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Moderating effect of financial slack on the relationship between conservative leverage and economic performance of Brazilian companies

Efecto moderador de la holgura financiera sobre la relación entre el apalancamiento conservador y el desempeño económico de las empresas brasileñas

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Abstract

The study aims to analyze the moderating effect of financial slack on the relationship between conservative leverage and the economic performance of Brazilian companies. The sample consisted of 160 publicly traded companies and 871 privately held companies. An 8-year period (2012-2019) was analyzed, totaling 5.889 observations. The data was collected from the Refinitiv Eikon® database. For data analysis, descriptive statistics and multiple linear regression were employed using the STATA® software. It was found that for companies in general, having zero or almost zero leverage reduces economic performance. Specifically analyzing publicly traded and privately held companies, having almost zero leverage increases and decreases performance, respectively. Regarding financial slack, the results indicate that regardless of whether the company is publicly traded or privately held, financial slack increases performance, specifically return on assets. In terms of moderation, a negative effect of financial slack on the relationship between conservative leverage and performance was identified.

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Resumen

El estudio tiene como objetivo analizar el efecto moderador de la holgura financiera sobre la relación entre el apalancamiento conservador y el desempeño económico de las empresas brasileñas. La muestra estuvo compuesta por 160 empresas que cotizan en bolsa y 871 empresas privadas. Se analizó un período de 8 años (2012-2019), totalizando 5.889 observaciones. Los datos se recopilaron de la base de datos de Refinitiv Eikon®. Para el análisis de los datos se utilizó estadística descriptiva y regresión lineal múltiple mediante el software STATA®. Se encontró que para las empresas en general, tener un apalancamiento nulo o casi nulo reduce el desempeño económico. Analizando específicamente las empresas que cotizan en bolsa y las privadas, tener un apalancamiento casi nulo aumenta y disminuye el rendimiento, respectivamente. En cuanto a la holgura financiera, los resultados indican que, independientemente de si la empresa cotiza en bolsa o es privada, la holgura financiera aumenta el rendimiento, específicamente el rendimiento de los activos. En términos de moderación, se identificó un efecto negativo de la holgura financiera en la relación entre el apalancamiento conservador y el desempeño.

Código JEL: G32
Palabras clave: holgura financiera; apalancamiento conservador; desempeño económico

Introduction

Performance is one of the main themes in financial literature (Jouida & Hellara, 2018) as it is related to one of the fundamental objectives of companies, which is to maximize value/profit (Campos & Nakamura, 2013). In this sense, performance is essential for a range of stakeholders, such as shareholders and creditors (Mardones & Cuneo, 2019). Furthermore, performance is one of the primary means to evaluate the success or failure of an organization's strategies (Brown & Laverick, 1994; Guo et al., 2020), considered as a mechanism for control and resource allocation (Mardones & Cuneo, 2019).

Performance is also related to a company's ability to obtain and manage resources in order to achieve a competitive advantage (Omondi & Muturi, 2013). In this sense, due to its importance for organizations, performance has been linked to various themes, primarily to identify which factors determine corporate performance, both positively and negatively. Among the factors related to performance, conservative leverage policy (Graham, 2000; Strebulaev & Yang, 2013; Yasmin & Rashid, 2019) and financial slack stand out (Picolo et al., 2018; Pamplona et al., 2019).

Conservative leverage has become a phenomenon that has been more closely investigated in the twenty ten years (Morais et al., 2022), with the study by Strebulaev and Yang (2013) being the main precursor. Conservative leverage is subdivided into two measures, zero leverage and almost zero leverage (Saona et al., 2023). Zero leverage is when a company has no debt (loans, financing, and debentures), both short-term and long-term (Strebulaev & Yang, 2013). Almost zero leverage is when companies have

short-term or long-term debt, but the amounts are very conservative, i.e., below 5% (Strebulaev & Yang, 2013; Ghose & Kabra, 2016).

The perspective of financial flexibility describes that companies seek to adopt a conservative leverage policy to keep their borrowing capacity unused and thus preserve their access to external sources of capital. In this sense, financial flexibility arising from conservative leverage can prevent difficulties in times of crisis and facilitate timely investment in profitable opportunities (Sardo et al., 2024; Yung et al., 2015), which tends to enhance corporate performance. The study by Yung et al. (2015) found that financially flexible companies have higher profitability ratios and greater sales growth.

Another factor consistently related to performance is financial slack (Jermias & Yigit, 2023), which is described as the set of underutilized and uncommitted resources of companies that can be easily deployed to achieve organizational goals and operations (Carnes et al., 2019; Guo et al., 2020). Furthermore, financial slack is a means of providing autonomy to companies and a way to explore new solutions and opportunities, which facilitates risk-taking (Guo et al., 2020; Kim et al., 2008).

According to Lee (2011) and Rafailov (2017), financial slack can be used by companies as a means to successfully adapt to external pressures, support innovation and experimentation, and make modifications to their strategy in response to changes in the environment, which enhances corporate performance. In the Brazilian context, studies by Picolo et al. (2018) and Pamplona et al. (2019) found that companies operating with financial slack achieve better organizational performance since the slack resource is applied to competitiveness strategies, such as investments in diversification and innovation.

