk calculus (Harianto et al., 2025; Kolondam & Permatasari, 2024). Political ties often generate a perceived safety net or expectations of regulatory leniency, reducing perceived downside costs and inducing moral hazard that amplifies unmitigated risk-taking behavior (Boateng et al., 2018; Papadimitri et al., 2021). However, BAT highlights that the impact of political connections and risk appetite on financial distress varies significantly across institutional and governance contexts. In weak regulatory environments, political ties exacerbate agency costs, board complexity, and systemic distress risk (Candra & Joni, 2025; Nuswantara et al., 2023), whereas strong institutional guardrails and internal risk controls restrain opportunistic behavior, thereby mitigating the threat of financial failure (Gerged et al., 2022; Kusnadi, 2024). Ultimately, BAT establishes a logical continuity connecting managerial risk-taking preferences, political networks, and institutional constraints to bank financial stability.

2.2. Resource Dependence Theory

Resource Dependence Theory posits that an organization's survival hinges on its strategic capacity to manage external resource dependencies and mitigate environmental uncertainties (Pfeffer & Salancik, 1978). In banking governance, RDT frames board structures and key governance attributes, such as board size, institutional ownership, and political networks, not merely as internal monitoring devices, but as vital boundary-spanning mechanisms that link banks to external capital, critical intelligence, and public legitimacy (Coupet & McWilliams, 2017; Tian & Hassan, 2024). Within heavily regulated financial systems, political connections serve as strategic external assets that buffer against regulatory volatility and facilitate access to market opportunities and liquidity (Ceglowski et al., 2025; Hadiputra & Windijarto, 2023). However, the implications of political connections vary across institutional contexts while strong external ties can enhance organizational resilience, they may also introduce political interference, compromise credit underwriting standards, and exacerbate agency conflicts, ultimately heightening financial distress risk in weaker governance environments (Boateng et al., 2018; Candra & Joni, 2025; Nuswantara et al., 2023). Furthermore, RDT explains how access to key external resources alters management risk appetite, management's strategic willingness to assume risk, by expanding or constraining a bank's risk-absorption capacity, which directly shapes core operational metrics such as the Net Interest Margin and overall CAMEL solvency indicators (Handi & Rulindo, 2025; Jin, 2024). Consequently, RDT provides a cohesive analytical framework to explain how strategic board appointments and external political networks conceptually interact with managerial risk preferences to reduce vulnerability to environmental turbulence and mitigate the likelihood of financial distress.

2.3. Management Risk Appetite

Management risk appetite is defined as the aggregate amount and specific types of risk that corporate executives and board members are willing to assume or tolerate in pursuit of strategic objectives and value maximization (Jin, 2024). In banking research, risk appetite is conceptualized through Behavioral Agency Theory as an executive-level behavioral construct reflecting how managerial risk perceptions, incentive structures, and loss aversion shape strategic choices rather than purely rational contractual decisions (Pepper & Gore, 2013). Empirical literature increasingly operationalizes this variable using a multi-dimensional composite index combining bank-level financial profiles, such as liquidity, capital structure, and short-term risk asset ratios, with upper-echelon demographic characteristics, including board age, tenure, gender composition, and managerial equity ownership (Bellardini et al., 2024; Jin, 2024). Within the heavily regulated banking sector, an aggressive risk appetite prompts managers to pursue high-yielding investment opportunities and credit expansion to boost profitability metrics such as Net Interest Margin (Handi & Rulindo,

2025). However, when excessive risk-taking behavior is uncountered by adequate internal control mechanisms and risk governance frameworks, it causes asset quality deterioration, elevates non-performing loan ratios, and accelerates the likelihood of financial distress (Abid et al., 2021; Citterio, 2024). Furthermore, institutional contexts and governance dynamics, such as board oversight and political embeddedness, critically moderate how managerial risk preferences translate into actual risk-taking choices and overall financial stability (Braham et al., 2020; Nuswantara et al., 2023).

