

# **OWNERSHIP STRUCTURE AND EQUITY ISSUANCE: AN ANALYSIS OF THE BRAZILIAN FIRM**

## **ABSTRACT**

This study analyzes the effect of ownership structure on equity issuance in Brazil. To this end, an unbalanced panel dataset was used, consisting of 2,643 annual observations from 262 companies listed on B3. The findings indicate that ownership structure configuration is a relevant determinant of equity issuance of the Brazilian firm. Ownership concentration, different types of ownership control, specifically shareholder agreement and dispersed control, and family as the main voting shareholder were found to be relevant elements for agency conflicts with effect on firm funding decision regarding equity issuance. The study contributes to debate on firm capital structure decisions by providing additional evidence from Brazil, an important emerging market characterized by high firm ownership concentration and dependence on bank credit to finance investment.

**Keywords:** Ownership Structure; Equity Issuance; Brazil.

## **1 INTRODUCTION**

One of the main topics in corporate finance concerns the choice for the optimal capital structure which allows maximizing firm value (Harasheh et al., 2024; Li & Islam, 2019; Liang et al., 2023). Capital structure represents the mix of securities and financing sources used by firms to fund their investment projects, involving corporate policy decisions regarding the selection among available funding choices (Mundi et al., 2022; Myers, 2001). The critical nature of capital structure decisions has led to the development of insightful theories—considering market imperfections—aimed at identifying the optimal capital structure (Muhammad et al., 2021), such as the Trade-off Theory (DeAngelo & Masulis, 1980), Pecking Order Theory (Myers, 1984) and Market Timing Theory (Baker & Wurgler, 2002).

Firm ownership structure seems to balance the combination of firm decision control and residual claims with possible repercussion on firm behavior and such repercussion seems to be influenced by macroeconomic exogenous conditions related to the institutional environment where the firm is located (Fama & Jensen, 1983; La Porta et al., 1998, 2002). This picture

justifies studies in specific countries focusing on endogenous firm ownership structure attributes and their impact on firm policies.

From the Agency Theory perspective, conflicts of interests among shareholders, typically under the Principal-Principal agency theoretical model on which conflicts between majority and minority shareholders are more pronounced, which highlight the importance of ownership structure in such conflicts, may be relevant for firm policies (Shleifer & Vishny, 1986; Young et al., 2008). In fact, ownership structure has proposed as able to affect these conflicts, as well as the conflicts between shareholders and managers, and also other stakeholders. In this vein, ownership structure has been found as a determinant for some firm policies and performance in distinct markets (Allen & Phillips, 2000; Crisóstomo et al., 2014; Forte et al., 2025; Goergen & Renneboog, 2001; Said et al., 2009; Villalonga & Amit, 2006).

The relationship between ownership structure and capital structure has received attention under the argument that ownership structure is relevant for agency conflicts and that investors are not only sensitive to project payoffs but also to agency conflicts (Céspedes et al., 2010; Dittmar & Thakor, 2007; Ganguli, 2013; Gödecke & Schiereck, 2024; Goergen & Renneboog, 2001). Specifically, ownership structure and agency conflicts are proposed as determinants of firm financing choices, through debt or equity issuance, for some reasons (Ganguli, 2013; Jensen, 1986; Paligorova & Xu, 2012; Sun et al., 2016; Young et al., 2008): alignment of interests between shareholders and managers, use of debt as a tool for management monitoring, and the fear of losing control by large shareholders as a consequence of equity issuance.

Literature has pointed out that research on the determinants of equity issuance still requires advances, especially in emerging markets (Bajaj et al., 2021; Brandão & Crisóstomo, 2025; Crisóstomo et al., 2020). This need for more research on emerging markets motivates this study that aims to appraise the determinants of equity issuance in Brazil, focusing on ownership structure elements. Accordingly, the study investigates whether equity issuance is influenced by key ownership structure attributes, including ownership concentration, type of ownership control (dominant, shared, dispersed), and the identity of the main shareholder (non-financial firm, family, government, and institutional investor).

The study uses a relevant sample of Brazilian firms consisting of an unbalanced panel dataset with 2,643 annual observations from 262 companies listed on B3. The findings show that ownership structure indeed matters for agency conflicts with consequences on firm share

issuance, in the Brazilian market, as hypothesized. Higher ownership concentration lowers the probability of firm equity issuance. The same effect is observed for firm shared control (shareholder agreement). On the other hand, firm dispersed control is associated with an increase in the probability of the firm issuing new shares. Furthermore, family firms are less prone to issue shares. Thus, the present research provides additional results on the relevance of ownership structure for firm funding policies in Brazil, a relevant emerging market.

## **2 LITERATURE REVIEW AND HYPOTHESES**

Despite being a valuable financing instrument, equity issuance is not used with the intensity in distinct markets due to country idiosyncrasies as the institutional status and capital availability (Calomiris et al., 2021; Crisóstomo et al., 2020; Doidge et al., 2009).

Theories address the process of equity issuance by firms, taking into account financial, market, and agency conflict issues. According to the Pecking Order proposal (Myers, 1984), equity financing is not a priority due to the possibility of equity market timing, its high informational and financial cost, as well as the potential signaling effect of possible firm difficulty for raising debt and/or generating cash flow (Baker & Wurgler, 2002; Myers, 2003). Under the Agency Theory framework, equity issuance can be influenced by conflicts of interest, such as the fear of control loss by large shareholders, insider trading, or wealth transfer between existing and new shareholders (Ganguli, 2013; Mansi et al., 2025).

### **2.1 Equity issuance and ownership concentration**

The divergence of interests between controlling and minority shareholders is proposed as capable of influencing firm financing policy (Driffield et al., 2007). The possibility of minority shareholders expropriation by controlling shareholders that may use the so-called private benefits of control (Dyck & Zingales, 2004; Young et al., 2008) tends to contribute to the greater difficulty for firms in issuing equity (Doidge et al., 2009). Another factor that hinders equity issuance is that controlling shareholders often prefer to maintain their ownership stake to preserve their control over the firm (Ganguli, 2013).

