
IMPACT OF TAX PROVISIONS AND CONTINGENT TAX LIABILITIES ON THE TAX AVOIDANCE OF B3 NON-FINANCIAL BRAZILIAN COMPANIES

Ludimila Lopes da Silva Marinho ¹
Lúcio de Souza Machado ²
Tiago Nascimento Borges Slavov ³

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ABSTRACT

The study has analyzed the impact of tax provisions and contingent tax liabilities on the tax aggressiveness of publicly traded Brazilian companies. In line with the literature, three hypotheses were proposed, in the sense that both tax provisions and contingent tax liabilities, and the sum of both, impact the tax aggressiveness of companies. To test them, data from 2017 to 2020 were obtained and the multiple linear regression method was applied to panel data with random effects and estimated by Generalized Least Squares - GLS. The metrics used to measure tax aggressiveness, the dependent variable, were GAAP ETR, Cash ETR, VAS ETR and BTD. The results indicated that tax provisions and contingent tax liabilities do not impact the tax aggressiveness of companies. Therefore, the research hypotheses were refuted. Statistical tests also strongly suggested that fiscal aggressiveness is impacted by leverage (LEV), return on assets (ROA) and sector, in general, as well as by company size and corporate governance for some of the used models. To deepen the results, additional analyses with a lag-lead model were performed, when investigating the independent variable at different times (t-1, t+0, t+1) from the other variables. The results of the additional regressions did not indicate any significant differences with the main analyzed model, in general terms, highlighting only the POC and PCT variables that influence tax

¹ Mestra em Contabilidade Financeira pela Universidade Federal de Goiás (UFG), especialista em contabilidade e direito tributário, contadora e docente universitária. Universidade Evangélica de Goiás - UniEvangélica. Endereço: Rua Montes Claros, Qd 104, Lt 01/13, Parque Amazônia, Cep 74.840-650, Goiânia - GO. Telefone: (62) 9 8465-1867. E-mail: ludimila.lopes22@gmail.com
<https://orcid.org/0000-0003-2541-9134>

² Pós-doutor e Doutor em Psicologia pela Pontifícia Universidade Católica de Goiás (PUC Goiás). Professor associado dos cursos de graduação e mestrado em Ciências Contábeis da Universidade Federal de Goiás (UFG). Endereço: Campus Samambaia, Rua Samambaia, s/n, Chácara Califórnia, Goiânia, Estado de Goiás, CEP - 74001-970. Telefone: (62) 3521-1390. E-mail: luciomachado@ufg.br
<https://orcid.org/0000-0003-4434-2830>

³ Doutor em contabilidade pela Universidade de São Paulo (USP), Mestre em controladoria e Contabilidade, professor e pesquisador do Programa de Mestrado em Ciências Contábeis da FECAP. Endereço: Avenida da Liberdade, 532. Centro Universitário FECAP. Liberdade 01502001 - São Paulo, SP - Brasil. Telefone: (11) 32722222. E-mail: tiago.slavov@fecap.br
<https://orcid.org/0000-0003-2763-0937>

aggressiveness, since considering, as a dependent variable, only GAAP ETR, and one statistical parameter of up to 10% significance.

Keywords: Tax Avoidance. Tax provisions. Contingent tax liabilities.

IMPACTO DAS PROVISÕES TRIBUTÁRIAS E PASSIVOS CONTINGENTES TRIBUTÁRIOS NA AGRESSIVIDADE FISCAL DE EMPRESAS BRASILEIRAS NÃO FINANCEIRAS DA B3

RESUMO

O estudo analisou o impacto das provisões tributárias e passivos contingentes tributários na agressividade fiscal de empresas brasileiras abertas. Em consonância com a literatura, foram propostas três hipóteses, no sentido de que tanto as provisões tributárias, como os passivos contingentes tributários, e a soma de ambos, impactam a agressividade fiscal das empresas. Para testá-las, foram obtidos dados de 2017 a 2020 e aplicado o método de regressão linear múltipla para dados em painel com efeitos aleatórios e estimados pelos Generalized Least Squares - GLS. As métricas utilizadas para mensuração da agressividade fiscal, variável dependente, foram ETR Gaap, ETR Cash, ETR DVA e BTD. Os resultados indicaram que as provisões tributárias e os passivos contingentes tributários não impactam na agressividade fiscal das empresas, portanto, as hipóteses de pesquisas foram refutadas. Os testes estatísticos evidenciaram, ainda, que a agressividade tributária é impactada pela alavancagem (LEV), retorno dos ativos (ROA) e setor, de modo geral, bem como pelo tamanho da empresa e governança corporativa para alguns modelos utilizados. Para aprofundar os resultados, foram feitas análises adicionais com um modelo lag-lead, ao investigar a variável independente em momentos diferentes (t-1, t+0, t+1) das demais variáveis. Os resultados das regressões adicionais não indicaram diferenças significativas com o modelo principal analisado, em âmbito geral, cabendo destaque apenas às variáveis PPC e PCT que influenciam na agressividade tributária, desde que considerada, como variável dependente, tão somente a ETR Gaap, e, um parâmetro estatístico de até 10% de significância.

Palavras-Chave: Agressividade Fiscal. Provisões tributárias. Passivos contingentes tributários.

1 INTRODUCTION

To compare the future tax expenses recognized as tax provisions and/or shown as contingent tax liabilities together with practices of fiscal saving can enrich the set of studies on the determinants of the tax aggressiveness, as contentious tax issues are related to the organization tax aggressiveness, (Chun et al., 2020; Dhawan et al., 2020).

The researches that address the tax aggressiveness have defined it as a set of entrepreneurial decisions that have the reduction of taxes by tax saving actions as the focus, whether legal or otherwise (Chen et al., 2010). Therefore, when

observing such definition in the sense of questioning its legitimacy, the tax decision-making can be seen negatively, by offering risks to the organization concerning the litigation and reputational costs (Santana & Rezende, 2016).

Tax reduction measures that become fiscal litigations become costs, in addition to the main tax, fines, interests and other penalties (Lampenius et al., 2021; Wilson, 2009). Thus, it is understood that the tax behavior of the companies may be influenced by the role of the fiscal authorities in the organizational context, and their performance may reduce the tax aggressiveness of the organizations (Atwood et al., 2012). Martinez and Sonegheti (2015) warned that the tax burden increase makes the companies practice more aggressive tax planning, which may be influenced by the tax risk of fiscal notices.

The tax notices are recognized as provisions or disclosed in explanatory notes as contingent tax liabilities, when the risk is not classified as probable, but it is possible.

