Corporate electoral donations and tax aggressiveness

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Abstract
Purpose – The purpose of this paper is to investigate whether companies that donate to winning electoral campaigns are more aggressive in terms of tax planning than companies that do not make these contributions. The relationship between politicians and companies may be signaled by political connections in which companies try to get political benefits in exchange for providing politicians with campaign financing. The hypothesis is that a quid pro quo occurs in which these companies benefit from favorable tax treatment that reduces their relative tax burden.

Design/methodology/approach – The focus of this study is donations that were made in the presidential elections of 2010 and 2014. The sample covers the period between 2010 and 2016 for companies listed on the B3 Stock Exchange, using proxies for tax aggressiveness computed based on value-added reporting. Through linear regressions, the authors have tested whether the companies that made these campaign contributions tend to have a lower tax burden.

Findings – The proposed hypothesis was confirmed, revealing that a political connection between campaign donations reduces the tax burden for donating companies during the years following the election. These donations appear to depict an environment characterized by an exchange of favors in which the donating companies exhibit greater tax aggressiveness than non-donating companies.

Originality/value – The current study deals with a subject that has not yet been examined empirically in Brazil and reinforces the position adopted by the Supreme Court in prohibiting campaign donations to inhibit quid pro quo practices. The study offers additional arguments for the criminalization of the so-called “second set of books” used to record electoral campaign contributions.

Keywords Donations, Political connections, Tax aggressiveness, Campaign financing

Paper type Research paper

1. Introduction
The campaign financing literature presents evidence that receiving campaign donations is essential for conducting a successful electoral campaign. (Samuels, 2001; Speck, 2005;
Figueiredo Filho, 2009; Mancuso, 2015). Until recently this has also been the case in Brazil, with the largest source of campaign contributions coming from corporate donations (Cervi, 2010). In this sense, Camilo, Marcon, and Bandeira-de-Mello (2012) explain that this practice is a maneuver that depends on public agents to obtain benefits, and thus political agents seek to strengthen their ties with companies, with the primary goal of obtaining financing for their campaigns.

Thus, the practice of lobbying arises, which is directly related to the actions of private managers seeking to obtain benefits for their company from these political agents by influencing the legislative process. According to Silva, Tavares, Anjos, Lopes, and Silva (2015), lobbying is a form of dialogue, designed to orient decision-making on a given subject within the public or private environment, looking for benefits within the area of this activity. The practice of lobbying is associated with groups that have economic objectives (Carmo, Ribeiro, & Carvalho, 2014). This is because of the dominant role of the government in the economy and taxation, making lobbying one of the main instruments to influence political agents to make decisions in favor of various particular interests within society (Carmo et al., 2014).

The size and nature of the effect of political connections and campaign contributions is widely debated in the international literature (Claessens, Feijen, & Laeven, 2008; Cooper, Gulen, & Ovtchinnkov, 2010; He, Waw, & Zhou, 2014; Li & Zhou, 2015). Their relationship with giving companies freer rein in terms of their tax aggressiveness has not been found in the Brazilian literature.

In establishing connections through campaign financing, the company makes financial resources available for campaign financing, believing that it will yield a positive financial return. This leads to serious problems, as the objectives of companies may diverge from those of the larger society and even from democratic principles, which, in theory, should guide the behavior of political agents (Camilo et al., 2012). This is why this study seeks to verify whether there is a relationship between tax aggressiveness and political connections in companies that make financial donations to political campaigns.

It is important to point out that Federal Law no. 9,504/1997, known as the Electoral Law, modified by Law no. 13,165/2015, no longer allows companies to make campaign donations, confirming the position of the Supreme Court, which determined that corporate campaign financing is unconstitutional, as stated by Justice Luiz Fux in ADI:

> Corporate donations in electoral campaigns, rather than reflecting possible political preferences, denote strategic actions on the part of these large contributors which seek to strengthen their relationships with public power in deals that are often devoid of the spirit of democracy. (Justice Luiz Fux, Supreme Court – Determination of Unconstitutionality - ADI 4650-DF, Verdict Date: 3/26/2013, Publication Date: 4/2/2013, retrieved from: Retrieved from http://www.stf.jus.br/portal/peticaoInicial/verPeticaoInicial.asp?base=ADIN&s1=4650&processo=4650).