Empirical evidence from emerging markets indicates a higher trend of firms using debt and internal cash flow to finance investment instead of equity issuance, as seen in India (Ganguli, 2013), Latin America (Céspedes et al., 2010), and specifically in Brazil (Crisóstomo et al., 2014; Kalatzis et al., 2008). In emerging markets institutional environments, a positive effect of ownership concentration on leverage has been observed, suggesting that large shareholders are reluctant to equity issuance due to fear of losing firm control, or, firm difficulty

in accessing equity markets (Céspedes et al., 2010; Ganguli, 2013). In line with this result, it has been found that high ownership concentration is a factor that restricts equity issuance in Latin America, possibly due to large blockholders' fear of losing firm control or the limited dynamism of the country stock market (Crisóstomo et al., 2020). This rationale motivates the following hypothesis regarding the relationship between ownership concentration and equity issuance:

***Hypothesis 1: Ownership concentration negatively influences equity issuance by the Brazilian firm.***

## **2.2 Equity issuance and the shareholding control configuration**

In Brazil, although the majority of firms still have a single controlling shareholder (dominant control), there has been a recent increase in the number of firms with shared control (shareholders' agreements) and firms with dispersed control—i.e., firms without a controlling shareholder (Brandão & Crisóstomo, 2023; Carvalhal, 2012). Under the dispersed shareholding control configuration, the prevailing agency conflict is of the principal-agent type, that is, between dispersed shareholders and managers (Jensen & Meckling, 1976). In contrast, in firms with dominant or shared ownership control the principal–principal theoretical agency model is the picture, in which the main conflicts occur between controlling and minority shareholders (Young et al., 2008). The presence of a dominant shareholder intensifies these conflicts while simultaneously easing the alignment of interests between ownership and management (Lei et al., 2013; Young et al., 2008). Shared control, in turn, requires collective decision-making among the shareholders who signed the shareholder agreement. This decision-making process is expected to reduce the likelihood of harmful decisions to minority shareholders (Gomes & Novaes, 2006).

In Brazil, firm shareholding control configuration (dominant, shared, or dispersed) has been observed to influence the intensity of agency conflicts, the effectiveness of corporate governance systems, and firm reputation (Brandão & Crisóstomo, 2024; Crisóstomo et al., 2022). This relevance of the type of ownership control motivates the assessment of its effect on market responsiveness to equity issuance, given that differences in agency conflicts between dispersed and defined control (dominant or shared) may be relevant to the firm relationship with equity investors. Would differences in agency conflicts between dispersed and defined control (dominant or shared) matter for the firm relationship with equity investors. In this respect, two arguments may justify such relationship. First, dominant control eases the use of

private benefits of control which increases the risk of minority shareholders expropriation, leading external investors to be more prudent (Crisóstomo et al., 2020; Doidge et al., 2009). Under this rationale, external investor skepticism tends to be lower under lower ownership concentration easing share issuance in firms with dispersed control. Second, controlling shareholders are afraid of losing firm control (Ganguli, 2013).

Beyond these arguments, Brazilian market is considered an institutional environment with still weak protection to investors, high firm ownership concentration, and having the principal–principal theoretical agency model as the typical (La Porta et al., 1999). These arguments give support to the idea that firms with dominant and shared control (high ownership concentration) tend to follow a pecking-order behavior, i.e., using more strongly internal cash flow and/or debt in detriment of share issuance (Crisóstomo et al., 2014; Kalatzis et al., 2008). This set of arguments motivates the following hypotheses:

***Hypothesis 2: The type of ownership control influences equity issuance by Brazilian firms.***

***Hypothesis 2a: Dominant control negatively influences equity issuance by Brazilian firms.***

***Hypothesis 2b: Shared control negatively influences equity issuance by Brazilian firms.***

***Hypothesis 2c: Dispersed control positively influences equity issuance by Brazilian firms.***

### **2.3 Equity Issuance and the Identity of the Main Shareholder**

The identity of firm large shareholders has been observed as possibly relevant for agency conflicts and some firm strategies (Cid-Aranda & López-Iturriaga, 2024; Crisóstomo & Brandão, 2019; Long et al., 2024), including firm investment and funding policies (Attig et al., 2008; Bui, 2022; Crisóstomo et al., 2014; Goergen & Renneboog, 2001), under the argument that each shareholder identity may be linked to specific interests and investment time horizons which may matter for agency conflicts and firm strategic policies. Following this line of research, this study assesses the effect on firm share issuance of four distinct identities of shareholders that are present as the main shareholder of the Brazilian firm (another non-financial company, family, government, and institutional investor) proposing the hypothesis that the main shareholder identity matter for equity issuance.

***Hypothesis 3: The identity of the main shareholder influences equity issuance in Brazilian firms.***

It is possible that non-financial firm acting as the main shareholder in Brazil represent the interests of other economic groups, taking into account that pyramidal ownership structures

are usually involved with such kind of ownership concealing the presence of firm ultimate shareholders under the dominant shareholding control configuration as analyzed in Brazil (Aldrichi & Mazzer Neto, 2005, 2007). Many of such firms are holdings/investment firms. Given that the Brazilian firm typically exhibits high ownership concentration, high proportions of firms with dominant control, and frequent presence of non-financial firms as controlling shareholders which is strongly connected to dominant control, it is plausible to propose that the external investors may be skeptical on such ownership structure and reluctant to invest in such firms. This picture may lead such firms to be less prone to issue equity.

***Hypothesis 3a:*** *The presence of a non-financial firm as the main firm shareholder negatively influences equity issuance in the Brazilian market.*

“Socioemotional wealth” in family firms comprises nonfinancial issues linked to family affective demands: the identification with the business, firm control and perpetuation in firm control. This socioemotional wealth tends to shape firm policies that meet family blockholders’ interests (Chirico & Kellermanns, 2024; Gómez-Mejía et al., 2007). From this socioemotional wealth perspective, family blockholders may shape firm policies in a way that reduce their risk of losing firm control. In this regard, the choice for firm funding using internally generated cash flow and debt arise as interesting funding sources given that they do not affect firm ownership (Driffield et al., 2007; Ganguli, 2013). This argument give support to the hypothesis that firms which has family members as the main shareholder are more resistant to equity issuance.

***Hypothesis 3b:*** *The presence of a family as the main firm shareholder negatively influences equity issuance in the Brazilian market.*

State-controlled firms are generally established to support the fulfilment of public policies (Rodríguez Bolívar et al., 2015). In this context, equity issuance may be a way of reducing state ownership stake and, thus, lowering state power to lead the firm to support state purposes that justify firm existence. This rationale inspires the hypothesis that state firms a less prone to issue equity and prioritize the use of internal cash flow and debt.

***Hypothesis 3c:*** *The presence of government as the main firm shareholder negatively influences equity issuance in the Brazilian market.*

Institutional investors work as agents for other investors as fiduciaries as such, are expected to follow a more prudent behavior than other investors, looking for investments that

yield reasonable return at low risk, institutional stability, and, avoiding speculation at high risk while prioritizing capital preservation (Del Guercio, 1996; Drobetz et al., 2025; Gompers & Metrick, 2001). Under this proposal of a more prudent behavior, institutional investors indeed seem to prefer directing investment to more stable firms with long-term orientation as well as more stable institutional and more robust oversight mechanisms (Graves & Waddock, 1994; Jara-Bertin et al., 2012).