Hoope, Mescall & Pittman (2012) suggest that American public companies assume less aggressive fiscal positions when the fiscal execution is stricter. Kubick et al. (2016) observed the effect of reduction on the fiscal aggressiveness of American companies when receiving fiscal notices. In Brazil, Mattos (2017) identified that the provisions and the contingent liabilities reflect the tax planning that did not work and argued that the taxpayer risk increase (increasing the probability of being inspected) may be a determining factor for the tax aggressiveness reduction.

Mocanu et al. (2020) used the Romania company notices as an explanatory characteristic of fiscal aggressiveness, and they realized that notified companies tend to be more aggressive than those that are not. Shen (2023), by using the approach of the contingent liabilities in the tax aggressiveness of companies, observed a significant and positive relation with the tax aggressiveness of Chinese companies.

The results suggest that there is not a literature consensus for the relation (whether positive or negative) among the provisions and the contingent liabilities and the level of tax aggressiveness of the companies. In this respect, the study aims at investigating the following problem: what is the impact of the tax provisions and the contingent tax liabilities on the fiscal aggressiveness in non-financial Brazilian companies listed on B3?

The findings concerning the fiscal aggressiveness are not sufficient yet to explain the tax burden change in the companies (Mamade, Brugni, Monte-Mor & Beiruth, 2023; Martinez, Santana & Sena 2022; Silva & Rezende, 2016). Hence, the current study is justified due to the need and to the relevance of comprehending the fiscal aggressiveness under different perspectives, as it has been motivated by Hanlon and Heitzman (2010), by following the direction of comprehending how the tax provisions and the contingent tax liabilities may impact the fiscal aggressiveness of Brazilian listed companies.

2 THEORETICAL FRAMEWORK

2.1 Fiscal Aggressiveness

Hanlon and Heitzman (2010) affirm that defining the fiscal aggressiveness (also referred to as *tax avoidance* or *tax planning*) universally is a challenge, as their definitions or constructs can have different meanings for distinct persons.

In this sense, Chen et al. (2010), when defining the fiscal aggressiveness, make direct mention to the tax planning, by arguing that more aggressive companies are characterized as such due to the strong use of mechanisms for the tax reduction and such mechanisms are considered as tax planning.

For Lampenius et al. (2021), the tax aggressiveness is a way of reducing the entrepreneurial tax burden, such reduction being licit or illicit. Nonetheless, the fiscal aggressiveness does not necessarily mean that the organizations are engaged in something illicit.

It is worth highlighting, then, that choosing the tax saving via practices that offer risk of legal disputes can be a decision that does not align with the shareholder objectives. The corporate result may, hence, present itself as satisfactory in values, but the investor perception before such practices can be negative. After all, disputes can affect the firm reputation, generating current and future costs (Chun et al., 2020).

There is, therefore, risk perception in the tax aggressiveness practices, when they may affect the reputation, cause penalties and probability of dispute occurrence (Dhawan et al., 2020). Consequently, if the tax planning is not accomplished efficiently, there are high chances of additional costs for the organization to arise (Martinez & Silva, 2019).

These costs may be motivated by the company reaction to the tax authority questioning, recognized in accounting as tax provisions or contingent tax liabilities, according to the explanation in the following subsection.

2.2 Tax Provisions, Contingent Tax Liabilities and Fiscal Aggressiveness

The tax authority questions about the company tax practices materialize in the financial statements in the form of provisions and/or tax contingencies. It is not defensible, however, that provisions and tax contingencies are originated mainly by intentional decisions of aggressive tax planning.

Mattos (2022), by investigating the ontology of the labor and tax provisions, observed that questions made by the tax authorities may be connected to factors such as conservatism and legislation complexity. Thus, tax questions by the tax authorities may occur due to lack of diligence in the tax lawsuits, controversial legislation interpretations or the inspection target with the purpose of investigating transactions, or specific companies by attributes such as type of tax operation, size, localization, segment, value chain (clients and suppliers) and quality of internal controls (Balduino & Borba, 2015; Ribeiro, Ribeiro & Weffort, 2013).

The uncertainty level about the tax lawsuits, materialized in provisions and contingent liabilities, may then influence the tax planning decisions of the

companies. Therefore, measuring the tax provisions and the contingent tax liabilities, fruit of inspection or of doubts about the tax legislation compliance, may be associated to the tax aggressiveness (Martinez & Sonegheti, 2015).

Atwood et al. (2012) observed that the fiscal aggressiveness practices are lower in companies situated in countries where the accounting-tributary compliance is higher and with the tax inspection presence. Martinez and Sonegheti (2015) affirm that the misalignment between tax and accounting concepts, widely common in Brazil, has resulted in inspections that cause potential debts, fruit of notices or of credit glosses, and they are considered as illicit actions or mere errors of legislation interpretation.

Thus, the provisions and the contingent tax liabilities do not mean only decisions of tax saving (Mattos, 2017), but they can be fruits of internal errors, erroneous interpretations, systemic, operational failures, and pending judgement theses, such as, for example, the Extraordinary Appeal no. 574.706, which was judged in 2021 by the Federal Supreme Court – STF in 2021, removing the Imposto sobre Circulação de Mercadorias e Serviços (ICMS) (Tax over Merchandise and Services Circulation) from the calculation basis of the Programa de Integração Social (PIS) (Social Integration Program) and from the Contribuição para Financiamento da Seguridade Social (Cofins) (Contribution for Social Security)

Mattos (2017), when using the provisions and the contingent tax liabilities (*Unrecognized tax benefits* – UTB), built into the present value as indicators for the tax planning risks, verified that the companies, by noticing a potential of higher return in the tax planning practice than the costs that it may offer, choose to save their taxes.

Mocanu et al. (2020), when determining tax aggressiveness as a consequence of tax liabilities, analyzed the company notices as an explanatory characteristic of fiscal aggressiveness, showing that companies notified by the government of Romania tend to be more aggressive than the ones that were not. The result has the opposite effect to the study by Kubick et al. (2016) who highlighted that the American companies that received more requests for clarification of the Code of conduct from the *Securities and Exchange Commission* (SEC) reduce their tax aggressiveness (measured by the Effective Tax Rate – GAAP ETR, Cash ETR and Book-Tax Difference – BTD). According to the study by Mocanu et al (2020), it is understood that the taxpayer does not decrease the tax aggressiveness by being under higher surveillance of a standardizing, regulatory and/or inspection body.

