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ARTICLE

Shareholding control, corporate governance and debt financing of Brazilian companies

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Abstract

Purpose – This study investigates the effect of shareholding control and corporate governance on access to debt financing by Brazilian firms.

Theoretical framework – From the perspective of agency theory, the presence of controlling shareholders can contribute to a preference for debt financing. On the other hand, strengthening the internal corporate governance system can reduce agency conflicts and facilitate access to the credit market.

Design/methodology/approach – Using mean difference tests and regression analysis, we analyzed the relationship between the debt financing, shareholding control and corporate governance of 168 firms listed on the B3 in the period 2011-2019.

Findings – Debt financing is related to shareholding control, being higher in firms with majority control and lower in firms with dispersed control. The quality of corporate governance contributes to access to debt, especially in firms with shared control. However, in firms with dispersed control, the relevance of corporate governance is lower.

Practical & social implications of research – The evidence reiterates the importance of strengthening the internal governance system of Brazilian firms as a way of improving access to the credit market, considering their ownership structure, especially the type of shareholding control.

Originality/value – The paper shows that shareholding control, as an attribute of the ownership structure and a determinant of agency conflicts, can influence corporate financing decisions and the relationship between the adoption of corporate governance practices and access to debt financing.

Keywords: Ownership structure, capital structure, corporate governance.

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1 Introduction

One of the main financial decisions a company makes is the decision about the form of financing (Brealey et al., 2013). Some theories have been developed to understand corporate financing decisions, such as the irrelevance of financing sources, trade-off, pecking order and market timing (Frank & Goyal, 2008).

In addition to theories that deal specifically with financing decisions, other broader theories can help to understand corporate financing decisions, among which the agency theory proposed by Jensen and Meckling (1976) stands out. According to this theory, the separation between ownership and management in large corporations causes conflicts of interest between the manager (agent) and the shareholder (principal), known as agency conflicts, which generate agency costs that harm financial performance and reduce the value of the firm (Jensen & Meckling, 1976).

Although they originate in the ownership structure, agency conflicts can also affect the capital structure of companies. Jensen and Meckling (1976) point to the possibility of the company transferring risk from shareholders to creditors through investment and financing decisions. Such problems are associated with informational asymmetry, agent incentive risks and future growth opportunities (Barnea et al., 1980). The agency costs of debt, which are also ultimately borne by the company's owners, include contractual guarantees, bankruptcy costs, monitoring by creditors and liquidity costs (Jensen & Meckling, 1976).

Conflicts and agency costs can affect debt financing from the perspective of external investors and controlling shareholders. On the one hand, agency costs can influence the perception of the company's external financiers, affecting the cost of debt capital and the availability of funds (Claessens & Yurtoglu, 2013). On the other hand, the presence of controlling shareholders can contribute to a preference for debt financing due to the fear of a threat to control in the event of the issuance of new shares (Céspedes et al., 2010; Crisóstomo et al., 2020). To reduce agency conflicts and facilitate access to the credit market, the company can also strengthen its internal corporate governance system (Claessens & Yurtoglu, 2013).

This study analyzes the external financing of Brazilian companies from the perspective of agency theory, investigating the effect of shareholding control and corporate governance on the access to debt financing. Historically, most of the external financing of Brazilian companies has been through debt (Rossetti & Andrade, 2012). Regarding the attributes of the ownership structure, the type of shareholding control configuration can be important. There are three different types of shareholding control that can be observed in Brazilian companies, as already considered in Brazil (Crisóstomo et al., 2022). The first configuration is majority control, when there is a single controlling shareholder and agency conflicts predominate between this majority shareholder and minority shareholders (the theoretical principal-principal agency model). The second configuration is shared control, when there are two or more shareholders who share control through a shareholders' agreement. In this configuration, although agency conflicts of the principal-principal type still predominate, the need for mutual monitoring between the shareholders that make up the controlling block tends to mitigate these conflicts. The third configuration is one in which there is no defined controlling shareholder and control is dispersed. In this configuration, agency conflicts predominate between the dispersed shareholders and the company's management (the theoretical principal-agent agency model). This configuration seems to be able to influence the nature and magnitude of the agency conflicts prevalent in the company (Brandão & Crisóstomo, 2023).

The institutional environment of weak investor protection, in turn, reinforces the importance of companies improving their internal corporate governance system (La Porta et al., 1999). In this context, it is more relevant to study the implications of agency conflicts for Brazilian firms' access to the credit market. In addition, the previous literature presents divergent results regarding the relationship between ownership structure, corporate governance and debt financing in the Brazilian market (Pinheiro et al., 2017; Ribeiro et al., 2021; Ribeiro & Souza, 2022).

Information from 168 companies listed on the Brasil, Bolsa, Balcão (B3) in the period 2011-2019 was analyzed. The ownership structure was addressed based on the type of shareholding control, classified as majority, dispersed and shared (Brandão & Crisóstomo, 2023; Crisóstomo et al., 2022). Corporate governance was measured by an index of adoption of recommended practices for Brazilian companies (Brandão & Crisóstomo, 2023). Fundraising in the credit market was measured

by cash inflows from debt financing (Kayhan & Titman, 2007). The relationship between debt financing and corporate governance and shareholding control was investigated using mean difference tests and regression analysis.

The results show that the type of shareholding control, an important attribute of the ownership structure, is a determinant of the type and magnitude of agency conflicts and can influence corporate financing decisions and the relationship between the adoption of corporate governance practices and access to debt financing. Theoretically, these results strengthen agency theory as a way of understanding corporate financing decisions. Methodologically, the paper differs from previous studies by using more accurate measures of corporate governance and debt financing, and by accounting for ownership structure based on the type of shareholding control of the company (Pinheiro et al., 2017; Ribeiro et al., 2021; Ribeiro & Souza, 2022). In practice, the evidence found reiterates the importance of strengthening the internal governance system of Brazilian companies as a way of facilitating access to the credit market, considering the characteristics of their ownership structure, especially the type of shareholding control.

The paper contributes to the understanding of the relationship between Brazilian firms' financing decisions and their ownership structure and corporate governance system. In particular, it investigates the moderating effect of the type of shareholding control (majority, shared or dispersed) on the relationship between debt financing and corporate governance. The analysis of the relationship between debt financing and corporate governance is a recurring theme in finance research in the Brazilian market, although empirical studies have found inconclusive results (Costa Filho et al., 2016; Fonseca et al., 2016; Junqueira et al., 2017; Pinheiro et al., 2017; Ribeiro et al., 2021; Ribeiro & Souza, 2022; Soares & Kloeckner, 2008; Vieira et al., 2011). Since corporate governance aims to mitigate existing agency conflicts in a company (Dey, 2008), we investigated whether the type of shareholding control, an attribute of the ownership structure that has been considered a determinant of the type and magnitude of agency conflicts (Brandão & Crisóstomo, 2023), acts as a contingent factor in the relationship between corporate governance and debt financing.

