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# Short-termism and debt cost under bullish market sentiment

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## ABSTRACT

This paper investigates the relationship between investor sentiment, short-termism, and the cost of debt in the Brazilian capital market. Specifically, it examines whether investor sentiment amplifies the impact of short-termism on debt costs and whether short-term-oriented firms can effectively reduce financing costs by exploiting optimistic market conditions. The study addresses a gap in the literature by exploring how investor sentiment interacts with short-termism in shaping corporate financing behavior, particularly in emerging markets characterized by weaker governance and limited information quality. By highlighting the limited role of sentiment and the importance of investment horizon in debt pricing, this study contributes to the behavioral corporate finance literature and offers empirical evidence from a market context often overlooked in global studies. The findings suggest that prioritizing long-term fundamentals over sentiment-driven strategies helps firms lower borrowing costs. This has implications for managers, investors, and policymakers seeking to foster financial stability and sustainable value creation through governance aligned with long-term strategic horizons. We analyze a panel of 136 non-financial firms listed on B3 S.A. – Brasil, Bolsa e Balcão (2010-2023), employing a dynamic system generalized method of moments estimator to address potential endogeneity. Additionally, we apply a pecking order framework to assess differences in capital structure decisions across investment horizons and sentiment conditions. Our results show that firm-level fundamentals, particularly higher capital expenditures and long-term investment orientation, are associated with lower debt costs, while investor sentiment has no significant direct effect. Firms with lower stock turnover, reflecting long-horizon investor bases, benefit from reduced financing costs. Under the pecking order analysis, long-horizon firms do not consistently adhere more closely to the financial hierarchy when considering cash flow deficits. However, when debt changes are driven by sentiment, deviations from the hierarchy are more pronounced among short-term-oriented firms.

**Keywords**: short-termism, investment horizon, debt cost, catering theory, pecking order.

## 1. INTRODUCTION

Investor sentiment has been shown to influence key corporate decisions, including leverage, debt maturity, and external financing costs (Baker & Wurgler, 2002; Li et al., 2023). However, it remains unclear whether its effect stems from rational reactions to turbulent fundamentals, quasi-rational behavior, or both (Verma & Verma, 2021). Thus, firms' capital structure decisions are influenced not only by fundamentals but also by behavioral and market-based factors. One such factor is short-termism (Graham, 2022; He & Mi, 2022), where managers prioritize immediate results, often responding to investor pressure focused on short-term stock price performance.

This managerial behavior can amplify the impact of investor sentiment on financing decisions, particularly under bullish market conditions. In such environments, high investor optimism may lead to overvaluation (Antoniou et al., 2016), lower perceived risk (Liu, 2015), and easier access to capital (Mclean & Zhao, 2014), conditions that can reduce the firm's cost of debt and influence its capital structure choices. However, enhanced liquidity can also attract short-term-oriented investors (Rösch et al., 2022), introducing volatility and making markets more sentiment-driven. This raises the question of whether the sentiment-induced reduction in cost of capital extends to debt financing, especially when managerial behavior is shaped by short-term performance incentives.

Sentiment-driven capital decisions are more likely to occur when managers perceive market mispricing and seek to exploit it to benefit short-term-oriented investors (Baker & Wurgler, 2006; Morck et al., 1990). Meanwhile, uncertainty and weak information environments exacerbate information asymmetry, increasing the cost of debt (Tran, 2021). Despite this, limited attention has been paid to how short-termism interacts with investor sentiment to shape the cost of debt, especially in emerging markets where governance weaknesses may heighten these effects.

Thus, the relationship between short-termism and debt cost, mediated by investor sentiment, remains underexplored. Although Li et al. (2023) show that investor sentiment shapes equity issuance and leverage, little is known about whether short-term-oriented managers strategically attempt to lower debt costs during bullish periods. This leads us to the following research question: does investor sentiment amplify the effect of short-termism on the cost of debt, thereby influencing capital structure decisions?

To answer this research question, we examine how the investment horizon of investors, proxied by stock turnover, interacts with firm-level investor sentiment to influence the cost of debt, particularly in high-sentiment market conditions. We focus on the Brazilian capital market, the largest capital market in Latin America. Brazil presents an ideal environment due to persistent short-term pressures stemming from weak governance, political interference, low-quality accounting, and high interest rates (Eng et al., 2019; Martins et al., 2021). Despite adverse macroeconomic conditions, the number of individual investors in Brazil has increased significantly (B3 S.A. – Brasil, Bolsa e Balcão [B3], 2023), highlighting the persistent relevance of sentiment-driven investment behavior.

Accordingly, we aim to empirically test whether investor sentiment intensifies the effect of turnover on the cost of debt and to investigate whether firms with long-term investor orientation are more successful in reducing debt costs. By exploring the interplay between short-termism, investor sentiment, and financing decisions, our study contributes to the literature on behavioral corporate finance, revealing how psychological and temporal factors jointly influence firms' access to cheaper capital.

## 2. SHORT-TERMISM AND THE INFLUENCE OF SENTIMENT ON DEBT COST RATE

The capital structure of a firm plays a critical role in determining its market value, especially when debt issuance influences future investment decisions (Shyam-Sunder & Myers, 1999). Market pressures on managers' investment behavior can significantly shape financing decisions, with evidence suggesting that chief financial officers are incentivized to issue debt when interest rates are low and stocks are overvalued during optimistic times (Graham, 2022). In such contexts, financing choices may become decoupled from underlying investment needs, reflecting instead strategic responses to prevailing market sentiment (Ladika & Sautner, 2019; Myers, 1984; Myers & Majluf, 1984).

Firms that are more exposed to market fluctuations, particularly those with high stock turnover and short-horizon investors, are likely to be more sensitive to sentiment-driven incentives (Mrad et al., 2024). Investor optimism can reduce perceived credit risk, making it easier and cheaper for such firms to access external financing (Muhammad, 2022). Managers aware of this dynamic may engage in strategic market timing, adjusting their capital structure to exploit favorable sentiment conditions (Baker & Wurgler, 2002; Graham, 2022). Despite growing interest in the behavioral dimensions of corporate finance, the literature has largely overlooked psychological biases (Rana et al., 2024). Thus, we argue that investor sentiment acts as a moderator, reinforcing the effect of short-termism on the cost of debt.

Additionally, firms that are harder to value pose greater challenges to creditors, who may demand a premium to compensate for risk (Ferrer et al., 2019). These firms are also more vulnerable to sentiment-driven mispricing (Baker & Wurgler, 2006), reinforcing the idea that investor sentiment interacts with both firm-specific risk and managerial behavior. Considering the above, we formulate our first hypothesis:

$H_1$: investor sentiment moderates the relationship between short-termism and the cost of debt, such that the effect of sentiment is stronger in firms with a short-term orientation.

