Determinants of Restatements in Financial Statements of Brazilian Publicly Traded Companies

ABSTRACT

Objective: Under the context of the importance accounting information quality for its users, this study aimed to point out possible determinants for the Standardized Financial Statements (SFS) restatement of Brazilian publicly traded companies.

Method: From 2010 to 2016, we used correlation test, mean difference test and logistic regression with panel data.

Originality/Relevance: The study opportunity considered the existence of contradictory results in national and international studies, which present not recent temporal analysis, observation of too few determinants concomitantly, and methods of descriptive character for analysis.

Results: The results showed that the main determinants of the restatement of SFS are: being audit by Big Four; companies with debt; audit rotation; industry; size and tenure. It was also found that older companies have lower chances of restatement. There are indications of a negative relationship between restatement and the issuance of ADRs, but positive with the listing at the differentiated levels of corporate governance.

Theoretical/Methodological contributions: In general, it was observed that the possible controls that might be adopted by companies to reduce conflicts of interest, information asymmetry and agency costs are not presented as able of preventing the restatement of SFS. These findings help in the indication of variables that can be included in valuation, so that the market can incorporate in its estimates factors that indicate companies more likely to restatement, therefore with uncertainty in the reliability of their results disclosed, and also assist in monitoring policies by regulatory bodies regarding the restatement of SFS.

Keywords: Accounting Information Quality, Timeliness, SFS Restatement

How to Cite (APA)
1 INTRODUCTION

The stock market is important in the economic dynamics of the countries, because it is where strategic alliances between economic agents, investors and financial institutions occur (Demirkan & Demirkan, 2014). For this reason, the market depends on a system of support to institutions that promote corporate governance, ensuring that users receive information about the value of companies by preventing agents from minimizing or expropriating the wealth of principals (Bushman & Smith, 2003). In this sense, those interested in accounting information may seek reliable information that can minimize information asymmetry. This occurs since the agency theory highlights the relationship between agent and principal, and explains that accounting practices can have a strong orientation in satisfying the marginal interests of agents to the detriment of the interests of the principal (Jensen & Meckling, 1976; Rahman, Yammeesri, & Perera, 2010).

Accounting information has a relevant role in reducing information asymmetry (Rocha, Pereira, Bezerra, & Nascimento, 2012), as it allow users to: i) identify and evaluate investment opportunities with fewer errors, leading to a more accurate allocation of capital; ii) monitor the actions and decision-making of managers; and iii) experience greater equality of knowledge of business events and investment opportunities (Bushman & Smith 2003). However, to achieve these objectives, accounting information needs to present some fundamental qualitative characteristics (relevance, materiality and reliable representation) and improvement (comparability, verifiability, timeliness and comprehensibility (CPC 00, 2011).

Among the qualitative characteristics, the timeliness consists in the fact that the information is available in time to influence the decision-making. However, the publications of the Standardized Financial Statements (SFS) do not always provide correct information about the company's economic and financial situation, and it is up to the Brazilian Securities and Exchange Commission (CVM - Comissão de Valores Mobiliários) to oversee these publications; if irregularities are found, the entity is notified so it can remake and restate the SFS (Dantas, Chaves, Silva, & Carvalho, 2011), consequently interfering in the timing. In addition, the company itself may observe some irregularity or point of data to be corrected and, before the requirement of restatement by the CVM, it might identify the need to voluntarily review the SFS made available to the market.

In such a context, the following studies have analyzed the determinants of SFS restatements and their consequences for the market: a) increase in restatements decreases the return of shares (Anderson & Yohn, 2002; Palmrose, Richardson, & Scholz, 2004); b) restatements have a negative relationship with the value of the company and with the market reaction (Hribar & Jenkins, 2004; Jetegaonkar, Lovata, & Sierra, 2012; Palmrose et al., 2004; Mr. Silva; Wilson, 2008); c) fraudulent accounting reports are one of the main determinants for restatements (Albring, Huang, Pereira, & Xiaolu, 2013; Carpenter, 2007; Defond & Jiambalvo, 1991; Palmrose et al., 2004); d) negative relationship between the auditors' fees and future restatements (Blankley, Hurttt, & MacGregor, 2012; Blankley, Hurttt, & MacGregor, 2014; Raghunandan, Read, & Whinesant, 2003; Stanley & DeZoort, 2007), or even positive (Kinney, Palmrose, & Scholz, 2004; Stanley & DeZoort 2007); e) lower probability of restatement by companies audited by the Big Four (Eshleman & Guo, 2014; Newton, Wang, & Wilkins, 2013), but results were also found audits conducted by the Big Four do not imply less restatement (Lobo & Zhao, 2013; Marques, Aires, Cerqueira, & Silva, 2016).