In addition to a direct relationship between conservative leverage and financial slack with economic performance, the study proposes a moderating effect of financial slack. According to Machokoto et al. (2021), companies in emerging markets seek to preserve their financial flexibility in two main ways: by accumulating cash and adopting a policy of conservative leverage. Thus, there is evidence that financial slack may intensify the positive relationship between conservative leverage and performance, as it can increase the financial flexibility of companies and thereby positively impact economic performance.

In light of the above, the study presents the following research question: What is the moderating effect of financial slack on the relationship between conservative leverage and the economic performance of Brazilian companies? Therefore, the study aims to analyze the moderating effect of financial slack on the relationship between conservative leverage and economic performance of Brazilian companies.

We analyzed a sample of 160 publicly traded and 871 privately held companies over 8 years (2012-2019) from the Refinitiv Eikon® database. The analysis used descriptive statistics and multiple linear regression (POLS). The results indicate that having zero or almost zero leverage reduces economic performance for companies in general. Specifically, almost zero leverage increases performance in

publicly traded companies but decreases it in privately held companies, reflecting differences in financial flexibility and constraints. Financial slack improves performance by helping firms navigate external challenges or capitalize on opportunities. However, financial slack negatively moderates the relationship between conservative leverage and performance.

The study is justified by investigating the financial corporate policy of conservative leverage, an important factor that can assist in understanding firms' decisions regarding capital structure, as emphasized by Strebulaev and Yang (2013). Additionally, the study is relevant in extending research on financial conservatism in emerging economies, providing a better understanding of this policy in countries with less developed capital markets, which affects external financing decisions, as emphasized by Yasmin and Rashid (2019).

For example, emerging markets such as Brazil have a landscape with unique characteristics, such as risks, volatility, interest rates, and capital market development. And these elements could shape companies' financing decisions, such as the conservative leverage choice (Saona et al., 2023). As highlighted by Saona et al. (2023), research involving the theme of conservative leverage is limited in emerging countries, mainly in Latin America and BRICS countries. Therefore, we seek to fill this research gap by analyzing financial conservatism in companies that deal with volatile environmental factors and are more subject to external financial constraints.

Furthermore, the study is relevant in analyzing the relationship between financial slack and performance, a little-studied theme that remains ambiguous in the literature (Marlin & Geiger, 2015; Geiger et al., 2019; Jermias & Yigit, 2023), as there are two main perspectives: one that financial slack is beneficial for organizations (positively influencing performance) and the other that financial slack is inefficient (negatively influencing performance). Investigating these themes contributes to the expansion of the literature, especially when working with the Brazilian emerging market, which presents a unique context that can impact corporate decisions regarding financial slack.

In addition, the study analyzes the themes of conservative leverage, financial slack, and economic performance within the universe of both publicly traded and privately held companies, which broadens perspectives regarding the effect of corporate configurations on these themes, as emphasized by Marlin and Geiger (2015). In this same vein, the study allows for an examination of which established patterns for publicly traded companies are maintained in privately held ones and what changes, opening up various discussions.

Theoretical framework and hypotheses

In this section, the concepts and previous studies related to economic performance, conservative leverage, and financial slack are discussed. Additionally, the study hypotheses are developed.

Conservative leverage and economic performance

Conservative leverage is understood as a corporate financial policy that entails low levels of debt, subdivided into zero leverage and almost zero leverage. Zero leverage occurs when the company has no debt in the short and long term. On the other hand, almost zero leverage, also known as low leverage, occurs when the company holds debt, but the amounts are very low, typically less than 5% (Strebulaev & Yang, 2013; Zhang & Gregoriou, 2019).

A considerable number of companies with conservative leverage has been observed in recent years, and this number of organizations has been growing significantly, considered a global economic and financial phenomenon (Bessler et al., 2013). Following the seminal study conducted by Strebulaev and Yang (2013), the literature dedicated to this extremely conservative policy has evolved and is now focused on its determinants.

Chatzivgeri et al. (2024) and Jiang et al. (2024) describe conservative leverage as inconsistent with conventional capital structure theories. In other words, traditional theories like Trade-Off Theory and Pecking Order Theory can not explain why such a high proportion of companies have zero or almost zero leverage (Saona et al., 2023). Due to the lack of theoretical support provided by dominant capital structure theories for the phenomenon of conservative leverage, studies on the subject have adopted alternative approaches to explain extremely conservative debt levels (Morais et al., 2020).

In this sense, the existence of financial constraints and the pursuit of financial flexibility are the most popularly employed theoretical premises to explain the phenomenon of zero leverage. The financial constraint theory suggests that zero leverage is a consequence of creditors' reluctance to extend credit to firms facing significant financial limitations. On the other hand, the financial flexibility perspective posits that the adoption of zero leverage reflects a deliberate strategy by firms to preserve financial flexibility, allowing them to maintain borrowing capacity for potential future investments (Morais et al., 2022).

In the United Kingdom, Marchica and Mura (2010) demonstrate that the aim of maintaining low leverage is associated with the idea of increasing financial flexibility for future investments. The authors document that UK companies incur abnormal investments and higher capital expenditures following a period of low leverage and that these investments are likely to be funded through debt issuance.