2 Theoretical framework and research hypotheses

2.1 Shareholding control and debt financing

Although the Brazilian capital market is dominated by companies controlled by a single (majority) shareholder, there has been an increase in the number of companies controlled by groups of shareholders (shared control) and companies with no controlling shareholder (dispersed control) (Brandão & Crisóstomo, 2023). These different types of shareholding control can affect the nature and magnitude of agency conflicts prevalent in the firm (Brandão & Crisóstomo, 2023; Crisóstomo et al., 2022), which can have an impact on companies' external financing decisions.

Dispersed control occurs when no single shareholder or shareholder agreement gives them voting rights that grant them corporate control. In this corporate configuration, the predominant agency conflict is of the principal-agent type between dispersed shareholders and managers (Jensen & Meckling, 1976).

In companies with defined shareholding control, the main agency problem arises from conflicts between controlling and minority shareholders – conflicts under the principal-principal agency model (Young et al., 2008). In these companies, there may be a difference in agency conflicts between firms with majority control and firms with shared control. The presence of a majority shareholder exacerbates conflicts between the latter and minority shareholders (Brandão & Crisóstomo, 2023), as these companies are more likely to use private benefits of control (Dyck & Zingales, 2004; Young et al., 2008) and the possibility of conflicts with managers is not excluded (Lei et al., 2013). On the other hand, shared control tends to make firms less vulnerable to expropriation, as the interests of the controlling group may be diverse (Soares & Kloeckner, 2008). In this sense, the need for collective bargaining among the shareholders participating in the controlling block reduces the possibility of decisions that lead to the expropriation of minority shareholders' wealth (Gomes & Novaes, 2005).

Differences in agency conflicts between firms with dispersed control and those with defined control (majority or shared) can affect decisions about sources of external financing and the amount of funds raised through debt. Empirical studies in Brazil have found evidence of

positive (Crisóstomo & Pinheiro, 2015; Ribeiro et al., 2021), negative (Procianoy & Schnorrenberger, 2004; Soares & Kloeckner, 2008) and null (Araújo et al., 2017; Hausmann et al., 2021) relationships between debt and ownership concentration indicators.

Considering agency theory, there are different arguments suggesting that companies with a controlling shareholder are more likely to seek debt financing: to avoid dilution of control (Céspedes et al., 2010; Crisóstomo & Pinheiro, 2015); to use debt for expropriation purposes through tunneling (Paligorova & Xu, 2012); the high cost of equity due to the risk of expropriation by the controlling shareholder (Crisóstomo & Pinheiro, 2015); and signaling the mitigation of agency conflicts by reducing free cash flow (Soares & Kloeckner, 2008).

Based on these arguments, we propose the hypothesis that debt financing is greater in companies with defined control, especially majority control, where agency conflicts are more pronounced. Firms with shared control, although their agency conflicts are smaller, would also be more prone to debt financing, mainly to avoid further dilution of ownership concentration. Companies with dispersed control, on the other hand, would be less dependent on debt financing, as they face fewer restrictions on financing through the issuance of shares.

> Hypothesis 1A: Majority control is positively related to debt financing.
>
> Hypothesis 1B: Shared control is positively related to debt financing.
>
> Hypothesis 1C: Dispersed control is negatively related to debt financing.

2.2 Corporate governance and debt financing

Corporate governance encompasses a set of mechanisms designed to minimize agency conflicts and thus ensure an adequate return for external investors (Shleifer & Vishny, 1997). In Brazil, the institutional environment of weak legal protection and low enforcement increases the possibility of expropriation by external financiers (La Porta et al., 1999). This situation makes it more important for companies to adopt corporate governance practices to reduce agency conflicts and consequently signal to the market that transactions with them are safer (Claessens & Yurtoglu, 2013; La Porta et al., 1999).

Silveira et al. (2008) argue that in countries with an underdeveloped capital market, such as Brazil, investors in the stock market undervalue companies with a better corporate governance structure, forcing these companies to seek other sources of financing, such as debt, which would induce a positive relationship between leverage and corporate governance. However, empirical studies conducted in Brazil have found divergent results regarding the relationship between indebtedness and corporate governance quality, showing a positive (Fonseca et al., 2016; Pinheiro et al., 2017), negative (Costa Filho et al., 2016; Junqueira et al., 2017; Ribeiro et al., 2021) and null relationship (Ribeiro & Souza, 2022; Vieira et al., 2011).

Within the framework of agency theory, corporate governance is proposed as being capable of facilitating access to debt by conveying more confidence to the credit market, and thus the possibility of reducing the cost of third-party capital and increasing the maturity of debt. The better quality of a company's corporate governance is proposed as being able to reduce monitoring costs and default risk, thereby reducing the cost of third-party capital (Aldamen & Duncan, 2012; Zhu, 2014). Thus, by reducing agency costs, better quality corporate governance tends to increase the firm's bargaining power with banks, ensuring a lower cost of capital and a larger amount of funding (Carvalho, 2002). This argument motivates the proposition of the second research hypothesis:

> Hypothesis 2: The level of adoption of corporate governance practices is positively related to debt financing.

2.3 Shareholding control, corporate governance and debt financing

The best corporate governance structure is expected to facilitate the company's access to debt financing. The contingency approach to corporate governance, on the other hand, suggests that the effectiveness of corporate governance mechanisms is influenced by the firm's organizational environment (Aguilera et al., 2008; Dedman & Filatotchev, 2008). In this context, Bebchuk and Hamdani (2009) argue that the effectiveness of many corporate governance mechanisms can be conditioned by the company's ownership structure, which has different attributes or characteristics. For example, previous studies show that the agency cost of debt in Brazilian firms with a controlling shareholder can be mitigated by a better governance structure, especially in firms with a high

concentration of voting rights (Martins et al., 2017) and excessive voting rights of controlling shareholders (Fonseca & Silveira, 2016). On the other hand, the reputation of the controlling shareholder in the credit market has been suggested as able to favor leverage (Crisóstomo & Pinheiro, 2015), serving as a substitute for other corporate governance practices. Advancing this line of research, the type of shareholding control (majority, shared or dispersed), an important attribute of the ownership structure that is reflected in the type and magnitude of agency conflicts prevalent in the company (Brandão & Crisóstomo, 2023; Marques et al., 2015), can also be proposed as a conditioning factor for the adoption of corporate governance practices by the company, as well as their effectiveness (Aguilera et al., 2008).

> Hypothesis 3: The configuration of the type of shareholding control (majority, shared and dispersed) interferes with the relationship between corporate governance and debt financing.

Considering the construction of hypotheses 1 and 2, this paper tests the hypothesis that the positive relationship between corporate governance and debt is stronger in companies with majority control for two main reasons. First, these companies tend to have more severe agency conflicts (Brandão & Crisóstomo, 2023), which makes the adoption of corporate governance mechanisms more important (Renders & Gaeremynck, 2012). Second, the aversion of majority shareholders to financing through the issuance of shares may lead companies with majority control to have a corporate governance structure that is more focused on mitigating conflicts with creditors, which would facilitate access to debt.

> Hypothesis 3A: Majority control positively moderates the relationship between corporate governance and debt financing

It is also expected that the relationship between corporate governance and debt financing can be strengthened in companies with shared control, since the group of shareholders that make up the controlling coalition also tend to seek the credit market as the main form of financing in order to avoid a threat to their shareholding position that can occur through share issuance processes. However, it is suggested that the effect of shared control on the relationship between corporate governance and debt financing tends to be lower than the effect of majority control, since shared control is seen as a control mechanism that can replace other corporate governance mechanisms (Brandão & Crisóstomo, 2023; Carvalhal, 2012; Silva et al., 2018).