There has been observed a growing proportion of institutional ownership around the world together with an active behavior of such investors looking for better alignment of interests between management and shareholders. In this regard, institutional investors ownership has improved shareholder activism and the search for better corporate governance (Aggarwal et al., 2011), better operating performance and valuation (Bena et al., 2017).

The *a priori* more prudent behavior of institutional investors as fiduciary agents of individual investors, added to their active behavior in pressing firms for improvement in management and performance makes plausible the proposition that external investors will have a good expectation on the firms with high institutional investors ownership easing the share issuance of such firms.

***Hypothesis 3d:*** *The presence of an institutional investor as the main firm shareholder positively influences equity issuance in the Brazilian market.*

### **3 METHODOLOGY**

#### **3.1 Sample**

The sample consists of an unbalanced panel data of 2,643 firm-year observations from 262 non-financial firms listed on the Brazilian stock exchange (B3) in the period 2010-2022, with at least 4 firm-year observations, encompassing 16 industries (Table 1). Financial data, ownership concentration data and the names of the main shareholders were collected from Economatica database. The categorization of blockholders identity was done manually checking each name. The type of ownership control (dominant, shared, dispersed) was obtained from the Reference Form available on the website of the Brazilian Securities and Exchange Commission (CVM) which required listed firms to disclose such information from 2010 on. Additionally, it is worth noting the standardization of Brazilian accounting data with the International Financial Reporting Standards (IFRS) as of 2010.

**Table 1 – Sample split by sector**

| Sector                                              | N. Observations | %       | N. Firms | %       |
|-----------------------------------------------------|-----------------|---------|----------|---------|
| Electric Power                                      | 366             | 13.85%  | 38       | 14.50%  |
| Construction                                        | 220             | 8.32%   | 22       | 8.40%   |
| Retail                                              | 203             | 7.68%   | 20       | 7.63%   |
| Steel and Metallurgy                                | 179             | 6.77%   | 17       | 6.49%   |
| Vehicles, Parts, and Industrial Machinery           | 175             | 6.62%   | 16       | 6.11%   |
| Textiles                                            | 164             | 6.21%   | 14       | 5.34%   |
| Agribusiness, Fishing, Food, and Beverages          | 153             | 5.79%   | 15       | 5.73%   |
| Business and Enterprise Management                  | 141             | 5.33%   | 12       | 4.58%   |
| Transportation Services                             | 138             | 5.22%   | 13       | 4.96%   |
| Electronics, Telecommunications, Software, and Data | 128             | 4.84%   | 14       | 5.34%   |
| Chemicals, Pulp, and Paper                          | 126             | 4.77%   | 12       | 4.58%   |
| Real Estate-Related Activities                      | 123             | 4.65%   | 11       | 4.20%   |
| Mining and Non-Metallic Minerals                    | 57              | 2.16%   | 6        | 2.29%   |
| Oil and Gas                                         | 52              | 1.97%   | 6        | 2.29%   |
| Other Services                                      | 310             | 11.73%  | 33       | 12.60%  |
| Other Industries                                    | 108             | 4.09%   | 13       | 4.96%   |
| Total                                               | 2,643           | 100.00% | 262      | 100.00% |

Source: Research data.

### 3.2 Variables

Equity issuance is measured using a binary variable, which takes the value 1 if the firm issued equity in a given year and 0 otherwise. The analysis was based on the number of shares outstanding compared to the previous year, considering only follow-on offerings. A positive variation in the number of shares indicates that the firm issued equity, consistent with previous studies (Crisóstomo et al., 2020; de Haan & Hinloopen, 2003; Gonenc & Hermes, 2008). In cases of a negative variation in the number of shares, additional verification was conducted using firm data to identify any reverse stock splits combined with new issuance, which would still indicate an equity offering.

Ownership structure is analyzed based on three aspects: ownership concentration, shareholding control configuration, and the identity of the main shareholder. Ownership concentration is measured by the proportion of voting shares held by the top five shareholders, following prior research (Liang et al., 2023; Mbanyele, 2020; Sampaio et al., 2024).

Shareholding control configuration is considered by a dummy variable for each type of shareholding control: dominant, shared, or dispersed. The classification was based on the firm reference form required by Brazilian Securities and Exchange Commission (CVM), item 15 (Control and Economic Group), sub-items 15.1 / 2 (Shareholding Position), and the fields



“Controlling Shareholder” and “Participation in Shareholders’ Agreement”, which are answered by firms as “Yes” or “No”. Observations with a controlling shareholder were classified as dominant. If a firm reported the existence of a shareholders’ agreement, sub-item 15.5 (Shareholders Agreement) was examined to confirm the classification as shared control. In cases where both a controlling shareholder and a shareholders’ agreement were reported, the firm was classified as having dominant control. Finally, when no individual shareholder held more than 50% of voting shares, no controlling shareholder was reported to the CVM, and no shareholders’ agreement existed, the firm was classified as having dispersed control.

The identity of the main shareholder is a dummy variable for each category of blockholder - non-financial company, family, government, or institutional investor -, following prior studies (Boumlík et al., 2024; Saona et al., 2020). To define the identity of the main shareholder, the name provided by the Economatica® database was cross-checked with keywords associated with each classification, as shown in Table 2. When the shareholder’s name did not match any keyword, the firm registry in the National Registry of Legal Entities was consulted via the Brazilian Federal Revenue ([https://solucoes.receita.fazenda.gov.br/servicos/cnpjreva/cnpjreva\\_solicitacao.asp](https://solucoes.receita.fazenda.gov.br/servicos/cnpjreva/cnpjreva_solicitacao.asp)), using the function to issue a registration certificate, allowing access to the firm’s primary economic activity code and description.

**Table 2 – Keywords used to classify the identity of the main shareholder**

| <b>Identity of the main shareholder</b> | <b>Keywords</b>                                                                                                                            |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Non-Financial Company (NONFIN)          | Holding, Enterprises, Inc, Limited Liability Company (LLC)                                                                                 |
| Family (FAM)                            | Individual names                                                                                                                           |
| Government (GOV)                        | Federal Union (National Treasury), Government, State, State Secretariat, Municipal Government                                              |
| Institutional Investor (INST)           | Bank, Investment Fund, Foundation, Insurance, Private Equity Fund, Equity Mutual Fund, Fund, Asset Management, Capital Management, Pension |

Models also comprise some control variables mentioned by the literature as relevant for capital structure (Table 3).