The study by Bigelli et al. (2014) examined factors motivating Italian privately held companies to adopt a conservative financial policy. The results indicate that financially conservative companies accumulate cash and maintain their borrowing capacity before making future investments. This result aligns with the study by Graham (2000), which demonstrated that companies using debt conservatively are large, profitable, liquid, and operate in stable sectors, thus achieving better economic outcomes.

Huang et al. (2017) argue that zero leverage is the result of a company's desire to retain financial flexibility and be able to prepare for future investments while preserving borrowing capacity. The study by Morais et al. (2020) aligns with this argument and emphasizes that some debt-free companies are the result of supply-side debt reasons (creditor decisions), while others are the result of demand-side debt reasons (company decisions).

Ferrando et al. (2017) used a sample composed of both publicly traded and privately held companies to demonstrate that financial flexibility, obtained through a conservative leverage policy, is more crucial for privately held companies in countries with limited access to credit and weaker investor protection. Furthermore, the authors also identified that financial flexibility enhances companies' ability to make future investments and promotes increased profitability.

In Japan, Cui (2019) identifies that companies are more likely to be financially conservative if they are smaller and more profitable, thus having fewer growth opportunities and tangibility. A company with lower tangibility is considered to have limited borrowing capacity, while higher profitability and economic performance allow companies to accumulate cash more easily.

Finally, Yasmin and Rashid (2019) empirically explored the prevalence and determinants of financial conservatism in non-financial companies in Pakistan. The results of the study show that financially conservative companies are more profitable, less risky, and pay higher dividends than their non-conservative counterparts.

In this context, it is assumed theoretically that the policy of conservative leverage is positively related to economic performance, given that companies choose to remain debt-free to preserve financial flexibility (Ramalho et al., 2018). In view of this, the following hypotheses are delimited in the development of this study:

H1: Conservative leverage is positively related to the economic performance of Brazilian publicly traded and privately held companies.

Financial slack and economic performance

Despite the concept of organizational slack being well-established in the literature, there is no consensus among authors regarding its definition. Nohria and Gulati (1996) define slack as the volume of resources in an organization that exceeds the minimum required to produce a certain level of organizational output. Mishina et al. (2004) define slack as a dynamic quantity representing the difference between the resources currently possessed by a company and the resource demands of the current business. George (2005) observes that slack is a potentially usable resource that can be diverted or reallocated to achieve organizational goals.

According to Voss et al. (2008), there are four different types of slack in organizations: financial slack, operational slack, relational slack with customers, and human resource slack. In this study, we will focus our analysis on financial slack. According to Voss et al. (2008) and Guo et al. (2020), financial slack can be understood as the sum of financial resources in excess of what is needed to maintain the organization. These financial resources consist of highly liquid assets (cash, short-term investments, accounts receivable, etc.) and the ability to obtain financing.

There are two main views of financial slack in the literature. On one hand, there is the positive view of financial slack. Advocates of this view argue that financial slack can be used by companies to successfully adapt to external pressures, support innovation and experimentation, and make changes in strategy in response to changes in the environment (Lee, 2011; Rafailov, 2017). On the other hand, there is the negative view of financial slack. Advocates of this view believe that financial slack can lead to wasteful resource allocation. When there is excess resources available, managers act as agents and become irrationally optimistic and risk-averse. Consequently, they tend to use the excess resources for their own benefit (Su et al., 2009; Rafailov, 2017).

Several studies have investigated the association between financial slack and performance (Daniel et al., 2004; Su et al., 2009; Bradley et al., 2011; Lee, 2011; Rafailov, 2017). However, the existing results on this relationship are inconclusive (Sener Tournus et al., 2023). While some studies provide support for a positive relationship (Su et al., 2009; Bradley et al., 2011; Lee, 2011; Modi & Mishra, 2011; Rafailov, 2017), others point to a negative relationship (Patzelt et al., 2008; Lee, 2011; Rafailov, 2017). Seeking to provide insight into the relationship between slack and performance, Daniel et al. (2004) conducted a meta-analysis based on 66 studies. It was found that most studies show a positive influence of slack on performance, thus supporting the arguments from behavioral theory and the resource-based view that slack is a valuable resource that can be used as a strategic tool.

Recent research conducted in the Brazilian context (Picolo et al., 2018; Pamplona et al., 2019) has found similar evidence regarding the relationship between financial slack and performance. Picolo et al. (2018) examined the influence of financial slack on the economic performance of Brazilian and Chilean companies. The authors suggest that Brazilian companies, due to high interest rates on debt capital, tend to operate in the market with financial slack, resulting in better organizational performance. Brazilian companies use slack resources as a competitiveness strategy for investments in diversification and innovation, suggesting that in this case, high financial slack does not lead to waste and management accommodation.

Pamplona et al. (2019) examined the influence of financial slack on the economic performance of Brazilian and Mexican industrial companies. The findings of the research showed that slack is positively related to the economic performance of organizations. According to these authors, Brazilian

industrial companies operate with high levels of financial slack to minimize the external impacts arising from the country's economic instability and to protect themselves against potential threats.

Regarding the direct relationship between financial slack and performance, Jermias and Yigit (2023) found that financial slack has a positive impact on firm performance. The result suggests that financial slack is a valuable resource that managers can use to improve a firm's performance. Based on the above, it is understood that the relationship between conservative leverage and performance is positive for both publicly traded and privately held companies. Therefore, the following research hypotheses are presented:

H2: Financial slack is positively related to the economic performance of Brazilian publicly traded and privately held companies.