To further explore the implications of short-termism for corporate financing decisions, we also consider the pecking order Theory, which posits that firms prefer internal financing, resorting to debt only when internal funds are insufficient, and using equity issuance as a last resort (Shyam-Sunder & Myers, 1999). Unlike the trade-off theory, which emphasizes the balance between the tax benefits of debt and the expected costs of financial distress (Kraus & Litzenberger, 1973; Modigliani & Miller, 1963), or the market timing theory, which highlights managers' incentives to exploit temporary mispricing by issuing equity when valuations are favorable (Baker & Wurgler, 2002), the pecking order theory provides a more relevant focus for our analysis. Based on information asymmetric arguments (Myers & Majluf, 1984), the pecking order theory captures how financing behavior reflects managerial horizon and preferences for debt versus equity, according to systematic variation in financing choices depending on the degree of managerial responsiveness to market conditions (Shyam-Sunder & Myers, 1999).

While interest rates themselves do not determine investment decisions, they may indicate favorable windows for debt issuance (Sharpe & Suarez, 2021), particularly under bullish sentiment when managers perceive lower borrowing costs. Short-horizon investors and managers seeking quick returns may deviate from the pecking order rationale, opting instead for equity issuance in optimistic periods, even when debt could be a more efficient alternative. Conversely, long-term-oriented firms, often less reactive to transient market conditions, are more likely to follow the pecking order and seek to optimize the cost of debt before considering equity.

Thus, the pecking order theory provides the most relevant view for distinguishing between short- and long-term financing orientations, as it directly predicts systematic differences in debt versus equity choice based on firms' investment horizons. We, therefore, propose the following hypothesis:

$H_2$: firms with long-term investment horizons exhibit financing behavior more consistent with the pecking order hierarchy than firms with short-term horizons.

Together, these hypotheses aim to elucidate how behavioral and structural factors interact to shape corporate financing behavior, particularly in emerging markets characterized by elevated investor sentiment and fluctuating credit conditions.

## 3. DATA AND METHOD

### 3.1 Sample

The sample consists of 136 publicly traded Brazilian companies listed on B3, totaling 1,527 observations (Table 1). These firms account for more than 50% of the total market capitalization of non-financial companies in the Brazilian capital market. The analysis is based on annual data covering the period from 2010 to 2023. In line with standard practice, we excluded financial institutions due to their distinct financing patterns and asset structures, which set them apart from non-financial firms. Additionally, we removed observations with negative equity, missing data, or fewer than four annual records, in order to ensure the feasibility of estimations based on the sentiment proxy.

**Table 1**
*Sample description*

| | Observations | | Companies | |
|---|---|---|---|---|
| | **Exclusion** | **Total** | **Exclusion** | **Total** |
| Initial sample | - | 3,885 | - | 451 |
| Exclusion of financial companies | -373 | 3,512 | -41 | 410 |
| Companies with negative equity | -449 | 3,063 | -26 | 384 |
| Companies with missing data | -1,480 | 1,583 | -216 | 168 |
| Companies with less than 4 years of observations | -56 | 1,527 | -32 | 136 |

**Source:** *Elaborated by the authors.*

The following section presents the variables used in the study, including the construction of the investor sentiment measure.

### 3.2 Variables and Econometric Model

We estimated the dependent variable (cost of debt) using hand-collected data from the explanatory notes to the firms' financial statements, specifically the loans and financing section. The data collection involved listing all debt instruments with disclosed interest-related costs (interest rates and indexers) and computing a weighted average rate using the outstanding debt balances as weights. Firms that did not disclose loan contracts or effective interest rates were excluded from the sample.

This approach improves upon the commonly used method of calculating the ratio of interest expense to average debt, which tends to overestimate the cost of debt since financial expenses reported in the annual income statement often include items beyond interest payments. The rate weighting followed Eq. 1.

$$Kd = \frac{\sum_{i=1}^{n}(P_i * T_i)}{\sum_{i=1}^{n} P_i} \quad (1)$$

where $P$ is the percentage share of each debt contract $i$ in the total for the respective year and $T$ is the value of the rate corresponding to debt contract $i$, evidenced in an explanatory note.

We measured investor sentiment (sent) following the methodology proposed by Seok et al. (2019), which constructs a principal component based on firm-level trading characteristics. Specifically, we used the following variables: relative strength index (RSI), psychological line index (PLI), adjusted turnover index (ATI), and the logarithm of traded volume (LTV). To control for market-wide effects, we regressed each variable on the market portfolio and used the residuals from these regressions in the principal component analysis (PCA). These orthogonalized variables served as inputs for constructing the investor sentiment index.

To isolate firm-level effects from broader market movements, we first regressed each trading variable (dependent variable) against the respective market portfolio (Ibovespa). The residuals from these regressions represent the portion of each trading characteristic orthogonal to market-wide effects, thereby capturing idiosyncratic investor sentiment at the firm level.

We used these orthogonalized variables as inputs for PCA, which reduces the four sentiment proxy dimensions into a single composite measure. This procedure enables us to extract the common latent factor underlying individual sentiment indicators, while minimizing noise from market-wide influences and ensuring that the resulting sentiment index reflects firm-specific investor behavior.

The RSI measures the relative strength of upward and downward pressure on the asset's price. The RSI, calculated according to Eq. 2, indicates the moment of asset valuation or discount and whether it is close to a reversal. It varies from 0 to 100. If a stock presents an RSI above 70, it is considered overbought or oversold when it is below 30.

$$RSI_{i,t} = \left[\frac{SI_{i,t}}{1+SI_{i,t}}\right] \times 100, where: SI_{it} = \frac{\sum_{k=0}^{13} \max(P_{i,t-k} - P_{i,t-k-1}, 0)}{\sum_{k=0}^{13} \max(P_{i,t-k-1} - P_{i,t-k}, 0)} \quad (2)$$

where $P_{it}$ is the price of stock *i* in period *t*.

The PLI is an indicator of market conditions and momentum. It counts the number of ascending movements over a predetermined period and captures short-term price reversals and investors' psychological stability. See its formula in Eq. 3.

$$PLI_{i,t} = \left[\sum_{k=0}^{11} \left\{\frac{max\left(P_{i,t-k} - P_{i,t-k-1,} 0\right)}{P_{i,t-k} - P_{i,t-k-1,}}\right\} \div 12\right] \times 100 \quad (3)$$

where $P_{it}$ is the price of stock *i* in period *t*.

We used ATI and LTV as liquidity variables (proxies for sentiment). In times of optimism, we expect to see more irrational investors participating in the market and more trading on the stock exchange. The LTV is calculated as the natural logarithm of the stock's traded volume. The ATI is given by Eq. 4.

$$ATI_{i,t} = \frac{V_{it}}{market\ capitalization_{it}} \times \frac{R_{it}}{|R_{it}|} \quad (4)$$

where: $P_{it}$ is the price of stock *i* in period *t*, $V_{it}$ is the traded volume of stock *i* in period *t*, and $R_{it}$ is the return of stock *i* in period *t*, given by $R_{i,t} = \left(P_{i,t}/P_{i,t-1}\right) - 1$.

Table 2 presents the independent variable turnover (a proxy for the investment horizon, following Polk and Sapienza [2009]) and the control variables used for the estimations.