Based on the empirical data of Chinese companies listed on the Stock Exchange from 2007 to 2020, Shen (2023) analyzed empirically the impact of contingent liabilities disclosure on the tax aggressiveness of the companies. The study results showed that the information disclosure degree of the contingencies is significant and positively related to the company tax aggressiveness, and the uncertainty recognized as contingency is an important determinant to explain the company tax aggressiveness. The author argues that investigating this association is important for the companies to improve the earnings quality and to reduce the administration opportunistic bias when conducting their tax policies.

Hence, although there is no literature consensus, the study by Shen (2023), carried out with the premisses adopted in the current study, justifies the investigation of the positive relation of measuring provisions and contingent liabilities with the tax aggressiveness. Therefore, regarding the addressed literature in this topic, the following research hypotheses are discriminated:

H1: tax provisions and contingent tax liabilities influence, positively, the fiscal aggressiveness of Brazilian publicly held companies.

H1a: tax provisions influence, positively, the fiscal aggressiveness of Brazilian publicly held companies.

H1b: contingent tax liabilities influence, positively, the fiscal aggressiveness of Brazilian publicly held companies.

3 METHODOLOGICAL PROCEDURES

3.1 Sample and Data Collection

Table 1 presents the sample composition, which is comprised by non-financial companies listed on the Brasil Bolsa Balcão (Brazil Stock Exchange Counter) (B3) from 2017 to 2020. The financial companies were not considered for having peculiar fiscal and accounting treatment related to the others, which makes the analysis generalization impossible.

Table 1

Sample Composition

Description	No. of companies
Non-financial Brazilian companies listed on the Brazilian stock market	329
(-) Companies with information absence	72
= Final composition of number of companies that were part of the sample	257

Source: Research data.

Table 2 presents the distribution of these 257 companies by economic sector (according to Economatica®).

Table 2

Sample companies by Economic Sector

Sector	Total of companies	Percentage (%)
Cyclical consumption	69	27
Industrial goods	47	18
Public utility	46	18
Basic materials	28	11
Non-cyclical consumption	19	7
Others	16	6
Health	13	5
Oil gas and biofuels	9	4
Information technology	6	2
Communicationn	4	2
Total	257	100%

Source: Research Data.

The necessary data for the verification of the used accounting variables

were collected on the Comissão de Valores Mobiliários (CVM), B3 (Securities and Exchange Commission) websites, on Economatica® and from explanatory notes of the financial statements published by the respective companies.

3.2 Study variables

3.2.1 Dependent Variables

The metrics used as dependent variables in this study were: GAAP ETR, Cash ETR, VAS ETR and BTM ones. Such measures of tax aggressiveness were used in the studies that were dedicated to highlight the determinants of the fiscal aggressiveness in a similar sense to the current study. According to the literature, the lower the variable value is, the higher the tax aggressiveness level is or the lower the tax burden is, the more fiscally aggressive the company is. Table 3 synthesizes the used variables, which assume the dependent variable position.

Table 3

Dependent Variables

Variable	Metrics	Collection Form	Source
GAAP ETR	Tax rates over the accrued profit by the profit before the taxes.	Economatica® Database.	Chen et al., 2010; Rezende et al., 2018; Wang et al., 2019.
Cash ETR	Rate between the output for tax payment over the profit and the profit before the taxes.	Economatica® Database and Cash Flow Statement.	Hanlon & Heitzman, 2010; Lennox et al., 2013.
VAS ETR	Tax value rate over income and consumption by the added distributable value.	Value Added Statement, CVM and B3.	Marinho et al, 2022.
BTM	Profit before the taxes minus the tax value rate over the income by the nominal rate (IR+CSLL) divided by the total assets.	Economatica® Database.	Martinez, 2017; Martinez & Cerize, 2020; Vello & Martinez, 2014.

Source: Research Data.

Lower ETRs than 0 and higher than 1 were not considered, as the literature indicates that this is a situation resulting from unusual transactions, which do not relate to effective fiscal positions (Christensen et al., 2021). The same validation did not occur for the BTM variable for comparison with previous national studies that admitted negative results (Martinez, 2017; Martinez & Cerize, 2020; Vello & Martinez, 2014).

The data for the VAS ETR formulation were obtained in the value added statement (VAS) disclosed by the companies and available on CVM website; however, information of about 60 companies were not on the CVM base and, for this reason, the information was collected manually on B3 website.

3.2.2 Interest Independent Variables

The tax provisions and the contingent tax liabilities were considered for measuring the independent variables, both quantitatively. Table 4 presents the relation of interest independent variables.

Table 4
Interest Independent Variables

Variable	Metrics	Collection Form	Expected Sign	Source
POC	Tax provision and tax contingent liabilities value of i company in the t period weighted by the total liabilities.	Economática® Database, explanatory notes and B3.	+	Shen, 2023.
ProvT ^a	Tax provision value of i company in the t period weighted by the total liabilities.	Economática® Database, explanatory notes and B3.	+	Shen, 2023.
PCT	Tax contingent liabilities value of i company in the t period weighted by the total liabilities.	Explanatory notes.	+	Shen, 2023.

Note: ^a When checking the values concerning the tax provisions and the contingent tax liabilities, a certain inconsistency with the values shown in the explanatory notes was identified and, thus, such data were confirmed and manually adjusted, respecting the found values in each explanatory note. Source: Research data.

By aiming to determine the representativeness regarding the company, the tax provisions, the tax contingent liabilities and the sum of both were divided by the total liabilities, as it is adopted by Shen (2023). Alternatively, the literature indicates that the metrics could be calculated by the rate between the tax liabilities and the total assets to control the impact of the assets size, but there was a preference for adopting variable *Size* as explanatory.

3.2.3 Independent Control Variables

To control other effects on the fiscal aggressiveness, the inclusion of control variables in the regression model was performed and they are related to: Leverage (LEV), Return on assets (ROA), Natural logarithm of the total assets (*Size*), Corporate Governance (CG), Audit Quality (*BIG4*) and Sector. Such variables were chosen by considering their theoretical relations with the respective dependent variable, according to Table 5.

Table 5
Control Variables

Variable	Metrics	Collection Form	Expected Sign	Source
LEV	Long-term debt divided by the assets.	Economática® Database.	+ / -	Gaaya et al., 2017; 2016; Martinez & Martins, 2016.
ROA	Company operational profit divided by the assets.	Economática® Database.	+ / -	Chen et al., 2010; Mocanu et al., 2020.
<i>Size</i>	Total assets natural Log.	Economática® Database.	+	Lennox et al., 2013.
CG	Dummy: 1 for (New Market) Mercado Novo	Economática® Database.	-	Mattos, 2017.