In Brazil, research related to this line of study observed: a) that the main causes for restatement from 2001 to 2004 are problems involving insufficient evidence of relevant
information, financial instruments and deferred tax assets and liabilities (Murcia & Carvalho, 2007); b) that the market does not react to the restatement (Helou Netto & Pereira, 2010); c) which cases of restatements were determined by the CVM (Dantas et al., 2011); d) the influence of restatements on results management (Cunha, Fernandes, & Magro, 2017); e) of which size and growth rate of Big Size-audited companies with IFRS adoption are more likely to be restatement (Marques, Amaral, Souza, Santos, & Belo, 2017); f) that the adoption of IFRS can reduce the possibility of restatement (Soares, Motoki, & Monte-Mor, 2018) and g) that there is a relationship between the restatement and the delay in the disclosure of SFS to the market (Chiudini, Cunha, & Marques, 2018).

Thus, we can perceive that while international study is better developed, some of them still present controversial results on possible determinants of the restatement of SFS; also worth mentioning is the gap regarding the analysis of other possible determinants of restatement, also present in national surveys. In this sense, examples of possible determinants not yet observed in the existing literature are delay in the delivery of SFS (audit delay), debt, audit rotation, among others.

Therefore, given the importance of accounting information for the stock market as a reduction of information asymmetry, these contradictory results in international studies as well as the fact that this field is still growing in Brazil is enough motivation for the present study to answer the following question: What are the determinants of the restatements of financial statements by Brazilian publicly traded companies? Thus, the objective was to identify the main determinants related to the fact that Brazilian publicly traded companies restate their SFS.

It is also worth mentioning that previous studies in Brazil use a timespan not up-to-date, presents descriptive methods and did not observe a greater volume of characteristics that could explain the existence of restatement, with the greatest evident being the international research on the subject.

Therefore, in addition to the contribution to the development of national research and spreading the knowledge of possible determinants, these results might help the market to incorporate, in its estimates and evaluation models, the expected determinants that indicate the profile of those companies more likely to restate (Healy & Palepu, 2001; Jategaonkar et al. 2012), and consequently those that may signal greater asymmetry of information to stock market participants. Furthermore, considering the responsibility of the CVM to monitor the reliability and timeliness of the information disclosed, it is expected that the results of this study may signal to the CVM as for the possible determinants that affect the probabilities of the SFS to be restated, so they can obtain supervisory guidelines in these companies, contributing to the determination of monitoring policies that include these variables.

2 THEORETICAL FRAMEWORK
2.1 Agency theory and Importance of Accounting Information

The possibility of disclosing unreliable or asymmetric accounting information occurs according to the principles of agency theory, giving rise to the idea of “agency conflicts”, since agents are motivated by their interests to maximize their own return (Baiman, 1990; Jensen & Meckling, 1976; Klein, 1983; Ogden, 1993). Therefore, in a given economic or financial information model, some agents have information about the company at a higher level than the principal, such as a shareholder, for example (Healy & Palepu, 1993).

This means that resource takers typically have more information about a company compared to savers. Moreover, since the financial resources of savers are transferred to
borrowers, they have incentives and opportunities to practice actions to expropriate the wealth of the principal, since they are not fully monitored (Kirch, Lima, & Terra, 2005). In other words, the existence of information asymmetry allows controlling shareholders to define guidelines and strategies for the entity for their own interests, leading to the contradiction of the rights of other shareholders (Andrade & Rossetti, 2004), managers with the need to achieve certain goals could even postpone, through restatement of SFS, unsatisfactory results, harming the company's sources of resources, such as shareholders and financial institutions. Therefore, accounting information has the ability to mitigate informational asymmetry, as well as allow for better functioning through external and internal mechanisms, and enable more effective monitoring by stakeholders, which creates a more balanced economic environment (Akerlof, 1970; Kirch et al., 2005).

When accounting information is available, the market is more likely to become efficient, since unique or new information would be increasingly expensive for users, excluding possible additional gains from this information (Forti, Peixoto & Santiago, 2009). This is because price is the full reflection of the information available, it is an indicator of informational measurement, and therefore it affects market efficiency (Fama, 1970).