2.4. Political Connection

Political connection is defined as a formal or informal strategic affiliation between a bank's executive leadership specifically members of the board of commissioners, board of directors, or major shareholders and political actors, government officials, military/police personnel, or political party leaders (Harianto et al., 2025; Kolondam & Permatasari, 2024). In banking research, political connections are recognized as a critical corporate governance attribute and are commonly operationalized using a binary dummy variable, where a value of 1 denotes the presence of politically connected board members and 0 indicates otherwise (Nuswantara et al., 2023). Theoretically, political ties operate as a double-edged sword, grounded in Resource Dependence Theory, political connections act as a strategic mechanism to mitigate external institutional uncertainties, facilitating preferential access to regulatory intelligence, government-backed liquidity, and implicit safety nets (Kusnadi, 2024; Pfeffer & Salancik, 1978). Conversely, under Behavioral Agency Theory, these political affiliations alter managerial risk perceptions by inducing moral hazard. The perceived insulation from strict regulatory oversight or financial distress expands managerial risk appetite, thereby encouraging aggressive lending decisions and asset-liability mismatches (Braham et al., 2020; Nuswantara et al., 2023). Empirical literature yields mixed conclusions regarding its organizational outcomes, while several studies suggest political connections alleviate financial distress by stabilizing cash flow sensitivity and capital access (Hadiputra & Windijarto, 2023; Kusnadi, 2024), others demonstrate that political interference exacerbates agency conflicts, inflates board inefficiencies, and significantly increases bank distress vulnerability (Candra & Joni, 2025; Ceglowski et al., 2025). Ultimately, the net impact of political connections depends on institutional governance strength and internal risk controls, which dictate whether political networks serve as resource buffers or catalysts for governance failure (Papadimitri et al., 2021).

2.5. Net Interest Margin

Net Interest Margin (NIM) serves as a fundamental financial performance and operational efficiency benchmark in the banking sector, capturing the spread between interest income generated from earning assets and interest expenses paid on funding relative to total productive assets. From a financial stability perspective, a robust NIM enhances organic capital generation and liquidity buffers, fortifying banks against economic shocks and mitigating susceptibility to financial distress (Arsana, 2025; Azizah & Lismawati, 2020). Conversely, compressed or volatile margins typically signal sub-optimal asset quality, elevated non-performing loans, or inefficient cost-of-funds management, which erode structural profitability and heighten distress probability (Jin, 2024). In institutional environments characterized by weak governance or political affiliations, NIM dynamics can also be distorted through preferential loan allocations or subsidized funding access, altering how managerial risk preferences translate into overall bank health (Candra & Joni, 2025; Nuswantara et al., 2023). Consequently, incorporating NIM as a key financial control variable isolates a bank's baseline intermediation efficiency and earning capacity, ensuring that the empirical impacts of managerial risk appetite and political connections on financial distress are evaluated free from core profitability confounds.

2.6. Institutional Ownership

Institutional ownership represents a critical external corporate governance mechanism that mitigates agency conflicts and disciplines managerial risk-taking behavior within the banking sector. Grounded in agency theory and resource dependence theory, institutional shareholders possess superior resource capacity, information networks, and analytical expertise that facilitate active monitoring over executive actions far exceeding the capabilities of individual retail investors. This rigorous external oversight effectively constrains excessive management risk appetite, ensuring that strategic asset allocation and lending decisions remain within safe tolerance limits while optimizing productive asset efficiency to protect core earnings metrics such as Net Interest Margin (NIM). Methodologically, institutional ownership is measured as the proportion of total outstanding shares held by external institutional entities, reflecting the assumption that higher equity concentration among institutional investors translates into enhanced monitoring capacity. Recent empirical evidence demonstrates that substantial institutional ownership reduces the likelihood of bank failure and financial distress, as institutional investors actively detect early signs of operational deterioration and enforce managerial accountability to maintain overall bank stability (Elyasiani & Jia, 2025; Gerged et al., 2022).

2.7. Board Size

Board size refers to the total number of members serving on a bank's governing board, specifically the board of commissioners and the board of directors and is commonly evaluated as the total headcount of board members (Alzayed et al., 2023; Darrat et al., 2014). From a Resource Dependence Theory perspective, a larger board provides diverse expertise, industry insights, and expanded external networks that strengthen resource acquisition and oversight capacity over executive management (Kalbuana et al., 2022). Conversely, Agency Theory suggests that an excessively large board generates coordination frictions, slows strategic decision-making, and fosters free-riding behaviors, thereby escalating agency costs (Darrat et al., 2014; Nuswantara et al., 2023). In the banking industry, where operations involve high risk complexity, optimal board size is critical for regulating management risk appetite and maintaining rigorous monitoring over productive assets (Kalbuana et al., 2022). Adequate board supervision prevents management from making overly speculative investment decisions that impair asset quality, thereby safeguarding the bank from the threat of financial distress (Alzayed et al., 2023; Candra & Joni, 2025). Therefore, board size is a key internal governance mechanism that directly influences the quality of board oversight and the bank's exposure to financial distress.