Within this context, we define the following research question: Can the tax aggressiveness of a company be explained by its political connections through campaign donations? Electoral contributions are considered to be a company strategy, where companies are directly linked to the government and political parties. Considering that elections require considerable financial support, firms become important sources of income for maintaining electoral campaigns (Bazuchi, Zacharias, Broering, Arreola, & Bandeira de Mello, 2013).

This study demonstrates that when corporations have cultivated political relationships, they exhibit more tax aggressiveness depending on the size of the connection. This subject is important given that in recent years the electoral process has been concerned with the possibility of corruption and manipulations involving companies linked to political agents. Our hypothesis is that there is a quid pro quo established between firms and politicians, in
which companies benefit from favorable tax treatment after financing the electoral campaign, leading them to have a relatively lower tax burden. Companies that make these contributions should thus display greater tax aggressiveness than others, receiving particular tax benefits and incentives such as the REFIS Refinancing Program.

The material used in this study is data related to campaign donations obtained from the TSE Supreme Electoral Court for the period from 2010 to 2014, featuring firms listed on the Bovespa Stock Exchange for the presidential election. Two metrics were used to measure tax aggressiveness, in addition to control variables that were used to reduce any biases in the proposed regression. The data were collected from the TSE website, the Economatica system and the B3 Stock Exchange portal.

This study is divided into five sections. After the introduction, Section 2 covers theoretical references and a review of the literature. Sections 3 and 4 describe the methodology used and then the analysis of the regression results, respectively. Finally, we present our conclusions in Section 5.

2. Theoretical references
Political connections, according to Camilo et al. (2012), may be characterized as relationships between political agents and companies, in which both seek to further their common interests. Thus, political connections are a practice that companies that depend on financial resources use to attain their objectives, seeking to expand their ties with politicians, who in turn are interested in the funding of their electoral campaigns (Pinheiro, Luca, & Vasconcelos, 2016). During recent decades, even though democracy and the economic system have evolved, mainly because of control mechanisms and the publication of public and private acts (Bazuchi et al., 2013), organizations need to diminish the uncertainties they face and increase their revenues to remain competitive, and thus they often use political connections to strengthen their ties to public agents (Brey, Camilo, Marcon, & Alberton, 2011). Through political ties, for example, companies can secure conditions that are more favorable to the obtaining of concessions from public institutions, compared to other private financial institutions (Bazuchi et al., 2013). The advantages of political connections may be lower than their costs, but the dominant literature understands that connections can be favorable for companies, because political agents, directly or indirectly, have the power to interfere with competitiveness and competition through the creation of limitations for competing firms (Brey, Camilo, Marcon, & Bandeira-de-Mello, 2012).

There is no definition within Brazilian legislation of abusive, aggressive or pure tax planning. Thus, it is inevitable that there is doubt as to whether certain practices can be adopted to diminish, remove or delay the incidence of taxes. Companies take such risks to increase their own revenues, but are confronted by the reality that there is pressure on the state to confront abusive tax behavior, and collecting more tax revenue (Martinez, 2017).

When analyzing political connections as a form of linking companies to public agents, the principle of resource dependence points to the relevance of associating companies with external causalities as a way to guarantee benefits for companies, such as financial resources, influence, governmental income and protection (Camilo et al., 2012). Another advantage of these political ties is the ability of governments to program their budgets, using their discretion with certain public spending to favor companies (Amore & Bennedsen, 2013).

These connections and electoral donations are elements of several studies, among which we highlight the following:

- Camilo et al. (2012) proposed discussing governance and company performance through political connections. Their findings demonstrate that connections with the
political environment cause increases in company value, and companies intensify such actions during periods of greater political uncertainty.

- Macêdo, Silva, and Machado (2015) studied whether it is advantageous for financial analysts to maintain companies with political connections in their investment portfolios. They found that political connections are perceived by these analysts because of information published by the media in general, and that these connections influence the choice of maintaining or not maintaining a company with political connections in their investment portfolios.

- Pinheiro et al. (2016) proposed analyzing the relationship between firms listed on the Bovespa Stock Exchange and political connections through their performance, and they found that there is no distinction in terms of performance when comparing firms with or without political connections.