However, in order to be able to minimize market uncertainties, providing stakeholders greater security when making a decision, accounting information must have fundamental and improvement-related attributes, including timing, which becomes an important feature, because, as much as the information is detailed and meets all the attributes mentioned above, if it is not available in time for stakeholders use in their process decision-making, it becomes irrelevant, especially in cases of market risk. In addition, it is important to highlight the importance that timely information must also meet the assumption of reliable representation of facts, otherwise, there would be greater chances of requiring restatement of its SFS and maintaining a picture of information asymmetry between companies and users. Therefore, it is perceived that SFS delays may be responsible for the increase of uncertainties associated with decision-making (Chambers & Penman, 1984; Givoly & Palmon, 1982; Sengupta, 2004), which in turn impacts both stakeholders and the entity itself, considering that companies with lower restatement rates demonstrate to the market that they have better quality of accounting information (Dechow, Ge, & Schrand, 2010) and lower risk of adverse selection (Marques et al., 2017).

2.2 Main National and International Surveys

At the international level, researchers have analyzed several factors related to the restatements of SFS (Albring et al., 2013; Anderson & Yohn, 2002; Baber, Gore, Rich, & Zhang, 2013; Badertscher & Burks, 2011; Blankley et al., 2012; 2014; Callen, Livnat, & Segal, 2006; Eshleman & Guo, 2014; Hirschey, Smith, & Wilson, 2015; Hribar & Jenkins, 2004; Ma, Kraten, Zhang, & Wang, 2014; Palmrose et al., 2004; Raghunandan et al., 2003; Stanley & DeZoort, 2007).

Although national studies related to this subject are scarce, there are introductory articles and restatement analyses (Cunha et al., 2017; Dantas et al., 2011; Marques et al., 2016; Murcia & Carvalho, 2007), as well as studies that observed the relationship between the restatement and the audit process (Chiudini et al., 2018) and identification of some determinants of restatement (Marques et al.; Soares et al).

Regarding the possible determinants of the restatement SFS, Marques et al. (2017) and Soares et al. (2018) observed the relationship of the restatement with loss, size of the company, audit by Big Four, growth rate and adoption of IFRS. In addition, in line with the possible causes of restatement, Stanley and DeZoort (2007) noted that there is a negative
relationship between audit specialization, auditors' fees and financial updates, which is consistent with the initial concerns of the authors about the reduction of audit quality due to lack of specific customer knowledge and low audit rates in new audit commitments. Similarly, Blankley et al. (2012) analyzed the association between the reformulations of the SFS and the auditors' fees, noting that in case of restatement, the fees are lower. This result may be related to the lack of effort of the auditors or the risks that have been underestimated. Blankley et al. (2014), in a subsequent study, found that companies that restate the SFS have annual audit reporting delays. Moreover, time pressure seems to be associated with a higher probability of financial adjustments. In this sense, the national study by Chiudini et al. (2018) observed that longer delay in the delivery of audited reports may be related to higher risks faced by audits in their processes, which tends to lead to restatement of SFS.

Consistent with the results of Stanley and DeZoort (2007), Eshleman and Guo (2014) found results that affirm the highest probability of restatement occurrence for companies audited by the Big Four. However, after using a proxy audit to control the auditor's endogenous choice, they found that clients of the Big Four auditors are less likely to report their earnings later than clients of auditors not in the Big Four. Antagonistic to the result found by Eshleman and Guo (2014), in Brazil, Marques et al. (2016) identified that companies audited by the Big Four have a higher percentage of restatements.

In a descriptive study, Dantas et al. (2011) observed that the restatements of the SFS tend to focus on the second half of the period examined, that there were a greater number of questions in relation to the statements audited by Deloitte Touche Tohmatsu, and that the reasons given by the CVM for the remaking of the SFS focus on improprieties in the recognition and/or measurement of assets and liabilities and the deficiencies or absence of disclosure in explanatory notes.

Regarding the study that identified possible consequences of the restatement of SFS, Anderson and Yohn (2002) examined how restatements affect investors' perceptions, concluding that investors react negatively to restatements, in addition to a decrease in the value of the entity by the increase in informational asymmetry. Palmrose et al. (2004) examined the market reaction, noting that the most negative returns are associated with restatements involving fraud and, therefore, generating a negative market reaction. This result is consistent with that obtained by Hribar and Jenkins (2004), who analyzed the effect of restatement on the cost of the company’s share capital, concluding that the restatements lead to a decrease in the expected future gain and increases the cost of the company's share capital. It is also aligned with the findings of Albring et al. (2013), which noted that restatements have a negative impact on the entity's access to lower-cost external funds, hindering the ability to make potentially profitable investments. A similar result was obtained by Baber et al. (2013).