**Table 2**

*Research variables*

| **Variables** | **Code** | **Definition and calculation** |
|---|---|---|
| Investment horizon | TurnHor | Investment horizon (turnover) is measured by the ratio between the number of bonds traded and the number of outstanding stocks in the company (Alzahrani & Rao, 2014). |
| Capex | Capex | Variation of fixed assets, scaled by the previous year's total assets (Alzahrani & Rao, 2014; Amin et al., 2023). |
| Leverage | Leverage | The level of loans and financing is calculated by the ratio between the debt and total assets (Tanin et al., 2024). |
| Return on assets | ROA | Profitability index, calculated by the ratio between the company's operating profit and total assets (Tanin et al., 2024). |
| Growth | Growth | Annual variation of net revenue, weighted by the previous year's total assets (Amin et al., 2023). |

| | | |
|---|---|---|
| Operating cash flow | OCF | Cash generated from the company's operating activities, scaled by the previous year's total assets (Amin et al., 2023). |
| Size | Size | Natural logarithm of total assets (Amin et al., 2023; Li et al., 2023; Tanin et al., 2024). |

**Source:** *Elaborated by the authors.*

We constructed control variables based on established literature to ensure consistency and comparability. Capital expenditures (Capex) and leverage were calculated following the methodologies of Alzahrani and Rao (2014) and Amin et al. (2023). Firm size was measured as the natural logarithm of total assets, consistent with Amin et al. (2023), Li et al. (2023), and Tanin et al. (2024). For profitability, we used return on assets (ROA), as adopted by Tanin et al. (2024). Finally, we defined the variables growth and operating cash flow (OCF) following the approach of Amin et al. (2023).

We used stock turnover as a proxy for investment horizons, following Alzahrani and Rao (2014). Investors with high portfolio turnover tend to focus on short-term objectives, prompting firms to adopt more reactive strategies aimed at delivering immediate returns (Giannetti & Yu, 2021). Rösch et al. (2022), for example, employ quarterly turnover based on the assumption that more liquid stocks attract investors with shorter investment horizons. Following this theoretical perspective, we classified firms in the sample according to the median turnover ratio in order to identify those more exposed to short-term pressure. Firms with turnover below the median are categorized as long-horizon firms (LHF), while those with turnover above the median are classified as short-horizon firms (SHF).

The research hypothesis $H_1$ states that short-termism impacts the relationship between debt cost and investor sentiment. We further argue that high-turnover firms are more likely to engage in short-termism. To analyze it, we estimated Eq. 5.

$$Kd_{i,t} = \alpha_{i,t} + \gamma_1 Kd_{i,t-1} + \beta_1 TurnHor_{i,t-1} + \beta_2 Sent_{i,t-1} + \beta_3 TurnHor * Sent_{i,t-1} + \varepsilon_{i,t-1} \quad (5)$$

To incorporate new factors in the Kd explanation, we added control variables in Eq. 6 as follows:

$$Kd_{i,t} = \alpha_{i,t} + \gamma_1 Kd_{i,t-1} + \beta_1 TurnHor_{i,t-1} + \beta_2 Sent_{i,t-1} + \beta_3 TurnHor * Sent_{i,t-1} + \beta_4 Capex_{i,t-1} + \beta_5 Leverage_{i,t-1} + \beta_6 ROA_{i,t-1} + \beta_7 Growth_{i,t-1} + \beta_8 OCF_{i,t-1} + \beta_9 Size_{i,t-1} + \varepsilon_{i,t-1} \quad (6)$$

The analysis of research hypothesis $H_1$ focuses on the coefficient $\beta_3$, predicting a negative sign. In line with $H_1$, in optimism, a negative $\beta_3$ implies lower capital costs for firms with short investment horizons. Further, we also expect the coefficients $\beta_1$ and $\beta_2$ to be negative. The negative sign of $\beta_1$ indicates that the higher the turnover (TurnHor), the lower the cost of debt (Kd). A higher "turnover" value implies higher turnover in trading the companies' stocks, denoting short-termism. When $\beta_2$ has a negative sign, it implies that the cost of debt decreases when the firm is optimistic (a higher value of the sentiment index).

Additionally, we tested research hypothesis $H_1$ by examining the financing decision (cost of debt) as a function of sentiment (Kd_sentAdj). Specifically, we regressed the cost of debt on investor sentiment and used fitted values from this regression as the dependent variable, thereby isolating the portion of the cost of debt explained by sentiment. Therefore, we purged the regression error. Thus, we did not consider investor sentiment and its interaction with the investment horizon for this estimation, according to Eq. 7.

$$Kd\_sentAdj_{i,t} = \alpha_{i,t} + \gamma_1 Kd\_sentdj_{i,t-1} + \beta_1 TurnHor_{i,t-1} + \beta_2 Capex_{i,t-1} + \beta_3 Leverage_{i,t-1} + \beta_4 ROA_{i,t-1} + \beta_5 Growth_{i,t-1} + \beta_6 OCF_{i,t-1} + \beta_7 Size_{i,t-1} + \varepsilon_{i,t-1} \quad (7)$$

We examined the relationship between turnover and the sentiment-adjusted cost of debt (Kd_sentAdj) based on Eq. 7, focusing solely on the turnover coefficient (without control variables). We expect the $\beta_1$ coefficient to be negative, indicating that SHF benefit from lower debt costs.

To test research hypothesis $H_2$, that LHF adhere more closely to the pecking order hierarchy than SHF, we applied the strict pecking order model. This model assumes that all components of the financing deficit are exogenous, there are no restrictions to issue debt, and there is no incentive to issue equity (Shyam-Sunder & Myers, 1999). We assess this hypothesis using Eq. 8, where $\Delta D_t$ represents the amount of debt issued (or reduced, when $CDF_t$ is negative) by firm *i* in period *t*; $CFD_{it}$ denotes the cash flow deficit and $\beta_{PO}$ is the coefficient indicating adherence to the pecking order theory.

$$\Delta D_{i,t} = \alpha_{i,t} + \beta_{PO} CFD_{i,t} + \varepsilon_{i,t} \quad (8)$$

In the strict pecking order model, the coefficient α is expected to be 0, and the pecking order coefficient $\beta_{PO}$ should be equal to 1, indicating that firms rely exclusively on debt to finance CFD. This expectation holds because Eq. 8 does not account for all financing possibilities – $CFD_t$ excludes stock issuance and share buybacks. Thus, when $\beta_{PO} = 1$, the model aligns with the theoretical prediction of the pecking order hypothesis.

To test hypothesis $H_2$, we focus on the estimated value of $\beta_{PO}$. A coefficient close to 0 suggests a greater propensity to issue equity. We expect short-term firms to exhibit lower $\beta_{PO}$ values compared to long-term firms, reflecting weaker adherence to the pecking order hierarchy.

In our analysis, we controlled for investment horizon and investor sentiment effects. Additionally, we examined how investor sentiment influences debt changes by regressing the variation in debt levels on the sentiment index.

We measured CFD through the model proposed by Frank and Goyal (2003), according to Eq. 9:

$$CFD_{i,t} = DIV_{i,t} + I_{i,t} + \Delta W_{i,t} - C_{i,t} \quad (9)$$

where DIV is the cash dividends, $I_t$ is the net investment, ΔW is the change in working capital, C is the cash flow after interest and taxes, *i* represents the firm, and *t* represents the year.