To Jackowicz, Kozłowski, and Mielcarz (2014), institutional, economic and political spaces are fundamental points in the conception of companies that tend to form political connections. In practice, they detect that political connections in an organization are something onerous, and for technical reasons and to simplify methodologies, various authors adopt the term to designate the presence of a political agent on the board of directors or the leadership of companies (Infante & Piazza, 2014). However, this theory does not take into account the possible indirect political ties that companies can possess.

In the literature, there is no consensus to indicate which is the best way to identify a politically connected firm (Jackowicz et al., 2014). In the current study, taking into account the obstacles to determining political ties in Brazilian companies, the companies were evaluated through official campaign donations in 2010 and 2014.

Under the framework produced by Claessens et al. (2008), it has been verified that companies that make campaign contributions obtained greater returns than other firms and even succeeded in increasing their bank financing with public institutions. Campaign finance has received more attention in recent years because the practices that the parties have used to maintain themselves have become small in relation to the resources obtained from companies through electoral donations (Lodoño & Zovatto, 2014). In this sense, it is important to observe that after the election, elected candidates end up having to “return” donations made by supporters through specific interests. (Horochovski, Junckes, Silva, Silva, & Camargo, 2016).

In a study similar to this one, addressing political connections and company behavior, Costa, Bandeira-de-Mello, and Marcon (2013) analyzed 95 Brazilian corporate groups during the presidential campaign cycles of 1998, 2002 and 2006, finding that donations to elected politicians increased the growth of these firms, thus making it evident that companies improve their results and the diversification of their investments after providing official campaign contributions. They also found that the performance of these donating companies was superior to that of other companies.

Given the above, it is evident that there is a gap in the literature in relation to tax aggressiveness and electoral donations. Thus, this study deals with the relationship between political connections and the tax aggressiveness of the largest corporate campaign donors during the electoral periods of 2010 and 2014, distinguishing it from the other studies discussed above. Based on the literature, we propose investigating the following research hypothesis:

\[ H1. \] Companies that make electoral campaign donations tend to practice a greater degree of tax aggressiveness.
The methodology used in this investigation is discussed in the following section.

3. Methodology

This study uses a sample of Brazilian firms listed on the B3 Stock Exchange: 529 companies that financed victorious presidential electoral campaigns. The time periods selected range from 2010 to 2016 (seven periods).

Owing to the particularities of tax norms for state firms and also those of the financial sector, the number of firms was reduced. Also excluded from this analysis were all the firms that did not have published data for one of the periods analyzed, either because they were no longer listed on the B3 or they did not present compatible financial information. The final sample was 1,372 firms. Of the final result, that there were 61 corporate donations to the winning candidate or coalition in the elections of 2010 (34 companies) and 2014 (27 companies) for the president of Brazil. Among these companies, 15 made donations in both elections, with 19 making donations only in 2010 and 12 only in 2014.

The sample is restricted to the period mentioned, because we used value-added reporting (VAR) as a way to measure tax aggressiveness. This demonstrates greater amplitude because it analyzes not only taxes on profits but also all taxes whether they are federal, state or municipal since their publication was made mandatory in 2010. The information published by the Stock Exchange Commission served as a basis for obtaining the VAR data, through the annual standard financial statements of each company. The other company data was gathered through the Economática program. The collected information is configured in the form of panel data with an initial sample of 3,704 observations/year.

As noted in Table I, the official donation data for presidential elections made for 2010 and 2014 are available on the Supreme Electoral Court (TSE) website; the financial/economic data for these companies from 2010 to 2016 are available through the Economática database.

Table II relates the metrics which were used to verify tax aggressiveness, the control variables and the proxies for political connections. The first metric used in this study is \( VAT \), which, as Motta and Martinez (2015) note, covers not only taxes on profits but also specific taxes on revenues, representing most of the tax burden of a company. The second metric applied in this work to measure tax aggressiveness is \( Cash\_VAT \), which is used to calculate, based on the variation in taxes paid on the balance sheet, the sum of taxes effectively paid by companies during a given year.