> Hypothesis 3B: Shared control positively moderates the relationship between corporate governance and debt financing.

Finally, in a market where companies with defined control and agency conflicts between majority and minority shareholders predominate (principal-principal agency model) (Crisóstomo & Brandão, 2019), capital dispersion can be seen as a process that contributes to reducing agency conflicts (Marques et al., 2015), which would make the adoption of other corporate governance practices less effective in companies with dispersed control. Moreover, by relying less on debt as a source of external financing due to a potentially greater ability to issue shares, companies with dispersed capital can implement corporate governance practices that are more aimed at mitigating conflicts between shareholders and managers, which are less relevant to the credit market.

> Hypothesis 3C: Dispersed control negatively moderates the relationship between corporate governance and debt financing.

3 Methodological procedures

3.1 Sample

The sample consists of non-financial companies listed on the B3 whose shares have a minimum stock market liquidity index (0.1). Only companies with a minimum stock market liquidity index were selected in order to have stock price data that more reliably reflect the company's value, as well as the fact that more liquid companies have greater visibility in the market. Financial companies were excluded because their financial statement structure differs from that of other companies and because they have access to debt as part of their operations. Companies that were in judicial or extrajudicial liquidation were also excluded, since they do not have all data available for analysis.

Since the reference form, the main document used to collect data on corporate governance and shareholding control, became mandatory in 2010, the period analyzed began in fiscal year 2011. Due to the delay in the disclosure of institutional documents during the COVID 19 pandemic (2020-2022), the period analyzed ended in fiscal year 2019, the last year for which complete data were available at the end of the data collection period.

The final sample consists of an unbalanced panel data of 1,433 firm-year observations from 168 companies in the period 2011-2019 (Supplementary Data 2 – Database).

3.2 Empirical models and statistical procedures

The research hypotheses were tested using the models described in Equations 1 and 2. These models were based on the literature that has examined the moderating effect of the type of shareholding control on the relationship between corporate governance and organizational outputs (Brandão & Crisóstomo, 2023; Crisóstomo et al., 2022).

In order to analyze the effect of the type of shareholding control (Hypothesis 1) and the level of adoption of corporate governance practices (Hypothesis 2) on debt financing, estimations were made according to the model presented in Equation 1, where: DEBTFIN is the debt financing obtained by company *i* in period *t*; OWN are binary variables indicating the type of shareholding control of company *i* (majority, shared or dispersed) in period *t*; GOV is an index that approximates the quality of corporate governance of company *i* in period *t*; CONTR are control variables associated with company *i* in period *t*; and ε is the error term.

$$DEBTFIN_{i,t} = \beta_0 + \beta_1 OWN_{i,t} + \beta_2 GOV_{i,t} + \beta_3 \sum CONTR_{i,t} + \varepsilon \quad (1)$$

In order to verify whether the type of shareholding control moderates the relationship between the level of adoption of corporate governance practices and debt financing (Hypothesis 3), the effect of the interaction between the variables of type of shareholding control and corporate governance (OWN*GOV) on debt financing (DEBTFIN) is analyzed according to Equation 2. According to the reasoning behind Hypothesis 3, the type of shareholding control (majority, shared or dispersed) is expected to moderate the relationship between debt financing and corporate governance.

$$DEBTFIN_{i,t} = \beta_0 + \beta_1 OWN_{i,t} + \beta_2 GOV_{i,t} + \beta_3 [\text{OWN*GOV}]_{i,t} + \beta_4 \sum CONTR_{i,t} + \varepsilon \quad (2)$$

The estimates were processed through regression analysis using ordinary least squares modeling with robust standard errors to correct for problems of heteroscedasticity in the residuals (Supplementary Data 1 – Stata output). To reduce omitted variable problems, the estimates were controlled for sector and year fixed effects. We chose not to use fixed effects modeling at the firm level because the explanatory variables of interest (type of shareholding control and level of adoption of corporate governance practices) show little variation over time. In these cases, the use of fixed effects or first-differences modeling can lead to imprecise coefficients (Wooldridge, 2002), as the greater variability of the corporate governance and shareholding control variables would be captured by the firm fixed effects. The use of corporate governance and shareholding control data referring to the beginning of each fiscal year, as explained in section 3.3, already mitigates the possible simultaneity problem, one of the main causes of endogeneity.

Potential problems with outliers in the financial and market variables were mitigated by winsorizing the upper and lower percentiles of the sample in each variable at the 1% level. Correlation and variance inflation factor (VIF) tests indicated no problems with multicollinearity or collinearity in all estimations.

3.3 Measurement of variables

To measure debt financing, we used information on cash flows from financing activities from the statement of cash flows (DFC), obtained from the Economática® database. The cash flow approach was adopted because it contains less noise than the balance sheet approach (Kayhan & Titman, 2007): the DFC indicates the amount, in reais, that the company received through debt financing; the balance sheet approach uses the annual variation in onerous debt, without considering the effects of financial charges and payments that occur throughout the year. In this sense, access to debt financing (DEBTFIN) was measured by the company's cash flow from borrowing and financing in period *t*, relative to total assets in *t-1*.

Shareholding control (OWN) was obtained through a content analysis of the identity of the ultimate controlling shareholder, which is available in the first version of the reference form published annually by the company and made available by the CVM. According to the information provided in the reference form, the company's controlling shareholders (ultimate) were identified and the company's type of shareholding control was categorized using a binary variable (dummy) for each

of the three types of shareholding control (majority, shared and dispersed), following a methodology recently used in Brazil (Crisóstomo et al., 2022): (i) majority control (MAJ), when there is a single ultimate shareholder or the ultimate shareholders belong to the same family or the same economic group; (ii) shared control (SHARED), when there is more than one ultimate shareholder and they do not belong to the same economic group or the same family and they have entered into a shareholders' agreement with each other that regulates voting rights at general meetings, forming a coalition to control the company; and (iii) dispersed control (DISP), where there is no ultimate shareholder designated by the company and there are no individual shareholders or shareholders' agreements holding more than 50% of the company's voting capital.

The quality of corporate governance (GOV) was assessed following important literature that points out the importance of metrics that take into account different dimensions of corporate governance, not only specific practices or some of them (Aguilera & Desender, 2012). This study constructs a corporate governance index that takes into account 42 practices recommended in codes of good governance for Brazilian companies, according to a methodology recently used in Brazil (Brandão & Crisóstomo, 2023). Corporate governance data are taken from documents available on the website of the Brazilian Securities and Exchange Commission (CVM): reference forms, standardized financial statements, bylaws and institutional documents of the companies. The first version of the reference form published each year (by May 31) and the date of publication of the standardized financial statements and institutional documents were taken into account in this analysis. The choice of data on corporate governance practices from the beginning of the year was due to the objective of verifying the effect of the practices adopted by the company each year. Disclosure of these practices at the beginning of the year can generate a reaction from the external financing market, particularly debt, in the same year, either due to the adoption or non-adoption of certain governance practices. Similarly, the type of shareholding control the company has at the start of the year may affect its relationship with the financing market and thus its ability to raise debt throughout the year. To this end, we investigated whether the type of shareholding control and the quality of the corporate governance system reported in the firm's official documents at the start of each year influenced its decision to raise debt throughout the year. Furthermore, this measure reduces endogeneity problems, as described in section 3.2.