Conservative leverage, financial slack and economic performance

In addition to a direct relationship between conservative leverage and financial slack with economic performance, the study proposes a moderating effect of financial slack. According to Machokoto et al. (2021), companies in emerging economies seek to preserve their financial flexibility in two main ways: by accumulating cash and adopting a policy of conservative leverage. In this sense, both financial slack and conservative leverage can be important factors in maintaining the financial flexibility of organizations. Therefore, it is presumed that the interaction of these factors could be used to enhance the benefits of financial flexibility, such as profitability.

Supporting this perspective, the study by De Jong et al. (2012) found that companies that refrain from taking on debt and also maintain financial slack through the accumulation of internal liquidity preserve their borrowing capacity, which consequently leads to greater financial flexibility and possibly higher profitability. Additionally, there is evidence that companies adopting conservative leverage can benefit from maintaining cash reserves in difficult times, as these resources facilitate short-term investment opportunities (El Ghoul et al., 2018; Lefebvre, 2021).

Therefore, it is observed that companies with conservative leverage tend to benefit from also adopting financial slack, and this trend is even more evident in emerging markets. According to Lei et al. (2018) and Yasmin and Rashid (2019), companies in emerging markets have a unique context for external financing, as the capital market is less developed, and the availability of credit and alternative sources of financing is limited. In this regard, they tend to exhibit greater financial conservatism and a higher accumulation of cash reserves as an internal financing alternative.

Therefore, sources of self-financing such as retained earnings and cash reserves tend to prevail in companies in emerging markets as a means to enhance financial flexibility and, consequently, enable future investments that boost organizational performance (Lemma & Negash, 2013; Yung et al., 2015).

In this way, there is evidence that financial slack may intensify the positive relationship between conservative leverage and performance, as it can increase the financial flexibility of companies and thus positively impact economic performance.

Based on the above, it is understood that financial slack positively moderates the relationship between conservative leverage and economic performance of Brazilian companies, both publicly traded and privately held. Thus, the following research hypotheses are presented:

H3: Financial slack positively influences the relationship between conservative leverage and economic performance of Brazilian companies, both publicly traded and privately held.

Methodology

The study population consisted of publicly traded companies with shares listed on [B]3 and privately held companies with available information in the Refinitiv Eikon® database. After excluding financial institutions and companies that did not provide sufficient information for analysis, the research sample was composed of 160 publicly traded companies and 871 privately held companies. An 8-year period (2012-2019) was analyzed, totaling 5.889 observations. Data were collected from the Refinitiv Eikon® database using unbalanced data.

Table 1 presents the variables, the measurement method and the base authors used in the research.

Table 1
Description of the variables

Variable	Measurement	Foundational authors
Dependent variables		
Economic performance (PERF)	ROA = EBIT/ Total assets	Strebulaev and Yang (2013) and Morais et al. (2020)
Independent variables		
Zero leverage (ZL)	Dichotomous variable (1 if accounting leverage equals zero, and 0 otherwise)	Strebulaev and Yang (2013)
Almost zero leverage (AZL)	Dichotomous variable (1 if accounting leverage is less than 5%, e and 0 otherwise)	

Financial slack (SLACK)	$\left(\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}\right)$	Campos and Nakamura (2015), Pamplona et al. (2018) and Geiger et al. (2019)
Control variables		
Cash holdings (CASH)	Cash and short-term investments / Total assets	El Ghoul (2018)
Sales growth (SALES)	$\left(\frac{\text{Total Sales}_{i}}{\text{Sales Totais}_{i-1}}\right) - 1$	Ghose (2016)
Earnings volatility (EVOL)	Profitability volatility (Three-year standard deviation)	Strebulaev and Yang (2013)
Size	Natural logarithm	
Tangibility (TANG)	Fixed assets / Total assets	
Uniqueness (UNI)	Selling, General, and Administrative Expenses / Net Sales	Ghose (2016)

Source: Developed by the authors.

According to Table 1, economic performance is the dependent variable in the study, measured by Return on Assets (ROA). The independent variables include conservative leverage, measured by zero leverage (ZL) and almost zero leverage (AZL), and financial slack (SLACK). For measuring accounting leverage, only the interest-bearing debt of companies was considered, including loans, financing, and debentures. Control variables used in the study include cash holdings (CASH), sales growth (SALES), earnings volatility (EVOL), size, tangibility (TANG), and uniqueness (UNI).

For data analysis, descriptive statistics and multiple linear regression were employed using the STATA® software, utilizing stacked panel data models (POLS).

