



## CEO Education, Tenure, and the Speed of Capital Structure Adjustment: The Moderating Role of Political Connections

Rudy Candra<sup>1</sup>, Arif Budi Satrio<sup>2</sup>, Hartono<sup>2</sup>

<sup>1</sup>Master's degree Student in Financial Management, Faculty of Economics and Business, Universitas Widya Dharma Pontianak, Indonesia

<sup>2</sup>Faculty of Economics and Business, Universitas Widya Dharma Pontianak, Indonesia.

\*Corresponding Author: Rudy Candra

Email: [rudy.candra@hotmail.com](mailto:rudy.candra@hotmail.com).



### Article Info

#### Article history:

Received 13 March 2026

Received in revised form 7

April 2026

Accepted 24 April 2026

#### Keywords:

CEO Education

CEO Tenure

Political Connections

Capital Structure

Speed of Adjustment

#### JEL Classification:

G32, G34, M12, P16, O16

### Abstract

This study investigates how managerial and institutional factors influence the firm-level speed of capital structure adjustment (SOA). While prior research on dynamic capital structure largely estimates aggregate adjustment speeds, limited attention has been given to granular SOA measured at the firm-year level and its relationship with managerial decision-making and institutional context. Using panel data from 71 non-financial firms included in the Kompas100 Indeks, representing the 100 largest and most liquid companies on the Indonesia Stock Exchange (IDX), over the period 2019-2024, this study examines how CEO education, CEO tenure, and political connections affect firms' leverage adjustment behavior. The analysis employs panel regression models to estimate firm-level SOA and evaluate the direct and moderating effects of managerial and institutional variables. The results show that CEO education significantly accelerates leverage adjustment, indicating that firms led by more highly educated executives adjust their capital structures toward target levels more quickly. In contrast, CEO tenure does not show a significant effect on SOA. The findings also reveal that political connections slow leverage adjustment but strengthen the positive influence of CEO education on SOA, suggesting that managerial capability becomes more effective when supported by institutional access. These findings highlight that capital structure adjustment is shaped by the interaction between managerial decision-making and institutional networks, rather than by managerial characteristics alone.

## Introduction

Capital structure decisions represent one of the most fundamental financial policies of a firm because they determine how companies finance their operations and investments while balancing risk and return (Romano et al., 2001). Classical capital structure theories suggest that firms tend to move toward an optimal or target leverage that maximizes firm value by balancing the benefits and costs of debt financing (Kraus & Litzenberger, 1973; Modigliani & Miller, 1958, 1963). However, firms do not instantly adjust their capital structure to the optimal level when deviations occur. Instead, capital structure adjustments often take place gradually over time because firms face various adjustment costs and market frictions, including transaction costs, asymmetric information, and financial constraints (Fischer et al., 1989; Flannery & Rangan, 2006). These frictions prevent firms from continuously rebalancing their leverage toward the target level, resulting in temporary deviations from the optimal capital structure. Within the dynamic capital structure framework, this gradual adjustment process is commonly captured by the concept of the speed of adjustment (SOA), which measures how quickly firms move their leverage toward the target level (Flannery & Rangan, 2006; Hovakimian & Li,

290

2011; Lemmon et al., 2008). Empirical studies consistently show that firms adjust their capital structure only partially in each period, indicating that leverage adjustments occur progressively rather than instantaneously (Cook & Tang, 2010; Haron, 2016).

Most empirical studies on dynamic capital structure estimate the speed of adjustment using dynamic panel models that capture how firms gradually move their leverage toward a target level. In this framework, the adjustment process is typically summarized by a single parameter that reflects the average adjustment speed across all firms in the sample (Flannery & Rangan, 2006; Lemmon et al., 2008). While this approach has provided important insights into the dynamics of capital structure, it implicitly assumes that firms adjust their leverage at a relatively similar pace. In reality, however, firms may differ substantially in how quickly they respond to deviations from their target leverage due to variations in internal characteristics, managerial decisions, and institutional environments (Byoun, 2008; Cook & Tang, 2010; Dang et al., 2012). Consequently, relying solely on an aggregate measure of adjustment speed may obscure meaningful cross-sectional variation in firms' adjustment behavior, highlighting the need to examine the speed of adjustment at a more granular level.

To address this limitation, recent perspectives in the dynamic capital structure literature emphasize the importance of examining adjustment behavior at a more disaggregated level. Instead of relying solely on an aggregate adjustment parameter, the speed of adjustment can be observed at the firm-year level, allowing researchers to capture the granular variation in how individual firms respond to deviations from their target leverage. This granular perspective provides a richer understanding of capital structure dynamics by revealing that adjustment speeds may vary significantly across firms and over time (Dang et al., 2012; Flannery & Hankins, 2013). Such heterogeneity suggests that the adjustment process is not purely mechanical but may depend on firm-specific conditions and decision-making processes within the firm. Consequently, identifying the factors that explain differences in firm-level adjustment speed becomes an important step in advancing the understanding of dynamic capital structure behavior.

The heterogeneity in firms' adjustment behavior may also be influenced by managerial and institutional factors that shape corporate financial decisions. According to Upper Echelons Theory, organizational outcomes are partially determined by the experiences, values, and characteristics of top executives who interpret strategic situations and influence corporate strategic choices (Hambrick, 2007; Hambrick & Mason, 1984). However, much of the capital structure literature has traditionally focused on firm-specific, industry-specific, and country-level determinants, while the behavioral and cognitive attributes of financial decision makers have received relatively limited attention (Kumar et al., 2017). This gap suggests that managerial characteristics may play a role in explaining differences in corporate financing behavior. In particular, characteristics such as CEO education, which reflects managerial knowledge and cognitive capability, and CEO tenure, which captures managerial experience and familiarity with firm-specific conditions, may influence how executives perceive financial risks and determine the speed at which firms adjust their leverage toward the target level. Furthermore, recent systematic reviews highlight the emergence of new research themes in capital structure studies and emphasize the need to consider contextual and institutional factors influencing financing decisions (Bajaj et al., 2021). In emerging markets, where institutional environments and government influence remain prominent, political connections may provide firms with preferential access to resources and potentially moderate the relationship between managerial characteristics and capital structure adjustment.