2.8. Bank Age

Bank age, reflecting an institution's operational longevity, serves as a primary proxy for organizational maturity, accumulated learning, and institutional reputation within the organizational life cycle framework (Kusnaedy et al., 2025). From a risk governance perspective, mature banks typically possess more robust internal control mechanisms, battle-tested risk management infrastructures, and well-established corporate governance frameworks, which enhance financial resilience against macroeconomic volatility (Gerged et al., 2022; Kusnaedy et al., 2025). These accumulated operational advantages allow senior banks to optimize funding costs, maintain intermediation efficiency, and adopt a more measured management risk appetite, thereby mitigating exposure to severe financial distress (Jin, 2024). Conversely, younger banks frequently pursue aggressive market expansion strategies to secure market share, often incurring higher operational uncertainty and elevated agency risks. Nevertheless, extended longevity can occasionally induce organizational inertia or bureaucratic inefficiencies that hinder swift strategic adaptation during systemic crises (Citterio, 2024). Given these competing theoretical mechanisms, bank age is incorporated as a

fundamental control variable to isolate the confounding effects of institutional track record and structural maturity when evaluating managerial risk choices and overall financial stability.

III. Research Method

This study was conducted using an associative quantitative approach focused on causal relationships. The data were obtained from the annual reports of banking sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2024. Secondary data from the bank annual reports were obtained from the Indonesia Stock Exchange (www.idx.co.id), which served as the primary source for this study. The analysis in this study used panel data regression with a random-effects model to test the hypotheses using STATA version 17. A purposive sampling method was used to select the sample based on the following criteria.

Table 1. Purposive Sampling

No.	Criteria	Total
1.	Companies in the banking sector listed on the Indonesia Stock Exchange	48
2.	Companies that have not been listed on the Indonesia Stock Exchange since 2019	(6)
Company Samples		42
Year of Research		6
Total Research Sample		252

Previous research by Taufik & Chua, (2016) shows that the average board turnover rate over a 3-year period and the average board tenure are 6 years, so a 6-year period can capture the dynamics of management changes. In this study, financial distress serves as the dependent variable. This variable is measured using the CAMEL score, which reflects a bank's financial health through the aspects of capital, asset quality, credit management, profitability, and liquidity (Agelita et al., 2025). The CAMEL rating is used because it directly reflects a decline in a bank's solvency and liquidity. A decline in a bank's capital adequacy and profitability, as reflected in its CAMEL rating, can trigger financial distress (Erdi et al., 2022; Ferdiansyah & Widyarti, 2022). The CAMEL score is calculated using the formula:

$$CAMEL\% = 0,25 CAR + 0,30 QPA + 0,25 NPM + 0,05 ROA + 0,05 OER + 0,10 LDR$$

Table 2. CAMEL Indicator

Notation	Variable	Calculation Method
CAR	Capital adequacy ratio	Capital divided by risk-weighted assets
QPA	Quality of productive assets	Total classified earning assets divided by total productive assets
NPM	Non-performing loan	Net profit divided by total revenue
ROA	Return on assets	Profit before tax divided by total assets
OER	Operating expenses ratio	Total operating expenses divided by total revenue
LDR	Loan to deposit ratio	Total loans granted divided by third-party funds

The independent variables in this study consist of management risk appetite, which is measured using several indicators.