**Table 3 – Control variables**

| Variable                      | Description                                                                                                                                                                                    | Source       | Theoretical Foundation                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------|
| Profitability (ROA)           | Earnings Before Interest and Taxes (EBIT) / Total Assets                                                                                                                                       | Economática® | (Farooq et al., 2025; Zaman et al., 2023)     |
| Firm Size (SIZE)              | Natural logarithm of total assets                                                                                                                                                              | Economática® | (Jara et al., 2019; Safiullah et al., 2022)   |
| Tangibility (TANG)            | Fixed Assets / Total Assets                                                                                                                                                                    | Economática® | (Liang et al., 2023; Pinheiro et al., 2017)   |
| Growth Opportunities (GR_OPP) | (Market Value + Liabilities) / Total Assets                                                                                                                                                    | Economática® | (Crisóstomo et al., 2020; Saona et al., 2024) |
| Risk (RISK)*                  | Altman Z-Score = 6.56(Working Capital / Total Assets) + 3.26(Retained Earnings / Total Assets) + 6.72(Operating Income / Total Assets) + 1.05(Book Value of Equity / Total Liabilities) + 3.25 | Economática® | (Altman, 2005; Ntoug et al., 2020)            |

Nota: \* By definition, higher values of the RISK variable (Altman Z-Score) indicate a lower likelihood of firm default, reflecting an inverse relationship in the interpretation of this variable's results.

### 3.3 Econometric model

The econometric model of Equation 1 is proposed to appraise the effect of ownership structure (OWN\_STRUCT) on equity issuance (EQ\_ISSUE).

$$EQ\_ISSUE_{i,t} = \beta_0 + \beta_1 OWN\_STRUCT_{i,t} + \beta_2 \sum CONTROLS_{i,t} + \varepsilon \quad (1)$$

Equity issuance (EQ\_ISSUE) refers to firm *i* issuing or not issuing equity in year *t*. Ownership structure (OWN\_STRUCT) refers to the three aspects of firm ownership taken into account: ownership concentration (OWN\_CONC) held by the first up to the five main shareholders cumulatively, shareholding control configuration (CTRL\_TYPE) - dominant, shared, or dispersed -; and the identity of the main shareholder (MAIN\_SHR) - non-financial firm, family, government, or institutional investor -. Specific models are estimated for each ownership attribute.

All models include firm-level control variables (CONTROLS) for firm *i* at time *t*, which are: profitability (ROA), firm size (SIZE), asset tangibility (TANG), growth opportunities (GR\_OPP), risk (RISK), sector of activity (SECTOR), and year (YEAR).

Models are estimated by logistic fixed effects regression for panel data which allows the assessment of the influence of each explanatory variable on the probability of the event equity issuance proxied by the dependent variable (dummy variable).

## 4 ANALYSIS OF RESULTS

### 4.1 Descriptive analysis

Table 4 presents descriptive statistics for the ownership structure variables: ownership concentration, type of ownership control, and identity of the main shareholder. In accordance with previous research, the Brazilian firm has highly concentrated ownership (Brandão & Crisóstomo, 2024; Pellicani et al., 2021; Sampaio et al., 2024). The largest voting shareholder (OWN\_CONC1) holds, on average, 46.10% of the voting shares and the five largest shareholders (OWN\_CONC5) jointly hold, on average, 69.65% of voting capital.

**Table 4 – Descriptive statistics for ownership structure**

Table 1 Descriptive statistics for ownership structure

| Panel A: Ownership Concentration            |       |              |           |                |                |                         |       |
|---------------------------------------------|-------|--------------|-----------|----------------|----------------|-------------------------|-------|
| Variable                                    | Obs   | Mean         | Std. Dev. | Coeff. of Var. | Median         | Min                     | Max   |
| OWN_CONC1                                   | 2,643 | 0.4610       | 0.2638    | 0.5723         | 0.4359         | 0.0354                  | 1.000 |
| OWN_CONC2                                   | 2,643 | 0.5878       | 0.2526    | 0.4298         | 0.5874         | 0.0532                  | 1.000 |
| OWN_CONC3                                   | 2,643 | 0.6455       | 0.2380    | 0.3687         | 0.6478         | 0.0546                  | 1.000 |
| OWN_CONC4                                   | 2,643 | 0.6778       | 0.2274    | 0.3356         | 0.6825         | 0.0554                  | 1.000 |
| OWN_CONC5                                   | 2,643 | 0.6965       | 0.2209    | 0.3172         | 0.7026         | 0.0554                  | 1.000 |
| Panel B: Shareholding control configuration |       |              |           |                |                |                         |       |
| Dispersed                                   |       | Shared       |           |                | Dominant       |                         |       |
| 379 (14.34%)                                |       | 591 (22.36%) |           |                | 1,673 (63.30%) |                         |       |
| Panel C: Identity of the main shareholder   |       |              |           |                |                |                         |       |
| Non-Financial Firm                          |       | Family       |           | Government     |                | Institutional Investors |       |
| 1,837 (69.50%)                              |       | 360 (13.62%) |           | 149 (5.64%)    |                | 297 (11.24%)            |       |

Most of the Brazilian firms are characterized by the presence of a single controlling shareholder (dominant control), representing 63.30%. This reflects the predominance of concentrated control structures in the Brazilian environment, consistent with the ownership concentration figures discussed above. Additionally, 22.36% of firms are guided by shareholder agreements (shared control), in which certain shareholders seem to act collectively to align interests and consolidate decision-making power. On the other hand, 14.34% of the firms have dispersed control.

Regarding the main shareholder identity (Table 4, Panel C), firms with another non-financial firm as the main shareholder is the typical situation in Brazil, accounting for 69.50% of the firms. Such finding is in line with previous result in Brazil (Crisóstomo et al., 2014). In

Brazil, 13.62% of firms have family members as main shareholders. This proportion of firms is followed by institutional investors with 11.24%. Finally, 5.64% of Brazilian firms have government entities as the main blockholder.

Table 5 exhibits equity issuance behavior according to shareholding control configuration and identity of the main shareholder. As can be seen, most Brazilian firms do not issue equity (69.09%) what can also be observed for all firm categories. Shareholding control configuration as dispersed seems to be the type of control most prone to issue shares meanwhile dominant control seems to have low use of this way of funding firm investment.

**Table 5 – Equity issuance by shareholding control configuration and identity of the main shareholder**

| <b>Panel A: Shareholding control configuration</b> |                    |       |        |       |            |       |
|----------------------------------------------------|--------------------|-------|--------|-------|------------|-------|
| Equity Issuance                                    | Dispersed          |       | Shared |       | Dominant   |       |
|                                                    | Obs                | (%)   | Obs    | (%)   | Obs        | (%)   |
| Yes                                                | 170                | (45%) | 185    | (31%) | 462        | (28%) |
| No                                                 | 209                | (55%) | 406    | (69%) | 1,211      | (72%) |
| Total                                              | 379                |       | 591    |       | 1,673      |       |
| <b>Panel B: Identity of the main shareholder</b>   |                    |       |        |       |            |       |
| Equity Issuance                                    | Non-Financial Firm |       | Family |       | Government |       |
|                                                    | Obs                | (%)   | Obs    | (%)   | Obs        | (%)   |
| Yes                                                | 584                | (32%) | 86     | (24%) | 30         | (20%) |
| No                                                 | 1,253              | (68%) | 274    | (76%) | 119        | (80%) |
| Total                                              | 1,837              |       | 360    |       | 149        |       |

Regarding the identity of the main shareholder (Panel B), the highest rate of equity issuance is observed in firms with institutional investor as the main shareholder (39%) and non-financial companies (32%), while the lowest rates are associated with government ownership (20%) and family control (24%).