Despite the extensive literature on dynamic capital structure, several important gaps remain in understanding the determinants of firms' leverage adjustment behavior. Prior studies largely focus on estimating the average speed of adjustment using aggregate approaches, providing limited insights into the heterogeneity of adjustment behavior across firms. Moreover, although managerial characteristics are increasingly recognized as relevant determinants of corporate financial decisions, their role in explaining firm-level variation in leverage adjustment remains underexplored. At the same time, institutional contexts such as political connections may shape firms' access to external financing and influence managerial incentives in capital structure decisions, particularly in emerging market environments. Therefore, this study aims to examine how CEO characteristics, specifically CEO education and CEO tenure, influence the granular speed of adjustment (SOA) of corporate leverage and whether political connections moderate this relationship. By focusing on firm-level adjustment behavior, this study contributes to the dynamic capital structure literature by providing new evidence on the managerial and institutional determinants of leverage adjustment. The remainder of this paper proceeds as follows. The following section reviews the relevant literature and develops the research hypotheses. The next section explains the research design and methodology. The subsequent section reports and discusses the empirical results, and the final section provides concluding remarks and implications.

## Literature Review

### Dynamic Capital Structure and Speed of Adjustment

The dynamic capital structure framework suggests that firms adjust their leverage toward a target capital structure over time rather than instantaneously. The existence of a target leverage is supported by traditional capital structure theories, which argue that firms seek an optimal mix of debt and equity that balances the benefits of debt financing with the potential costs of financial distress (Kraus & Litzenberger, 1973; Myers & Majluf, 1984). However, due to various market frictions and adjustment costs, firms may not immediately rebalance their capital structure when deviations from the target level occur. Transaction costs, asymmetric information, and market imperfections may discourage firms from continuously adjusting their leverage, resulting in a gradual movement toward the target capital structure (Fischer et al., 1989). Consequently, firms typically adjust only a portion of the deviation between their current leverage and the target leverage in each period.

This adjustment behavior is commonly modeled using the Partial Adjustment Model (PAM), which captures how firms gradually close the gap between actual leverage and target leverage. Within this framework, the speed of adjustment (SOA) represents the rate at which firms move toward their target capital structure (Flannery & Rangan, 2006). A higher SOA indicates that firms adjust their leverage more quickly, while a lower SOA suggests slower adjustment due to higher adjustment costs or constraints. Empirical studies consistently show that firms only partially adjust their leverage toward the target level each period, indicating that capital structure adjustment is a dynamic process rather than an instantaneous one (Cook & Tang, 2010; Lemmon et al., 2008). These findings also suggest that adjustment speeds may vary across firms, reflecting differences in firm characteristics, managerial decisions, and institutional environments.

### Upper Echelons Theory

Upper Echelons Theory posits that organizational outcomes are partially shaped by the characteristics, experiences, and values of top executives who make strategic decisions within the firm. According to Hambrick and Mason (1984), managers interpret complex business

environments through the lens of their cognitive bases and personal experiences, which subsequently influence corporate strategies and policy choices. Because top executives play a central role in strategic decision-making, their demographic and professional attributes often serve as observable proxies for underlying managerial cognition and decision-making styles (Hambrick, 2007; Malmendier & Tate, 2015). Prior research has shown that managerial characteristics can affect various corporate policies, including investment decisions, risk-taking behavior, and financial strategies.

In the context of capital structure decisions, the characteristics of the chief executive officer (CEO) may influence how firms respond to deviations from their target leverage. CEO education may reflect the cognitive ability, analytical skills, and financial knowledge of executives, which could enable managers to evaluate financing alternatives more effectively and make timely adjustments to the firm's capital structure. Similarly, CEO tenure may capture managerial experience and familiarity with firm-specific conditions, potentially affecting executives' confidence and ability to implement financial policy adjustments. More experienced or better-educated executives may be better positioned to interpret market signals and manage financing strategies, which could influence the speed at which firms adjust their leverage toward the target level.

### **Resource Dependence Theory and Political Connections**

Resource Dependence Theory explains how organizations manage their dependence on external actors to obtain critical resources necessary for survival and strategic decision-making. Firms often establish relationships with external stakeholders to secure access to valuable resources, reduce uncertainty, and enhance their ability to operate within complex institutional environments (Hillman et al., 2009). Such external linkages may provide firms with access to information, legitimacy, and financial resources that can influence strategic corporate decisions (Ahmed & McMillan, 2023; Wang et al., 2019).

One important form of external linkage is political connection, which refers to relationships between firms and political actors or government officials. Political connections can provide firms with preferential access to financing, regulatory advantages, and government protection, which may affect corporate financial policies (Bunkanwanicha & Wiwattanakantang, 2009; Faccio, 2006). In emerging markets, where institutional frameworks and government involvement remain significant, politically connected firms may experience fewer financing constraints and greater access to credit markets. Consequently, political connections may influence how firms respond to financing needs and implement capital structure policies. Within this context, political connections may strengthen the ability of managers to execute financial strategies, potentially moderating the relationship between managerial characteristics and the speed at which firms adjust their leverage toward the target level.

### **Hypothesis Development**

#### ***CEO Education and Speed of Adjustment***

According to Upper Echelons Theory, the characteristics of top executives influence organizational outcomes and strategic decisions. Educational background is often viewed as an important indicator of managerial cognitive ability, analytical skills, and knowledge that shape executives' decision-making processes (Hambrick, 2007; Hambrick & Mason, 1984). In corporate finance contexts, more highly educated executives may possess stronger analytical capabilities and a better understanding of financial markets, enabling them to evaluate financing alternatives more effectively.

In the context of dynamic capital structure, managers play a central role in determining how firms respond to deviations from their target leverage. Executives with higher levels of education may be better equipped to interpret financial information, assess adjustment costs, and implement financing strategies in a timely manner. Prior studies also suggest that CEO educational background can influence corporate financial decisions and firm policies, including financing and risk-taking behavior (Chua et al., 2022; Nguyen & Nguyen, 2024). As a result, firms led by more educated CEOs may adjust their capital structure more efficiently toward the target leverage.