For each corporate governance practice, a score was assigned to each company/year, ranging from zero to one, representing the company's level of adoption of good corporate governance practices. The quality of the internal corporate governance system of each company/year was measured by means of an index for the adoption of good corporate governance practices, which was obtained by taking the simple arithmetic average of the scores obtained by each company/year in the practices analyzed. Table 1 shows the corporate governance practices that make up the checklist, as well as the metrics used to measure them and the average score obtained in the sample.

In all estimates, control variables were included that have been suggested in the literature as possible determinants of debt financing for Brazilian companies. Market value, approximated by Tobin's Q (Q), is operationalized by the ratio between the firm value and total assets of company *i* in period *t-1*. Financial performance, approximated by return on assets (ROA), is calculated as the ratio between the EBITDA and total assets of company *i* in period *t-1*. Company size (SIZE) is operationalized by the natural logarithm of company *i*'s total assets in period *t-1*. We opted for lagged values to reduce simultaneity problems and to check whether these financial and market indicators at the end of a year affect the amount of debt financing in the following year. According to the literature, debt financing is expected to have a direct relationship with market value (Tobin's Q) and company size, while an inverse relationship is expected with return on assets (ROA) (Sonza et al., 2020; Bressan et al., 2009).

In addition to these variables, equity financing (EQFIN) was used as a control variable to verify whether there is a relationship between share issue financing and debt financing. According to trade-off theory, companies seek an optimal capital structure that maximizes the benefits and minimizes the costs of debt (David et al., 2009). In this sense, a positive relationship is expected between the sources of financing (debt and equity). Similar to debt financing, equity financing (EQFIN) was measured by the company's cash flow from the sale and issuance of shares in period *t*, relative to total assets in *t-1*. All the control variables were measured using data extracted from Economática®.

Table 1
Corporate governance practices analyzed

Item analyzed	Practice	Metric	Mean score
Share rights	Percentage of ordinary shares issued by the company	Ordinary shares / total shares	0.857
	Voting rights at general meetings granted to each class of shares	• Companies with only ordinary shares: full (1.0); restricted (0.5); not entitled (0.0)	0.879
		• Companies with ordinary and preferred shares: average score for each class of shares	
	Tag along granted to each class of shares	• Companies with only ordinary shares: tag along of ordinary shares	0.828
		• Companies with both common and preferred shares: average tag along score for each class of shares	
Shares outstanding	Percentage of shares outstanding	Shares outstanding / total shares	0.468
	Percentage of ordinary shares outstanding in relation to percentage of total shares outstanding	Free float of ordinary shares / total free float*	0.842
Encouraging shareholder participation in general meetings	Deadline for calling ordinary general meetings	Deadline for first call to general meeting / 30	0.337
	Availability of means of communication with shareholders on the agenda of the ordinary general meeting via the internet	Yes (1); No (0)	0.259
Structure of the board of directors	Number of effective members of the board of directors	• Is the board of directors made up of 5 to 11 effective members? Yes (0.5); No (0)	0.569
		• Is the number of effective members of the board of directors odd? Yes (0.5); No (0).	
	Existence of an audit committee or similar	Yes (1); No (0)	0.114
	Existence of a remuneration committee or similar	Yes (1); No (0)	0.797
	Existence of other committees	Yes (1); No (0)	0.489
	The board of directors has no substitute members	Yes (1); No (0)	0.470
Composition of the board of directors	Percentage of permanent members serving only on the board of directors	Number of external members / total number of members	0.455
	Percentage of permanent members classified as independent	Number of independent members / total number of members	0.722
	Percentage of permanent members nominated by minority shareholders	Number of members nominated by minority shareholders / total number of members	0.898
	Segregation of the roles of chairman and chief executive officer	Yes (1); No (0)	0.308
Supervisory and control bodies	Supervisory board in place	Permanently installed (1); installed but not permanent (0.5); not installed (0)	0.911
	Percentage of effective supervisory board members appointed by minority shareholders	Number of members appointed by minority shareholders / total number of members	0.478
	The independent auditor is one of the Big Four	Yes (1); No (0)	0.897
	The independent auditor does not provide non-audit services	Yes (1); No (0)	0.545
	Term of the independent audit firm's contract	One year (1); two years (0.8); three years (0.6); four years (0.4); five years (0.2); more than five years (0)	0.626
Practices of the board of directors	Term of office of the board of directors	One year (1); two years (0.5); three years or more (0)	0.611
	The board of directors does not receive any part of its remuneration linked to short-term targets	Yes (1); No (0)	0.800
	The board of directors does not receive any share-based remuneration	Yes (1); No (0)	0.671
	There are formal mechanisms for evaluating the board of directors and/or its members	Yes (1); No (0)	0.428
	Percentage of female members compared to male members	Number of female members / Total number of members	0.122
Practices of the executive board	Term of office of the executive board	One year (1); two years (0.5); three years (0)	0.469
	The executive board receives part of its remuneration linked to the company's results	Yes (1); No (0)	0.840
	The executive board receives part of its remuneration based on shares	Yes (1); No (0)	0.671
	There are formal mechanisms for evaluating the executive board and/or its members	Yes (1); No (0)	0.945
	Percentage of female members compared to male members	Number of female members / Total members of the executive board	0.139
Conduct and conflicts of interest	The company has and publishes a corporate risk management policy	Yes (1); No (0)	0.928
	The company has and publishes a code of conduct	Yes (1); No (0)	0.745
	The company has and publishes a securities trading policy	Yes (1); No (0)	0.868
	The company has and publishes a disclosure policy	Yes (1); No (0)	0.967
	The company has and publishes a policy on related party transactions	Yes (1); No (0)	0.908
	The company's bylaws contain an arbitration clause for resolving disputes between shareholders and between shareholders and the issuer through arbitration	Yes (1); No (0)	0.776
Disclosure of information	The company publishes management projections of future performance	Yes (1); No (0)	0.350
	The company publishes a sustainability report or similar on its website	Yes (1); No (0)	0.554
	The company discloses non-accounting performance indicators	Yes (1); No (0)	0.933
	Type of independent audit opinion	Unqualified (1); qualified (0.5); adverse or negative opinion (0)	0.969
	Compliance with disclosure requirements	Yes (1); No (0)	0.992

4 Presentation and analysis of results

4.1 Descriptive statistics

Table 2 shows the descriptive statistics of the study's metric variables (Supplementary Data 1 – Stata output). Confirming a historical trend (Rossetti & Andrade, 2012), debt financing (DEBTFIN) predominates in Brazilian companies, representing approximately 12.7% of their assets, a figure eleven times higher than the cash flows from issuing shares (EQFIN). It can also be seen that financing through the issuance of shares shows high variability and that most of the companies sampled do not use this source of financing (median = 0). The average adoption rate of corporate governance practices (GOV) is 64.5%, with low variability.