The \( Donation \) variable, is a dummy variable assumed to have a value of 1 when the company made a donation to a winning candidate or coalition. For control purposes, we examine just those who donated to the winning presidential candidate in 2010 and 2014. This way, if a company made a donation in 2010, the donation dummy would assume a value of 1 in 2010, 2011, 2012 and 2013. If, for example, the company made a donation in

| Source               | Objective                                      | Data                                                                 |
|----------------------|------------------------------------------------|----------------------------------------------------------------------|
| TSE                  | Collect/identify campaign donations for 2006, 2010 and 2014 | Company name and CNPJ number of donators; value donated in each election |
| ECONOMÁTICA          | Classify and identify the firms in terms of their size, rate of return and market performance | Market performance, size and rate of return information               |

Note: CNPJ = Cadastro Nacional da Pessoa Jurídica
Source: Authors
2014, the donation dummy would assume a value of 1 in 2014, 2015 and 2016. Donations could be made directly to the winning presidential candidate or the party coalition. For the effects of this analysis, the donations received were considered donations to the coalition of the majority partido dos trabalhadores and partido do movimento democrático Brasileiro parties, as well as directly to the winning presidential candidate.

Control variables were added to capture variables that tend to influence political connections (Infante & Piazza, 2014). According to Hamori and Koyuncu (2015), Size can interfere with the degree of tax aggressiveness. To measure a company’s performance, Delta ROA was used (Mathieu & Zajac, 1990). Another variable according to Gong and Yuching (2011) that can directly influence tax aggressiveness is Leverage.

In terms of measuring the strength of political connections of the companies that were analyzed, we used the studies of Claessens et al. (2008) and Cooper et al. (2010), which characterize political connections with campaign donations.

According to the theoretical references, political connections are favorable for companies. With these measures, we sought to capture the variation of tax aggressiveness for companies with political connections in relation to other companies for the same year, listed on the B3 from 2010 to 2016. To achieve the objective of this study, we adopted the following regression to identify whether tax aggressiveness has a direct relationship with political connections:

\[
\text{TaxAggressiveness}_{it} = \beta_0 + \beta_1 \text{Donation}_{it} + \beta_j \text{Controls}_{j, it} + a_i + u_{it}
\]

where:

- \(\text{TaxAggressiveness}_{it}\) corresponds to an aggressiveness metric that can be presented in both continuous and discrete forms. In terms of continuous and tax aggressiveness metrics, \(VAT\) and \(\text{Cash\_VAT}\) are presented varying between values of 0 to 1. As a discrete metric, tax aggressiveness assumes a value of 1 for cases of greater tax aggressiveness, values within the first quartile, and zero otherwise.

- \(\text{Donation}_{i,t}\) is a dummy variable that assumes a value of 1 for the donation year and subsequent years when the company made a donation to the winning coalition or candidate. It has a value of 0, otherwise. This means that a donation was made in 2010, the dummy

### Table II. Description of study variables

| Variable  | Description                                                                 | Reference                     |
|-----------|-----------------------------------------------------------------------------|-------------------------------|
| VAT       | Total tax burden in VAR/total value added                                    | Motta and Martinez (2015)     |
| \(\text{Cash\_VAT}\) | Tax to pay t-1 + VAR Tax_t- tax to pay_t/operational cash flow | Dyreng, Hanlon, and Maydew (2008) |
| Size      | Size of the company defined by the natural log of the company’s total assets during the previous year | Hamori and Koyuncu (2015). |
| \(\Delta\text{ROA}\) | Return on assets before current taxes minus the return on assets before taxes the previous year | Mathieu and Zajac (1990)     |
| Leverage  | Long-term debt in relation to total assets                                  | Gong and Yuching (2011)       |
| Donation  | Dummy that assumes a value of 1 during the year of the electoral donation and subsequent years when the company made a donation to the winning candidate or coalition, and 0 otherwise. Donations to elected presidential candidate in 2010 and 2014 | Claessens et al. (2008) and Cooper et al. (2010) |
variable value will be 1 for 2010, 2011, 2012 and 2013. If the donation was made in 2014, the dummy variable value will be 1 in 2014, 2015 and 2016.

Descriptive statistics are presented for the variables used in this analysis. Through Table III, it is possible to see that all of the tax aggressiveness proxies presented positive averages: 34.6 per cent for VAT and 48.7 per cent for Cash_VAT. Just 1.8 per cent of the company years was donated to the winning party or candidate in the following election. Table IV exhibits the correlation coefficients for the study variables.