H<sub>1</sub> : CEO education has a positive effect on the speed of capital structure adjustment.

### ***CEO Tenure and Speed of Adjustment***

CEO tenure reflects the length of time an executive has served as the chief decision maker within the firm. Longer tenure allows executives to accumulate firm-specific knowledge, develop deeper understanding of organizational processes, and build stronger relationships with internal and external stakeholders. These advantages may enhance managerial capability in implementing strategic and financial decisions effectively.

However, prior studies also suggest that longer CEO tenure may lead to managerial rigidity and reduced adaptability. Over time, executives may become increasingly committed to established strategies and less responsive to environmental changes, which can reduce strategic flexibility (Henderson et al., 2006). In addition, tenure has often been associated with greater managerial risk aversion due to the increasing investment of firm-specific human capital, which may discourage managers from taking actions that could threaten their position (Chen & Zheng, 2012). More recent evidence also indicates that CEO tenure reflects lifecycle dynamics in the CEO–firm relationship, where managerial effectiveness may vary over the duration of the tenure (Jarva, 2025).

Despite these mixed findings, longer-tenured CEOs may possess greater experience and deeper knowledge of firm operations, enabling them to identify deviations from target leverage and implement financial adjustments more efficiently. Therefore, experienced CEOs may be better positioned to adjust corporate capital structures toward their target levels.

H<sub>2</sub> : CEO tenure has a positive effect on the speed of capital structure adjustment.

### ***Moderating Role of Political Connections***

Resource Dependence Theory suggests that firms establish relationships with external actors to secure access to critical resources and reduce environmental uncertainty (Hillman et al., 2009). One important form of such relationships is political connection, which refers to the linkage between firms and political actors or government officials. These connections may provide firms with preferential access to external financing, regulatory support, and government protection, thereby reducing financial constraints and facilitating corporate decision-making (Faccio, 2006).

In emerging markets, political connections can play an important role in shaping corporate financing decisions because government influence over financial institutions and regulatory frameworks remains substantial. Firms with stronger political ties may experience easier access to credit markets and face fewer obstacles when implementing financial policies. As a result, political connections may strengthen the ability of managers to implement financial strategies and respond to deviations from target leverage more effectively.

Within this context, political connections may enhance the influence of managerial characteristics on corporate financing decisions. CEOs with higher educational backgrounds may be better able to utilize politically connected networks to access financial resources and implement financing strategies more effectively. Similarly, experienced CEOs with longer tenure may leverage political ties to reduce financing constraints and accelerate adjustments toward the target capital structure. Therefore, political connections are expected to strengthen the relationship between CEO characteristics and the speed of capital structure adjustment.

H<sub>3</sub> : Political connections positively moderate the relationship between CEO education and the speed of capital structure adjustment.

H<sub>4</sub> : Political connections positively moderate the relationship between CEO tenure and the speed of capital structure adjustment.

## Methods

### Research Design

This study employs a quantitative empirical approach to examine the determinants of firm-level capital structure adjustment. Using panel data of firm-year observations, the study investigates how managerial characteristics influence the speed at which firms adjust their leverage toward target capital structures. Specifically, the analysis focuses on the roles of CEO education and CEO tenure as key managerial attributes that may shape corporate financing decisions.

The empirical analysis is conducted using two regression models. The first is a baseline model that examines the direct effects of CEO characteristics on the speed of capital structure adjustment. The second is a moderation model that incorporates political connections as a moderating variable to assess whether institutional ties strengthen the relationship between managerial characteristics and firms' leverage adjustment behavior. This two-model approach allows the study to evaluate both the direct influence of managerial attributes and the conditional role of political connections in shaping capital structure dynamics.

The analysis adopts a firm-level speed of adjustment framework, in which adjustment speed is measured at the firm-year level rather than estimated as a single aggregate parameter. This approach enables the study to capture cross-sectional variation in leverage adjustment behavior across firms and over time. By focusing on firm-level adjustment dynamics, the study provides a more granular understanding of how managerial and institutional factors influence corporate capital structure decisions.

### Sample Selection and Data Sources

This study uses companies listed in the Kompas100 Index as the initial population. The index consists of the 100 most liquid and fundamentally strong companies in the Indonesian capital market. To ensure consistency in the sample composition, this study applies a static membership approach, based on the Kompas100 constituent list published between November 2023 and January 2024. Using a static index membership helps avoid survivorship bias and ensures comparability across the observation period.

The study examines firm-year observations from 2019 to 2024, producing an initial dataset of 600 observations. The sample is then refined using two selection criteria. First, firms operating in the financial sector are excluded due to their distinct regulatory environment and capital structure characteristics. Second, only firms that conducted their initial public offering (IPO) before 2019 are retained to ensure sufficient data availability for the entire observation period.

After applying these criteria, the final sample consists of 71 non-financial firms, resulting in 426 firm-year observations.

Corporate data are collected from multiple sources to ensure data reliability and completeness. Information on firm characteristics and financial variables is obtained from annual reports, while additional information regarding governance and managerial characteristics is gathered from sustainability reports, official company websites, and other credible public sources. The identification of relevant information is conducted using a data triangulation approach, which combines multiple data sources to cross-verify information and improve data validity. The sample selection process is summarized in Table 1.

Table 1 Sample Selection

Criteria	Firms	Observations
Companies included in the Kompas100 Index	100	600
Excluding financial sector firms	86	516
IPO before 2019	71	426
<b>Final sample</b>	<b>71</b>	<b>426</b>

Source: Authors' summary (2026)

### Variable Measurement

This study employs several variables to examine the determinants of leverage adjustment. The variables include the dependent variable, independent variables, a moderating variable, and several control variables commonly used in capital structure studies. Table 2 summarizes the definitions and measurements of all variables used in this study.