Table 3 presents a comparative analysis of the metric variables according to the type of shareholding control (Supplementary Data 1 – Stata output). Companies with majority control predominate in the Brazilian capital market, representing 55.34% of the market, confirming previous studies (Brandão & Crisóstomo, 2023; Crisóstomo et al. 2022). On the other hand, shared control is the reality with 24.49%, and dispersed control is still the configuration with the lowest proportion, being present in 20.17% of the Brazilian companies.

The tests for the difference in means presented in Table 3 indicate that debt financing is higher in companies with majority control compared to companies with dispersed and shared control. In terms of equity funding, it can be seen that firms with dispersed control raise a greater amount of funds, especially when compared to firms with majority control. These results suggest that debt is used more by companies with a single controlling shareholder, while share issue is preferred by companies without defined control.

Among the other variables, Table 3 shows that companies with majority control have a lower level of adoption of corporate governance practices

Table 2
Descriptive statistics for metric variables

Variables	Mean	St. Deviation	Median	Minimum	Maximum
DEBTFIN	0.127	0.124	0.095	0.000	0.492
EQFIN	0.011	0.034	0.000	0.000	0.164
GOV	0.645	0.091	0.656	0.282	0.873
Q	1.093	0.817	0.825	0.151	3.892
ROA	0.068	0.085	0.071	-0.189	0.248
SIZE	15.482	1.408	15.380	12.745	18.514

Note: Metric variables: debt financing (DEBTFIN), equity financing (EQFIN), corporate governance (GOV), Tobin's Q (Q), return on assets (ROA) and size (SIZE).

Table 3
Corporate governance and financial variables by type of shareholding control

Matric variables	Type of shareholding control				Difference in means test (t)					
	DISP	SHARED	MAJ	TOTAL	DISP x SHARED		DISP x MAJ		SHARED x MAJ	
DEBTFIN	0.116	0.121	0.134	0.127	-0.431		-2.115	**	-1.678	*
EQFIN	0.016	0.012	0.009	0.011	1.437		2.484	**	0.993	
GOV	0.713	0.645	0.620	0.645	10.811	***	15.998	***	5.144	***
Q	1.174	1.293	0.975	1.093	-1.666	*	3.407	***	5.803	***
ROA	0.048	0.086	0.067	0.068	-5.296	***	-2.947	***	3.784	***
SIZE	15.058	15.629	15.572	15.482	-5.282	***	-5.303	***	0.656	
Firms	47	63	111	168						
Observations	289	351	793	1433						

Note: Metric variables: debt financing (DEBTFIN), equity financing (EQFIN), corporate governance (GOV), Tobin's Q (Q), return on assets (ROA) and size (SIZE). Type of shareholding control: dispersed (DISP), shared (SHARED) and majority (MAJ). Statistical significance: 10% (*), 5% (**) and 1% (***).

and a lower market value (Tobin's Q), suggesting that agency conflicts may be more pronounced in these firms. On the other hand, although they have lower levels of adoption of governance practices than firms with dispersed control, firms with shared control have higher profitability and market value, suggesting that agency conflicts are less pronounced in these firms. Furthermore, firms with dispersed control are smaller and have a higher quality corporate governance system than the other firms.

4.2 Regression analysis

Table 4 shows the results of model estimations examining the effect of shareholding control and corporate governance on debt financing (Supplementary Data 1 – Stata output). The first three estimations test the direct relationships between shareholding control, corporate governance and debt financing. The results indicate that majority control is positively related to debt financing (Model 1), while dispersed control is negatively related (Model 3). The index measuring the quality of corporate governance is also positively and directly related to debt financing in all three estimations (Models 1 to 3).

The last three estimations in Table 4 test the moderating effect of the type of shareholding control on the relationship between corporate governance and debt financing. The analysis of the coefficients of the interactive variables reveals that the positive relationship between corporate governance and debt financing is stronger in companies with shared control (Model 5). On the other hand, the results indicate a weaker relationship for firms with dispersed control (Model 6).

Table 4
Shareholding control, corporate governance and debt financing

Explanatory variables	Dependent variable: Debt financing (DEBTFIN)					
	1	2	3	4	5	6
MAJ	0.014**			0.009		
	(0.007)			(0.047)		
SHARED		-0.003			-0.183***	
		(0.007)			(0.061)	
DISP			-0.019**			0.114*
			(0.009)			(0.065)
GOV	0.120***	0.096***	0.135***	0.116**	0.059	0.175***
	(0.039)	(0.038)	(0.041)	(0.057)	(0.040)	(0.045)
MAJ*GOV				0.008		
				(0.072)		
SHARED*GOV					0.279***	
					(0.093)	
DISP*GOV						-0.192**
						(0.092)
EQFIN	0.193*	0.186*	0.193*	0.192*	0.188*	0.177
	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)
Q	-0.018***	-0.019***	-0.019***	-0.018***	-0.019***	-0.019***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
ROA	0.073	0.079	0.066	0.073	0.075	0.070
	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)
SIZE	-0.004	-0.004	-0.005*	-0.004*	-0.004	-0.005
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
INTERCEPT	0.116***	0.133***	0.135***	0.119**	0.163***	0.105**
	(0.043)	(0.042)	(0.042)	(0.052)	(0.043)	(0.045)
R2	0.195	0.192	0.195	0.195	0.197	0.197
F	13.18***	13.35***	13.23***	12.80***	12.89***	13.94***

Note: Modeling: Ordinary least squares with robust errors and sector and year fixed effects control. Sample: 1433 observations from 168 companies listed on the B3 between 2010 and 2019. Dependent variable: debt financing (DEBTFIN). Independent variables of interest: majority control (MAJ), shared control (SHARED), dispersed control (DISP), corporate governance (GOV) and their interactions (MAJ*GOV, SHARED*GOV and DISP*GOV). Control variables: equity financing (EQFIN), Tobin's Q (Q), return on assets (ROA) and size (SIZE). Statistical significance: 10% (*), 5% (**) and 1% (***).

As for the control variables, the results suggest that companies that seek more debt financing (DEBTFIN) also seek to capitalize themselves by issuing shares (EQFIN). On the other hand, companies with a higher market value (Tobin's Q) use less debt funding. No evidence was found on the relationship between debt financing and both profitability and firm size.

4.3 Discussion of results

Under the agency theoretical framework, the aim of this study was to investigate the effect of shareholding control and corporate governance on access to debt financing in Brazilian listed companies. The results support the first research hypothesis suggesting that the type of shareholding control is related to the corporate financing decisions of Brazilian companies in the credit market. Tests for the difference in means indicate that companies with a controlling (majority) shareholder raise a greater volume of funds through debt, while companies with dispersed control are associated with higher fundraising by equity issuance. In turn, econometric analysis shows that debt financing is positively related to the presence of majority shareholding control and negatively related to dispersed shareholding control. This evidence suggests that debt financing is higher in firms with majority control and lower in firms with dispersed control, as proposed in hypotheses 1A and 1C, respectively. On the other hand, the results do not support the hypothesis that shared control is related to higher debt financing (Hypothesis 1B).