The relationship between restatement and fraud was also part of the national study of Murcia and Carvalho (2007), which identified that fraud is one of the reasons for restatement of SFS. In addition to this idea, Badertscher and Burks (2011), for 1997 to 2005, observed that delays in restatement tend to be short when the reason is not related to fraud; therefore, delay in restatement can be caused by large or numerous errors.

Also from the point of view of the market reaction to the restatements, Callen et al. (2006) investigated the relationship of restatements and market reaction, which was negative. They observed that restatements occur during periods of decline in profit, which is consistent with the company's opportunistic management behavior and operational problems. In contrast, in Brazil, Helou Netto and Pereira (2010) investigated whether the restatements of SFS impact the share price, finding that the market does not react, either positively or negatively, to restatements. This result in Brazil is somewhat consistent with that obtained in China by
Ma et al. (2014), which did not confirm that the restatement of SFS significantly affects the value of the company.

In general, what is perceived is the existence of contradictory results in previous studies, as well as the restriction of analyzing one or two possible determinants of restatements on a given time. Therefore, larger sets of possible determinants of restatements in the same analysis were not considered, thus preventing a panoramic view of all determinants to stakeholders. Thus, there are factors that may be determinant for restatements, but which have not yet been observed by previous studies, such as: company growth, debt, company age, industries, among others, which may influence, directly or indirectly, in the elaboration of SFS, as they are part of the entire organizational structure of an entity, and, therefore, may be directly or indirectly linked to the causes of restatement.

3 METHODOLOGY
3.1 Sample and Variables

The initial population came from the 375 Brazilian publicly traded companies available in the Economática database, with the exception of financial institutions, given the accounting particularities of its SFS. After removing the entities that did not present data available for calculating the variables, the final sample comprised 327 companies, whose consolidated statements were analyzed for the period from 2010 to 2016. Data regarding the possible determinants of restatement were obtained from the Economática database, the companies' website, B3 and CVM.

We defined the variables analyzed as possible determinants of the restatement of the SFS on the theoretical basis that underlies this study:

- **Audit Delay**: represents the difference of days between the closing date and the disclosure date of the SFS. It is expected a positive relationship between audit delay and the restatement of SFS, since in a situation of greater delay in the disclosure of SFS can signal that there is market pressure for the audit to finalize its service, therefore, there is a higher chance for occurrence of mistakes.

- **American Depositary Receipt (ADR)**: represents companies that issue ADRs, so as to expect that a company with shares abroad have greater care with the preparation of financial reports, since it is willing to trade shares abroad, thus implying a negative relationship with the restatement. The possible relationship between this variable and restatement of SFS has not yet been observed by existing studies so far.

- **Big Four**: variable for companies audited by large auditing companies. Regarding the relationship between restatement and the fact that the company is audited by the Big Four, the literature considers two hypotheses: i) positive relationship between the variables, as companies audited by the Big Four tend to be large and require greater attention from the audit, and as such have more chances of having aspects of disclosure going unnoticed and thus, causing restatement of SFS. Moreover, large companies, due to political costs, are motivated to be more transparent, even if this implies restatements, demonstrating that this factor is not necessarily a negative factor (Marques et al., 2016); ii) negative relationship between the variables, because the high quality of the audit reduces the probability of restatement (Eshleman & Guo, 2014; Jiang, Habib & Zhou, 2015);

- **Audit Board Independence**: variable to highlight companies with independent audit board. It is assumed that the existence of this council leads to lower chances of agency conflicts, and thus a negative relationship of this variable with restatement is expected. It is
noteworthy that no studies were found that analyzed the relationship of this variable with the restatement of SFS.

- **Debt**: calculated by the relationship between short- and long-term liabilities and shareholders' equity. It is expected that more indebted companies tend to reintroduce more SFS due to a greater tendency to manage the information disclosed (Marques et al., 2017).