Table 2 Variable Measurements

Variable	Measurement
Leverage (LEV)	Debt to Asset Ratio (DAR), calculated as total debt divided by total assets
Target Leverage (LEV*)	Predicted leverage obtained from the target leverage estimation model
Speed of Adjustment (SOA)	Calculated as the change in actual leverage divided by the deviation between target leverage and lagged leverage
CEO Education (EDU)	Ordinal scale: 1 = High School, 2 = Diploma, 3 = Bachelor's degree, 4 = Master's degree, 5 = Doctoral degree
CEO Tenure (TEN)	Number of years the CEO has held the CEO position up to the observation year
Political Connection (POLCON)	Dummy variable: 1 if board members have current or past political positions, 0 otherwise
Tangibility (TANG)	Ratio of fixed assets to total assets
Firm Size (SIZE)	Natural logarithm of total assets
Inflation (INF)	Annual inflation rate published by Bank Indonesia
GDP Growth (GDP)	Annual percentage growth of gross domestic product

Source: Authors' summary (2026)

Political connection is measured using a binary dummy variable. A firm is classified as politically connected if at least one member of the board of commissioners or board of directors currently holds or previously held a political position. These positions include roles in political

parties, government ministries, executive or legislative institutions, and retired high-ranking officers from the Indonesian National Armed Forces (TNI) or the National Police (Polri).

The identification of political connections follows the approach of Faccio (2006) and Prabowo et al. (2025). Data are collected using a triangulation method by cross-checking information from annual reports, sustainability reports, company websites, and credible online news sources to ensure data validity.

### **Empirical Model**

This study employs a multi-step empirical approach to examine the determinants of capital structure adjustment. The procedure consists of three stages: estimating the target leverage, calculating the speed of adjustment (SOA), and testing the empirical models that evaluate the influence of CEO characteristics and political connections on leverage adjustment.

#### ***Target Leverage Estimation***

In the first stage, the target leverage is estimated using a panel regression model with dummy variable least square (DVLS) fixed effects to control for unobserved firm-specific heterogeneity. The model is specified as follows:

$$LEV_{i,t}^* = \alpha + \beta \cdot X_{i,t} + \mu_i \quad (1)$$

where  $LEV_{i,t}^*$  represents the target leverage ratio of firm  $i$  in year  $t$ ,  $X_{i,t}$  denotes a vector of firm-specific determinants of leverage,  $\mu_i$  captures firm fixed effects.

#### ***Speed of Adjustment Calculation***

After estimating the target leverage, the speed of adjustment (SOA) is calculated to measure how quickly firms adjust their leverage toward the target level (Flannery & Rangan, 2006). SOA is computed as the ratio between the change in actual leverage and the deviation between the target leverage and the previous period's leverage:

$$\lambda = \frac{(LEV_{i,t} - LEV_{i,t-1})}{(LEV_{i,t}^* - LEV_{i,t-1})} \quad (2)$$

where  $LEV_{i,t}$  represents actual leverage,  $LEV_{i,t-1}$  denotes lagged leverage, and  $LEV_{i,t}^*$  is the estimated target leverage obtained from the target leverage model. Measuring SOA at the firm-year level allows this study to capture variation in leverage adjustment behavior across firms.

#### ***Baseline Model***

The baseline model examines the direct influence of CEO characteristics on the speed of leverage adjustment. The model is specified as follows:

$$SOA_{i,t} = \alpha + \beta_1 \cdot EDU_{i,t} + \beta_2 \cdot TAN_{i,t} + \beta_3 \cdot TANG_{i,t} + \beta_4 \cdot SIZE_{i,t} + \beta_5 \cdot INF_{i,t} + \beta_6 \cdot GDP_{i,t} + \varepsilon_{i,t} \quad (3)$$

where  $SOA_{i,t}$  is the speed of adjustment,  $EDU_{i,t}$  represents CEO education,  $TEN_{i,t}$  denotes CEO tenure, and the remaining variables represent control variables.

#### ***Moderation Model***

To test the moderating role of political connections, the study estimates a model that incorporates interaction terms between CEO characteristics and political connections:

$$SOA_{i,t} = \alpha + \beta_1.EDU_{i,t} + \beta_2.TAN_{i,t} + \beta_3.POLCON_{i,t} + \beta_4.EDU \times POLCON_{i,t} + \beta_5.TAN \times POLCON_{i,t} + \beta_6.TANG_{i,t} + \beta_7.SIZE_{i,t} + \beta_8.INF_{i,t} + \beta_9.GDP_{i,t} + \varepsilon_{i,t} \quad (4)$$

The interaction terms capture whether political connections strengthen the influence of CEO characteristics on firms' leverage adjustment behavior.

### **Data Analysis Procedure**

The analysis begins with descriptive statistics to summarize the characteristics of the variables used in the study. Descriptive statistics report the mean, standard deviation, minimum, and maximum values of continuous variables. Because CEO education is measured using an ordinal scale and political connection is a binary variable, their distributions are presented using frequency tables to describe the composition of CEO educational levels and the proportion of politically connected firms in the sample.

Prior to regression estimation, correlation analysis is conducted to examine the relationships among variables and to provide an initial indication of potential multicollinearity. To further assess this issue, multicollinearity diagnostics are performed using the variance inflation factor (VIF). The appropriate panel data estimation model is then determined by comparing the common effects model (CEM), fixed effects model (FEM), and random effects model (REM) using the Chow test, Hausman test, and Lagrange Multiplier Breusch-Pagan (LMBP) test.

After determining the most suitable model specification, diagnostic tests for heteroskedasticity and autocorrelation are conducted to ensure the reliability of the regression estimates. The empirical analysis is then performed using two regression models. The baseline model examines the direct effects of CEO characteristics on the speed of capital structure adjustment, while the moderation model incorporates political connections and interaction terms to evaluate whether political ties strengthen the relationship between CEO characteristics and firms' leverage adjustment behavior.

## **Result and Discussion**

### **Descriptive Statistics**

Descriptive statistics provide an overview of the characteristics and distribution of the variables used in this study. Table 3 reports the summary statistics for the main variables, including the mean, standard deviation, minimum, and maximum values.