Table 3. MRPINDEX Indicator

Dimension	Indicator	Calculating Method
Company Dimension	Quick Ratio (X_1)	Quick assets divided by current liabilities
	Asset-liability ratio (X_2)	Total liabilities divided by total assets
	Cash ratio (X_3)	(Money capital +marketable securities) divided by current liabilities
	Ownership ratio (X_4)	Total liabilities divided by shareholders' equity attributable to the parent company
	Short-term risk asset ratio (X_5)	(Financial assets held for trading +accounts receivable) divided by current assets
Individual dimension	Gender structure (X_6)	Percentage of men in board
	Age (X_7)	Average age of board members
	Term of Office (X_8)	Average years of service of board members
	Shares held by the board (X_9)	Average shareholding ratio of the board team at the end of the year
	Academic qualification (X_{10})	Percentage of board members with a master's degree or higher

Management risk appetite is evaluated using the MRPINDEX developed by Jin, (2024), which captures risk preferences across both corporate and individual managerial dimensions. As established in prior literature (Li et al., 2020; Zhang et al., 2016), management risk appetite can be effectively measured by combining individual decision-makers profiles with historical firm-level strategic choices. To construct the index, the indicators (X_1 through X_{10}) are first standardized into z-scores to eliminate scaling heterogeneity. Subsequently, the Technique for Order Preference by Similarity to an Ideal Solution (TOPSIS) is applied to determine the objective weights (w_1 to w_{10}) for each sub-variable. TOPSIS is preferred over alternative multi-criteria decision-making methods (e.g., AHP or equal weighting) because it mathematically calculates weights based on geometric distances to both Positive-Ideal and Negative-Ideal Solutions (Tzeng & Huang, 2011). This dual-benchmark approach minimizes subjective weighting bias, effectively handles trade-offs among multi-dimensional indicators, and provides a robust, empirical foundation for composite index construction. Finally, the MRPINDEX value is calculated as the weighted sum of the standardized sub-variables.

$$\text{MRPINDEX} - i, t = w_1X_1 + w_2X_2 + w_3X_3 + w_4X_4 + w_5X_5 + w_6X_6 + w_7X_7 + w_8X_8 + w_9X_9 + w_{10}X_{10}$$

The next independent variable is the banking sector's political connections, which are measured using a dummy variable. The dummy variable takes a value of 1 if a board member has political connections, and 0 if they do not. A company is considered to have political connections if its board includes members who are politicians, government officials, or former officials with ties to political parties (Kolondam & Permatasari, 2024). This study uses several control variables to enhance the robustness of the empirical model, including net interest margin, institutional ownership, board size, and bank age. Net interest margin is measured by dividing net interest margin by productive assets. It reflects the bank's ability to generate profit from its core operations; the weaker the bank's ability to generate profit, the greater the likelihood of experiencing financial distress, which can be represented by the net interest margin. Institutional ownership is measured as total shares held by institutions divided by total outstanding shares. Higher institutional ownership can reduce bank failure because institutional investors actively monitor management, detect a decline in the bank's condition more quickly, and can reduce their holdings earlier when signals of financial distress emerge (Elyasiani & Jia, 2025). Board size is determined by the total number of board members. A larger board size can disrupt the effectiveness of management decision-making. Furthermore, bank age is measured as the observation year minus the year the bank was established. Bank age can reflect the bank's experience, the maturity of its risk management system, and the level of trust from the public and regulators.

The model structure to be used to measure the effects of management risk appetite, political connections, and their moderating interactions on financial distress is as follows:

$$FD_{i,t} = \alpha_{it} + \beta_1 MRA_{it} + \beta_2 PC_{it} + \beta_3 (MRA \times PC)_{it} + \beta_4 NIM_{it} + \beta_5 INTS_{it} + \beta_6 BSZE_{it} + \beta_7 BAGE_{it} + \epsilon_{it}$$

Description:

- $FD_{i,t}$ = Financial distress score in year t, as measured by CAMEL.
 MRA_{it} = Management risk appetite in year t, MRPINDEX value
 PC_{it} = Political connection in year t
 NIM_{it} = Net interest margin in year t
 $INTS_{it}$ = Institutional ownership in year t
 $BSZE_{it}$ = Board size in year t
 $BAGE_{it}$ = Bank age in year t
 ϵ_{it} = error

The data were analyzed using panel data regression because the dataset combines cross-sectional observations across banks and time-series observations over multiple years. The analysis procedure began with descriptive statistics to provide an overview of the research variables. Next, panel data model selection is conducted using the Chow test, Hausman test, and Lagrange multiplier test to determine the most appropriate regression model. The selected model will be evaluated through classical assumption tests, including multicollinearity and heteroscedasticity tests. Hypothesis testing is then performed using the coefficient of determination (adjusted R^2), the F-test, and the t-test to assess both the simultaneous and partial effects of the variables. Finally, the moderating effect of the political connection variable on the relationship between management risk appetite and financial distress is tested using simple slope analysis to determine the degree of moderation at various levels.