The models follow the following equations:

$$\text{PERF}_{i,t} = \beta_1 + \beta_2 \text{ZL}_{i,t} + \beta_3 \text{SLACK}_{i,t} + \beta_4 \text{CASH}_{i,t} + \beta_5 \text{SALES}_{i,t} + \beta_6 \text{EVOL}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{TANG}_{i,t} + \beta_9 \text{UNI}_{i,t} + \sum \text{IndustryFixedEffects} + \sum \text{YearFixedEffects} + \varepsilon \quad (1)$$

$$\text{PERF}_{i,t} = \beta_1 + \beta_2 \text{AZL}_{i,t} + \beta_3 \text{SLACK}_{i,t} + \beta_4 \text{CASH}_{i,t} + \beta_5 \text{SALES}_{i,t} + \beta_6 \text{EVOL}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{TANG}_{i,t} + \beta_9 \text{UNI}_{i,t} + \sum \text{IndustryFixedEffects} + \sum \text{YearFixedEffects} + \varepsilon \quad (2)$$

$$\text{PERF}_{i,t} = \beta_1 + \beta_2 \text{ZL}_{i,t} + \beta_3 \text{SLACK}_{i,t} + \beta_4 \text{ZL X SLACK}_{i,t} + \beta_5 \text{CASH}_{i,t} + \beta_6 \text{SALES}_{i,t} + \beta_7 \text{EVOL}_{i,t} + \beta_8 \text{SIZE}_{i,t} + \beta_9 \text{TANG}_{i,t} + \beta_{10} \text{UNI}_{i,t} + \sum \text{IndustryFixedEffects} + \sum \text{YearFixedEffects} + \varepsilon \quad (3)$$

$$PERF_{i,t} = \beta_1 + \beta_2 AZL_{i,t} + \beta_3 SLACK_{i,t} + \beta_4 AZL\ X\ SLACK_{i,t} + \beta_5 CASH_{i,t} + \beta_6 SALES_{i,t} + \beta_7 EVOL_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 TANG_{i,t} + \beta_{10} UNI_{i,t} + \sum IndustryFixedEffects + \sum YearFixedEffects + \varepsilon \quad (4)$$

It's worth noting that for all models, fixed effects for sector and year were included, and the assumptions of normality, absence of multicollinearity, absence of heteroskedasticity, and absence of autocorrelation were observed, as recommended by Fávero et al. (2009).

Analysis of the results

Table 2 displays the descriptive statistics of the variables, with a focus on mean, standard deviation, minimum, maximum, and the t-test. For the sake of comparison, the information has been divided into two groups: companies with and without conservative leverage.

Table 2
Descriptive Statistics

	Without Conservative Leverage				With Conservative Leverage (ZL and/or AZL)				t-test
	Average	SD	Min	Max	Average	SD	Min	Max	
SLACK	1.220	0.929	0.003	11.656	2.791	3.187	0.037	27.630	-29.290***
PERF	0.069	0.157	-1.785	1.598	0.083	0.167	-1.882	1.088	-2.890***
CASH	0.088	0.098	0.000	0.778	0.133	0.143	0.000	0.777	-13.320***
SALES	0.094	0.959	-23.930	28.493	0.091	0.450	-1.196	7.536	0.117
EVOL	0.064	0.087	0.000	1.218	0.070	0.089	0.001	1.093	-2.477**
SIZE	19.315	2.181	14.747	27.554	18.555	1.562	15.163	25.346	11.915***
TANG	0.281	0.201	0.000	0.928	0.254	0.212	0.000	0.965	4.266***
UNI	0.203	0.429	-2.526	18.654	0.239	0.818	-1.895	28.512	-2.142**
Observations	4.540				1.349				

Note. **p<0.05. ***p<0.01. SLACK: financial slack; PERF: performance; CASH: cash holdings; SALES: sales growth; EVOL: earnings volatility; TANG: tangibility; UNI: uniqueness.
Source: Research Data

From Table 2, it is evident that companies with conservative leverage differ from those without conservative leverage. The differences are observed in variables such as financial slack, performance, cash holdings, earnings volatility, size, tangibility, and uniqueness. Companies with conservative leverage, i.e., zero or almost zero leverage, on average have higher financial slack, economic performance,

liquidity, profitability volatility, and more unique products. On the other hand, companies without conservative leverage stand out for their larger size and tangibility, i.e., total asset size and fixed assets.

In order to conduct a comparative analysis between privately held and publicly traded companies, a t-test was applied to the studied variables, and the results are presented in Table 3.

Table 3
Comparison between private and public companies

	Private companies	Public companies	t-test
ZL	0.005	0.039	-9.870***
AZL	0.258	0.119	10.476***
SLACK	1.606	1.483	2.089**
PERF	30.079	0.044	6.925***
CASH	0.093	0.117	-6.927***
SALES	0.079	0.142	-2.259**
EVOL	0.070	0.044	9.336***
SIZE	18.443	21.721	-64.755***
TANG	0.275	0.273	0.238
UNI	0.203	0.239	-2.047**
Observations	4.636	1.253	

Note. **p<0.05. ***p.<0.01. ZL: zero leverage; AZL: almost zero leverage; SLACK: financial slack; PERF: performance; CASH: cash holdings; SALES: sales growth; EVOL: earnings volatility; TANG: tangibility; UNI: uniqueness.
Source: Research Data

Table 3 shows that there are significant differences between private and public companies. Concerning conservative leverage, public companies have higher zero leverage, whereas private companies stand out for almost zero leverage. For the other variables, private companies have higher indicators compared to public companies for financial slack, performance, and earnings volatility, indicating that these companies have superior financial resources than needed to sustain the organization, higher return on assets, and greater profitability volatility. On the other hand, public companies have higher values compared to private companies for cash holdings, sales growth, size, and uniqueness, meaning higher liquidity, growth opportunities, size relative to total assets, and more unique products. There is no evidence of differences in tangibility.