Table 3 Descriptive Statistics

Variable	Number of Observations	Mean	Std. Dev.	Min	Max
SOA	355	2.18	41.78	-160.67	760.87
Leverage	426	0.45	0.20	0.08	0.88
CEO tenure	426	7.92	9.26	0.00	53.00
Tangibility	426	0.31	0.20	0.00	0.80
Firm size	426	30.92	1.19	25.45	33.79
Inflation	426	0.03	0.01	0.02	0.06
GDP growth	426	0.05	0.06	-0.05	0.12

Source: Secondary data, processed using the STATA Software (2026)

As shown in Table 3, the average leverage ratio is 0.45, indicating that, on average, debt accounts for approximately 45 percent of total assets among firms in the sample. The leverage ratio ranges from 0.08 to 0.88, suggesting substantial variation in capital structure across firms.

The mean CEO tenure is 7.92 years, with a relatively large standard deviation of 9.26, indicating considerable differences in managerial experience across firms. The minimum value of zero reflects newly appointed CEOs during the observation period, while the maximum tenure reaches 53 years, indicating the presence of firms with very long-standing leadership. During the observation period, 52 CEO turnovers were recorded out of 426 observations, representing approximately 12.2 percent of the sample.

The main dependent variable, the speed of adjustment (SOA), has an average value of 2.18 with a relatively large standard deviation of 41.78, indicating substantial variation in firms' leverage adjustment behavior. The wide range of SOA values, from -160.67 to 760.87, suggests that firms differ considerably in the speed at which they adjust their capital structure toward the target leverage. Such variation supports the use of a firm-level SOA approach, which allows the analysis to capture heterogeneous adjustment behavior across firms and over time.

Regarding the control variables, tangibility has an average value of 0.31, indicating that fixed assets account for approximately 31 percent of total assets. The mean firm size, measured as the natural logarithm of total assets, is 30.92, reflecting the relatively large scale of firms included in the Kompas100 index. At the macroeconomic level, the average inflation rate during the observation period is 3 percent, while the mean GDP growth is 5 percent, indicating relatively stable macroeconomic conditions.

Table 4 presents the frequency distribution of CEO education levels and political connections within the sample. The results show that the majority of CEOs possess relatively high educational qualifications. Specifically, 47.18 percent of CEOs hold a Bachelor's degree, while 45.07 percent have obtained a Master's degree. In contrast, only 4.46 percent of CEOs have a high school education and 2.11 percent hold a diploma degree, while 1.17 percent have a doctoral degree. These figures indicate that most CEOs in the sampled firms possess at least an undergraduate degree, suggesting a relatively high level of formal education among top executives.

Table 4 Frequency Distribution of Categorical Variables

Variable	Category	Frequency	Percentage (%)
CEO Education	Senior High School	19	4.46
	Diploma	9	2.11
	Bachelor's Degree	201	47.18
	Master's Degree	192	45.07
	Doctoral Degree	5	1.17
	Number of observations	426	100.00
Political Connections	Not Connected	152	35.68
	Connected	274	64.32
	Number of observations	426	100.00

Source: Secondary data, processed using the STATA Software (2026)

The distribution of political connections shows that 64.32 percent of firm-year observations involve politically connected firms, while 35.68 percent are not politically connected. This

finding indicates that political ties are relatively common among firms included in the Kompas100 index. The relatively high proportion of politically connected firms reflects the importance of institutional relationships in the Indonesian corporate environment, where connections with political actors may influence firms' access to resources and strategic decision-making.

### Correlation Analysis and Multicollinearity Test

To further examine the relationships among variables and assess potential multicollinearity issues, the correlation matrix and variance inflation factor (VIF) results are presented in Table 5.

Table 5 Correlation Matrix and Multicollinearity Test

No	Variable	VIF	1	2	3	4	5	6	7
1	CEO education	1.18	1.000						
2	CEO tenure	1.11	-0.282	1.000					
3	Political connections	1.21	0.295	-0.157	1.000				
4	Tangibility	1.01	0.036	-0.030	0.072	1.000			
5	Firm size	1.13	0.124	-0.152	0.311	-0.004	1.000		
6	Inflation	1.42	0.008	0.016	0.017	-0.028	0.034	1.000	
7	GDP growth	1.42	0.015	0.008	0.000	-0.034	0.019	0.538	1.000
	Mean VIF	1.21							

Source: Secondary data, processed using the STATA Software (2026)

As shown in Table 5, the pairwise correlations among the explanatory variables are generally low. The highest correlation is observed between inflation and GDP growth, with a coefficient of 0.538, which remains below the commonly accepted threshold of 0.80 that may indicate serious multicollinearity concerns. The correlations between the main explanatory variables, including CEO education, CEO tenure, and political connections, are also relatively modest, suggesting that these variables capture different aspects of managerial and institutional characteristics.

To further assess multicollinearity, the variance inflation factor (VIF) is calculated for each explanatory variable. The results show that all VIF values are relatively low, ranging from 1.01 to 1.42, with a mean VIF of 1.21. These values are well below the commonly used threshold of 10, indicating that multicollinearity is not a concern in the regression models. Therefore, the explanatory variables included in this study can be used simultaneously in the empirical analysis without causing instability in the regression estimates.

### Panel Model Selection and Diagnostic Tests

To determine the appropriate panel data specification, this study compares the common effects model (CEM), fixed effects model (FEM), and random effects model (REM) using several model selection tests. The results are presented in Table 6.

Table 6 Panel Model Selection Tests

Test	Criteria	Result	
Chow Test	Prob > 0,05 : CEM	0.1154	CEM
	Prob ≤ 0,05 : FEM		
Hausman Test	Prob > 0,05 : REM	0.0077	FEM

	Prob ≤ 0,05 : FEM		
LM BP Test	Prob > 0,05 : CEM	0.4471	CEM
	Prob ≤ 0,05 : REM		

Source: Secondary data, processed using the STATA Software (2026)

The Chow test yields a probability value of 0.1154, which is greater than the 5 percent significance level, indicating that the common effects model (CEM) is preferred over the fixed effects model. Similarly, the Lagrange Multiplier Breusch–Pagan (LM BP) test produces a probability value of 0.4471, suggesting that the random effects model is not more appropriate than the pooled model. Although the Hausman test indicates a preference for the fixed effects specification, the combined results of the Chow and LM BP tests suggest that the common effects model provides the most suitable specification for the data used in this study. Therefore, the empirical analysis is conducted using the common effects model.