Variable	Metrics	Collection Form	Expected Sign	Source
Audit quality BIG4	companies, CG Level 1 and Level 2 and 0 for the ones that do not have it. <i>Dummy</i> – As follows: 1 for companies audited by BIG4 and 0 for the ones not audited by BIG4.	Explanatory notes	-	Martinez & Cerize, 2020; Martinez & Sonegheti, 2015.
Sector	<i>Dummy</i> - Sector based on the Economatica® System classification.	Economatica® Database.	+ / -	Hartmann & Martinez, 2020; Marinho et al., 2022; Santos et al., 2021.

Source: Research data.

3.3 Specification of the Models and Statistical Approach

After defining the variables, the following econometric models were developed, presented in Table 6, to verify if the tax provisions and the contingent tax liabilities impact the fiscal aggressiveness of the publicly held and non-financial Brazilian companies.

Table 6

Econometric Models

Hypothesis	Econometric Model
H1	$FA_{i,t} = \beta_0 + \beta_1 POC_{1,it} + \beta_2 LEV_{2,it} + \beta_3 ROA_{3,it} + \beta_4 Size_{4,it} + \beta_5 CG_{5,it} + \beta_6 BIG4_{6,it} \varepsilon_{i,it}$
H1a	$FA_{i,t} = \beta_0 + \beta_1 ProvT_{1,it} + \beta_2 LEV_{2,it} + \beta_3 ROA_{3,it} + \beta_4 Size_{4,it} + \beta_5 CG_{5,it} + \beta_6 BIG4_{6,it} \varepsilon_{i,it}$
H1b	$FA_{i,t} = \beta_0 + \beta_1 PCT_{1,it} + \beta_2 LEV_{2,it} + \beta_3 ROA_{3,it} + \beta_4 Size_{4,it} + \beta_5 CG_{5,it} + \beta_6 BIG4_{6,it} \varepsilon_{i,it}$

Source: Research data.

The models were estimated for each of the four dependent variables that measure the fiscal aggressiveness in this research, that is, the GAAP ETR, the Cash ETR, the VAS ETR and the BTD ones. The statistical method used was the multiple linear regression for panel data, as the data are organized so that the companies have the same information for the same number of years.

The panel choice took place after applying *Chow*, *LM de Breusch-Pagan* and *Hausman* tests, as Favero suggests as well (2013). After having determined the panel, the model estimate was the following step, and these were estimated by the *GLS – Generalized Least Squares*. The data were processed on the *Stata®* software version 16.0 and, after the estimates, the tests were applied in order to verify the assumption compliance of the multiple linear regression, as follows: *Sfrancia*, *Wald*, *VIF* and *Wooldridge* tests.

Moreover, it should be highlighted that, as an additional test, the impact of the tax provisions and the contingent tax liabilities, summed and individually, on the fiscal aggressiveness of the researched companies was investigated, including the independent variable in t-1, t-0 and t+1 in the model. With this inclusion, the data panel is changed; thus, the result may differ from the originally processed for t-0, which explores the company characteristic in terms of recognizing the tax provisions and the disclosure of the contingent liabilities of the same nature, as tax

aggressiveness predictors. In addition, it should be emphasized that all the mentioned statistical tests were previously applied for this complementary scenario.

4 ANALYSIS AND RESULT DISCUSSION

4.1 Descriptive Statistics

Table 7 presents the central bias measures and the dispersion of the variables. It is important to highlight that the presence of *outliers* was identified and, for such reason, all the continuous variables were *winsorized* in the 1 and 99 (1%) percentiles to eliminate the extreme values.

Table 7
Descriptive Statistics

Panel A Descriptive Statistics – Quantitative Variables						
Variable	Central Bias			Dispersion measures		
	Obs.	Average	Median	Standard Deviation	Minimum	Maximum
GAAP ETR	617	0,22	0,18	0,18	0,00	0,85
Cash ETR	534	0,13	0,07	0,17	0,00	0,79
VAS ETR	891	0,29	0,26	0,20	0,00	0,84
BTD	950	-0,08	0,00	0,40	-3,10	0,19
POC	1.003	0,18	0,03	0,72	0,00	6,15
ProvT	1.008	0,01	0,00	0,33	0,00	0,22
PCT	1.006	0,16	0,02	0,72	0,00	6,15
LEV	1.011	0,20	0,15	0,24	0,00	1,75
ROA	1.011	-0,06	0,03	0,40	-3,10	0,23
Size	1.011	14,32	14,75	2,74	4,01	18,99

Panel B Descriptive Statistics – Qualitative Variables (Dummy)				
Variable	Obs.	Dummy for value 1		Total
		N	%	
CG	1.012	139	55	253
BIG4	1.028	157	61	257

Source: Research data.

According to Table 7, the presence of extreme values is observed by the 85% maximum rate for GAAP ETR (even after the *winsorizing* at 1%), a value that, even by being a representative one, did not allow that the average of the tax effective rate (22%) were above the nominal rate imposed by the Brazilian legislation (34%). With these values, it is possible to infer the presence of fiscal aggressiveness practices in the companies under analysis, as well as for Hartmann and Martinez (2020), who obtained 25% of GAAP ETR in their study.

The inference of the presence of fiscal aggressiveness practices in the sample companies persists when the average of 13% of effective rate output to pay the taxes (Cash ETR) is observed, even with persistence of the high value for maximum rate (79%). This percentage is lower than the one observed in Brazilian studies, as 26% and 83% for Martinez and Silva (2019) and Silva and Rezende (2016),

respectively.

When considering income taxes and consumption, the VAS ETR reveals a 7% increase in the effective tax rate, resulting in 29%. The rate maximum value persists in being representative (84%) and the aforementioned average is somewhat lower than the one observed in the research by Martinez and Cerize (2020), which was 32%.

The difference between the accounting profit and the fiscal profit represents, on average, -8% of the company total assets. Several companies of the sample presented negative accounting reports for different periods, and these values may justify the negative average for this variable. When observing the BTG, concerning its maximum percentage, 19% of the total assets corresponds to the differences between accounting and fiscal profit.

The provisions summed to the contingent tax liabilities represent, on average, 18% of the company total liabilities under analysis. Individually, the tax provisions assume 1% of the total liabilities and the contingent tax liabilities amount to 16%. In Shen original model (2023), which used the natural logarithm of the total contingent liabilities (taxable and non-taxable ones), the result obtained in the Chinese companies was 16,25%.

As to the leverage, the company assets are, on average, 20% committed to third parties. There are companies with relevant commitment to third parties, reaching almost twice as much their assets value (maximum of 175%). The average found here meets the results by Christensen et al. (2021), Marinho et al. (2022) and Martinez and Martins (2016), which showed 24%, 21% and 20%, respectively.