- **Corporate Governance (NDGC)**: represents the companies listed in B3’s differentiated levels of corporate governance. Companies with good corporate governance practices are expected to take actions to promote transparency in access to disclosed information, which means a relationship with the restatement of SFS in which the related reasons might be related to the quality of accounting information. Thus, it is assumed that if there is governance there will be less restatement (Marques et al., 2017). However, the restatement of SFS also occurs for other reasons, such as adjustment of corporate events dates and other factors related to administrative aspects, which may be related to increased restatement.

- **Audit Fee**: calculated by the logarithm of the amount of fees paid to independent audit services. It is expected that the higher the fee amounts, the more dedication the auditing company had, therefore, the lower the chance of restatement (Stanley & DeZoort, 2007). However, Blankley et al. (2012) verified a positive relationship between the variables, indicating that the high value of fees can influence the auditor's judgment and impartiality, leading to mistakes in financial reports and consequently in the need for restatement.

- **Age**: company time, in years, since its initial public offering. It is assumed that the older the company, the greater its business experience, therefore, the less likely it is to make mistakes capable of resulting in restatement. It is noteworthy that no evidence was found from previous studies that observed a direct relationship between age and restatement of SFS.

- **Audit Rotation**: captures the occurrence of rotation of audits in the company. With the occurrence of rotation, audits take more than one accounting period to adapt to its client's accounts; in some cases, at least three years might be needed to know all the internal controls of the client (Oliveira, 2005). Therefore, it can be assumed that in the period of audit rotation the chances of restatement are greater.

- **Industry**: representative variable of companies belonging to self-regulated industries. It is expected that companies in self-regulated industries are bound to adapt to the informational needs of IFRS and its regulatory agent, therefore, are more likely to restate their SFS. This variable was considered in the studies of Palmrose, Richardson and Scholz (2004) and Chiudini et al. (2018).

- **Size**: calculated by the logarithm of the total assets of the companies. According to Cunha et al. (2017), the size of the company is related to greater results management, which may indicate greater chances of restatement SFS.

- **Tenure**: Represents the number of years that the same audit is auditing a given client. An inverse relationship is expected between tenure and the probability of restatement, because the more the auditing company is familiar with the audited company, the lower the chances of making mistakes in the SFS (Stanley & DeZoort, 2007).

### 3.2 Applied Methods

The study was designed based on the following methods of analysis:

i) **Correlation analysis**: it was performed in order to determine the degree of relationship between two variables, i.e., to measure the covariability between them, allowing an initial analysis on the linear relationship between two variables (Hoffmann, 2016);
ii) Mean difference test: in order to verify if there is a statistical difference between the mean of two samples (Sweeney, Williams, & Anderson, 2015) the Mann-Whitney U-test was applied to analyze the relationship between the restatement of the SFS and their possible determinants. For this, the data were organized in two ways: a) the mean of each possible determinant was calculated for when there was restatement (1) and when there was no restatement (0) and b) the possible determinants were organized in an increasing series, separating the quartiles 1 and 4, in order to observe whether the mean restatement is different for the extreme cases of each variable;

iii) Binary logistic regression: in order to study the relationship between a response variable and one or more independent variables, in addition to the fact that the response is expressed by means of a probability of occurrence, in the case of a binary variable there are only two accepted characteristics, for example, yes or no. The logistic model is presented below:

\[ y = \frac{\exp (xb + e)}{1 + \exp (Xb + e)} \]  

where \( y \) is the probability of occurrence of an event, \( x \) is the matrix of predictors and 

"e" is the vector of errors (Venticinque et al., 2007). This test analyzed the results via panel-distributed data; in this case, the Hausman test was applied, indicating the use of fixed effects.

Initially, to guide the decisions of the tests to be performed, the normality of the independent variables was verified, via parametric Shapiro-Wilk normality test and nonparametric Kolmogorov-Smirnov normality test (Wooldridge, 2012). Subsequently, nonparametric correlation analyses and the mean difference tests, this in relation to restatement and in relation to each variable observed, logit regression test.

To perform binary logistic regression, the following model was proposed based on the literature review to define the possible determinants of restatement:

\[ Restatement = \alpha + \beta_1x AD + \beta_2 x ADR + \beta_3 x Big4 + \beta_4 x ComAud + \beta_5 x Debt + \beta_6 x GC + \beta_7 x Afee + \beta_8 x Age + \beta_9 x Rot + \beta_{10} x Ind + \beta_{11} x Size + \beta_{12} x Ten \]  

In which:

\( AD = \) The Audit Delay of the companies, which consists of the difference of days of the signing of the financial reports by the auditing company in relation to the closing date of the financial year in question.