IV. Results and Discussion

4.1. Analysis Result

a. Description Analysis Result

Table 4. Descriptive Statistical Analysis

Variable	Observation	Mean	Std. Dev.	Min.	Max.
Management Risk Appetite	252	0.64	0.03	0.39	0.76
Board Size	252	12.42	5.74	3	31
Net Interest Margin	252	0.04	0.03	0	0.24
Financial Distress	252	0.42	0.15	-0.77	1.28
Political Connection	252	0.48	0.50	0	1
Institutional Ownership	252	0.78	0.18	0.23	1
Bank Age	252	52.47	26.60	21	129

Based on the results of descriptive statistical analysis of 252 observations from the Management Risk Appetite variable has a minimum value of 0.39, a maximum of 0.76, a mean of 0.64, and a standard deviation of 0.03, indicating that the MRA level in the sample of banks tends to be high and that interbank variation is relatively low. The Political Connection variable has a minimum value of 0, a maximum of 1, a mean of 0.48, and a standard deviation of 0.50, suggesting that nearly half of the banks in the sample have political

connections and that the distribution is relatively balanced. Meanwhile, the financial distress variable, proxied by CAMEL, has a mean of 0.42 with a standard deviation of 0.15, indicating that the health of the banks in the sample tends to be at a moderate level with a distribution that is not too wide.

b. Panel Data Regression Modeling Test

Table 5. Panel Data Regression Modeling Test Result

Testing	Output
Chow Test	Prob. = 0.0106
Lagrange-Multiplier Test	Prob. = 0.0267
Hausman Test	Prob. = 0.5242

Model selection for the panel data analysis was evaluated through the Chow, Lagrange Multiplier (LM), and Hausman tests. Although the Chow test ($p = 0.0106$) and LM test ($p = 0.0267$) rejected the pooled model, the subsequent Hausman test ($p = 0.5242 > 0.05$) indicated that the Random Effects Model (REM) is more efficient than the Fixed Effects Model (FEM). Consequently, REM was selected as the optimal model to capture the cross-sectional correlation structure with minimal variance. Consequently, the REM was selected as the final specification and proceeded to classical assumption testing.

c. Normality Test

Table 6. Normality Test

Variable	Obs.	w	v	z	Prob>z
Residual value	252	0.67	59.95	9.52	0.00

To ensure the reliability of statistical inferences, residual normality was assessed using the Shapiro-Wilk test. The result indicated a departure from normality ($p < 0.001$), which can potentially distort standard error calculations and standard parametric hypothesis testing (t and F tests). Although remedial measures, including winsorization (2–10%) and data transformations were applied, non-normality persisted. To safeguard model validity and produce robust standard errors, a bootstrapping resampling procedure was executed. The bootstrap output demonstrated consistent coefficient estimates and standard errors, confirming that distributional violations do not bias hypothesis testing. Furthermore, with a sample size exceeding 30 ($n \geq 30$), the Central Limit Theorem ensures the asymptotic normality of parameter estimators, thereby maintaining the empirical integrity and validity of the regression results (Saputra & Rahman, 2023).

d. Multicollinearity Test Result

Table 7. Multicollinearity Test Result

Variable	VIF	1/VIF
Board Size	9.59	0.104291
Bank Age	6.29	0.158991
Institutional Ownership	5.79	0.172834
Political Connection	2.74	0.364338
Net Interest Margin	2.41	0.414129
Management Risk Appetite	1.23	0.810790
Mean VIF	4.68	

To prevent distorted parameter estimates and inflated standard errors, multicollinearity was evaluated using the Variance Inflation Factor (VIF). To mitigate the inherent collinearity associated with interaction terms in Regression Analysis, mean-centering was applied to the moderating variables. Following mean-centering, all variables yielded VIF values well below the critical threshold of 10 (and Tolerance > 0.10). This confirms the absence of severe multicollinearity, ensuring that predictor variables maintain sufficient independence and that the coefficient estimates remain stable and reliable.