Regarding ROA, it presented an average below the median and this means that there are low values in its sequence, decreasing the average. Such situation is also noticed in their minimum and maximum values (-3,10 e 0,23). Then, the return on assets of the companies presents, on average, -6%, allowing to infer that the investments did not generate returns during the analyzed period for most of the companies; however, there were positive returns up to 23% of the invested values. The value diverges when compared to the 10% by Martinez and Silva (2019), 8% by Marinho et al 8% (2022), 2,33% by Marchesi and Zanoteli (2020) and 6% by Martinez and Ramalho (2014).

Such discrepancy can be explained by the fact that the analyzed period is shorter than the ones of the mentioned researches or by external factors, such as the pre-crisis already experienced by the Brazilian economy in 2017, with the *commodities* slowdown, high inflation and the interest rate fall, factors which impact the return of investments (Filho, 2017).

There are different sizes of companies in the sample, and even the average percentage being similar to that of the median (14,75%), one observes a high standard deviation and a 4,01% minimum value, allowing to infer that the company size is expressively diversified. The company size average shown is similar to the 14,46% by Martinez and Ramalho (2014) and 14,78% by Martinez and Martins (2016).

As to the CG and to the audit quality, 55% of the companies are listed on Novo Mercado (New Market), CG Level 1 or Level 2 and 61% are audited by BIG4.

Gomes (2020) found 51% of companies in his sample with this characteristic (to be audited by *BIG4*) and Santos et al. (2021), with 83%.

4.2 Inferential Statistics

4.2.1 Bivariate Analysis

The correlation between the variables is presented in Table 8 and the analyses follow the sequence of the presented models, first the correlations of the dependent variables with the interest independent ones and, finally, the correlation between the dependent and the control variables.

Table 8

Pearson Correlation Matrix

	GAAP ETR	Cash ETR	VAS ETR	BTD	POC	ProvT	PCT	LEV	ROA	Size	CG	BIG4
GAAP ETR	1											
Cash ETR	0,39*	1										
VAS ETR	0,18*	0,12*	1									
BTD	-0,77*	-0,33*	-0,12*	1								
POC	0,01	0,03	0,16*	0,00	1							
ProvT	0,06	0,06	0,01	-0,05	0,42*	1						
PCT	0,01	0,04	0,17*	-0,02	0,93*	0,21*	1					
LEV	0,06	0,12*	0,03	-0,19*	0,13*	0,01	0,18*	1				
ROA	-0,26*	-0,11*	-0,05	0,63*	0,01	0,00	-0,01	-0,35*	1			
Size	-0,02	0,26*	0,14*	0,00	0,26*	0,08	0,33*	0,49*	-0,14*	1		
CG	-0,05	0,25*	-0,15*	0,04	0,11*	0,01	0,15*	0,28*	-0,12*	0,47*	1	
BIG4	-0,02	0,35*	0,09*	0,04	0,23*	0,04	0,26*	0,21*	-0,01	0,48*	0,36*	1

Note: * Significant correlation at 5%. Source: Research data.

It can be noticed that there is no significant correlation between GAAP ETR and the tax provisions and contingent tax liabilities, and the same analysis extends to Cash ETR, suggesting some evidence of no explanatory relation between the variables. Concerning the VAS ETR and BTD ones, these do not correlate with the tax provisions either. This observation admits a possible nonrelation between these variables.

As to the correlation between VAS ETR and the sum of provisions and contingent tax liabilities, this presents itself as a positive one. Such result may be due to an expressive presence of the taxes on the consumption in the constitution of the tax provisions and contingent tax liabilities. The sample companies may tend to the constitution of higher disputes focused on the ICMS, IPI, PIS, Cofins and ISS than on IRPJ (Corporate Income Tax) and CSLL (Social Contribution on Net Profit (SCNP), for example.

There is also a significant and positive correlation with the VAS ETR variable and the contingent tax liabilities (CTL), allowing to infer that companies that collect

more taxes on the profit and on the consumption have a higher contingent tax liability. The expressive Brazilian taxes on the consumption has a wide standardization, opening ways to different interpretations and, consequently, it can expose the companies to higher dispute risks, and this interpretation is a way to comprehend this positive correlation.

4.2.2 Result of the Multiple Linear Regressions for Hypotheses 1, 1a and 1b

Table 9 shows the results of the multiple linear regression with panel data and random effects performed to verify the impact of the tax provisions and contingent tax liabilities on the fiscal aggressiveness of non-financial Brazilian companies.

Table 9
Regression Result – H1, H1a and H1b

$FA_{i,t} = \beta_0 + \beta_1 POC_{i,t} + \beta_2 Lev_{i,t} + \beta_3 Roa_{i,t} + \beta_4 Size_{i,t} + \beta_5 CG_{i,t} + \beta_6 Big4_{i,t} \varepsilon_{i,t}$								
Dependents								
Panel A - H1	GAAP ETR		Cash ETR		VAS ETR		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest independent								
POC	0,90	0,00	0,51	0,00	0,43	-0,01	0,64	0,0014
Control								
LEV	0,98	0,00	0,28	0,11	0,97	-0,00	0,01**	0,0209
ROA	0,00*	-1,17	0,02**	-0,39	0,00*	-0,51	0,00*	0,9478
Size	0,22	0,00	0,59	0,00	0,18	0,00	0,02**	0,0032
CG	0,09***	-0,03	0,64	0,01	0,00*	-0,07	0,69	0,0020
BIG4	0,28	-0,02	0,12	0,03	0,97	0,00	0,70	-0,0018
Dummy Sector: Yes	Significant		Significant		Significant		Significant	
Between	0,19		0,11		0,24		0,99	
VIF	1,49		1,45		1,43		1,68	
N. Obs	615		534		874		942	
$FA_{i,t} = \beta_0 + \beta_1 ProvT_{i,t} + \beta_2 Lev_{i,t} + \beta_3 Roa_{i,t} + \beta_4 Size_{i,t} + \beta_5 CG_{i,t} + \beta_6 Big4_{i,t} \varepsilon_{i,t} CG///$								
Dependent								
Panel B - H1a	ETR Gaap		ETR Cash		ETR DVA		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest Independent								
ProvT	0,84	0,09	0,64	0,25	0,94	-0,02	0,51	0,0386
Control								
LEV	0,97	0,00	0,27	0,011	0,98	0,00	0,01**	0,0206
ROA	0,00*	-1,17	0,02**	-0,39	0,00*	-0,50	0,00*	0,9376
Size	0,21	0,00	0,57	0,00	0,16	0,00	0,02**	0,0032
CG	0,09***	-0,04	0,60	0,01	0,00*	-0,07	0,68	0,0020
BIG4	0,28	-0,02	0,12	0,03	0,98	-0,00	0,77	-0,0014
Dummy Sector: Yes	Significant		Significant		Significant		Significant	
Between	0,19		0,11		0,24		0,99	
Vif	1,48		1,44		1,41		1,68	
N. Obs	616		534		875		947	
$FA_{i,t} = \beta_0 + \beta_1 Pct_{i,t} + \beta_2 Lev_{i,t} + \beta_3 Roa_{i,t} + \beta_4 Size_{i,t} + \beta_5 CG_{i,t} + \beta_6 Big4_{i,t} \varepsilon_{i,t}$								
Dependent								
Panel C - H1b	GAAP ETR		Cash ETR		VAS ETR		BTD	