Table IV presents the correlation coefficients between the variables used in this study. It is possible to observe significant and positive correlations between leverage and the Cash_VAT proxies for aggressiveness, which suggests that the greater the leverage, the less a company is predisposed to practice tax aggressiveness, remembering that the greater the metrics for tax aggressiveness, the lesser the tax aggressiveness will be. The correlations of the Size variable were significant for all the variables used in this study (except ΔROA). It should be noted that the correlation between Size and the Cash_VAT metric was negative, therefore the larger the company, the smaller Cash_VAT will be, indicating greater tax aggressiveness by the company. The correlation between the Donation dummy variable and Size was significant and positive, indicating that the companies that donate to parties and/or candidates have greater total assets than those that do not.

4. Analysis of the results
This section displays the analyses of the relationship between tax aggressiveness and donations made to the elected presidential parties and candidates.

4.1 Tax aggressiveness – continuous variables
Table V presents the panel regression with fixed effects for companies, verifying the relationship between donations and tax aggressiveness as measured by the proxies VAT and Cash_VAT.

| Variable | N   | Avg | SD   | p25  | p50  | p75  |
|----------|-----|-----|------|------|------|------|
| VAT      | 1.605 | 0.346 | 0.234 | 0.200 | 0.299 | 0.444 |
| Cash_VAT | 1.372 | 0.487 | 0.251 | 0.312 | 0.478 | 0.673 |
| Donation | 3.045 | 0.018 | 0.132 | –     | –     | –     |
| Size     | 2.625 | 13.541 | 3.041 | 12.566 | 14.145 | 15.364 |
| ΔROA     | 2.078 | 53.304 | 1237.788 | –0.377 | 0.001 | 0.446 |
| Leverage | 2.625 | 0.684 | 2.087 | 0.162 | 0.347 | 0.499 |

Table III. Descriptive statistics

| Variable | VAT  | Cash_VAT | Donation | Size   | ΔROA  | Leverage |
|----------|------|----------|----------|--------|-------|----------|
| VAT      | 1    |          |          |        |       |          |
| Cash_VAT | –0.0162 | 1       |          |        |       |          |
| Donation | –0.0454 | –0.0283 | 1        |        |       |          |
| Size     | 0.0520* | –0.2676* | 0.0896* | 1      |       |          |
| ΔROA     | 0.0173 | –0.0184 | –0.014  | 0.0419 | 1     |          |
| Leverage | 0.0243 | 0.1722* | –0.0183 | –0.3212* | –0.0473* | 1       |

Table IV. Correlation matrix

Note: *p < 0.05
Table V. Multiple regressions

| Variables    | Predicted sign | (1) VAT       | (2) VAT       | (3) Cash_VAT | (4) Cash_VAT |
|--------------|----------------|--------------|--------------|--------------|--------------|
| Donation     | (−)            | −0.0685*** (0.0242) | −0.0976*** (0.0195) | −0.0651*** (0.0338) | −0.0162* (7.624) |
| Size         | (+/−)          | 0.00629 (0.00457)  | 3.99e-06 (4.47e-06) | 0.00229 (0.0106)  | 0.03602 (0.0359) |
| ΔROA         | (+/−)          | 0.00629 (0.00457)  | 3.99e-06 (4.47e-06) | 0.00229 (0.0106)  | 0.03602 (0.0359) |
| Leverage     | (+/−)          | 0.00629 (0.00457)  | 3.99e-06 (4.47e-06) | 0.00229 (0.0106)  | 0.03602 (0.0359) |
| Constant     |                | 0.348*** (0.0005)  | 0.258*** (0.0669)  | 0.0658*** (0.0709) | 0.0600*** (0.0784) |
| Obs.         |                | 1,605          | 1,276         | 1,372         | 1,266         |
| Number of years |              | 7              | 7             | 7             | 7             |

Notes: Robust standard error (RSE) in parentheses. ***p < 0.01; **p < 0.05; *p < 0.1
Analyzing the results of the table, it can be affirmed that companies that made donations had lower average VAT and Cash VAT values than companies that did not make donations, that is, donating firms exhibited more tax aggressiveness on average when compared with companies that did not make donations, thus verifying the study’s hypothesis.