\( ADR = \) dummy consisting of 1 if the company has ADR or 0 otherwise.

\( Big4 = \) dummy consisting of 1 if the company is part of the Big Four or 0 otherwise.

\( ComAud = \) dummy consisting of 1 if the company has independent audit board and 0 otherwise.

\( Debt = \) debt of the company, which consists of the ratio of total loans to total shareholders' equity.

\( GC = \) dummy consisting of 1 if there was corporate governance or 0 otherwise.

\( Afee = \) logarithm of the value of audit fees.

\( Age = \) years that the company is registered within the CVM.

\( Rot = \) dummy consisting of 1 if there was rotation of audit company in the audited company or 0 otherwise.

\( Ind = \) dummy consisting of 1 for self-regulated industry and 0 otherwise.

\( Size = \) logarithm of the total assets of the company.

\( Ten = \) tenure, which represents the time, in years, that an auditing organization works the same given company.
4 CORRELATION AND REGRESSION RESULTS

Initially, normality of the data was verified in order to validate whether the sample is symmetrical from its standard deviation around the mean. The results are presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Normality Test</th>
<th>Parametric</th>
<th>Non-parametric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restatement</td>
<td>0.413</td>
<td>0.4314***</td>
</tr>
<tr>
<td>AD</td>
<td>13.005***</td>
<td>0.1226***</td>
</tr>
<tr>
<td>ADR</td>
<td>4.998***</td>
<td>0.5187***</td>
</tr>
<tr>
<td>Big4</td>
<td>0.256</td>
<td>0.4508***</td>
</tr>
<tr>
<td>ComAud</td>
<td>3.110***</td>
<td>0.4853***</td>
</tr>
<tr>
<td>Debt</td>
<td>16.588***</td>
<td>0.3520***</td>
</tr>
<tr>
<td>GC</td>
<td>-5.029</td>
<td>0.3601***</td>
</tr>
<tr>
<td>Afee</td>
<td>7.272***</td>
<td>0.0421***</td>
</tr>
<tr>
<td>Age</td>
<td>12.830***</td>
<td>0.1234***</td>
</tr>
<tr>
<td>Rot</td>
<td>2.630***</td>
<td>0.4755***</td>
</tr>
<tr>
<td>Ind</td>
<td>1.733**</td>
<td>0.4571***</td>
</tr>
<tr>
<td>Size</td>
<td>12.841***</td>
<td>0.1104***</td>
</tr>
<tr>
<td>Ten</td>
<td>12.973***</td>
<td>1.1599***</td>
</tr>
</tbody>
</table>

Note: ***, **, *, significant, respectively, at 1%, 5% and 10%

The results of the parametric Shapiro-Wilk test and nonparametric Kolmogorov-Smirnov test indicated that most variables do not present normal distribution. Therefore, the following tests refer only to the non-normal (nonparametric) distribution.

In the next stage, correlation between the variables was calculated via Spearman's test; results are presented in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Correlation analysis</th>
<th>Restatement</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>-0.0348*</td>
</tr>
<tr>
<td>ADR</td>
<td>0.0477**</td>
</tr>
<tr>
<td>Big4</td>
<td>0.1233***</td>
</tr>
<tr>
<td>ComAud</td>
<td>0.0884***</td>
</tr>
<tr>
<td>Debt</td>
<td>-0.0147</td>
</tr>
<tr>
<td>GC</td>
<td>0.0962***</td>
</tr>
<tr>
<td>Afee</td>
<td>0.1442***</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0885***</td>
</tr>
<tr>
<td>Rot</td>
<td>0.0119</td>
</tr>
<tr>
<td>Ind</td>
<td>0.1272***</td>
</tr>
<tr>
<td>Size</td>
<td>0.1616***</td>
</tr>
<tr>
<td>Ten</td>
<td>0.0482**</td>
</tr>
</tbody>
</table>

Note: ***, **, *, significant, respectively, at 1%, 5% and 10%

In the sequence, two tests of mean difference were applied. Table 3 presents the results from the Mann-Whitney test related to restatement, considering the means of each variable for
cases without restatement (0) and with restatement (1). In Table 4, the results presented are related to each variable observed by dividing the samples into four quartiles, using only the first quartile (Q1) for the smaller values and the last quartile (Q4) for the larger values; as such, the means were related to restatement in Q1 (lowest values) and in Q4 (higher values).