To address potential endogeneity, we first applied the Wu-Hausman and Wooldridge (2010) tests for dynamic panel data. Given the evidence of bias, we estimated the model using the system generalized method of moments (GMM) estimator (Blundell & Bond, 1998), which relies on internal instruments and accounts for unobserved heterogeneity. To improve inference robustness, we applied Windmeijer's (2005) finite-sample correction to the standard errors. Finally, we evaluated instrument validity through the Hansen test and the Arellano-Bond second-order autocorrelation test AR(2), ensuring the consistency of our estimates.

## 4. RESULTS

### 4.1 Descriptive Statistics

According to Table 3, the average cost of debt ($Kd_{mean}$) for the firms in the sample is 7.8% ($Kd_{mean}$ = 0.078), with a maximum observed value of 52.6% ($Kd_{max}$ = 0.526). The standard deviation is 4.1% ($Kd_{sd}$ = 0.041), indicating relatively low dispersion in the cost of debt across firms. Regarding the first independent variable – turnover, used as a proxy for investment horizon – the data show that, on average, firms trade an amount equivalent to 2.55 times their outstanding stocks ($Turnover_{mean}$ = 2.553). Some firms reached turnover levels as high as 47 times their outstanding stocks, while the median turnover is 66% ($Turnover_{median}$ = 0.660), reflecting a skewed distribution.

**Table 3**

*Descriptive statistics of the econometric models' variables (784 observations)*

| Variables | Mean | Standard deviation | Minimum | Q1 | Median | Q3 | Maximum |
|---|---|---|---|---|---|---|---|
| Kd | 0.078 | 0.041 | -0.016 | 0.054 | 0.072 | 0.095 | 0.526 |
| TurnHor | 1.333 | 2.553 | 0.000 | 0.091 | 0.660 | 1.639 | 47.304 |
| Sent | 0.007 | 1.409 | -3.869 | -0.952 | -0.081 | 1.060 | 3.942 |
| Capex | 0.017 | 0.065 | -0.759 | 0.004 | 0.012 | 0.023 | 1.265 |
| Leverage | 0.418 | 0.177 | 0.013 | 0.297 | 0.429 | 0.543 | 0.911 |
| ROA | 0.023 | 0.053 | -0.229 | 0.007 | 0.020 | 0.037 | 1.459 |
| Growth | 0.023 | 0.078 | -0.386 | -0.007 | 0.015 | 0.042 | 1.290 |
| OCF | 0.022 | 0.066 | -1.603 | 0.004 | 0.023 | 0.045 | 0.532 |
| Size | 15.408 | 1.785 | 9.625 | 14.262 | 15.324 | 16.493 | 20.773 |

**Note:** *All variables are defined in Table 2.*
**Source:** *Elaborated by the authors.*

Firm-level investor sentiment reveals symmetric extremes of optimism and pessimism, with the highest positive value ($Sent_{max}$ = 3.942) closely mirroring the most negative value ($Sent_{min}$ = -3.869) in absolute terms. The distribution indicates a negative median, suggesting that most firms experienced bearish sentiment. However, the positive mean reflects right-skewness. This discrepancy between the mean and median suggests that although pessimistic periods were more frequent, the less frequent optimistic episodes were intense enough to raise the overall average sentiment.

Among the control variables, the data show that some firms invested up to 26.5% more than the value of their total assets in the previous year ($Capex_{max}$ = 1.265), while the average investment level was only 1.7% ($Capex_{mean}$ = 0.017). Leverage levels ranged from a minimum of 1.3% ($Leverage_{min}$ = 0.018) to a maximum of 91.1% of total assets ($Leverage_{max}$ = 0.911), indicating substantial variation in capital structure across firms. In terms of profitability, at least 25% of the firms reported a positive ROA of 0.7% or higher ($ROA_{Q1}$ = 0.007), although some firms experienced negative profitability as low as -22.9% ($ROA_{min}$ = -0.229).

The average revenue growth among the firms in the sample was 2.3% ($Growth_{mean}$ = 0.023). However, while some firms more than doubled their revenue ($Growth_{max}$ = 1.290), others experienced significant declines ($Growth_{min}$ = -0.386). For 75% of the firms, revenue growth reached up to 4.2% ($Growth_{Q3}$ = 0.042), indicating a skewed distribution with a concentration of modest growth rates.

OCF reached a maximum of 53.2% of total assets from the previous year ($OCF_{max}$ = 0.532), although its standard deviation ($OCF_{sd}$ = 0.066) was nearly twice the mean, reflecting substantial variability across firms. Firm size also varied considerably within the sample, ranging from large firms with total assets exceeding BRL 1 trillion (log-transformed $Size_{max}$ = 20.773) to smaller firms with assets around BRL 15 million (log-transformed $Size_{min}$ = 9.625).

We performed Shapiro-Wilk tests to assess the normality of the variables used in the correlation analyses. The results indicated significant deviations from normality across all variables. Consequently, we employed Spearman's rank correlation, a non-parametric method that does not require the assumption of normality and is more appropriate under these conditions. The results indicate a negative and statistically significant correlation between turnover and the cost of debt ($\rho = -0.21$, $p < 0.01$), and a weak, non-significant correlation between investor sentiment and the cost of debt ($\rho = 0.04$, $p > 0.10$). While these correlations do not imply causality, the negative association between turnover and the cost of debt is directionally consistent with our research hypothesis.

Regarding multicollinearity, we did not observe any strong correlations among the explanatory variables that would raise concerns. Nonetheless, a moderate positive correlation between turnover and firm size ($\rho = 0.31$, $p < 0.01$) supports prior findings that larger and more liquid firms in the Brazilian capital market tend to be associated with each other (Machado & Medeiros, 2012).

Table 4 shows that the mean cost of debt decreases monotonically across turnover quintiles until the highest turnover group, after which it rises slightly, reaching a mean of 7.29% in the 5th quintile. The difference between the average cost of debt of the 1st quintile (LHF) and the 5th quintile (SHF) is 2.22%, indicating that SHFs exhibit a lower average cost of debt compared to LHFs.

**Table 4**
*Mean cost of debt by turnover quintiles*

| **Cost of debt** | **Turnover quintiles** | | | | |
|---|---|---|---|---|---|
| | **Lower** | **(2)** | **(3)** | **(4)** | **Higher** |
| Median (%) | 8.91 | 7.62 | 6.73 | 6.73 | 6.79 |
| Mean (%) | 9.51 | 8.02 | 6.95 | 7.22 | 7.29 |
| Standard deviation (%) | 4.80 | 3.70 | 2.99 | 4.19 | 4.27 |
| No. of observations | 306 | 305 | 305 | 305 | 306 |

**Source:** *Elaborated by the authors.*

The statistical significance of the median difference (Mann-Whitney test) of 2.12% between the groups (Lower-Higher) converges with the idea that debt cost is higher for long-term firms. However, considering other factors, such as investor sentiment, we advance to analyzing this relationship in the next section.