Given the predominance of principal-principal agency conflicts in companies with a majority shareholder, this controlling shareholder may influence the company's financing policy to help keeping firm control. In this sense, the research findings can be explained by the aversion of controlling shareholders to dilution of control, especially when there is a single controlling shareholder, either to avoid reducing their power over company management or because of the high cost of equity due to the greater risk of agency conflicts between controlling and minority shareholders (Céspedes et al., 2010; Crisóstomo & Pinheiro, 2015; Crisóstomo et al., 2020). On the other hand, in companies with dispersed control, agency conflicts of the principal-agent type prevail. Thus, firms with dispersed control seem to seek a greater volume of funds from the stock market because they do not have defined control, which would explain their lower dependence on the credit market. The results also suggest that there is a positive correlation between ownership concentration and leverage, supporting the findings of Crisóstomo and Pinheiro (2015) and Ribeiro et al., (2021).

The level of adoption of corporate governance practices was found to be positively related to debt financing, which matches the second research hypothesis. By reducing agency conflicts, a company's better governance structure can reduce the cost of debt capital, thus contributing to raising a larger amount of funds in the credit market (Aldamen & Duncan, 2012; Zhu, 2014). Taking into account the inconclusive results provided by the literature, this research supports the findings of Fonseca et al. (2016) and Pinheiro et al. (2017), who found a positive relationship between the quality of corporate governance and the debt degree of Brazilian companies.

Confirming the third research hypothesis, the effectiveness of corporate governance in increasing access to debt financing is affected by the type of shareholding control of the company (Aguilera et al., 2008). As argued in hypotheses 3B and 3C, the econometric analysis showed that the relationship between corporate governance and debt financing is positively and negatively moderated by shared control and dispersed control, respectively. However, contrary to what was argued in Hypothesis 3A, the positive relationship between the adoption of corporate governance practices and debt financing is not stronger in companies with majority control.

The evidence of more pronounced agency conflicts between controlling and minority shareholders leads to a higher importance of the adoption of corporate governance practices in companies with majority control (Brandão & Crisóstomo, 2023). However, this relevance was not verified with respect to access to debt. The reputation of large shareholders and the disciplinary power of the credit market may help explain these results. On the one hand, the fact that large shareholders prefer debt as a source of financing for their firms gives them an incentive to maintain their reputation in the credit market so that they can continually benefit from the lower cost of debt (Crisóstomo & Pinheiro, 2015). On the other hand, higher debt ratios can generate a substitution effect in companies with majority control: greater monitoring efforts by creditors may reduce the relevance of internal corporate governance mechanisms (Junqueira et al., 2017; Nascimento, et al., 2018).

The adoption of corporate governance practices seems to be more beneficial for access to debt financing in companies with shared control. According to the descriptive

analysis, this group of companies has a higher market value and profitability, which supports the literature that suggests that agency conflicts between controlling and minority shareholders are less severe in these companies than in companies with majority control (Gomes & Novaes, 2005; Soares & Kloeckner, 2008). However, in the Brazilian credit market, creditors may view the shareholders' agreement as a potential expropriation tool that facilitates the enjoyment of private benefits of control by a small group of shareholders (López-Iturriaga & Santana-Martín, 2015). Since the relevance of reputation under shared control is lower than majority control, given that three or more blockholders are identified, the adoption of corporate governance practices in companies with shared control becomes more important as a way of mitigating creditor expropriation risks, contributing to ease the access to debt funding.

Companies with dispersed control have a higher level of adoption of corporate governance practices (Table 3). On the other hand, the effectiveness of this adoption in allowing the firm to access a greater amount of funds through debt is lower than in firms with defined control (Table 4; Models 4, 5 and 6). One of the factors that may explain these results is the lower dependence of companies with dispersed control on debt as a source of financing. In this sense, efforts to improve the governance structure of these companies would be aimed at mitigating problems between shareholders and managers (Bebchuk & Hamdani, 2009). Another point to highlight is the perception of investors in the credit market about the dispersed ownership structure. Agency conflicts of the principal-principal type are prevalent in capital markets characterized by high levels of ownership concentration and divergence between voting and cash flows rights (Crisóstomo & Brandão, 2019). In this institutional context, ownership dispersion can be seen as an indicator of lower agency conflicts and costs (Marques et al., 2015), making the adoption of other governance practices less necessary.

Additional estimations were performed using the percentage of funds raised through debt as the dependent variable in relation to the total amount of cash inflows from financing activities (debt + equity issuance) (Supplementary Data 1 – Stata outputs). The results, which are not reported in the text due to space limitation, remained the same for the direct relationship between shareholding control and debt financing, and for the relationship between corporate governance and debt financing moderated by the type of shareholding control, signaling that the type of shareholding control may influence the choice of financing source for the Brazilian companies. However, the direct relationship between corporate governance and debt financing was no longer significant, suggesting that although corporate governance contributes to greater access to debt financing, it does not affect the choice of external financing sources.

5 Conclusion

The paper makes theoretical, methodological and organizational contributions. At the theoretical level, it deepens the analysis of corporate financing decisions in the light of agency theory, discussing not only the direct relationship between access to debt financing and both shareholding control and corporate governance, but also how shareholding control configuration, an attribute of the ownership structure, can help understanding the role of corporate governance in reducing agency conflicts and easing access to external funding. The findings of this study suggest that agency theory can help to understand debt financing in Brazilian companies. The presence of a majority shareholder contributes to a greater volume of funds raised through the credit market, while the absence of a controlling shareholder makes the company less dependent on this form of financing. The quality of the company's governance system contributes to access to debt financing, especially in companies with shared control. On the other hand, corporate governance is less relevant in companies with dispersed control.

Methodologically, shareholding control was categorized according to the type and magnitude of agency conflicts, a classification not addressed in previous research on corporate financing. Corporate governance was analyzed using a broad index of recommended practices for Brazilian companies. Debt financing, in turn, was investigated on the basis of the financial resources raised by the company, an approach that is less noisy than the balance sheet-based approach that is normally used in Brazilian research.

In practice, the results confirm the argument that the main source of external financing for Brazilian companies is debt, especially when there is a single controlling shareholder, and that the quality of their corporate governance system can facilitate access to the credit market. More incentives to companies going public, and the improvement of the legal environment

by increasing protection for equity investors are examples of actions that can reduce Brazilian companies' reliance on debt financing. In addition, improving companies' internal corporate governance systems can be a means of facilitating access to the credit market, given the characteristics of their ownership structure, especially the type of shareholding control.

Two other findings of the study are worth highlighting and require further empirical investigation. First, little is known about the implications of shared control for corporate governance and financing decisions. Previous empirical evidence suggests that this type of control may serve as a corporate governance mechanism that reduces principal-principal agency conflicts. However, the results of this study, while revealing that companies with shared control are associated with higher profitability and market value, suggest that corporate governance is more relevant for these companies' access to the debt market compared to other types of shareholding control.

Second, the negative moderating effect of dispersed control on the relationship between corporate governance and debt financing raises questions about the effectiveness of the corporate governance practices analyzed in this shareholding control configuration. The main agency conflict in companies with dispersed control is of the principal-agent type. In a market characterized by firms with defined control, the governance practices recommended by codes of good governance may not apply to firms with dispersed control. Given the growing number of companies without defined shareholding control in the Brazilian market, it is necessary to study and propose more appropriate corporate governance practices for this reality.