Table 4 provides a comparison between sectors regarding the variables of conservative leverage and financial slack.

Table 4
Conservative leverage and financial slack by sector

	ZL		AZL		SLACK
Sector	N	%	N	%	Average
Industrials (N = 1.401)	10	13.51%	376	27.87%	1.716
Consumer Cyclicals (N = 1.466)	29	39.19%	350	25.95%	1.553
Consumer Non-Cyclicals (N = 680)	1	1.35%	117	8.67%	1.255
Energy (N = 69)	1	1.35%	5	0.37%	1.882
Basic Materials (N = 1.495)	15	20.27%	386	28.61%	1.572
Healthcare (N = 191)	7	9.46%	54	4%	1.587
Technology (N = 209)	0	0%	29	2.15%	1.575
Utilities (N = 210)	0	0%	12	0.89%	1.389
Real Estate (N = 160)	11	14.86%	17	1.26%	2.193
Educational services (N = 8)	0	0%	3	0.22%	1.777
TOTAL (N = 5.889)	74	1.25%	1.349	22.9%	

Note. ZL: Zero leverage; AZL: Almost zero leverage; SLACK: Financial slack.
Source: Research Data

As Table 4 describes, zero leverage is present in 1.25% of the companies in the sample, while for conservative leverage, the representation is higher, with approximately 22.9% of companies having accounting leverage below 5%. When analyzing the data by sector, the phenomenon of zero leverage is more prevalent in companies related to consumer cyclicals (39.19%) and basic materials (20.27%). On the other hand, companies in the technology, utilities, and educational services sectors do not have zero leverage. Regarding almost zero leverage, companies in the basic materials (28.61%), industrials (27.87%), and consumer cyclicals (25.95%) sectors stand out. Sectors related to educational services (0.22%), energy (0.37%), and utilities (0.89%) have the lowest almost zero leverage. Regarding financial slack, it is evident that the real estate sector has the highest average financial slack. In contrast, the consumer non-cyclicals sector has the lowest average financial slack.

Table 5
Relationship between Performance, Conservative Leverage, and Financial Slack

	Performance											
	Total sample				Public Companies				Private Companies			
	1	2	3	4	1	2	3	4	1	2	3	4
Intercept	0.364*** (0.030)	0.366*** (0.030)	0.369*** (0.030)	0.336*** (0.030)	-0.137** (0.055)	-0.150*** (0.055)	-0.140** (0.055)	-0.154*** (0.055)	0.523*** (0.040)	0.524*** (0.040)	0.524*** (0.040)	0.499*** (0.040)
Independente Variables												
Zero leverage[a]	-0.038** (0.018)		0.022 (0.023)		0.010 (0.018)		0.071*** (0.022)		-0.035 (0.032)		-0.098* (0.057	
Almost zero leverage[a]		-0.009* (0.005)		0.035*** (0.007)		0.039*** (0.011)		0.060*** (0.013)		-0.013** (0.006)		0.042*** (0.008)
Financial slack	0.006*** (0.001)	0.007*** (0.001)	0.008*** (0.001)	0.031*** (0.003)	0.007*** (0.003)	0.004* (0.003)	0.017*** (0.003)	0.012** (0.004)	-0.035*** (0.032)	0.008*** (0.001)	0.007*** (0.001)	0.039*** (0.003)
ZL_SLACK			-0.018*** (0.004)				-0.021*** (0.005)				0.039 (0.029)	
AZL_SLACK				-0.029*** (0.003)				-0.011** (0.005)				-0.036*** (0.003)
Control Variables												
Cash holdings	0.169*** (0.020)	0.169*** (0.020)	0.165*** (0.020)	0.118*** (0.021)	0.066* (0.037)	0.069* (0.037)	0.033 (0.038)	0.050 (0.038)	0.168*** (0.023)	0.171*** (0.023)	0.168*** (0.023)	0.107*** (0.024)
Sales growth	0.016*** (0.002)	0.016***	0.016***	0.016***	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.027***	0.027***	0.027***	0.027***