### 4.2 Research Hypothesis Analysis

This section presents the results for the full sample (All), as well as for the subgroups of SHF and LHF. To evaluate and address potential endogeneity concerns, we conducted the Wu-Hausman test and followed the procedure outlined by Wooldridge (2010). The Wu-Hausman test yielded insignificant results for the dynamic model, but significant results for the non-dynamic specification, indicating the presence of endogeneity in the latter.

Additionally, the Wooldridge test revealed that the future values of sif, G, and Tam are significantly different from 0, suggesting that these variables are not strictly exogenous. Based on a comparative assessment of pooled ordinary least squares, fixed effects, difference-GMM, and system-GMM estimators, we adopt the system-GMM approach (Blundell & Bond, 1998), which is more suitable given the dynamic structure of our model. Table 5 reports the system-GMM estimation results.

**Table 5**

*Impact of short-termism on the investor sentiment and debt cost relationship*

| | Model 1 (Eq. 5) | | | Model 2 (Eq. 6) | | |
|---|---|---|---|---|---|---|
| **Variables** | **All** | **SHF** | **LHF** | **All** | **SHF** | **LHF** |
| $Kd_{t-1}$ ($\gamma_1$) | **0.6120*** ** | **0.6380*** ** | **0.5510*** ** | **0.6760*** ** | **0.6100*** ** | **0.6060*** ** |
| | **(0.0770)** | **(0.0620)** | **(0.1230)** | **(0.0730)** | **(0.0780)** | **(0.0790)** |
| $TurnHor_{t-1}$ ($\beta_1$) | 0.0001 | **0.0004*** | **-0.0240*** ** | **0.0004*** | -0.0001 | **-0.0200** ** |
| | (0.0002) | **(0.0003)** | **(0.0070)** | **(0.0002)** | (0.0005) | **(0.0100)** |
| $Sent_{t-1}$ ($\beta_2$) | 0.0010 | 0.0002 | -0.0010 | 0.0004 | -0.0003 | 0.0010 |
| | (0.0010) | (0.0010) | (0.0030) | (0.0010) | (0.0010) | (0.0020) |
| $TurnHor_{t-1}$*$Sent_{t-1}$ ($\beta_3$) | -0.0001 | -0.0001 | 0.0020 | -0.0002 | -0.0002 | -0.0030 |
| | (0.0001) | (0.0003) | (0.0070) | (0.0002) | (0.0003) | (0.0060) |
| $Capex_{t-1}$ ($\beta_4$) | | | | **-0.0280*** | -0.0220 | **-0.0780*** ** |
| | | | | **(0.0150)** | (0.0210) | **(0.0200)** |
| $Leverage_{t-1}$ ($\beta_5$) | | | | 0.0110 | 0.0220 | 0.0110 |
| | | | | (0.0070) | (0.0160) | (0.0110) |
| $ROA_{t-1}$ ($\beta_6$) | | | | 0.0070 | 0.0300 | -0.0290 |
| | | | | (0.0260) | (0.0370) | (0.0260) |
| $Growth_{t-1}$ ($\beta_7$) | | | | 0.0120 | 0.0050 | 0.0180 |
| | | | | (0.0180) | (0.0250) | (0.0370) |
| $OCF_{t-1}$ ($\beta_8$) | | | | 0.0050 | 0.0100 | -0.0120 |
| | | | | (0.0350) | (0.0260) | (0.0240) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Size$_{t-1}$ ($\beta_9$) | | | | -0.0040 | **-0.0080*** | 0.0002 |
| | | | | (0.0020) | **(0.0040)** | (0.0030) |
| Firm fixed effects? | Yes | Yes | Yes | Yes | Yes | Yes |
| Year fixed effects? | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 1,527 | 764 | 763 | 1,527 | 764 | 763 |
| Hansen test (p-value) | 0.419 | 0.184 | 0.205 | 0.374 | 0.971 | 0.942 |
| AR1 (p-value) | 0.000 | 0.000 | 0.015 | 0.000 | 0.000 | 0.007 |
| AR2 (p-value) | 0.317 | 0.387 | 0.932 | 0.360 | 0.436 | 0.867 |

**Notes:** *All variables are defined in Table 2. Estimations are based on the system generalized method of moments estimator with Windmeijer's (2005) finite-sample correction. Bold type denotes statistically significant coefficients. Standard errors are reported in parentheses. All = results for the full sample; SHF = short-horizon firms; LHF = long-horizon firms.*
** = significant at 10%; ** = significant at 5%; *** = significant at 1%.*
**Source:** *Elaborated by the authors.*

Table 5 shows that the 1-year lagged debt cost ($Kd_{t-1}$) coefficient is positive and statistically significant across all models, indicating that past debt costs exert a persistent effect on current levels. In the LHF subsample, the turnover coefficient is negative and significant ($\beta_{2, LHF,}$ Model2: -0.0200), suggesting that firms with a more long-term investor orientation benefit from lower debt costs. In contrast, for the full sample, turnover is positively associated with the cost of debt ($\beta_{2, LHF,}$ Model2: 0.0004), though the magnitude of the effect is economically small.

Investor sentiment does not exhibit a statistically significant relationship with the cost of debt, even when interacted with turnover. Research hypothesis $H_1$ posits that investor sentiment moderates the relationship between short-termism and the cost of debt, such that the sentiment effect is amplified among SHF. Based on the estimation results, we reject hypothesis $H_1$.

Graham (2022) reports a negative relationship between investor sentiment and debt financing rates in optimistic capital markets, and Muhammad (2002) finds an inverse association between investor sentiment and discount rates. Our results, however, do not align with these findings. Instead, they are more consistent with Ferrer et al. (2019), who suggest that firms with highly subjective valuations tend to moderate the influence of analyst accuracy on debt pricing.

Our analysis suggests that firms with lower trading activity, typically associated with more subjective valuations, tend to face reduced debt costs. As shown in Table 4, firms with lower turnover exhibit higher average debt costs, indicating that LHF may be better positioned to reduce financing costs. The absence of a significant relationship between investor sentiment and the cost of debt reinforces the notion that loan pricing in the Brazilian market is primarily grounded in fundamental assessments.

Moreover, in the context of the Brazilian capital market, characterized by high interest rates, weak corporate governance, and low-quality financial reporting (Eng et al., 2019; Martins et al., 2021), our findings show that investor sentiment does not influence debt pricing, even when interacting with turnover. These results suggest that factors beyond investor sentiment drive the cost of debt, particularly economic and financial fundamentals.

In this setting, sentiment does not appear to reduce perceived credit risk. This contrasts with prior findings such as Muhammad (2022) and suggests that managerial optimism during bullish periods does not effectively translate into lower borrowing costs, in contrast to the evidence presented by Baker and Wurgler (2002) and Graham (2022).

Among the control variables, we find that the cost of debt decreases as firm size increases within the SHF subsample ($\beta_{9,}$ Model2, SHF = -0.0080) and also declines with higher capital expenditures across the full sample ($\beta_{4,}$ Model 2, All = -0.0280). Notably, the absolute value of the Capex coefficient is greater in the SHF subsample compared to the full sample, indicating that increased capital investment among SHF is associated with a more substantial reduction in borrowing costs.