	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest independent								
PCT	0,87	0,00	0,51	0,00	0,44	-0,01	0,67	0,0012
Control								
LEV	0,98	0,00	0,28	0,11	0,97	-0,00	0,01**	0,0212
ROA	0,00*	-1,17	0,02**	-0,39	0,00*	-0,51	0,00*	0,9378
Size	0,22	0,00	0,59	0,00	0,18	0,00	0,02**	0,0032
CG	0,09***	-0,03	0,65	0,01	0,00*	-0,07	0,73	0,0017
BIG4	0,28	-0,02	0,11	0,03	0,97	0,00	0,68	-0,0019
Dummy Setor: Yes	Significant		Significant		Significant		Significant	
Between	0,19		0,11		0,24		0,99	
Vif	1,49		1,45		1,43		1,68	
N. Obs	615		534		874		945	

Note: * Significant at 1%, ** significant at 5%, *** significant at 10%. Source: Research data.

It can be noticed that there was no statistical significance for any of the explanatory variables tested for the four proxies of fiscal aggressiveness. According to the proposed model, the level of fiscal aggressiveness in the analysed sample is not associated with the tax provisions and the contingent tax liabilities. The first conclusion of this result is that the aggressive tax behavior in the Brazilian companies is asymmetrical to the accounting recognition of the provisions and contingent liabilities, contradicting the previous literature (Shen, 2023), by indicating that the adoption of aggressive tax practices are not reflected in the accounting contingencies in the decision-making period. Another explanation points out that the tax values discussed in courts are not linked directly to practices of tax saving, but to other reasons such as, for example, the difficulty of companies in interpreting and applying the tax legislation (Martinez & Sonegheti, 2015).

The entrepreneurial environment has been through relevant changes in the last years, mainly due to the technology advance. The companies are under the Government follow-up practically in real time and this can prevent the values of the tax provisions and the contingent tax liabilities from carrying tax saving actions in themselves, allowing grounds for discussions of issues mainly focused on the bad quality of the tax legislation, according to the position of the court judges after being questioned by the Conselho Nacional de Justiça (CNJ) (National Council of Justice) on the Brazilian tax litigation (Olivon, 2022). And in line with the literature as well (Martinez & Sonegheti, 2015; Mattos, 2017).

According to a survey conducted by the CNJ, the number of tax lawsuits that focuses on federal tax charges has been dropping since 2016 and that, nowadays, the “filing of execution is tied to the identification of potential credit recovery” (such as the recent exclusion of ICMS from the PIS and Cofins tax base, for example) (Olivon, 2022). Such argument reinforces the words by Martinez and Sonegheti (2015) and Mattos (2017), when they mention that the misalignment among accounting and tax concepts is a possible source of supervisions.

A relation of the contentious fiscal liabilities with the tax aggressiveness was expected, as the relevant chance of being notified/inspected by the fiscal authorities can be an encouraging factor for the fiscal aggressiveness, as it is shown by Mocanu et al. (2020) and Shen (2023), or an inhibiting one, according to Atwood et al. (2012) and Kubick et al. (2016). Nonetheless, no study has been

mentioned as to have tested the accounting characteristic of the companies in having significant values of tax provisions values and contingent tax liabilities regarding the fiscal aggressiveness. Furthermore, the mentioned researches appropriate methodologies and distinct scenarios from the one used in the current study and, hence, the results can diverge.

Among the methodological differences, the analysis in several countries (Atwood et al., 2012), the fiscal execution measured as being the number of times that company ancillary obligations were audited by the inspection/standardizing body (*IRS*) (Hoopes et al., 2012) and the letters of formal notice sent by the inspection/standardizing body (*SEC*) (Securities and Exchange Commission) on the entity taxes (Kubick et al., 2016), for example, are highlighted.

As the current recognition of the tax contingent liabilities can represent past tax savings, Mattos (2017) added the provisions and the contingent tax liabilities to present value as metrics of the tax planning (variable explained by his econometric model). Unlike the author, the present study did not apply such deflation in the tax liabilities and used this metrics as a tax planning determinant, not the proxy itself.

Therefore, methodological distinction is perceived in each research and, by analyzing the tax provisions and the contingent tax liabilities as possible metrics for fiscal aggressiveness in the Brazilian scenario, the study results reveal a significant limitation, as the inspections, the notices and other tax authority lawsuits for the Brazilian companies can be from actions out of the tax saving context. The absence of statistical significance of the independent regressors for the fiscal aggressiveness causes Hypotheses 1, 1a and 1b to be refuted.

Nonetheless, the lack of the hypothesis confirmation does not suggest, at all, the inexistence of the capacity causing the fiscal aggressiveness motivated by the tax provisions and contingent tax liabilities in the Brazilian companies. Such occurrence may be due to the sample particularities, as well as to the chosen method; however, the non-statement of such influence for the analyzed companies, the addressed period and method is fixed. Although the absence of the statistical significance is perceived for the explanation of tax provisions and contingent tax liabilities in the behavior of the tax saving of the Brazilian companies, such liabilities can be useful in the explanation of the results management behavior (RM) (Ribeiro, 2018) and tax non-compliance (Gomes, 2020), for example.

As to the control variables, the leverage presented positive statistical significance at 5% for *BTD*. It follows that more leveraged companies are tax more aggressive, as it was found by Martinez and Martins (2016). This leads to the comprehension that the increase of each leverage percentage is associated to a 2% increase of the *BTD* dependent variable.