The low equity issuance among Brazilian firms may be attributed both to the fear of losing control by major shareholders and to the reluctance or uncertainty of minority investors to invest in firms with high ownership concentration. As such, these firms may choose to issue shares only during favorable periods, often associated with high market valuation, as suggested by the market timing theory (Baker & Wurgler, 2002). In the Brazilian equity market, macroeconomic conditions seem to be relevant for equity issuance, including initial public offerings (IPOs) (Amorim et al., 2024).

## **4.2 Influence of ownership structure on equity issuance**

Table 6 presents model estimates with equity issuance as the dependent variable and ownership concentration as the explanatory variable. Results signal a strong trend of a negative effect of ownership concentration on equity issuance as proposed (Hypothesis 1). As can be observed, the growing ownership concentration held by the two up the five main shareholders (OWN\_CONC2 to OWN\_CONC5) lowers the probability of equity issuance by the Brazilian firm.

**Table 6 – Models: equity issuance and ownership concentration**

| Variable                     | (i)                    | (ii)                   | (iii)                  | (iv)                   | (v)                    |
|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| OWN_CONC1                    | -0.3885<br>(0.3576)    |                        |                        |                        |                        |
| OWN_CONC2                    |                        | -0.6213*<br>(0.3707)   |                        |                        |                        |
| OWN_CONC3                    |                        |                        | -0.8612**<br>(0.3863)  |                        |                        |
| OWN_CONC4                    |                        |                        |                        | -1.0248**<br>(0.4018)  |                        |
| OWN_CONC5                    |                        |                        |                        |                        | -1.1773***<br>(0.4112) |
| ROA                          | -2.1533***<br>(0.5724) | -2.1435***<br>(0.5720) | -2.1397***<br>(0.5719) | -2.1356***<br>(0.5722) | -2.1273***<br>(0.5723) |
| SIZE                         | 0.2864***<br>(0.0641)  | 0.2811***<br>(0.0639)  | 0.2737***<br>(0.0639)  | 0.2681***<br>(0.0641)  | 0.2624***<br>(0.0642)  |
| TANG                         | -1.2241**<br>(0.5202)  | -1.1899**<br>(0.5205)  | -1.1625**<br>(0.5208)  | -1.1324**<br>(0.5215)  | -1.0989**<br>(0.5220)  |
| GR_OPP                       | 1.0138***<br>(0.1245)  | 1.0025***<br>(0.1247)  | 0.9955***<br>(0.1245)  | 0.9907***<br>(0.1246)  | 0.9865***<br>(0.1246)  |
| RISK                         | 0.3629**<br>(0.1495)   | 0.3596**<br>(0.1493)   | 0.3572**<br>(0.1493)   | 0.3561**<br>(0.1493)   | 0.3537**<br>(0.1493)   |
| Intercept                    | -5.3469***<br>(1.1404) | -5.0824***<br>(1.1488) | -4.7698***<br>(1.1623) | -4.5349***<br>(1.1761) | -4.3080***<br>(1.1857) |
| Industry and Year<br>Dummies | YES                    | YES                    | YES                    | YES                    | YES                    |
| /lnsig2u                     | 0.5684<br>(0.1615)     | 0.5616<br>(0.1608)     | 0.5613<br>(0.1602)     | 0.5630<br>(0.1600)     | 0.5612<br>(0.1600)     |
| sigma_u                      | 1.3287<br>(0.1073)     | 1.3242<br>(0.1065)     | 1.3240<br>(0.1061)     | 1.3251<br>(0.1060)     | 1.3240<br>(0.1059)     |
| rho                          | 0.3492<br>(0.0367)     | 0.3477<br>(0.0365)     | 0.3476<br>(0.0363)     | 0.3480<br>(0.0363)     | 0.3476<br>(0.0363)     |
| N. Observs                   | 2,643                  | 2,643                  | 2,643                  | 2,643                  | 2,643                  |
| N. Firms                     | 262                    | 262                    | 262                    | 262                    | 262                    |
| Wald-chi <sup>2</sup>        | 166.22***              | 167.65***              | 169.16***              | 170.10***              | 171.28***              |

Notes: Dependent variable is equity issuance. Independent variables: ownership concentration of the largest shareholder (OWN\_CONC1) through the top five shareholders (OWN\_CONC5), profitability (ROA), firm size (SIZE), asset tangibility (TANG), growth opportunities (GR\_OPP), and risk (RISK). Models estimated using logit regression for panel data. Reported values are estimated coefficients with robust standard errors in parentheses. Wald-chi<sup>2</sup> refers to the test of overall model significance.. \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 7 presents model estimates related to equity issuance, shareholding control configuration and main shareholder identity. Regarding the type of ownership control, dispersed control (DISP), in comparison to other shareholding control configurations, as proposed (Hypothesis 2c), positively affects the likelihood of equity issuance signaling that the market seems to recognize lower likelihood of minority shareholders expropriation in these

firms (Table 7, Panel A, iii). On the other hand, firms with shared control (Table 7, Panel A, ii) seem to be less likely to issue equity in comparison to the other shareholding control configurations as expected (Hypothesis 2b). Not in accordance with the prediction of a negative of dominant control configuration on share issuance (Hypothesis 2a), dominant shareholding configuration does not impact on the likelihood of new equity issuance. Perhaps, reputational concerns of controlling shareholders in Brazil may be considered favorable in the Brazilian market. These findings suggest that the low incidence of equity issuance among Brazilian firms is driven by controlling shareholders' concerns over potential loss of ownership control.

The analysis on the main shareholder identity shows that family ownership as the main shareholder (FAM) exerts a negative effect on the likelihood of equity issuance (Table 7, Panel B, ii) as expected (Hypothesis 3b). Thus, it seems that, in fact, firms under family control are less likely to issue equity. This finding matches the notion that family-owned firms balance their capital structure minimizing the risk of losing control, being averse to equity issuance (Boumlík et al., 2024).