		(0.002)	(0.002)	(0.002)					(0.003)	(0.003)	(0.003)	(0.003)
Earnings volatility	-0.384*** (0.023)	-0.384*** (0.023)	-0.383*** (0.023)	-0.381*** (0.023)	-0.498*** (0.040)	-0.512*** (0.040)	-0.515*** (0.040)	-0.519*** (0.040)	-0.343*** (0.027)	-0.345*** (0.027)	-0.343*** (0.027)	-0.335*** (0.027)
Size	-0.014*** (0.001)	-0.014*** (0.001)	-0.014*** (0.001)	-0.015*** (0.001)	0.008*** (0.002)	0.009*** (0.002)	0.007*** (0.002)	0.008*** (0.002)	-0.024*** (0.002)	-0.024*** (0.002)	-0.024*** (0.002)	-0.024*** (0.002)
Tangibility	-0.041*** (0.010)	-0.042*** (0.010)	-0.040*** (0.010)	-0.033*** (0.010)	-0.025 (0.017)	-0.031* (0.017)	-0.026 (0.017)	-0.032* (0.017)	-0.036*** (0.012)	-0.037*** (0.012)	-0.036*** (0.012)	-0.025** (0.012)
Uniqueness	-0.032*** (0.004)	-0.032*** (0.004)	-0.031*** (0.004)	-0.031*** (0.004)	-0.043*** (0.009)	-0.043*** (0.009)	-0.034*** (0.009)	-0.039*** (0.009)	-0.028*** (0.004)	-0.028*** (0.004)	-0.028*** (0.004)	-0.027*** (0.004)
Model Information												
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
R^2	0.1301	0.1299	0.1328	0.1449	0.2310	0.2392	0.2444	0.2430	0.1424	0.1431	0.1427	0.1634
Durbin Watson	1.541	1.540	1.544	1.546	1.913	1.908	1.906	1.904	1.504	1.502	1.507	1.510
VIF [b]	1.41	1.45	1.84	7.88	1.68	1.70	3.60	4.84	1.33	1.43	3.17	9.20
Observations	5.889	5.889	5.889	5.889	1.253	1.253	1.253	1.253	4.636	4.636	4.636	4.636

Note. *p<0.1. **p<0.05. ***p.<0.01. a Dummy variable b Maximum VIF. ZL_SLACK: moderation between zero leverage and financial slack; AZL_SLACK: moderation between almost zero leverage and financial slack.
Source: Research Data

Table 5 presents the results of the regression models. It should be noted that the results are divided into three samples. The first sample refers to the total sample, considering both publicly traded and privately held companies. The second sample considers only publicly traded companies, and the third sample considers only privately held companies. Regarding the models, the explanatory power varies from 13% to 23%. The values presented without parentheses refer to the regression coefficient, and the values within parentheses refer to the standard error.

Based on the results from Table 5, it is observed that, for the total sample, zero leverage shows a significant negative relationship at the 5% level with performance. For the same total sample, almost zero leverage shows a negative relationship at the 10% level with performance. When analyzing only publicly traded companies, the results for conservative leverage are different. For publicly traded companies, in Model 2, it was found that almost zero leverage has a positive relationship with Performance at the 1% level. For privately held companies, it was identified that almost zero leverage has a significant negative relationship at the 5% level with performance.

In general, the results support the research conducted by Adam et al. (2023), which suggests that publicly traded and privately held companies differ in terms of the relationship between conservative leverage and profitability. The authors indicate that publicly traded companies tend to adopt conservative leverage as a strategy for financial flexibility, while privately held companies adopt it from a perspective of financial constraint.

The results suggest that adopting conservative leverage can be beneficial for a company's economic performance, but only in specific situations, such as in the case of publicly traded companies that adopt accounting leverage below 5%—meaning they have debt but at a very conservative level. In this context, companies that are active in the stock market have access to other forms of financing, like issuing shares, which creates a more favorable environment for adopting conservative leverage. When these companies embrace financial conservatism, it becomes part of a strategy that positively impacts their performance. On the other hand, privately held companies that adopt conservative leverage may be going through a period of financial constraint with difficulties in raising capital. In this scenario, conservatism is likely not linked to any strategy and may not be beneficial for performance (Morais et al., 2021; Adam et al., 2023).

Regarding zero leverage, meaning when there is no debt assumed, it was found to be detrimental to the performance of both publicly traded and privately held companies. This suggests that debt is an important element for companies and needs to be present to some extent to enable investments in the company and consequently improve economic performance (Davydov, 2016). In this context, it can be indicated that hypothesis 1, which suggests that conservative leverage is positively related to the economic performance of Brazilian publicly traded and privately held companies, is partially supported.

Regarding financial slack, it was found to have a positive relationship with performance, regardless of the sample analyzed, meaning both publicly traded and privately held companies. These results align with the research of Picolo et al. (2018) and Pamplona et al. (2019), which found similar evidence regarding the relationship between financial slack and performance. According to these studies, Brazilian companies use financial slack to minimize the impact of external factors and for strategic reasons. Additionally, financial slack was seen as an alternative to external financing due to high interest rates. Therefore, there is evidence that the greater the financial slack adopted by the company, the higher the economic Performance achieved, specifically in terms of return on assets. As a result, hypothesis 2, which suggests that financial slack is positively related to the economic performance of Brazilian publicly traded and privately held companies, is supported.

Regarding moderation, it was identified that when financial slack is added to the models, as in models 3 and 4, the relationships with performance become negative. For the total sample and privately held companies, financial slack intensifies the already negative relationship between conservative leverage scenarios and performance. However, for publicly traded companies, financial slack turns the positive relationship between Almost zero leverage and performance into a negative one.

The findings suggest that even though financial slack is positively related to performance, it becomes a negative factor in companies with conservative leverage, whether it's Zero leverage or almost zero, as it harms their economic performance. In this context, in a scenario of conservative leverage, financial slack may be used to address operational rather than strategic issues, which directly impacts Performance. Moreover, financial slack is not always beneficial for performance as it can represent idle resources within the organization, which can be indicative of inefficiency (Daniel et al., 2004; Pamplona et al., 2019). Based on the above, hypothesis 3, which proposes that financial slack positively influences the relationship between conservative leverage and the economic performance of Brazilian publicly traded and privately held companies, is not supported.