It should also be noted that this study analyzed the amount of funds raised through debt, without considering other characteristics of the capital structure that are relevant to financing decisions. Future research could investigate the effect of shareholding control and corporate governance on the maturity and cost of debt, which can also be affected by agency conflicts. Although it covers a comprehensive set of practices, the analysis of corporate governance by means of an index also limits the results of this research. It is therefore suggested that future studies examine internal corporate governance mechanisms in isolation (such as management remuneration policy, board structure and composition, and minority shareholder rights) to identify which of these mechanisms are more/less relevant to Brazilian firms' access to the credit market. Another limitation concerns the potential impact of endogeneity on the research results. Although we tried ways to mitigate the effect of reverse causality, such as using lagged independent variables, other sources of endogeneity were not addressed. In this sense, future studies could try to use analytical methods that deal more adequately with other sources of endogeneity.

References

Aguilera, R. V., & Desender, K. A. (2012). Challenges in the measuring of comparative corporate governance: A Review of the main indices. In C. L. Wang, D. J. Ketchen, & D. D. Bergh (Eds.), *West meets east: Building theoretical bridges* (Vol. 8, pp. 289-322): Emerald Group Publishing Limited. http://doi.org/10.1108/S1479-8387(2012)0000008014.

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science*, *19*(3), 475-492. http://doi.org/10.1287/orsc.1070.0322.

Aldamen, H., & Duncan, K. (2012). Does adopting good corporate governance impact the cost of intermediated and non-intermediated debt? *Accounting and Finance*, *52*(s1), 49-76. http://doi.org/10.1111/j.1467-629X.2011.00439.x.

Araújo, J. G., Confessor, K. L. A., Santos, J. F., Oliveira, M. R. G., & Prazeres, R. V. (2017). A estrutura de capital e a governança: Análise dos conselhos administração e estrutura de propriedade nas empresas listadas no IBRX-100. *Revista de Gestão Finanças e Contabilidade*, *7*(2), 121-140.

Barnea, A., Haugen, R. A., & Senbet, L. W. (1980). A rationale for debt maturity structure and call provisions in the agency theoretic framework. *The Journal of Finance*, *35*(5), 1223-1234. http://doi.org/10.1111/j.1540-6261.1980.tb02205.x.

Bebchuk, L. A., & Hamdani, A. (2009). The elusive quest for global governance standards. *University of Pennsylvania Law Review*, *157*(5), 1263-1317. https://www.jstor.org/stable/40380267

Brandão, I. F., & Crisóstomo, V. L. (2023). Configuração do controle acionário, governança corporativa e valor da

empresa: Uma análise das empresas brasileiras. *Estudios Gerenciales*, *39*(169), 417-434. http://doi.org/10.18046/j.estger.2023.169.5922.

Brealey, R. A., Myers, S. C., & Allen, F. (2013). *Princípios de finanças corporativas.* Mcgraw-Hill Interamericana.

Bressan, V. G. F., Lima, J. E. D., Bressan, A. A., & Braga, M. J. (2009). Análise dos determinantes do endividamento das empresas de capital aberto do agronegócio brasileiro. *Revista de Economia e Sociologia Rural*, *47*(1), 89-122. http://doi.org/10.1590/S0103-20032009000100004.

Carvalhal, A. (2012). Do shareholder agreements affect market valuation? Evidence from Brazilian listed firms. *Journal of Corporate Finance*, *18*(4), 919-933. http://doi.org/10.1016/j.jcorpfin.2012.04.003.

Carvalho, A. G. (2002). Governança corporativa no Brasil em perspectiva. *RAUSP*, *37*(3), 19-32. http://www.spell.org.br/documentos/ver/16656/governanca-corporativa-no-brasil-em-perspectiva/i/pt-br

Céspedes, J., González, M., & Molina, C. A. (2010). Ownership and capital structure in Latin America. *Journal of Business Research*, *63*(3), 248-254. http://doi.org/10.1016/j.jbusres.2009.03.010.

Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, *15*, 1-33. http://doi.org/10.1016/j.ememar.2012.03.002.

Costa Fo., J. C. B., Viana Jr., D. B. C., Domingos, S. R. M., & Ponte, V. M. R. (2016). Endividamento e qualidade da governança corporativa nas companhias listadas na BM&FBovespa. *Revista de Contabilidade da UFBA*, *10*(3), 41-62. http://doi.org/10.9771/rc-ufba.v10i3.17269.

Crisóstomo, V. L., & Brandão, I. F. (2019). The ultimate controlling owner and corporate governance in Brazil. *Corporate Governance The international*. *Journal of Business and Society*, *19*(1), 120-140.

Crisóstomo, V. L., & Pinheiro, B. G. (2015). Estrutura de capital e concentração de propriedade da empresa brasileira. *Revista de Finanças Aplicadas*, *4*, 1-30. http://www.financasaplicadas.fia.com.br/index.php/financasaplicadas/article/view/299

Crisóstomo, V. L., Pinheiro, B. G., & Nakamura, W. T. (2020). Concentração de propriedade e emissão de ação: Evidência da América Latina. *Revista Brasileira de Finanças*, *18*(4), 33-76. http://doi.org/10.12660/rbfin.v18n4.2020.81194.

Crisóstomo, V. L., Prudêncio, P. A., & Brandão, I. F. (2022). Corporate reputation in Brazil: The effects of the shareholding control configuration, corporate governance, and corporate social responsibility. *Corporate Reputation Review*. http://doi.org/10.1057/s41299-022-00152-w.

David, M., Nakamura, W. T., & Bastos, D. D. (2009). Estudo dos modelos trade-off e pecking order para as variáveis endividamento e payout em empresas brasileiras (2000-2006). *RAM. Revista de Administração Mackenzie*, *10*(6), 132-153. http://doi.org/10.1590/S1678-69712009000600008.

Dedman, E., & Filatotchev, I. (2008). Corporate governance research: A contingency framework. *International Journal of Managerial Finance*, *4*(4), 248-258. http://doi.org/10.1108/17439130810902778.

Dey, A. (2008). Corporate governance and agency conflicts. *Journal of Accounting Research*, *46*(5), 1143-1181. http://doi.org/10.1111/j.1475-679X.2008.00301.x.

Dyck, A., & Zingales, L. (2004). Private benefits of control: An international comparison. *The Journal of Finance*, *59*(2), 537-600. http://doi.org/10.1111/j.1540-6261.2004.00642.x.

Fonseca, C. V. C., & Silveira, R. L. F. (2016). Corporate governance and cost of debt: Evidences among Brazilian listed companies. *Revista Eletrônica de Administração*, *22*(1), 106-133.

Fonseca, C. V. C., Silveira, R. L. F., & Hiratuka, C. (2016). A Relação entre a governança corporativa e a estrutura de capital das empresas brasileiras no período 2000-2013. *Enfoque: Reflexão Contábil*, *35*(2), 35-52. http://doi.org/10.4025/enfoque.v35i2.29673.