**Table 7 – Model estimates for equity issuance**

| Variable  | Panel A: Shareholding control configuration |                        |                        | Panel B: Identity of the main shareholder |                        |                        |                        |
|-----------|---------------------------------------------|------------------------|------------------------|-------------------------------------------|------------------------|------------------------|------------------------|
|           | (i)                                         | (ii)                   | (iii)                  | (i)                                       | (ii)                   | (iii)                  | (iv)                   |
| DOMIN     | 0.0048<br>(0.1728)                          |                        |                        |                                           |                        |                        |                        |
| SHARED    |                                             | -0.4119**<br>(0.1888)  |                        |                                           |                        |                        |                        |
| DISP      |                                             |                        | 0.5633***<br>(0.2190)  |                                           |                        |                        |                        |
| NONFIN    |                                             |                        |                        | 0.2388<br>(0.1629)                        |                        |                        |                        |
| FAM       |                                             |                        |                        |                                           | -0.6621***<br>(0.2352) |                        |                        |
| GOV       |                                             |                        |                        |                                           |                        | -0.1363<br>(0.5109)    |                        |
| INST      |                                             |                        |                        |                                           |                        |                        | 0.1594<br>(0.2060)     |
| ROA       | -2.1788***<br>(0.5744)                      | -2.2239***<br>(0.5729) | -2.1166***<br>(0.5711) | -2.1826***<br>(0.5732)                    | -2.1618***<br>(0.5750) | -2.1785***<br>(0.5731) | -2.1717***<br>(0.5734) |
| SIZE      | 0.2979***<br>(0.0640)                       | 0.3066***<br>(0.0639)  | 0.2977***<br>(0.0628)  | 0.2994***<br>(0.0641)                     | 0.2837***<br>(0.0640)  | 0.3000***<br>(0.0644)  | 0.2957***<br>(0.0638)  |
| TANG      | -1.2476**<br>(0.5227)                       | -1.2238**<br>(0.5208)  | -1.1912**<br>(0.5167)  | -1.2464**<br>(0.5240)                     | -1.2512**<br>(0.5230)  | -1.2329**<br>(0.5254)  | -1.2320**<br>(0.5221)  |
| GR_OPP    | 1.0274***<br>(0.1251)                       | 1.0534***<br>(0.1250)  | 1.0196***<br>(0.1236)  | 1.0273***<br>(0.1244)                     | 1.0233***<br>(0.1244)  | 1.0223***<br>(0.1257)  | 1.0201***<br>(0.1247)  |
| RISK      | 0.3713**<br>(0.1500)                        | 0.3602**<br>(0.1502)   | 0.3574**<br>(0.1485)   | 0.3753**<br>(0.1503)                      | 0.3660**<br>(0.1505)   | 0.3720**<br>(0.1500)   | 0.3680**<br>(0.1499)   |
| Intercept | -5.7056***<br>(1.1226)                      | -5.7262***<br>(1.1017) | -5.6915***<br>(1.0855) | -5.8863***<br>(1.1169)                    | -5.3602***<br>(1.1101) | -5.7297***<br>(1.1117) | -5.6829***<br>(1.1042) |
| /lnsig2u  | 0.5962<br>(0.1598)                          | 0.5824<br>(0.1598)     | 0.5355<br>(0.1625)     | 0.6020<br>(0.1597)                        | 0.5923<br>(0.1597)     | 0.5946<br>(0.1595)     | 0.5879<br>(0.1598)     |
| sigma_u   | 1.3473<br>(0.1077)                          | 1.3381<br>(0.1069)     | 1.3070<br>(0.1062)     | 1.3512<br>(0.1079)                        | 1.3447<br>(0.1073)     | 1.3462<br>(0.1074)     | 1.3417<br>(0.1072)     |
| rho       | 0.3556<br>(0.0366)                          | 0.3524<br>(0.0365)     | 0.3418<br>(0.0365)     | 0.3569<br>(0.0366)                        | 0.3547<br>(0.0365)     | 0.3552<br>(0.0365)     | 0.3537<br>(0.0365)     |
| N. Obs.   | 2,643                                       | 2,643                  | 2,643                  | 2,643                                     | 2,643                  | 2,643                  | 2,643                  |
| N. Firms  | 262                                         | 262                    | 262                    | 262                                       | 262                    | 262                    | 262                    |
| Wald-chi2 | 164.02***                                   | 168.05***              | 171.22***              | 164.87***                                 | 169.69***              | 164.01***              | 164.99***              |

Notes: The dependent variable is equity issuance. Independent variables include: dominant ownership control (DOMIN); shared ownership control (SHARED); dispersed ownership control (DISP); principal shareholder is a non-financial firm (NONFIN); principal shareholder is a family (FAM); principal shareholder is the government (GOV); and principal shareholder is an institutional investor (INST). Control variables include: profitability (ROA); firm size (SIZE); asset tangibility (TANG); growth opportunities (GR\_OPP); and risk (RISK). Industry and Year Dummies not exhibited. The models were estimated using panel data logistic regression (logit). Estimated coefficients and standard errors (in parentheses) refer to the estimation of models specified in Equations (1.2) and (1.3). Wald chi-squared (Wald-chi2) is the model significance test. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.



Furthermore, profitability (ROA) reduces the likelihood of equity issuance, consistent with the Pecking order Theory. Firm size (SIZE), in turn, increases the propensity to issue equity. Firms with more growth opportunities (GR\_OPP) are more likely to issue shares, suggesting that they may take advantage of their good NPV projects and favorable market value, or also, that internal funds and debt may be insufficient to finance these investment opportunities. Asset tangibility (TANG) has an adverse effect on equity issuance meaning that it favors debt and may be leading firms averse to equity issuance to contract debt instead of issuance equity that may threaten their control position. Finally, firm risk also negatively affects equity issuance in the Brazilian market, suggesting that equity investors prefer to invest in less risky firms. It is worth noting that the RISK metric is proxied by the Altman Z-Score, which, by definition, indicates that higher values correspond to a lower probability of firm default. These findings are consistent with previous studies (Crisóstomo et al., 2020; de Haan & Hinloopen, 2003; Gonenc & Hermes, 2008).

Tables 8 and 9 report the average marginal effects (AME), which help interpreting the results of the logistic regression models for equity issuance. Marginal effects allow for the interpretation of the average change in the probability—or expected value—of the outcome (equity issuance) for a one-unit change in the explanatory variable, holding all other variables constant (*ceteris paribus*) (Bartus, 2005).

As ownership concentration among the two main shareholders (OWN\_CONC2) increases by one percentage point, the probability of a firm issuing equity decreases by 0.0909 percentage points (Table 8). This reduction in the likelihood of issuing equity is consistent for ownership concentration up to the sum of voting capital held by the five largest shareholders: it reaches 0.1258 percentage points when considering the shareholdings of the top three shareholders (OWN\_CONC3), 0.1495 percentage points for the top four (OWN\_CONC4), and 0.1716 percentage points for the top five (OWN\_CONC5). These findings reinforce the previous finding that Brazilian firms with higher ownership concentration are less likely to issue equity.