This finding supports the idea that active capital expenditures, often interpreted as signals of growth and long-term potential, can significantly lower debt costs by reducing perceived risk. Overall, the results for the control variables are consistent with our expectations and align with prior evidence from the literature, such as Amin et al. (2023).

We also employed Eq. 7 to test research hypothesis $H_1$, which posits that the cost of debt is a function of sentiment (Kd_sentAdj). For this analysis, we regressed the cost of debt on investor sentiment, using only the component of the cost of debt explained by sentiment. This estimation did not include investor sentiment with an investment horizon. The results of this analysis are presented in Table 6.

**Table 6**

*Impact of short-termism in the debt cost adjusted by investor sentiment*

| | **Model 1 (Eq. 7) Without control variables** | | | **Model 2 (Eq. 7)** | | |
|---|---|---|---|---|---|---|
| **Variables** | **All** | **SHF** | **LHF** | **All** | **SHF** | **LHF** |
| $Kd_{t-1}$ ($\gamma_1$) | **0.4790*** ** | **0.5190*** ** | **-0.5080*** ** | **0.5320*** ** | **0.4970*** ** | **0.5280*** ** |
| | **(0.0740)** | **(0.0630)** | **(0.0770)** | **(0.0640)** | **(0.0810)** | **(0.0750)** |
| $TurnHor_{t-1}$ ($\beta_1$) | 0.0001 | 0.0001 | **-0.0090*** | < 0.0001 | -0.0003 | 0.0010 |
| | (0.0001) | (0.0001) | **(0.0050)** | (0.0002) | (0.0003) | (0.0190) |
| $Capex_{t-1}$ ($\beta_2$) | | | | **-0.0220*** | -0.0140 | **-0.0700*** |
| | | | | **(0.0120)** | (0.0150) | **(0.0380)** |
| $Leverage_{t-1}$ ($\beta_3$) | | | | -0.0040 | 0.0070 | 0.0030 |
| | | | | (0.0080) | (0.0120) | (0.0140) |
| $ROA_{t-1}$ ($\beta_4$) | | | | 0.0090 | 0.0150 | 0.0330 |
| | | | | (0.0230) | 0.0510 | 0.0530 |
| $Growth_{t-1}$ ($\beta_5$) | | | | -0.0200 | -0.0370 | -0.0570 |
| | | | | (0.0190) | (0.0280) | (0.0410) |
| $OCF_{t}$-1 ($\beta$6) | | | | -0.0180 | -0.0050 | -0.0320 |
| | | | | (0.0190) | (0.0510) | (0.0680) |
| $Size_{t-1}$ ($\beta_7$) | | | | 0.0010 | -0.0040 | -0.0020 |
| | | | | (0.0030) | (0.0030) | (0.0040) |
| Firm fixed effects? | Yes | Yes | Yes | Yes | Yes | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| Year fixed effects? | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 1,527 | 764 | 763 | 1527 | 764 | 763 |
| Hansen test (p-value) | 0.105 | 0.826 | 0.153 | 0.388 | 0.908 | .0.762 |
| AR1 (p-value) | 0.000 | 0.000 | 0.004 | 0.000 | 0.000 | 0.007 |
| AR2 (p-value) | 0.478 | 0.366 | 0.319 | 0.549 | 0.395 | 0.062 |

**Notes:** *All variables are defined in Table 2. Estimations are based on the system generalized method of moments estimator with Windmeijer's (2005) finite-sample correction. Bold type denotes statistically significant coefficients. Standard errors are reported in parentheses. All = results for the full sample; SHF = short-horizon firms; LHF = long-horizon firms.*
** = significant at 10%; ** = significant at 5%; *** = significant at 1%.*
**Source:** *Elaborated by the authors.*

Based on the results presented in Table 5, we reject hypothesis $H_1$. Although Model 1 indicates a negative relationship between the sentimental cost of debt and turnover ($\beta_{1,\ LHF,\ Model\ 1}$ = -0.0090), the inclusion of control variables in Model 2 does not support a consistent association. These findings suggest that firms' investment horizons do not significantly influence the sentimental component of the cost of debt. However, the capital expenditure coefficient remains consistent with prior results, showing a negative relationship with the sentimental cost of debt ($\beta_{3,}$ LHF, Model 2 = -0.0700).

While our analysis does not provide evidence that short-termism, as proxied by turnover, moderates the relationship between investor sentiment and the cost of debt, it does reveal a direct and significant effect of turnover on debt costs. Specifically, higher turnover correlates with higher debt costs in the full sample. Conversely, for LHF, stronger long-term orientations (i.e., lower short-termism) are associated with lower debt costs, underscoring a nuanced role of investment horizon in shaping the impact of trading activity on financing costs.

Our findings do not support an effect of investor sentiment on the cost of debt, contrasting with results reported by Li et al. (2023). However, consistent with Graham (2022), we find that LHF strategically reduce their debt costs by timing favorable market conditions. Although sentiment appears irrelevant to lowering debt costs, our results address concerns raised by Rösch et al. (2022) regarding short-termism and capital costs by highlighting differences in how short- and long-term oriented firms manage their financing expenses.

Overall, our evidence suggests that reductions in the cost of debt are more strongly associated with LHF and capital expenditures (Capex). These findings emphasize the primacy of fundamental factors in lenders' assessments, implying that firms with a long-term orientation optimize borrowing costs by focusing on underlying economic fundamentals and growth potential rather than relying on fluctuations in investor sentiment.

### 4.3 Analysis of Pecking Order Occurrence ($H_2$)

Our findings reveal a negative relationship between turnover and debt cost in LHF. Accordingly, we propose that firms with long-term investment horizons exhibit financing behavior more consistent with the pecking order hierarchy than firms with short-term horizons.

To analyze whether LHF look more to the pecking order hierarchy than SHF, we estimate Eq. 8 considering four scenarios: i) the original relationship between debt changes and the CFD, according to the pecking order model's traditional framework; ii) scenario *i*, including control variables associated with investment horizon and investor sentiment; iii) scenario *i* using a sample with SHF; and iv) scenario *i* using a sample with LHF. We focused on the $\beta_{PO}$ coefficient to compare the results across the scenarios. A higher $\beta_{PO}$ coefficient value in LHF compared to short-horizon ones indicates that debt issuance is more evident in these firms than in SHF. Additionally, we expect a reduction in debt changes mediated by SHF. Table 7 shows the results.