Frank, M. Z., & Goyal, V. K. (2008). Trade-off and pecking order theories of debt. In B. E. Eckbo (Ed.),

Handbook of corporate finance: Empirical corporate finance (pp. 135-202). Elsevier. http://doi.org/10.1016/B978-0-444-53265-7.50004-4

Gomes, A., & Novaes, W. (2005). *Sharing of control versus monitoring as corporate governance mechanisms. Avaliable at SSRN*. http://doi.org/10.2139/ssrn.277111

Hausmann, D. C. S., Vogt, M., Hein, N., & Hein, A. K. (2021). Relação entre estrutura de capital e estrutura de propriedade em empresas brasileiras: Trade-off decision analysis. *Cuadernos de Contabilidad*, *22*, 1-20. http://doi.org/10.11144/Javeriana.cc22.rece.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency cost and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360. http://doi.org/10.1016/0304-405X(76)90026-X.

Junqueira, L. R., Soares, C. H., Bressan, A. A., & Bertucci, L. A. (2017). Impactos da adesão aos níveis diferenciados de Governança corporativa sobre a estrutura de capital das empresas brasileiras. *Revista de Administração da UFSM*, *10*(3), 420-436. http://doi.org/10.5902/1983465911276.

Kayhan, A., & Titman, S. (2007). Firms' histories and their capital structures. *Journal of Financial Economics*, *83*(1), 1-32. http://doi.org/10.1016/j.jfineco.2005.10.007.

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, *54*(2), 471-517. http://doi.org/10.1111/0022-1082.00115.

Lei, Q., Lin, B., & Wei, M. (2013). Types of agency cost, corporate governance and liquidity. *Journal of Accounting and Public Policy*, *32*(3), 147-172. http://doi.org/10.1016/j.jaccpubpol.2013.02.008.

López-Iturriaga, F. J., & Santana-Martín, D. J. (2015). Do Shareholder coalitions modify the dominant owner's control? The impact on dividend policy. *Corporate Governance*, *23*(6), 519-533. http://doi.org/10.1111/corg.12126.

Marques, T. D. Á., Guimarães, T. M., & Peixoto, F. M. (2015). A concentração acionária no Brasil: Análise dos impactos no desempenho, valor e risco das empresas. *RAM. Revista de Administração Mackenzie*, *16*(4), 100-133. http://doi.org/10.1590/1678-69712015/administracao.v16n4p100-133.

Martins, H. C., Schiehll, E., & Terra, P. R. S. (2017). Country-level governance quality, ownership concentration, and debt maturity: A comparative study of Brazil and Chile. *Corporate Governance*, *25*(4), 236-254. http://doi.org/10.1111/corg.12192.

Nascimento, J. C. H. B., Angotti, M., Macedo, M. A. S., & Bortolon, P. M. (2018). As relações entre governança corporativa, risco e endividamento e suas influências no desempenho financeiro e no valor de mercado de empresas brasileiras. *Advances in Scientific and Applied Accounting*, *11*(1), 166-185. https://asaa.anpcont.org.br/index.php/asaa/article/view/366

Paligorova, T., & Xu, Z. (2012). Complex ownership and capital structure. *Journal of Corporate Finance*, *18*(4), 701-716. http://doi.org/10.1016/j.jcorpfin.2012.05.001.

Pinheiro, B. G., Vasconcelos, A. C., Luca, M. M. M., & Crisóstomo, V. L. (2017). Estrutura de capital e governança corporativa nas empresas listadas na BM&FBovespa. *Revista de Educação e Pesquisa em Contabilidade*, *11*(4), 451-466. http://doi.org/10.17524/repec.v11i4.1706.

Procianoy, J. L., & Schnorrenberger, A. (2004). A influência da estrutura de controle nas decisões de estrutura de capital das companhias brasileiras. *Revista Brasileira de Economia*, *58*(1), 122-146. http://doi.org/10.1590/S0034-71402004000100006.

Renders, A., & Gaeremynck, A. (2012). Corporate governance, principal-principal agency conflicts, and firm value in European listed companies. *Corporate Governance*, *20*(2), 125-143. http://doi.org/10.1111/j.1467-8683.2011.00900.x.

Ribeiro, F., Atamanczuk, M. J., Gerigk, W., & Biscaia, L. F. (2021). Concentração de propriedade, governança corporativa e estrutura de capital no segmento de energia elétrica da B3. *Revista Evidenciação Contábil & Finanças*, *9*(2), 7-25. http://doi.org/10.22478/ufpb.2318-1001.2021v9n2.53271.

Ribeiro, J. E., & Souza, A. A. (2022). A governança corporativa afeta a estrutura de capital? Evidências das empresas listadas na Brasil Bolsa Balcão no período

2010-2020. *Revista Universo Contábil*, *18*. http://doi.org/10.4270/ruc.2022112.

Rossetti, J. P., & Andrade, A. (2012). *Governança Corporativa: Fundamentos, desenvolvimento e tendências.* Atlas.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, *52*(2), 737-783. http://doi.org/10.1111/j.1540-6261.1997.tb04820.x.

Silva, A. L. P., Lana, J., & Marcon, R. (2018). Agreeing and impacting: The effect of the shareholders' agreement on firms' market value. *Brazilian Business Review*, *15*(1), 88-104. http://doi.org/10.15728/bbr.2018.15.1.6.

Silveira, A. D. M., Perobelli, F. F. C., & Barros, L. A. B. C. (2008). Governança corporativa e os determinantes da estrutura de capital: Evidências empíricas no Brasil. *RAC. Revista de Administração Contemporânea*, *12*(3), 763-788. http://doi.org/10.1590/S1415-65552008000300008.

Soares, R. O., & Kloeckner, G. D. O. (2008). Endividamento em firmas com alta propensão à expropriação: O caso de firmas com um controlador. *Revista de Administração de Empresas –. RAE*, *48*(4), 79-93. http://doi.org/10.1590/S0034-75902008000400008.

Sonza, I. B., Machado, V. N., Lacruz, M. S. P., & Rosa, A. S. (2020). Mapeamento financeiro das regiões brasileiras: Determinantes do endividamento das empresas de capital aberto. *Revista Brasileira de Gestão e Desenvolvimento Regional*, *16*(3), 443-457.

Vieira, K. M., Velasquez, M. D., Losekann, V. L., & Ceretta, P. S. (2011). A influência da governança corporativa no desempenho e na estrutura de capital das empresas listadas na Bovespa. *Revista Universo Contábil*, *7*(1), 46-67. http://doi.org/10.4270/ruc.20117.

Wooldridge, J. M. (2002). *Econometric analysis of cross section and panel data.* MIT Press.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). Corporate governance in emerging economies: A review of the principal-principal perspective. *Journal of Management Studies*, *45*(1), 196-220. http://doi.org/10.1111/j.1467-6486.2007.00752.x.

Zhu, F. (2014). Corporate governance and the cost of capital: An international study. *International Review of Finance*, *14*(3), 393-429. http://doi.org/10.1111/irfi.12034.

SUPPLEMENTARY MATERIAL

Supplementary Data 1 – Stata output
Supplementary Data 2 – Database

Supplementary material for this article is available online at https://doi.org/10.7910/DVN/Q0BHR5

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The authors have no conflict of interest to declare

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