e. Heteroscedasticity and Autocorrelation Test

Table 8. Panel Groupwise Heteroscedasticity Test

Lagrange Multiplier LM Test	P-value > Chi2(43) 0.000
Likelihood Ratio LR Test	P-value > Chi2(43) 0.000
Wald Test	P-value > Chi2(44) 0.000

Table 9. Autocorrelation Test

Wooldridge test for autocorrelation in panel data
Prob > F = 0.000

Diagnostic testing revealed the presence of both heteroscedasticity and autocorrelation in the model residuals ($p < 0.05$). Left unadjusted, these violations lead to biased standard errors, thereby threatening the validity of hypothesis testing and coefficient inference. To ensure reliable statistical inferences, a dual approach was employed. First, the Random Effects Model inherently mitigates residual structure issues using Generalized Least Squares (GLS) estimation. Second, robust standard errors were specified to correct for remaining non-constant variance and serial correlation (Cameron & Trivedi, 2022; Nguyen et al., 2019). This guarantees that standard errors remain unbiased and hypothesis tests remain valid.

f. Panel Data Regression Test

Table 10. Regression Analysis Output

Variable	Coefficient	z	p-value
Constant	0.340	6.53	0.000
Management Risk Appetite (MRA)	-0.310	-0.89	0.372
Political Connection (PC)	-0.057	-2.51	0.012**
Bank Age	-0.000	-0.27	0.787
Net Interest Margin	0.788	2.14	0.033**
Institutional Ownership	0.071	1.76	0.079*
Board Size	0.002	0.80	0.442
MRA × PC	0.603	1.26	0.209
N	252		
Wald chi ²	13.27	Prob>chi ²	0.065
Overall R-squared	0.083		

1) T-Test

The partial effect of individual predictor variables on Financial Distress were evaluated using t-statistics derived from the Random Effect Model. Statistical significance was assessed at the 5% and 10% levels. Among the primary independent variables, the Management Risk appetite variable shows no statistically significant impact on Financial Distress at the 5% significance ($0.372 > 0.05$). Whereas Political Connection exerts a statistically significant negative effect at the 5% level ($0.012 < 0.05$). Regarding the control variables,

Net Interest Margin exhibits a statistically positive effect at the significant positive effect at the 10% level ($0.079 < 0.10$). In contrast, neither Bank Age ($0.787 > 0.05$) nor Board Size ($0.442 > 0.05$) significantly influences Financial Distress.

2) F-Test

The overall validity and goodness-of-fit of the Random Effects Model were evaluated using the Wald χ^2 test. The regression yielded a Wald χ^2 statistic of 13.27 with a p-value of 0.065 ($0.065 < 0.10$). This demonstrates that the set of predictor variables jointly exerts statistically significant influence on Financial Distress at the 10% level, confirming that the specified model achieves an adequate overall fit.

3) Coefficient of Determinants (R-square)

The overall coefficient of determination (R^2) for the Random Effects Model is 0.083, indicating that the set of explanatory and control variables jointly accounts for 8.30% of the total variance in Financial Distress. The remaining 91.70% of the variation is driven by unobserved external factors excluded from the model. Such modest R^2 values are common in panel data regression estimated via Generalized Least Squares (GLS), where cross-sectional heterogeneity is prioritized over total outcome prediction

g. Marginal Effect Analysis

Table 11. Marginal Effect Test Results

MRA_c	dy/dx	z	p-value
1	-0.310	-0.89	0.372
2	1002	1.26	0.209
3	-0.018	-0.07	0.944
4	5940	1.26	0.209

As presented in Table 10, the interaction term between Management Risk Appetite and Political Connection (MRA x PC) yields a positive coefficient but is statistically insignificant ($0.209 > 0.05$). To further evaluate this conditional relationship, a marginal effect analysis was conducted across representative evaluation points in table 11. The calculated conditional marginal effects remain consistently statistically insignificant across all specified levels (at 1 = 0.372, at 2 = 0.209, at 3 = 0.944, at 4 = 0.209). Because all estimated p-values exceed the 0.05 or 0.10 threshold, the empirical evidence confirms that Political Connections do not exert a statistically significant moderating effect on the relationship between Management Risk Appetite and Financial Distress.