**Table 7**

*Analysis of pecking order occurrence*

| | | | | |
|---|---|---|---|---|
| | | **Panel A: debt change** | | |
| **Variables** | **All** | **All (control)** | **SHF** | **LHF** |
| $CFD_{i,t}$ ($\beta_{PO}$) | **0.3090*** ** | **0.3080*** ** | **0.3820*** ** | **0.2440** ** |
| | **(0.0820)** | **(0.0820)** | **(0.0800)** | **(0.1220)** |
| | | | | |
| $TurnHor_{i,t-1}$ ($\beta_1$) | | 0.0003 | | |
| | | (0.0010) | | |
| | | | | |
| $Sent_{i,t-1}$ ($\beta_2$) | | **0.0080** ** | | |
| | | **(0.0030)** | | |
| | | | | |
| $TurnHor_{i,t-1}$*$Sent_{i,t-1}$ ($\beta_3$) | | **-0.0020** ** | | |
| | | **(-0.0010)** | | |
| Industry fixed effects? | Yes | Yes | Yes | Yes |
| Year fixed effects? | Yes | Yes | Yes | Yes |
| Observations | 961 | 961 | 540 | 421 |
| $R^2$ | 0.143 | 0.149 | 0.213 | 0.163 |
| Adjusted $R^2$ | 0.124 | 0.128 | 0.183 | 0.121 |
| F statistic | 7.817*** | 7.121*** | 7.043*** | 3.884*** |
| | | | | |
| | | **Panel B: debt change under sentiment** | | |
| | | | | |
| $CFD_{i,t}$ ($\beta_{PO}$) | **0.1160*** ** | **0.1160*** ** | **0.0870*** ** | **0.1480*** ** |
| | **(0.0310)** | **(0.0310)** | **(0.0310)** | **(0.0530)** |
| | | | | |
| $TurnHor_{i,t-1}$ ($\beta_1$) | | 0.0010 | | |
| | | (0.0010) | | |
| Industry fixed effects? | Yes | Yes | Yes | Yes |
| Year fixed effects? | Yes | Yes | Yes | Yes |
| Observations | 931 | 931 | 466 | 465 |
| $R^2$ | 0.109 | 0.110 | 0.153 | 0.154 |
| Adjusted $R^2$ | 0.089 | 0.089 | 0.117 | 0.116 |
| F statistic | 5.561*** | 5.332*** | 4.235*** | 4.053*** |

**Notes:** *All variables are defined in Table 2. Bold type denotes statistically significant coefficients. Standard errors are reported in parentheses. All = results for the full sample; SHF = short-horizon firms; LHF = long-horizon firms.*

** = significant at 10%; ** = significant at 5%; *** = significant at 1%.*

**Source:** *Elaborated by the authors.*

Table 7 (Panel A) presents results showing that, in all models, the $\beta_{PO}$ coefficient is statistically different from 0 and close to 0.3. The lowest $\beta_{PO}$ value is 0.244 for LHF, and the highest is 0.382 for SHF. This indicates that CFDs have a smaller influence on debt changes among LHFs compared to SHFs, leading us to reject hypothesis $H_2$.

However, Table 7 also reveals that turnover is not significantly related to debt changes, contradicting our initial expectation that short-termism would be evident within the pecking order framework. Nevertheless, the results show that investor sentiment positively affects debt changes, although this effect is attenuated for firms with higher turnover (i.e., SHF). Specifically, during bullish market periods, higher turnover reduces the impact of CFDs on debt changes, effectively decreasing the propensity of firms to increase debt under optimistic market conditions.

When analyzing the sentimental component of the debt changes (Table 7 – Panel B), we observe that LHF exhibit a higher $\beta_{PO}$ compared to SHF. Accordingly, we did not reject hypothesis $H_2$. This finding indicates that deviations from the pecking order hierarchy are more pronounced among SHF when debt changes are influenced by investor sentiment. Consequently, LHF appear more likely to issue debt regardless of investor sentiment fluctuations.

Our findings corroborate the observation by Sharpe and Suarez (2021) that managers may opportunistically issue debt or stocks to capitalize on bullish market conditions. Furthermore, consistent with Muhammad (2022), we identify a negative relationship between investor sentiment and changes in debt levels, reinforcing this pattern.

Aligned with Hackbarth et al. (2022), our results suggest that the preference for debt financing among LHF is motivated by their aim to reduce financing costs. As demonstrated in our earlier findings (Table 5), LHF tend to secure lower borrowing costs. In contrast, a focus on short-term strategies appears associated with higher long-term borrowing costs.

## 4.2 Robustness Tests

This section presents robustness tests to evaluate the consistency of the research hypothesis $H_1$ results, given the use of another firm-level investor sentiment variable and an alternative *proxy* for the investment horizon.

To ensure the robustness of our findings and deepen the understanding of the underlying determinants, we employed alternative measures for the key variables. Investment horizon was assessed not only through stock turnover, which reflects investor behavior, but also through managerial incentives, specifically stock-based compensation. Likewise, investor sentiment was measured using both real-time trading characteristics and overnight returns, the latter reflecting sentiment accumulated outside regular trading hours. This multifaceted approach enables us to test whether our results hold across distinct theoretical and empirical constructs, thereby enhancing the validity and generalizability of our conclusions.

Table 8 shows the results of the outcome analysis considering an alternative measure for investor sentiment (Aboody et al., 2018; Weißofner & Wessels, 2020), which regards the stock return during the trading suspension period (overnight), comparing the opening price with the closing price of the previous day.

**Table 8**

*Sensitivity of the results of hypothesis $H_1$ (alternative proxy for firm-level sentiment)*

| Variables | Model 1 (Eq. 5) | | | Model 2 (Eq. 6)$^{\tau}$ | | |
|---|---|---|---|---|---|---|
| | **All** | **LHF** | **SHF** | **All** | **LHF** | **SHF** |
| $Kd_{t-1}$ ($\gamma_1$) | **0.6100*** ** | **0.6050*** ** | **0.5120*** ** | **0.6800*** ** | **0.604*** ** | **0.4780*** ** |
| $TurnHor_{t-1}$ ($\beta_1$) | 0.0001 | 0.0004 | **-0.0320*** ** | 0.0002 | 0.0002 | **-0.0280*** ** |
| $Sent_{t-1}$ ($\beta_2$) | 0.0004 | 0.0010 | 0.0020 | 0.0004 | 0.0010 | 0.0020 |
| $TurnHor_{t-1}$*$Sent_{t-1}$ ($\beta_3$) | 0.0001 | 0.0002 | -0.0002 | 0.0001 | 0.0001 | -0.0005 |

**Notes:** *All variables are defined in Table 2. Bold type denotes statistically significant coefficients. Estimations are based on the system generalized method of moments estimator with Windmeijer's (2005) correction model.*

*All = results for the full sample; SHF = short-horizon firms; LHF = long-horizon firms.*

$^{\tau}$ *We omitted the control variables used in the estimations.*

** = significant at 10%; ** = significant at 5%; *** = significant at 1%.*

**Source:** *Elaborated by the authors.*

Table 8 reinforces the rejection of research hypothesis $H_1$, as the interaction between investment horizon and investor sentiment shows insignificant coefficients consistent with prior findings. For LHF, the results also remain in line with previous analyses, showing a lower cost of debt ($\beta_{1,\ Model\ 2,\ LHF}$ = -0.0280). Overall, these findings demonstrate the robustness of our conclusions, as the results persist even when we use an alternative proxy to measure firm-level sentiment.