Santos & Oliveira (2020) identified that the fiscal aggressiveness explains the return on assets of Brazilian companies of the electric power sector. The present study complements the field of this author research, showing that the return on assets explains the fiscal aggressiveness, as *ROA* is statistically significant for fiscal aggressiveness and not only for *GAAP ETR*, but also for *Cash ETR*, *VAS ETR* and *BTD*.

The interpretation is that the higher the return of its assets, the more inclined the company is for fiscal aggressiveness practices, as it is also seen in the international scenario by Chen et al. (2010) and Kubick et al. (2016).

Companies listed on the Novo Mercado (New Market), CG Level 1 or 2 present themselves as more aggressive for the GAAP ETR and VAS ETR fiscal aggressiveness measurements. It is suggested that, for being at a better CG level, the companies face a better reputation in the market and, consequently, for the active subject, decreasing their chances of inspection and questioning, being then able to obtain more safety for an aggressive tax saving. This evidence differs from the one presented by Martinez and Cerize (2020), as, for this study, companies with better recognition of CG practices are tax less aggressive. Desai and Dharmapala (2006) argued that the tax system may enhance or reduce an organization CG level. Mattos (2017) identified that strict CG rules may be a deterrent to the tax planning practices.

The results presented for the BTD variable show that the *Size* coefficient is positive and significant at 5%, thus indicating that the increase of each percentage in the assets natural logarithm represents an association of 0,32% of increase in the accounting and fiscal difference, indicating an increase in the fiscal aggressiveness of the analyzed companies. Therefore, one notices that, for this study, larger companies present themselves as tax more aggressive, corroborating the findings by Lee (2021) and Martinez and Silva (2019) and contradicting the ones by Gaaya et al. (2017).

Brazil has a different tax burden among the economy sectors. Consequently, the sector in which the company carries out its operations may be a determinant of its fiscal aggressiveness and such assumption is proven empirically by the statistical significance of the sectors for all the three models, regardless of the measure used to measure the fiscal aggressiveness. The same evidence was perceived by Mocanu et al. (2020) and Santos et al. (2021) and, hence, the evidence that the sector taxation (regardless of the country) is a determinant factor in the company behavior is strengthened. It should be highlighted that the economic sector was included as a control variable in the model, and other studies may expand the analysis individually.

4.2.3 Result of Additional Tests

In Table 10, the model results with the inclusion of the independent variable in three moments are presented: t-1, t-0 e t+1. The objective of this analysis is to search more scientific evidence on the impact that the tax provisions and the contingent tax liabilities have on the company fiscal aggressiveness, measured by the GAAP ETR, Cash ETR, VAS ETR and BTD, in distinct periods.

Table 10

Regression Result – H1, H1a and H1b

$$FA_{i,t} = \beta_0 + \beta_1 POC_{i,t-1} + \beta_2 POC_{i,t} + \beta_3 POC_{i,t+1} + \beta_4 Leve_{it} + \beta_5 ROA_{5,it} + \beta_6 Size_{i,t} + \beta_7 CG_{i,t} + \beta_8 BIGA_{i,t} \varepsilon_{i,it}$$

Dependent

Panel A - H1	GAAP ETR		Cash ETR		VAS ETR		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest independent								
POC _{t-1}	0,05**	-0,0019	0,61	0,0013	0,60	0,0018	0,15	0,0005
POC _t	0,01*	-0,0029	0,18	-0,0120	0,92	0,0005	0,30	0,0004
POC _{t+1}	0,10***	-0,0023	0,94	0,0001	0,06***	0,0066	0,08***	0,0010
Control								
LEV	0,00*	0,0035	0,00*	0,0239	0,00*	-0,0048	0,00*	0,0044
ROA	0,00*	-0,8014	0,08***	-0,2167	0,00*	-0,3895	0,00*	0,9927
Size	0,15	0,0102	0,10	0,0131	0,14	0,0116	0,55	0,0008
CG	0,11	-0,0419	0,95	-0,0022	0,00*	-0,0950	0,09***	0,0101
BIG4	0,27	-0,0227	0,06***	0,0485	0,55	0,0114	0,70	0,0015
Dummy Sector: Yes	Significant		Significant		Significant		Nonsignificant	
Between	0,2113		0,1863		0,2644		0,9977	
VIF	1,58		1,58		1,58		1,58	
N. Obs	461		398		646		698	

$$FA_{i,t} = \beta_0 + \beta_1 ProvT_{i,t-1} + \beta_2 ProvT_{i,t} + \beta_3 ProvT_{i,t+1} + \beta_4 Leve_{it} + \beta_5 ROA_{5,it} + \beta_6 Size_{i,t} + \beta_7 CG_{i,t} + \beta_8 BIG4_{i,t} \varepsilon_{i,it}$$

Dependent								
Panel B - H1a	GAAP ETR		Cash ETR		VAS ETR		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest independent								
PROVT _{t-1}	0,13	-1,4040	0,82	-0,2119	0,10***	-0,4487	0,60	0,0276
PROVT _t	0,21	1,6208	0,85	0,2327	0,23	0,5297	0,35	0,0385
PROVT _{t+1}	0,28	0,0964	0,66	0,0553	0,05**	0,1025	0,31	0,0376
Control								
LEV	0,00*	0,0036	0,00*	0,0239	0,00*	-0,0048	0,00*	0,0044
ROA	0,00*	-0,7948	0,08***	-0,2162	0,00*	-0,3738	0,00*	0,9927
Size	0,11	0,0115	0,11	0,0131	0,14	0,0116	0,49	0,0009
CG	0,12	-0,0398	0,99	0,0003	0,00*	-0,0982	0,12	0,0095
BIG4	0,15	-0,0298	0,06***	0,0458	0,53	0,0120	0,89	0,0005
Dummy Sector: Yes	Significant		Significant		Significant		Nonsignificant	
Between	0,2202		0,1848		0,2691		0,9977	
Vif	2,15		2,15		2,15		2,15	
N. Obs	463		400		648		704	

$$FA_{i,t} = \beta_0 + \beta_1 Pct_{i,t-1} + \beta_2 Pct_{i,t} + \beta_3 Pct_{i,t+1} + \beta_4 Leve_{it} + \beta_5 ROA_{5,it} + \beta_6 Size_{i,t} + \beta_7 CG_{i,t} + \beta_8 BIG4_{i,t} \varepsilon_{i,it}$$