The research hypothesis was constructed based on the assumption that companies adopt zero leverage from a perspective of financial flexibility, and financial slack would intensify this proposal. However, it is clear that a large part of the companies analyzed tend to use conservative leverage as a matter of financial constraint. In the case of publicly traded companies, where we found a possible association with financial flexibility, the negative moderation may be an indication that financial slack attenuates the proposal of conservative leverage. Financial slack brings benefits up to a point, and perhaps there are excess resources when the company has conservative leverage and financial slack, which facilitates the inefficient use of resources, negatively impacting performance. As described by Guo et al. (2020), too much financial slack induces inefficient behavior.

Regarding the control variables, some results are worth noting. The variables Cash holdings and Sales growth are positively related to the performance of both publicly traded and privately held companies. This implies that higher liquidity and business growth opportunities tend to lead to better performance. On the other hand, the variables Earnings volatility, tangibility, and uniqueness are negatively related to performance for both publicly traded and privately held companies. This suggests that higher profitability volatility, greater fixed assets, and more unique products traded by the company tend to result in lower performance. In contrast, the Size variable showed positive relationships with performance for publicly traded companies but negative relationships for privately held companies. Thus, the size of assets is an important factor for the performance of companies, posing a challenge for privately held companies and serving as an enhancer for publicly traded ones.

Based on the above, a summary of the hypothesis results is presented in Table 6.

Table 6
Summary of hypothesis results

Hypotheses	TS	PUBL	PRIV	Result
H1: The hypothesis suggests that conservative leverage is positively related to the economic performance of Brazilian publicly traded and privately held companies.	X	✓	X	Partially supported
H2: The hypothesis suggests that financial slack is positively related to the economic performance of Brazilian publicly traded and privately held companies.	✓	✓	✓	Supported
H3: The hypothesis proposes that financial slack positively influences the relationship between conservative leverage and economic performance of Brazilian publicly traded and privately held companies.	X	X	X	Not supported

Note. TS: total sample; PUBL: public companies; PRIV: private companies; ✓ Supported X Not supported.
Source: Research Data

As indicated in Table 6, Hypothesis 1 is supported only for publicly traded companies. Hypothesis 2 is supported for all the analyzed contexts, and Hypothesis 3 is not supported.

Conclusions

The study results indicate that, for companies in general, having zero leverage or almost zero leverage reduces economic performance. When looking specifically at publicly traded and privately held

companies, having almost zero leverage increases and decreases performance, respectively. The differences between these types of companies may be indicative of adopting financial flexibility strategies, as is the case with publicly traded companies, or due to financial constraints, which are more common in privately held companies. When conservative leverage is applied as a strategy, it tends to have a positive impact on performance. However, when this phenomenon is a result of resource constraints, it suggests that the company may have problems, leading to a loss of performance.

Regarding financial slack, the results align with previous literature indicating that resource slack is beneficial for organizational performance. The results also indicate that regardless of whether the company is publicly traded or privately held, financial slack increases performance, specifically return on assets. The available resources can be used to mitigate the effects of external turbulence or invested opportunistically, leading to improvements in the company.

Regarding moderation, a negative effect of financial slack on the relationship between conservative leverage and Performance was identified. One possible explanation for financial slack being detrimental to Performance in the context of companies with conservative leverage may be related to how the organization utilizes the slack resources. Companies could be using financial slack resources to pay off short-term obligations as compensation for their low leverage, rather than investing in projects/strategies that directly impact return on assets. On the other hand, the negative relationship may indicate inefficient use of this surplus of resources, where management is investing in strategies that do not generate returns.

The study makes a valuable contribution to both the literature and practical understanding of relevant themes in the field of corporate finance, especially in the comprehension of decisions related to capital structure. Furthermore, the study contributes by exploring empirical data in the context of Brazil, an emerging market with its own specificities regarding financial conservatism. Lastly, the joint analysis of financial slack and conservative leverage is innovative as it extends our understanding of how resource slack can be either beneficial or detrimental to organizations and how it may be linked to capital structure decisions.

As an implication, the study reinforces that the impact of financial slack on performance is not the same for all companies in all circumstances, as described by Jermias and Yigit (2023). In the general context, decision-makers should create and take advantage of financial slack, which is beneficial for company performance. However, in the context of companies with conservative leverage, the use of financial slack should be avoided or applied with reservations, since it has shown a worsening in performance. Additionally, we provide insights into the decision-making process regarding capital structure in emerging markets, such as Brazil. More precisely results provide evidence that the

effectiveness of slack resources and conservative leverage can be influenced by the institutional environment of the firm.

In terms of limitations, it is important to note that the findings of the research cannot be generalized to all organizational contexts. The analyses focus on non-financial companies, whether publicly traded or privately held and rely on data available in the Refinitiv Eikon database.

For future research, it is suggested to advance the study by analyzing lagged data to examine whether conservative leverage strategies impact the future performance of the organization. This would enrich our understanding of the implications of conservative leverage in the short and long term for companies. Along the same lines, the analysis of the persistence of conservative leverage is also viable, as companies may adopt the strategy only once or in a more enduring manner. Additionally, investigating curvilinear relationships is important as it brings a perspective of levels/limits regarding the themes.

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