4.2. Discussion

a. The Effect of Management Risk Appetite on Financial Distress

Based on the hypothesis testing results, management risk appetite (MRA) yields a significance value of 0.372, which exceeds the 5% threshold ($p > 0.05$). Consequently, the first hypothesis is rejected, indicating that management risk appetite does not have a statistically significant direct effect on financial distress. Although behavioral agency theory posits that executive risk preferences drive strategic decision-making, these findings suggest that managerial risk appetite alone is not a primary determinant of financial distress within Indonesia's banking sector. This outcome can be largely attributed to Indonesia's heavily regulated institutional and banking environment. Regulatory frameworks enforced by the Otoritas Jasa Keuangan (Financial Services Authority) and Bank Indonesia (Central Bank), such as OJK Regulation (POJK) No. 18/POJK.03/2016 on Risk Management Implementation and POJK No. 55/POJK.03/2016 on Good Corporate Governance, impose strict capital adequacy requirements, mandatory risk exposure limits, and rigorous supervisory oversight. Under these institutional constraints, high managerial risk appetite is effectively

buffered and restricted before aggressive risk-taking can manifest into asset quality deterioration or financial instability.

The literature provides mixed evidence regarding executive risk appetite, as studies in non-banking or less regulated sectors frequently document a direct positive link between high-risk appetite and corporate distress. However, these empirical findings align with Abid et al., (2021), demonstrating that robust risk governance structures mitigate and neutralize excessive executive risk-taking in banking institutions. To strengthen governance, monitoring, and managerial decision-making integrity in practice, banks must implement comprehensive operational measures. Specifically, institutions should integrate a dynamic Risk Appetite Framework directly into daily operational workflows, reinforced by automated Early Warning Systems that trigger real-time board-level alerts upon threshold breaches. Furthermore, corporate governance can be strengthened by granting the Chief Risk Officer and Risk Management Committee explicit veto authority over high-risk credit approvals and strategic transactions. Finally, managerial incentives should be aligned with long-term institutional stability by structuring executive compensation around risk-adjusted performance metrics, such as Risk-Adjusted Return on Capital, rather than short-term revenue targets. By embedding these concrete governance safeguards, financial institutions can effectively insulate their financial health from individual managerial risk preferences.

b. The Effect of Political Connection on Financial Distress

Based on the regression results, political connection has a regression coefficient of -0.0570 with a probability value of 0.012. Because the probability value is below the 5% significance level, the second hypothesis is supported, indicating that political connections on the board have a statistically significant negative effect on the CAMEL score, thereby increasing the bank's risk of financial distress. From the perspectives of behavioral agency theory and resource dependence theory, while political affiliations can grant access to external resources or regulatory buffers, they frequently alter managerial perceptions of risk, lower decision-making independence, and impair risk discipline by prioritizing short-term political objectives over long-term financial stability. This result aligns with Chen, (2018) and Nuswantara et al., (2023), who observe that politically connected banks suffer from relaxed credit underwriting standards and poorer resilience during economic stress. However, this finding contrasts with Setiadi & Aryani, (2019), who reported that political connections improved bank performance in Indonesia. This discrepancy is largely explained by the choice of performance metrics and Indonesia's specific institutional banking context. While Setiadi & Aryani, (2019) measured performance using Return on Assets (ROA), a metric susceptible to short-term accounting inflated by government contracts or preferential liquidity, this study utilizes the CAMEL score, which offers a comprehensive, multi-dimensional assessment of structural health, including capital adequacy, asset quality, and liquidity. In Indonesia's emerging banking environment, political affiliations often generate soft budget constraints and politically motivated lending practices that weaken credit discipline and subvert supervisory enforcement by regulatory bodies such as the Otoritas Jasa Keuangan (OJK), ultimately impairing long-term solvency despite transient accounting profitability.