Dependent

Panel A - H1	GAAP ETR		Cash ETR		VAS ETR		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Panel C - H1b	ETR Gaap		ETR Cash		ETR DVA		BTD	
	P-value	Coef	P-value	Coef	P-value	Coef	P-value	Coef
Interest independent								
PCT _{t-1}	0,07***	-0,0018	0,57	0,0014	0,61	0,0018	0,16	0,0005
PCT _t	0,01*	-0,0029	0,14	-0,0121	0,93	0,0004	0,33	0,0004
PCT _{t+1}	0,09***	-0,0024	0,91	-0,0002	0,07***	0,0064	0,09***	0,0010
Control								
LEV	0,00*	0,0034	0,00*	0,0239	0,00*	-0,0048	0,00*	0,0044
ROA	0,00*	-0,7943	0,08***	-0,2141	0,00*	-0,3895	0,00*	0,9927
Size	0,14	0,0105	0,10	0,0130	0,13	0,0118	0,54	0,0008
CG	0,09***	-0,0441	0,94	-0,0026	0,00*	-0,0967	0,08***	0,0101
BIG4	0,33	-0,0201	0,05**	0,0494	0,53	0,0119	0,68	0,0016
Dummy Sector: Yes	Significant		Significant		Significant		Nonsignificant	
Between	0,2091		0,1861		0,2636		0,9977	
Vif	1,57		1,57		1,57		1,57	
N. Obs	463		400		648		702	

Note: * Significant at 1%, ** significant at 5%, *** significant at 10%. Source: Research data.

Although there is statistical significance of some results in each of the panels, the nonsignificant findings predominate in the sample, at 5% or less, which corroborates, mostly, the results of the main studied model, by not showing a significantly positive relation of the tax provisions and contingent tax liabilities in the company fiscal aggressiveness.

Panel A results, which explore the proxy of the tax provision and the contingent tax liabilities sum, show a statistical significance for the GAAP ETR proxy (in t-1, t and t+1, this last one at 10%), for the VAS ETR proxy (in t+1) and for the BTD proxy (in t+1), these two last ones at 10%. They also show that the variable LEV present itself as relevant to explain the fiscal aggressiveness in the model (in the main model only the ROA presented statistical significance). In summary, the results signal a small change in the original scenario, while the significance only in GAAP ETR is insufficient to contradict the results explored in the hypotheses.

Regarding Panel B, it is found that the tax provisions were relevant only for the VAS ETR proxy (in t-1 and t+1), being the first result at 10%. It should be emphasized that, in this scenario, both LEV and ROA variables were statistically significant; and that the CG impacts the fiscal aggressiveness, when considering the VAS ETR dependent variable.

Panel C results are similar to those presented in Panel A, thus corroborating that even by inserting the independent variable in the model in t-1, t-0 and t+1, the study clarifies that there is no statistical evidence for all of them.

In face of the scenario presented in this section 4, some relevant results are extracted: i) that there may be asymmetry between the recognition of tax provisions and contingent tax liabilities and the fiscal aggressiveness level of the companies; ii) that only the ROA and LEV variables may explain the company fiscal aggressiveness in t-1, t+0 and t+1 as some studies point out (Martinez & Martins 2016; Chen et al., 2010; Kubick et al., 2016); iii) that, when considering the same year or only one-year lag and another in the future, statistically relevant evidences, which explain that the companies with more tax provisions and/or contingent tax liabilities reduced or increased their fiscal aggressiveness are not found, as Atwood et al. (2012), Kubick et al. (2016), Mattos (2017) and Mocanu et al. (2020) state; iv) that the found results do not refute the tested hypotheses that the summed tax provisions and contingent tax liabilities and the latter separately impact the fiscal aggressiveness, by considering only the GAAP ETR as a dependent variable and a statistical parameter of relevance up to 10%.

5 FINAL CONSIDERATIONS

From Shen model (2023), which identified a significant and positive association of the amount of provisions and contingent liabilities and the tax aggressiveness in China capital market, such results were not confirmed in the present study. Thus, the results suggest that the values discussed in law courts and recognized as tax provisions and contingent tax liabilities are not connected directly with the tax saving practices of the companies. This indicates, for example, that the fiscal litigations from the difficulty of the companies to interpret and to apply the fiscal legislation, as mentioned by Martinez and Sonegheti (2015) and Mattos (2017), and the credit recovery (Olivon, 2022) do not determine the fiscal aggressiveness level of the entities. That being said, hypotheses 1, 1a and 1b were refuted.

Such pieces of evidence expand the analysis and the discussion of the tax aggressiveness determinants when providing grounds that the tax values in litigation are not determinants of the fiscal aggressiveness of non-financial publicly held Brazilian companies in its large part, and thus it follows that other factors better explain the efforts of fiscal saving of the companies. Hence, the study result presents pieces of evidence that suggest that the reaction of the Brazilian companies to the fiscal notices does not motivate the executives to take measures for the tax saving, by opting, for example, for less risky ways of fiscal saving.

It should be stressed that this scenario remains practically unchanged in the additional tests. Despite some statistically significant results, when considering the impact of the tax provisions and contingent tax liabilities on the fiscal aggressiveness of the researched companies, inserting the independent variable in t-1, t-0 and t+1 in the model, it is not possible to validate the established hypotheses in the study for a large part of the variables. Nevertheless, one has to consider that the additional tests, when considering only the GAAP ETR as dependent variable and a significance level up to 10%, do not refute the study hypotheses.

Another point to be emphasized is that more leveraged companies showed

themselves as more aggressive, responding to the findings by Gaaya et al. (2017) and Martinez and Martins (2016). Regarding the return on assets, the companies with higher ROA showed themselves as more aggressive in most of the models, as in the study by Chen et al. (2010) and Kubick et al. (2016). The relation of CG with the fiscal aggressiveness responds to Martinez and Cerize (2020) and Mattos (2017), as the companies with higher CG showed themselves as tax more aggressive; however, this result appears in a few models. Finally, the company size explains its aggressive profile in some of the used models, by indicating a positive relation, and the larger the company, the higher its fiscal aggressiveness.

The current research impacts on new investigation opportunities, by demonstrating, for example, the importance of the fact that contexts, modeling and structures may offer distinct results even by approaching equal or similar phenomena. Furthermore, researches interested in comprehending fiscal aggressiveness in the Brazilian scenario will be able to observe that the fiscal liabilities may impact on the decisions of fiscal saving of the organizations or otherwise, suggesting, therefore, caution at the moment of developing their methods. And this by taking into account that the Brazilian burden presents itself in a different way according to the sector in which the company fits; a detailed analysis by economic sector can offer interesting information, which is recommended in new researches. It is also suggested verifying, by using other methods, if the civil, labor and environmental provisions and contingent liabilities have influence on the tax decisions of the organizations and investigating if the Brazilian companies are more aggressive before or after the offer period of special installments.

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