The Size control variable was significant at 1 per cent with a negative coefficient, which was consistent with the results found in Table IV. In addition, it is important to emphasize that the constants of all four models were positive and significant, which shows the consistency of the results. It should be mentioned that we opted for a fixed effects model presentation, given the results of the Hausmann test.

4.2 Tax aggressiveness – discrete variables
This subsection presents panel data fixed effects logistic regressions for companies, which verified the relationship between donations and tax aggressiveness measured through qualitative proxies.

Table VI provides panel data fixed effects logistic regressions for companies, verifying the relationship between donations and tax aggressiveness measured by qualitative proxies that assume a value of 1 for high tax aggressiveness (values for VAT and Cash VAT below the first quartile) and 0 otherwise (values for VAT and Cash VAT above the first quartile).

Analyzing the model, it is possible to affirm that companies that made donations have a greater probability of belonging to the group of companies which have high tax aggressiveness (the 20 per cent that are most aggressive) compared to companies that did not make these donations, thus donating firms exhibit greater tax aggressiveness, which confirms the study hypothesis. It should be noted that the model in attributing a value of 1 for HTA_VAT and HTA_Cash_VAT in the observations of the more aggressive companies, and 0 for the others, identifies those qualities that define companies as more aggressive in terms of taxes.

Table VII exhibits the panel data fixed effects logistic regressions for companies, verifying the relationship between donations and tax aggressiveness through the qualitative proxies that assume a value of 1 for low tax aggressiveness (values of VAT and Cash VAT above the third quartile) and 0 otherwise (values for VAT and Cash VAT below the third quartile).

Based on the three models that converge, it is possible to affirm that companies that made donations have a lower probability of belonging to the group of the 20 per cent of companies with the least tax aggressiveness compared to companies that did not make donations, that is, donating firms had greater tax aggressiveness, verifying the research hypothesis. It should be added that even though they are not documented in the tables, additional tests were performed to assure the robustness of the statistics, among which should be highlighted: the Jarque–Bera normality test, indicating that the residuals have a normal distribution; the factor inflation variance test that presented elevated values close to 4,000, which however were below the limits that would be characterized as serious problems of multi-collinearity; and the Breusch–Godfrey test, which found no autocorrelation among the residuals.

5. Conclusion
This study was designed to study whether the companies listed on the B3 that donated to the victorious campaigns for the 2010 and 2014 presidential elections exhibited greater tax aggressiveness than those that did not donate. It is important to point out the novel nature of
### Table VI.
Logistic regressions for high tax aggressiveness proxies

| Variables          | Predicted sign | (1) HTA\_VAT | (2) HTA\_VAT | (3) HTA\_cash\_VAT | (4) HTA\_cash\_VAT |
|--------------------|----------------|--------------|--------------|-------------------|-------------------|
| Donation           | (+)            | 0.5158 (0.4928) | 0.810 (0.5209) | 0.011** (0.0056) | 0.08010 (0.5853) |
| Size               | (+/-)          | 0.076167** (0.03387) | 0.02987*** (0.0549) | -0.000125 (0.00008) | -0.000125 (0.00008) |
| ΔROA               | (+/-)          | -0.00012* (0.000673) | -0.000125 (0.00008) | -0.000125 (0.00008) | -0.000125 (0.00008) |
| Leverage           | (+/-)          | 0.0704* (0.0373) | 0.0704* (0.0373) | 0.0704* (0.0373) | 0.0704* (0.0373) |
| Obs.               |                | 3,045         | 2,078        | 3,045             | 2,078             |
| Number of years    |                | 7             | 7            | 7                 | 7                 |

**Notes:** Standard error between parentheses. **p < 0.01; *p < 0.05; *p < 0.1. The variable HTA\_VAT (high tax aggressiveness measured by VAT) is a dummy variable that assumes a value of 1 for observations below the first quartile for VAT, and 0 for observations above the first quartile of VAT; HTA\_Cash\_VAT (high tax aggressiveness measured by Cash VAT) is a dummy which assumes a value of 1 for observations below the first quartile of Cash VAT, and 0 for observations above the first quartile of Cash VAT; Donation is a dummy variable that assumes a value of 1 when the company donated to the elected candidate or party and 0 otherwise; Size is the logarithm of the total assets, with 1% winsorized on both sides; Δ ROA is the difference between ROA at time t and ROA at time t-1, with 1% winsorized on both sides; Leverage is 1% winsorized on both sides.
Based on the results of the panel data quantitative regression models, it was possible to affirm that the companies that made donations have lower average VAT compared to companies that did not, which is to say that donating companies have greater tax aggressiveness than non-donating companies. To verify the robustness of the result, models were estimated using panel data logistic regressions, which verified that companies that made donations had a greater probability of belonging to the group of companies with high tax aggressiveness (the 20 per cent most aggressive) compared to the companies that did not make donations; that is, donating firms have greater tax aggressiveness, confirming the study’s hypothesis. Thus, the effects related in this work indicate that B3 firms that had political connections through electoral donations to the winning presidential candidates in 2010 and 2014 tended to have greater tax aggressiveness than those that did not make campaign donations.