To ensure the reliability of the regression estimates, additional diagnostic tests are conducted. The Breusch–Pagan–Godfrey test for heteroskedasticity produces a probability value of 0.1489, indicating that the null hypothesis of homoskedasticity cannot be rejected. In addition, the Wooldridge test for autocorrelation yields a probability value of 0.1358, suggesting that there is no evidence of serial correlation in the panel data. These results indicate that the regression model satisfies the basic assumptions required for reliable estimation.

### Regression Results

Table 7 presents the regression results for the baseline model and the moderation model examining the determinants of firms’ speed of capital structure adjustment. The baseline model evaluates the direct effects of CEO characteristics on the speed of adjustment, while the moderation model incorporates political connections and interaction terms to assess whether political ties strengthen the relationship between CEO characteristics and leverage adjustment.

The results of the baseline model show that CEO education has a positive and statistically significant effect on the speed of capital structure adjustment. This finding suggests that firms led by more highly educated CEOs tend to adjust their leverage toward target levels more quickly. Higher educational attainment may reflect stronger analytical capabilities, broader financial knowledge, and greater ability to interpret complex financial information, which enables executives to make more effective financing decisions.

In contrast, CEO tenure does not show a statistically significant effect on the speed of adjustment. One possible explanation is the heterogeneous distribution of tenure across different managerial stages within the sample. A considerable number of observations represent newly appointed CEOs with tenure between zero and two years, reflecting an early adaptation phase in which executives are still learning firm-specific conditions. Another group of firms is led by CEOs with tenure between three and ten years, which may represent the most effective managerial period for strategic decision-making. Meanwhile, a smaller portion of firms have CEOs with tenure exceeding ten years, which may reflect a more stable but potentially conservative leadership phase. The coexistence of these different tenure stages may weaken the overall relationship between CEO tenure and the speed of leverage adjustment.

Table 7 Regression Results

SOA	CEM		MRA
CEO education	6.614	**	0.509
CEO tenure	-0.089		0.08

Political connections			-47.031	**
Edu × Pcon			15.045	**
Tenure × Pcon			-0.404	
Tangibility	-7.405		-7.439	
Firm size	-1.412		-1.114	
Inflation	-262.932		-259.093	
GDP growth	62.876		60.584	
Constant	30.651		38.472	
Number of observations	355		355	
Number of firms	71		71	
R-squared	0.0251		0.0454	
F-statistic	1.49		1.83	*
* p<0.10, ** p<0.05, *** p<0.01				

Source: Secondary data, processed using the STATA Software (2026)

The results of the moderation model reveal that political connections have a negative and statistically significant direct effect on the speed of adjustment. This finding suggests that politically connected firms tend to adjust their leverage more slowly toward target levels. One possible explanation is that political ties may reduce external financing pressure or provide firms with greater access to government support, which may weaken the urgency to actively rebalance capital structure.

However, the interaction term between CEO education and political connections is positive and statistically significant, indicating that political connections strengthen the influence of CEO education on leverage adjustment. This finding suggests that highly educated CEOs may be better able to utilize political networks to access financial resources or navigate institutional environments, thereby facilitating faster capital structure adjustments.

In contrast, the interaction between CEO tenure and political connections is not statistically significant. This result indicates that political connections do not significantly alter the relationship between CEO tenure and leverage adjustment behavior. Overall, these findings highlight that while managerial education plays an important role in shaping capital structure adjustment decisions, the influence of CEO tenure appears to be less consistent across firms.

The estimation results show that CEO education has a positive and statistically significant effect on the speed of capital structure adjustment. This finding indicates that firms led by more highly educated CEOs tend to adjust their leverage toward target levels more quickly. The result supports Hypothesis H<sub>1</sub>, suggesting that higher educational attainment enhances executives' ability to interpret financial information, evaluate financing alternatives, and respond to deviations from target leverage more effectively. This finding is consistent with Upper Echelons Theory (Hambrick & Mason, 1984), which posits that the cognitive bases and educational backgrounds of top executives shape strategic decision-making and organizational outcomes.

CEO tenure does not show a statistically significant effect on the speed of adjustment, leading to the rejection of Hypothesis H<sub>2</sub>. This result suggests that the length of a CEO's tenure does not systematically influence firms' leverage adjustment behavior. One possible explanation is that the effect of CEO tenure may not be linear but instead follows a career seasons pattern, as suggested by Luo (2014). In this framework, the influence of CEO tenure on corporate outcomes tends to follow an inverted U-shaped relationship, where managerial effectiveness

increases during the early and middle stages of tenure and declines after a certain point. Early-tenure CEOs are typically more adaptive and open to new strategic initiatives, whereas long-tenured CEOs may become more conservative and inclined to maintain existing policies (Hambrick & Fukutomi, 1991). In the context of capital structure adjustment, this dynamic may lead to heterogeneous responses to leverage deviations, thereby weakening the overall relationship between tenure and the speed of adjustment.

The distribution of CEO tenure in the sample further supports this interpretation. A substantial portion of the observations reflects newly appointed CEOs who are still in the early adaptation phase, while others represent mid-tenure executives who may be at their most effective stage of decision-making. At the same time, a smaller group of firms is led by CEOs with very long tenures, which may correspond to the entrenched leadership phase (Berger et al., 1997), characterized by increased stability and potential conservatism. The coexistence of these different tenure stages may dilute the overall statistical relationship between CEO tenure and leverage adjustment.

Another explanation relates to the characteristics of the research sample, which consists of relatively large and mature firms included in the KOMPAS100 index. In such firms, strategic financial decisions, including capital structure adjustments, are often influenced more strongly by formal governance mechanisms, organizational procedures, and collective decision-making processes rather than by the individual discretion of CEOs (Adams et al., 2005). Therefore, the insignificant effect of CEO tenure may reflect the institutionalized governance structures of large firms that limit the influence of individual managerial characteristics.

The results of the moderation model reveal that political connections have a negative and statistically significant direct effect on the speed of adjustment. This finding suggests that politically connected firms tend to adjust their leverage more slowly toward target levels. One possible explanation is that political ties may reduce financing constraints or provide firms with preferential access to resources, thereby reducing the urgency to actively rebalance capital structure.