**Table 8 – Marginal effects: models of equity issuance and ownership concentration**

| Variable                     | (i)                    | (ii)                   | (iii)                  | (iv)                   | (v)                    |
|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| OWN_CONC1                    | -0.0569<br>(0.0525)    |                        |                        |                        |                        |
| OWN_CONC2                    |                        | -0.0909*<br>(0.0543)   |                        |                        |                        |
| OWN_CONC3                    |                        |                        | -0.1258**<br>(0.0563)  |                        |                        |
| OWN_CONC4                    |                        |                        |                        | -0.1495***<br>(0.0584) |                        |
| OWN_CONC5                    |                        |                        |                        |                        | -0.1716***<br>(0.0596) |
| ROA                          | -0.3152***<br>(0.0841) | -0.3136***<br>(0.0839) | -0.3126***<br>(0.0838) | -0.3116***<br>(0.0837) | -0.3101***<br>(0.0837) |
| SIZE                         | 0.0419***<br>(0.0090)  | 0.0411***<br>(0.0090)  | 0.0400***<br>(0.0090)  | 0.0391***<br>(0.0090)  | 0.0383***<br>(0.0090)  |
| TANG                         | -0.1792**<br>(0.0755)  | -0.1741**<br>(0.0755)  | -0.1698**<br>(0.0755)  | -0.1652**<br>(0.0755)  | -0.1602**<br>(0.0755)  |
| GR_OPP                       | 0.1484***<br>(0.0173)  | 0.1467***<br>(0.0174)  | 0.1454***<br>(0.0173)  | 0.1445***<br>(0.0173)  | 0.1438***<br>(0.0173)  |
| RISK                         | 0.0531**<br>(0.0216)   | 0.0526**<br>(0.0216)   | 0.0522**<br>(0.0216)   | 0.0520**<br>(0.0215)   | 0.0516**<br>(0.0215)   |
| Industry and<br>Year Dummies | YES                    | YES                    | YES                    | YES                    | YES                    |
| N. Observs                   | 2,643                  | 2,643                  | 2,643                  | 2,643                  | 2,643                  |
| N. Firms                     | 262                    | 262                    | 262                    | 262                    | 262                    |

Notes: The dependent variable is equity issuance. Independent variables include ownership concentration from the largest shareholder (OWN\_CONC1) to the five largest shareholders (OWN\_CONC5). Control variables are: profitability (ROA); firm size (SIZE); asset tangibility (TANG); growth opportunities (GR\_OPP); and risk (RISK). The results report average marginal effects, which correspond to the partial derivatives  $\Pr(EQ\_ISSUE = 1)/X$ . According to Bartus (2005), this marginal effect measures the marginal change in the predicted probability that a firm adopts an equity issuance policy, resulting from a marginal change in a continuous independent variable or from a discrete change in a dummy variable from zero to one, ceteris paribus. Standard errors are in parentheses. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

The average marginal effects (AME) of shareholding control configuration reinforce the initial results. The probability that a firm will issue equity decreases by 6.02 percentage points for companies with shared control (SHARED) compared to other forms of shareholding (Table 9, Panel A, ii). Conversely, for firms with dispersed ownership, the probability of issuing equity increases by 8.26 percentage points due to the dispersed control configuration (DISP) (Table 9, Panel A, iii).

In terms of the main shareholder identity, the average marginal effects (AME) show that family ownership (FAM) is indeed relevant to decrease the likelihood of firm equity issuance. In terms of marginal effects, firms with family members as the main shareholder has a 9.62

percentage points less likely of equity issuance than the other ownership structures (Table 9, Panel B, ii).

**Table 9 – Marginal effects: models of equity issuance, shareholding control configuration, and main shareholder identity**

| Variable                        | Panel A                |                        |                        | Panel B                |                        |                        |                        |
|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                                 | (i)                    | (ii)                   | (iii)                  | (i)                    | (ii)                   | (iii)                  | (iv)                   |
| DOMIN                           | 0.0007<br>(0.0252)     |                        |                        |                        |                        |                        |                        |
| SHARED                          |                        | -0.0602**<br>(0.0276)  |                        |                        |                        |                        |                        |
| DISP                            |                        |                        | 0.0826***<br>(0.0321)  |                        |                        |                        |                        |
| NONFIN                          |                        |                        |                        | 0.0347<br>(0.0236)     |                        |                        |                        |
| FAM                             |                        |                        |                        |                        | -0.0962***<br>(0.0339) |                        |                        |
| GOV                             |                        |                        |                        |                        |                        | -0.0199<br>(0.0745)    |                        |
| INST                            |                        |                        |                        |                        |                        |                        | 0.0233<br>(0.0301)     |
| ROA                             | -0.3178***<br>(0.0841) | -0.3249***<br>(0.0841) | -0.3105***<br>(0.0840) | -0.3175***<br>(0.0837) | -0.3140***<br>(0.0838) | -0.3177***<br>(0.0839) | -0.3170***<br>(0.0840) |
| SIZE                            | 0.0434***<br>(0.0089)  | 0.0448***<br>(0.0089)  | 0.0437***<br>(0.0088)  | 0.0435***<br>(0.0089)  | 0.0412***<br>(0.0089)  | 0.0437***<br>(0.0090)  | 0.0432***<br>(0.0089)  |
| TANG                            | -0.1819**<br>(0.0755)  | -0.1788**<br>(0.0754)  | -0.1747**<br>(0.0751)  | -0.1813**<br>(0.0755)  | -0.1817**<br>(0.0752)  | -0.1798**<br>(0.0760)  | -0.1798**<br>(0.0755)  |
| GROWTH_<br>OPP                  | 0.1498***<br>(0.0174)  | 0.1539***<br>(0.0175)  | 0.1495***<br>(0.0172)  | 0.1494***<br>(0.0173)  | 0.1486***<br>(0.0173)  | 0.1491***<br>(0.0175)  | 0.1489***<br>(0.0174)  |
| RISK                            | 0.0541**<br>(0.0216)   | 0.0526**<br>(0.0217)   | 0.0524**<br>(0.0215)   | 0.0546**<br>(0.0216)   | 0.0531**<br>(0.0216)   | 0.0543**<br>(0.0216)   | 0.0537**<br>(0.0216)   |
| Industry and<br>Year<br>Dummies | YES                    | YES                    | YES                    | YES                    | YES                    | YES                    | YES                    |
| N. Observs                      | 2,643                  | 2,643                  | 2,643                  | 2,643                  | 2,643                  | 2,643                  | 2,643                  |
| N. Firms                        | 262                    | 262                    | 262                    | 262                    | 262                    | 262                    | 262                    |