The robustness of the alternative proxy for investment horizon is supported by the perspective that stock compensation can influence the decision to invest in long-term dividend-paying stocks (Geiler & Renneboog, 2016; Muniz et al., 2022; Varas, 2018). Companies that pay their board of directors in stock are assumed to have a short investment horizon. Thus, we segregated the sample into short- and long-term based on the perspective of owning (short-term) and not owning (long-term) stock options. Turnover continued as the dependent variable relating to the investment horizon.

The robustness of our results was not supported when we segmented the sample by stock option payment, as presented in Table 9. Although this segmentation was expected to lead to a reduction in debt cost, it did not provide sufficient evidence to reject $H_1$. The findings for the LHF subsample, which were consistent in prior analyses, did not hold under this approach, suggesting that changes in the proxy for investment horizon may impact the robustness of our results.

**Table 9**

*Sensitivity of the results of hypothesis $H_1$ (alternative proxy for investment horizon)*

| Variables | Model 1 (Eq. 5) | | | Model 2 (Eq. 6)[τ] | | |
|---|---|---|---|---|---|---|
| | **All** | **SHF (With S.O.)** | **LHF (Without S.O.)** | **All** | **SHF (With S.O.)** | **LHF (Without S.O.)** |
| $Kd_{t-1}$ ($\gamma_1$) | **0.6120*** ** | **0.5960*** ** | **0.5960*** ** | **0.6760*** ** | **0.6400*** ** | **0.6390*** ** |
| $TurnHor_{t-1}$ ($\beta_1$) | 0.0001 | 0.0003 | 0.0003 | **0.0004*** | 0.0003 | 0.0001 |
| $Sent_{t-1}$ ($\beta_2$) | 0.0010 | 0.0010 | 0.0010 | 0.0004 | 0.0010 | 0.0010 |
| $TurnHor_{t-1}$*$Sent_{t-1}$ ($\beta_3$) | -0.0001 | -0.0002 | -0.0002 | -0.0002 | -0.0002 | -0.0002 |

**Notes:** *All variables are defined in Table 2. Bold type denotes statistically significant coefficients. Estimations are based on the system generalized method of moments estimator with Windmeijer's (2005) correction model.*

*All = results for the full sample; SHF = short-horizon firms; LHF = long-horizon firms; with S.O. = firms that paid stock options; without S.O. = firms that did not pay stock options.*

[τ] *We omitted the control variables used in the estimations.*

** = significant at 10%; ** = significant at 5%; *** = significant at 1%.*

**Source:** *Elaborated by the authors.*

As a robustness analysis, we conducted an additional test by considering the percentage of debt with the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social [BNDES]) in our model (Eq. 6). BNDES is a development bank structured as a federal public company associated with the Ministry of the Economy of Brazil to provide long-term financing for projects contributing to the country's development. Including this control variable did not alter our findings, suggesting robustness in our results considering the BNDES debt rate.

## 5. CONCLUSIONS

This study examines the relationship between investor sentiment and short-termism, with a particular focus on how sentiment affects corporate financing decisions. We use stock turnover as a proxy for a firm's investment horizon, positing that SHF may influence managerial decisions, especially during optimistic periods, toward strategies that exploit favorable market conditions. In addition, we analyze a firm's behavior in the context of the pecking order theory, evaluating how investment horizon and investor sentiment affect capital structure decisions.

Our findings, based on data from the Brazilian capital market, indicate that lenders appear indifferent to investor sentiment, as borrowing costs are not reduced during periods of market optimism. Instead, long investment horizons and higher capital expenditures are consistently associated with lower debt costs, emphasizing the importance of economic fundamentals over market sentiment in loan pricing decisions. LHF seem better positioned to communicate growth potential, which not only helps them manage debt costs more effectively but may also enhance their market valuation.

In contrast, in bullish market conditions, the interaction between investment horizon and investor sentiment does not reduce debt costs for SHF. Only firms with longer investment horizons benefit from lower debt costs by prioritizing fundamental factors. Investor sentiment, on its own, does not significantly affect the cost of debt.

With respect to the pecking order theory, our results suggest that CFDs explain only a limited portion of debt issuance, reinforcing the idea that firms are reluctant to issue debt even when internal funds are insufficient to cover investment needs. When we isolate the fundamental component of debt changes, we find that firms remain conservative in their use of external financing.

However, consistent with our broader argument, SHF tend to issue slightly fewer shares than LHF when focusing on fundamentals. In contrast, when considering the sentiment-driven component, SHF are more likely to issue equity. Moreover, investor sentiment is associated with increased debt issuance overall, but its interaction with turnover leads to a reduction in debt issuance. These findings suggest that SHF do not consistently issue more equity than their long-term counterparts. While turnover alone does not significantly affect debt issuance, its interaction with sentiment plays a moderating role in shaping firms' financing behavior.

Our results also show that firms with lower trading activity, typically aligned with long-term investor orientation, face lower debt financing costs than short-term-oriented firms. This suggests that SHF may inflate expectations of future cash flows to boost valuations but do not enjoy corresponding reductions in borrowing costs. In contrast, LHF demonstrate financial discipline and cost efficiency, with growth expectations signaled through capital expenditures, an element shown to reduce financing costs in our results. These findings underscore the importance of governance practices and regulatory frameworks that discourage short-term performance signaling and instead foster long-term value creation.

Overall, our findings emphasize that prioritizing long-term fundamentals and strategic capital investment leads to lower debt costs and improved market outcomes, while short-termism and market sentiment offer limited benefits. By demonstrating that fundamentals drive credit costs rather than investor sentiment, we suggest that managers focus on long-term capital allocation, articulate leverage targets, and avoid relying on bullish equity markets. Board members should align incentives with long-term metrics and strengthen oversight of capital expenditure decisions.

Moreover, investor relations should enhance disclosures on return on invested capital relative to weighted average cost of capital, Capex plans, and deleveraging strategies. Equity investors should assess horizon discipline and treat sentiment primarily as a timing tool, while credit investors should prioritize interest coverage, deleveraging credibility, and governance. By refining qualitative assessments, rating agencies should consider the stability of the investor base and the ability to execute long-term plans effectively. Finally, policymakers should reinforce frameworks that promote long-term value creation to improve investment efficiency.

Despite its contributions, this study has certain limitations. Measuring the cost of debt precisely is challenging due to the heterogeneity of debt instruments, including bank loans, bonds, commercial paper, and leases, and the difficulty of obtaining comparable data given variations in contract terms, market liquidity, and credit risk. Additionally, our analysis considers gross financing costs, excluding tax effects such as the interest tax shield. As such, the estimates may overstate the economic burden of debt and influence assessments of optimal capital structure and investment decisions.

Future research should explore the interplay between market liquidity, investment horizons, and realized investment outcomes to offer deeper insights into the strategic, financial, and policy implications of corporate short-termism.

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methodology: equal;
software: equal;
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validation: equal;
visualization: equal;
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## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

## DATA AVAILABILITY STATEMENT

Datasets related to this article will be available upon request to the corresponding author.

## GENERATIVE AI DISCLOSURE

The authors declare that no generative artificial intelligence was used in any stage of the production of this manuscript (including research, writing, data analysis, formula generation, or the creation of graphic elements).

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