However, the interaction between CEO education and political connections is positive and statistically significant, supporting Hypothesis H<sub>3</sub>. This result indicates that political connections strengthen the positive influence of CEO education on leverage adjustment. In other words, highly educated CEOs appear to be better able to utilize political networks to obtain financial resources or navigate institutional environments, thereby facilitating faster capital structure adjustments.

The insignificant result of the baseline SOA model suggests that the influence of CEO education may not operate in isolation but rather depends on the presence of contextual factors within the organizational or institutional environment. In this regard, prior research by Satrio (2026) shows that CEO education becomes significant when interacting with female representation on the Board of Directors (BOD), particularly when the proportion of female directors exceeds the critical mass threshold of thirty percent. This finding indicates that cognitive attributes of executives tend to exert stronger influence when supported by adequate structural conditions.

A similar mechanism may explain the results of the present study. When political connections are incorporated into the model as a moderating variable, the interaction between CEO education and political connections becomes statistically significant, indicating that political networks function as a contextual mechanism that amplifies the effect of managerial capabilities. Political connections may provide firms with greater legitimacy, improved access

to external resources, and broader managerial discretion in financing decisions. Consequently, the influence of CEO education on the speed of adjustment does not emerge as a purely individual attribute, but rather as the result of an interaction between managerial cognitive capacity and the surrounding power structure.

This finding can be interpreted through the lens of Upper Echelons Theory (Hambrick & Mason, 1984), which emphasizes that the impact of managerial characteristics on corporate decisions depends on the organizational context in which executives operate. In this study, CEO education represents the cognitive capacity and analytical framework used by executives in interpreting financial conditions. However, the effectiveness of these capabilities depends on the availability of institutional resources and access to strategic networks. Political connections may provide such resources by offering legitimacy, access to external financing, and greater discretionary power in decision-making. Therefore, the influence of CEO education on the speed of adjustment is not purely individual but emerges from the interaction between managerial capabilities and institutional structures.

Finally, the interaction between CEO tenure and political connections is not statistically significant, leading to the rejection of Hypothesis H<sub>4</sub>. This finding indicates that political connections do not significantly alter the relationship between CEO tenure and leverage adjustment behavior. Overall, the results suggest that CEO education plays a more consistent role than CEO tenure in shaping firms' capital structure adjustment decisions, particularly when supported by institutional networks such as political connections.

## Conclusion

This study examines the influence of CEO characteristics and political connections on the speed of capital structure adjustment (SOA) using panel data from non-financial firms included in the Kompas100 index during the period 2019-2024. The findings show that CEO education has a positive and significant effect on the speed of adjustment, indicating that firms led by more highly educated CEOs tend to adjust their leverage toward target levels more quickly. In contrast, CEO tenure does not show a statistically significant relationship with SOA, suggesting that the length of managerial tenure alone does not consistently influence leverage adjustment decisions.

The results further reveal that political connections play an important moderating role. While politically connected firms tend to adjust their capital structures more slowly, the interaction between CEO education and political connections significantly strengthens the influence of CEO education on SOA. This finding suggests that managerial capabilities become more effective when supported by institutional access and strategic networks. In other words, the influence of executive characteristics on capital structure decisions is not purely individual but depends on the broader organizational and institutional context.

This study contributes to the literature on dynamic capital structure and corporate governance by highlighting the role of managerial attributes and institutional relationships in shaping firms' leverage adjustment behavior. However, several limitations should be acknowledged. First, the study focuses only on firms included in the Kompas100 index, which may limit the generalizability of the findings to smaller or less established firms. Second, the measurement of political connections relies on publicly available information, which may not fully capture informal political networks. Future research may extend this study by examining alternative governance characteristics, incorporating different measures of political influence, or exploring nonlinear relationships between managerial attributes and capital structure dynamics.

From a practical perspective, the findings suggest that firms may benefit from appointing highly educated executives who possess strong analytical and strategic capabilities in financial decision-making. In addition, firms operating in environments where political networks are influential should ensure that such institutional relationships are utilized in a transparent and strategic manner to support corporate financial policies rather than creating dependency on political privileges. For regulators and investors, the results highlight the importance of considering managerial characteristics and governance structures when evaluating firms' financial policies and capital structure dynamics.

## References

- Adams, R. B., Almeida, H., & Ferreira, D. (2005). Powerful CEOs and Their Impact on Corporate Performance. *Review of Financial Studies*, 18(4), 1403–1432. <https://doi.org/10.1093/rfs/hhi030>
- Ahmed, F., & McMillan, D. G. (2023). Capital Structure and Political Connections: Evidence from GCC Banks and the Financial Crisis. *International Journal of Emerging Markets*, 18(9), 2890–2911. <https://doi.org/10.1108/IJOEM-03-2020-0261>
- Bajaj, Y., Kashiramka, S., & Singh, S. (2021). Application of Capital Structure Theories: A Systematic Review. *Journal of Advances in Management Research*, 18(2), 173–199. <https://doi.org/10.1108/JAMR-01-2020-0017>
- Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial Entrenchment and Capital Structure Decisions. *The Journal of Finance*, 52(4), 1411–1438. <https://doi.org/10.1111/j.1540-6261.1997.tb01115.x>
- Bunkanwanicha, P., & Wiwattanakantang, Y. (2009). Big Business Owners in Politics. *Review of Financial Studies*, 22(6), 2133–2168. <https://doi.org/10.1093/rfs/hhn083>
- Byoun, S. (2008). How and When Do Firms Adjust Their Capital Structures toward Targets? *The Journal of Finance*, 63(6), 3069–3096. <https://doi.org/10.1111/j.1540-6261.2008.01421.x>
- Chen, D., & Zheng, Y. (2012). CEO Tenure and Risk-Taking. *SSRN Electronic Journal*, 19(1), 1–27. <https://doi.org/10.2139/ssrn.2038064>
- Chua, M., Ab Razak, N. H., Nassir, A. M., & Yahya, M. H. (2022). Dynamic Capital Structure in Indonesia: Does the Education and Experience of CEOs Matter? *Asia Pacific Management Review*, 27(1), 58–68. <https://doi.org/10.1016/j.apmrv.2021.05.003>
- Cook, D. O., & Tang, T. (2010). Macroeconomic Conditions and Capital Structure Adjustment Speed. *Journal of Corporate Finance*, 16(1), 73–87. <https://doi.org/10.1016/j.jcorpfin.2009.02.003>
- Dang, V. A., Kim, M., & Shin, Y. (2012). Asymmetric Capital Structure Adjustments: New evidence from Dynamic Panel Threshold Models. *Journal of Empirical Finance*, 19(4), 465–482. <https://doi.org/10.1016/j.jempfin.2012.04.004>
- Faccio, M. (2006). Politically Connected Firms. *American Economic Review*, 96(1), 369–386. <https://doi.org/10.1257/000282806776157704>
- Fischer, E. O., Heinkel, R., & Zechner, J. (1989). Dynamic Capital Structure Choice: Theory and Tests. *The Journal of Finance*, 44(1), 19–40. <https://doi.org/10.1111/j.1540-6261.1989.tb02402.x>