Notes: The dependent variable is equity issuance. Independent variables: dominant ownership control (DOMIN); shared ownership control (SHARED); dispersed ownership control (DISP); principal shareholder as a non-financial corporation (NONFIN); principal shareholder as a family (FAM); principal shareholder as the government (GOV); and principal shareholder as an institutional investor (INST). Control variables are: profitability (ROA); firm size (SIZE); asset tangibility (TANG); growth opportunities (GR\_OPP); and risk (RISK). The results report average marginal effects, which correspond to the partial derivatives  $\Pr(EQ\_ISSUE = 1)/X$ . According to Bartus (2005), this marginal effect measures the marginal change in the predicted probability that a firm adopts an equity issuance policy, resulting from a marginal change in a continuous independent variable or from a discrete change in a dummy variable from zero to one, ceteris paribus. Standard errors are in parentheses. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

The average marginal effects show that profitability (ROA) stands out as the most sensitive variable in the analysis. The probability of issuing equity decreases by approximately 0.31 percentage points across all models when ROA increases by one percentage point. This result suggests that more profitable firms probably heavily use internally generated cash flow to finance their investment projects following a pecking order behavior as previously documented in Brazil (Crisóstomo et al., 2014; Kalatzis et al., 2008). Thus, the Brazilian firm indeed seems to prioritize the use of cash flow before debt for investment funding.

Among the elements that favor equity issuance, growth opportunities (GR\_OPP) are particular particularly noteworthy. An increase of one percentage point in growth opportunities raises the probability of equity issuance by approximately 0.15 percentage points across all models.

### 4.3 Discussion of results

In order to analyze the effect of ownership structure on equity issuance, the study developed three hypotheses, which were tested using logit panel data model. Table 10 summarizes the hypotheses formulated on the topic and the research findings.

**Table 10 - Hypotheses and research findings**

| Hypothesis   | Expected Results                      | Observed Results   | Conclusion               |
|--------------|---------------------------------------|--------------------|--------------------------|
| Hypothesis 1 | H1: OWN_CONC $\Rightarrow$ – EQ_ISSUE | Negative influence | Hypothesis supported.    |
| Hypothesis 2 | H2a: DOMIN $\Rightarrow$ – EQ_ISSUE   | No influence       | Hypothesis not supported |
|              | H2b: SHARED $\Rightarrow$ – EQ_ISSUE  | Negative influence | Hypothesis supported     |
|              | H3c: DISP $\Rightarrow$ + EQ_ISSUE    | Positive influence | Hypothesis supported     |
| Hypothesis 3 | H3a: NONFIN $\Rightarrow$ – EQ_ISSUE  | No influence       | Hypothesis not supported |
|              | H3b: FAM $\Rightarrow$ – EQ_ISSUE     | Negative influence | Hypothesis supported     |
|              | H3c: GOV $\Rightarrow$ – EQ_ISSUE     | No influence       | Hypothesis not supported |
|              | H3d: INST $\Rightarrow$ + EQ_ISSUE    | No influence       | Hypothesis not supported |

The results obtained in this study confirm that ownership concentration negatively influences equity issuance by the Brazilian firm. In other words, firms with higher ownership concentration are less likely to issue equity. Some plausible explanations for this finding may be considered (Crisóstomo et al., 2020; Ganguli, 2013; Young et al., 2008): Brazil is traditionally a bank-oriented market which makes debt the most common way of firm funding. Besides, there is also the possibility that large controlling blockholders prefer using financing forms that do threaten their power/control. Additionally, the lack of interest from small shareholders due to the potential expropriation risk may also be one additional factor.

The study also found that both shared and dispersed ownership structures influence equity issuance. While shared control is negatively associated with share issuance—meaning firms with this shareholding control configuration are less inclined to issue equity—dispersed control shows a positive relationship, suggesting that firms with this type of shareholding control are more likely to issue equity. These results are consistent with the proposed hypotheses.

Regarding the identity of the main shareholder, family members as the largest shareholder appeared to be relevant to constrain equity issuance in Brazil. This finding supports the proposed hypothesis that the preservation of “socioemotional wealth” is the main factor guiding decision-making in these firms (Gómez-Mejía et al., 2007). Accordingly, family-owned companies are risk-averse to losing control and tend to prioritize internal financing with cash flow and the use of debt (Boumlík et al., 2024).

Taken together, the findings of this research support the initial hypothesis that the choice to issue equity among Brazilian firms is influenced by their ownership structure. Ownership concentration, the shareholding control configuration, and the identity of the principal shareholder appear to affect the agency conflicts present in the Brazilian market. This influence ultimately impacts corporate financing decisions through equity issuance.

## **5 CONCLUSION**

This study aimed to analyze the effect of ownership structure on firm equity issuance in Brazil. To this end, an unbalanced panel dataset comprising 262 listed firms in the Brazilian Stock Exchange (B3), totaling 2,643 firm-year observations for the period from 2010 to 2022, was used.

The results show that ownership concentration, shareholding control configuration, and the identity of the main shareholder affect agency conflicts in the Brazilian capital market, as proposed. These agency conflicts influence corporate financing policy decisions through equity issuance. In fact, higher firm ownership concentration constrains equity issue in Brazil. The same constraint is observed for firms with shared control (shareholders agreement) and with family members as the main voting shareholder. On the other hand, firms with dispersed control are more prone to issue equity, signaling that external investors see dispersed control as an effective instrument to protect their rights and reduce the likelihood of expropriation.

Additional results on the adverse of profitability and debt on equity issuance highlight the pecking order behavior of the Brazilian firm. Besides, larger Brazilian firms are more likely

to issue equity, perhaps due to better firm reputation among investors. Growth opportunities, by its turn, increase firm equity issuance, meaning that, firms with good investment opportunities may take advantage of their good projects and high market valuation to issue equity, or, funds from cash flow availability and prudent use of debt may be not enough.

This research contributes to the debate on capital structure decisions by providing additional evidence from an important emerging market, where firms are characterized by high ownership concentration, and low trading volume and liquidity in the stock market. Thus, examining Brazil—the largest economy in Latin America and the Southern Hemisphere—adds relevance to the study of the “capital structure puzzle,” by deepening the application of theories originally proposed for firms in developed markets.

The influence of agency conflicts on equity issuance in Brazilian firms highlights the need for improved corporate governance systems. These systems must be capable of mitigating the potential destruction of firm value and the expropriation of minority shareholders, both of which may arise in highly concentrated ownership structures. Policymakers must address the challenge of identifying effective corporate governance practices, given the critical role of equity financing in a nation’s microeconomic and macroeconomic development.

Finally, for future research, it is suggested that the sample be expanded to include other emerging economies, such as Latin American countries, in order to better compare the institutional environment’s influence on equity issuance. Additionally, future studies should incorporate new metrics, such as the volume of funds obtained from equity issuance.

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