These findings carry vital practical implications for corporate governance reform and regulatory oversight in the banking sector. To counteract the distortive influences of political leverage, banks must institutionalize concrete governance mechanisms that safeguard managerial integrity and operational independence. First, nomination committees should implement rigorous screening protocols for Politically Exposed Persons, enforcing strict independence ratios on the board to prevent political agendas from overriding prudential management. Second, financial institutions must empower independent risk management committees and credit committees with binding veto authority over credit allocations involving politically connected entities, ensuring that loan decisions strictly adhere to objective creditworthiness standards rather than political pressure. Third, internal control systems should be fortified through anonymous, automated whistleblowing frameworks and mandatory disclosures of political conflicts of interest at both board and executive levels. For banking regulators and policymakers, such as Otoritas Jasa Keuangan (OJK) and Bank Indonesia, these empirical insights underscore the necessity of incorporating

political exposure risk into thematic governance audits and risk-weighted supervisory frameworks, ensuring that politically connected banks are subject to elevated monitoring standards to protect systemic financial stability.

c. The Moderating Effect of Political Connections on the Management Risk Appetite to Financial Distress

Based on the empirical testing, the interaction between management risk appetite and political connections yields a regression coefficient of 0.6032 with a probability value of 0.209. Because the p-value exceeds the 5% significance level, the third hypothesis is rejected, indicating that political connections do not statistically moderate the relationship between managerial risk appetite and bank financial distress. This finding demonstrates that political affiliations on the board neither amplify nor dampen the translation of managerial risk preferences into bank financial vulnerability. This non-significant moderating role is largely explained by the stringent institutional and regulatory environment governing Indonesia's banking sector. Under the supervisory oversight of OJK and Bank Indonesia, commercial banks operate under rigid macro- and micro-prudential frameworks, including mandatory Risk-Based Bank Rating assessments, strict Capital Adequacy Ratio minimums, and regulatory Non-Performing Loan caps. These regulatory guardrails establish hard structural boundaries on managerial discretion; consequently, even when bank management exhibits a high-risk appetite or possesses political access, regulatory compliance mechanics prevent these risk preferences from escalating into unbridled, high-risk operational exposure. This aligns with Papadimitri et al., (2021), who contend that strong institutional enforcement effectively neutralizes the interactive capacity of political influence to alter internal managerial risk-taking behavior.

While political connections exert a direct adverse impact on bank health, as established in the direct effect analysis, the absence of a moderating effect offers distinct practical insights for internal risk governance and enterprise risk management. Specifically, it underscores that formal risk boundary frameworks, when rigorously implemented, can successfully decouple managerial risk appetite from external political leverage. To maintain and reinforce this governance barrier, financial institutions must focus on institutionalizing robust Risk Appetite Statements. Executive boards should embed hard, automated risk limits, such as single-borrower exposure ceilings and sector concentration caps, directly into core banking operational systems, ensuring that risk thresholds cannot be manually bypassed or adjusted through executive discretion. Furthermore, bank compensation committees should align managerial risk appetite with long-term solvency by incorporating Risk-Adjusted Return on Capital metrics into executive remuneration schemes, thereby discouraging managers from pursuing excessive risk-taking regardless of political context. From a supervisory perspective, regulatory authorities like OJK should complement traditional capital surveillance with targeted evaluations of banks' internal risk culture and risk appetite frameworks. By conducting mandatory stress-testing under severe macroeconomic scenarios, regulators can ensure that banks' internal risk limits remain structurally sound and resilient against both internal managerial aggression and external political dynamics.

V. Conclusion

This study examines the effects of management risk appetite and board political connections on banking financial distress, assessed through the CAMEL model as well as the moderating role of political connections among 42 commercial banks listed on the Indonesia Stock Exchange during the 2019–2024 period using panel data regression under a random-effects framework. The results indicate that management risk appetite does not significantly affect financial distress, suggesting that stringent regulatory supervision and internal risk governance mechanisms effectively prevent high-risk preferences from translating into decisions detrimental to bank health. Conversely, political connections exert a direct and significant positive effect on financial distress (lowering CAMEL scores), indicating that board political ties introduce agency conflicts and non-business objectives that weaken board oversight and impair financial stability. Furthermore, political connections do not significantly moderate the relationship between management risk appetite and financial distress, confirming that political ties undermine bank health directly rather than by conditioning

managerial risk preferences. These findings provide empirical support for Behavioral Agency Theory and Resource Dependence Theory in highly regulated banking contexts. To advance this line of inquiry and address methodological limitations, future research should employ alternative analytical approaches, such as dynamic panel estimators (e.g., System GMM) or non-linear models, to better account for potential endogeneity and complex structural dynamics. Additionally, scholars are encouraged to refine measurement methodologies by replacing binary political connection proxies with multi-dimensional intensity indicators, while incorporating intermediate operational variables.

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