This information constitutes a significant finding given its novel nature within the Brazilian context with no similar studies until now. Further, these results should be interesting for investors and regulatory agents, as well as the community in general, because they help in analyzing and forecasting a company’s tax conduct. This study thus contributes by emphasizing the relationship between corporate electoral donations and tax aggressiveness, providing information that can help identify whether a company’s tax planning is conducted based on its political connections.

It should be emphasized that there appears to be the implication that donations are promoted in an environment characterized by an exchange of favors and potential corruption. This reinforces the position adopted by the Supreme Court in prohibiting corporate campaign donations to inhibit quid pro quo practices. This study offers, even in an indirect fashion, an additional argument to support the criminalization of the so-called “second sets of books” for electoral campaigns. If companies already display tax aggressiveness within a context of transparency in terms of donations, it is logical to presume that in an environment characterized by a lack of transparency, donations will be made with few democratic objectives in mind and will rather be designed to obtain various advantages, including tax advantages, without revealing to third parties that there is a possible conflict of interest between donating companies and the benefits offered by public agents.

### Table VII.

| Variables       | (1)   | (2)   | (3)   | (4)   |
|-----------------|-------|-------|-------|-------|
|                  | $LTA_{VAT}$ | $LTA_{VAT}$ | $LTA_{Cash\_VAT}$ | $LTA_{Cash\_VAT}$ |
| Donation        | $-0.9791^{***} (0.2834)$ | $-0.7981^{**} (0.3643)$ | $-1.7464^{***} (0.2990)$ | –     |
| Size            | $-0.1563^{**} (0.0207)$ | –     | –     | –     |
| $\Delta ROA$    | $-0.0000154 (0.0000378)$ | –     | –     | –     |
| Leverage        | 0.0342 (0.0372) | –     | –     | –     |
| Obs.            | 3,045 | 2,078 | 3,045 | –     |
| Number of years | 7     | 7     | 7     | –     |

**Notes:** Standard error between parentheses. Model 4 does not converge. $^{***} p < 0.01$; $^{**} p < 0.05$; $^* p < 0.1$. The variable $LTA_{VAT}$ (low tax aggressiveness measured by VAT) is a dummy variable that assumes a value of 1 for observations above the third quartile of VAT and 0 for observations below the third quartile of VAT; $LTA_{Cash\_VAT}$ (low tax aggressiveness measured by Cash VAT) is a dummy variable that assumes a value of 1 for the observations above the third quartile of the Cash VAT and 0 for the observations below the third quartile of the Cash VAT; Donation is a dummy variable that assumes a value of 1 when the company/year donated to the elected candidate or party, and 0 otherwise.

this work in Brazil in terms of relating the tax aggressiveness of a company to political connections (through electoral campaign donations).
This being so, the modification of the federal legislation of Law no. 9.504/1997, known as the Election Law through the electoral reform of Law no. 13.165/2015, to prohibit corporate donations in electoral campaigns is quite opportune. In this sense, this study supports the urgency of criminalizing clandestine campaign donations to avoid potential quid pro quo practices between public agents and companies.

In terms of the limitations of this work, there was the impossibility of obtaining data for campaign contributions of companies that are not listed on the B3. Thus, this study is limited to openly traded companies, thus excluding companies outside of this capital market. Finally, areas for future study could include segregating the analysis by election and noting whether re-elections condition these results. Studies could also be made investigating the tax aggressiveness of companies that donate to various candidates in relation to those who just donate to the winning candidates, or even those who donate consistently to the same candidate in every election.

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