- Flannery, M. J., & Hankins, K. W. (2013). Estimating Dynamic Panel Models in Corporate Finance. *Journal of Corporate Finance*, 19(1), 1–19. <https://doi.org/10.1016/j.jcorpfin.2012.09.004>
- Flannery, M. J., & Rangan, K. P. (2006). Partial Adjustment Toward Target Capital Structures. *Journal of Financial Economics*, 79(3), 469–506. <https://doi.org/10.1016/j.jfineco.2005.03.004>
- Hambrick, D. C. (2007). Upper Echelons Theory: An Update. *Academy of Management Review*, 32(2), 334–343. <https://doi.org/10.5465/amr.2007.24345254>
- Hambrick, D. C., & Fukutomi, G. D. S. (1991). The Seasons of a CEO's Tenure. *Academy of Management Review*, 16(4), 719–742. <https://doi.org/10.5465/amr.1991.4279621>
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review*, 9(2), 193–206. <https://doi.org/10.5465/amr.1984.4277628>
- Haron, R. (2016). Do Indonesian Firms Practice Target Capital Structure? A Dynamic Approach. *Journal of Asia Business Studies*, 10(3), 318–334. <https://doi.org/10.1108/JABS-07-2015-0100>
- Henderson, A. D., Miller, D., & Hambrick, D. C. (2006). How Quickly do CEOs Become Obsolete? Industry Dynamism, CEO Tenure, and Company Performance. *Strategic Management Journal*, 27(5), 447–460. <https://doi.org/10.1002/smj.524>
- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource Dependence Theory: A Review. *Journal of Management*, 35(6), 1404–1427. <https://doi.org/10.1177/0149206309343469>
- Hovakimian, A., & Li, G. (2011). In search of conclusive evidence: How to test for adjustment to target capital structure. *Journal of Corporate Finance*, 17(1), 33–44. <https://doi.org/10.1016/J.JCORPFIN.2010.07.004>
- Jarva, H. (2025). CEO tenure: Evidence from U.S. public firms. *International Review of Economics and Finance*, 104(September), 104633. <https://doi.org/10.1016/j.iref.2025.104633>
- Kraus, A., & Litzenberger, R. H. (1973). A State-Preference Model of Optimal Financial Leverage. *The Journal of Finance*, 28(4), 911. <https://doi.org/10.2307/2978343>
- Kumar, S., Colombage, S., & Rao, P. (2017). Research on Capital Structure Determinants: A Review and Future Directions. *International Journal of Managerial Finance*, 13(2), 106–132. <https://doi.org/10.1108/IJMF-09-2014-0135>
- Lemmon, M. L., Roberts, M. R., & Zender, J. F. (2008). Back to the Beginning: Persistence and the Cross-Section of Corporate Capital Structure. *The Journal of Finance*, 63(4), 1575–1608. <https://doi.org/10.1111/j.1540-6261.2008.01369.x>
- Luo, X., Kanuri, V. K., & Andrews, M. (2014). How does CEO Tenure Matter? The Mediating Role of Firm-employee and Firm-customer Relationships. *Strategic Management Journal*, 35(4), 492–511. <https://doi.org/10.1002/smj.2112>
- Malmendier, U., & Tate, G. (2015). Behavioral CEOs: The Role of Managerial Overconfidence. *Journal of Economic Perspectives*, 29(4), 37–60. <https://doi.org/10.1257/jep.29.4.37>

- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(3), 261–297. <http://www.jstor.org/stable/1809766>
- Modigliani, F., & Miller, M. H. (1963). Corporate Income Taxes and the Cost of Capital: A Correction. *The American Economic Review*, 53(3), 433–443. <http://www.jstor.org/stable/1809167>
- Myers, S. C., & Majluf, N. S. (1984). Corporate Financing and Investment Decisions when Firms Have Information that Investors do not Have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Nguyen, T. T. C., & Nguyen, C. Van. (2024). Does the Education Level of the CEO and CFO Affect the Profitability of Real Estate and Construction Companies? Evidence From Vietnam. *Heliyon*, 10(7), e28376. <https://doi.org/10.1016/j.heliyon.2024.e28376>
- Prabowo, M. A., Sutaryo, S., Widjajanto, A., & Al Idrus, S. (2025). Do Political Connections Mitigate The Detrimental Effect Of Earning Management? Evidence From Cost Of Debt. *International Journal of Business and Society*, 26(2), 806–824. <https://doi.org/10.33736/ijbs.9644.2025>
- Romano, C. A., Tanewski, G. A., & Smyrniotis, K. X. (2001). Capital structure decision making: A model for family business. *Journal of business venturing*, 16(3), 285-310.
- Satrio, A. B. (2026). Gender Diversity, Governance Innovation, and Sustainable Corporate Practices: Evidence from the Two-tier Board System. *Innovation and Green Development*, 5(1), 100331. <https://doi.org/10.1016/j.igd.2026.100331>
- Wang, Y., Yao, C., & Kang, D. (2019). Political Connections and Firm Performance: Evidence from Government Officials'site Visits. *Pacific-Basin Finance Journal*, 57, 101021. <https://doi.org/10.1016/j.pacfin.2018.05.003>