Table 3
Means difference test organized by the restatement dummy

<table>
<thead>
<tr>
<th>Variable</th>
<th>0</th>
<th>1</th>
<th>z</th>
<th>Observed relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>68.01</td>
<td>66.34</td>
<td>-1.693*</td>
<td>-</td>
</tr>
<tr>
<td>ADR</td>
<td>0.12</td>
<td>0.16</td>
<td>-2.356**</td>
<td>+</td>
</tr>
<tr>
<td>Big4</td>
<td>0.68</td>
<td>0.8</td>
<td>-6.083***</td>
<td>+</td>
</tr>
<tr>
<td>ComAud</td>
<td>0.19</td>
<td>0.27</td>
<td>-4.361***</td>
<td>+</td>
</tr>
<tr>
<td>Debt</td>
<td>0.19</td>
<td>0.18</td>
<td>-2.913***</td>
<td>-</td>
</tr>
<tr>
<td>GC</td>
<td>0.43</td>
<td>0.53</td>
<td>-4.748***</td>
<td>+</td>
</tr>
<tr>
<td>Afee</td>
<td>12.56</td>
<td>13.07</td>
<td>-6.645***</td>
<td>+</td>
</tr>
<tr>
<td>Age</td>
<td>21.72</td>
<td>18.75</td>
<td>5.118***</td>
<td>-</td>
</tr>
<tr>
<td>Rot</td>
<td>0.23</td>
<td>0.24</td>
<td>-0.587</td>
<td>+</td>
</tr>
<tr>
<td>Indy</td>
<td>0.23</td>
<td>0.35</td>
<td>-6.275***</td>
<td>+</td>
</tr>
<tr>
<td>Size</td>
<td>13.61</td>
<td>14.69</td>
<td>-7.621***</td>
<td>+</td>
</tr>
<tr>
<td>Ten</td>
<td>3.12</td>
<td>3.35</td>
<td>-1.034</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: ***, **, *, significant, respectively, at 1%, 5% and 10%

Table 4
Mean difference test organized by the lowest values (Q1) and highest values (Q4) of each variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Q1</th>
<th>Q4</th>
<th>z</th>
<th>Observed relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>0.35</td>
<td>0.32</td>
<td>0.973</td>
<td>-</td>
</tr>
<tr>
<td>ADR</td>
<td>0.32</td>
<td>0.38</td>
<td>-2.356**</td>
<td>+</td>
</tr>
<tr>
<td>Big4</td>
<td>0.23</td>
<td>0.36</td>
<td>-6.083***</td>
<td>+</td>
</tr>
<tr>
<td>ComAud</td>
<td>0.3</td>
<td>0.4</td>
<td>-4.361***</td>
<td>+</td>
</tr>
<tr>
<td>Debt</td>
<td>0.25</td>
<td>0.31</td>
<td>-2.913**</td>
<td>+</td>
</tr>
<tr>
<td>GC</td>
<td>0.28</td>
<td>0.37</td>
<td>-4.748***</td>
<td>+</td>
</tr>
<tr>
<td>Afee</td>
<td>0.22</td>
<td>0.4</td>
<td>-6.374***</td>
<td>+</td>
</tr>
<tr>
<td>Age</td>
<td>0.41</td>
<td>0.28</td>
<td>-4.645***</td>
<td>-</td>
</tr>
<tr>
<td>Rot</td>
<td>0.32</td>
<td>0.34</td>
<td>-0.587</td>
<td>+</td>
</tr>
<tr>
<td>Indy</td>
<td>0.29</td>
<td>0.42</td>
<td>-6.275***</td>
<td>+</td>
</tr>
<tr>
<td>Size</td>
<td>0.23</td>
<td>0.42</td>
<td>-7.081***</td>
<td>+</td>
</tr>
<tr>
<td>Ten</td>
<td>0.33</td>
<td>0.35</td>
<td>-0.726</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: ***, **, *, significant, respectively, at 1%, 5% and 10%
Afterwards, logistic binary regression tests were performed; the results are presented in Table 5:

Table 5
Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Pooled Data</th>
<th>Coefficient Panel Data</th>
<th>t</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>0.00092</td>
<td>0.0017</td>
<td>0.43</td>
<td>0.46</td>
</tr>
<tr>
<td>ADR</td>
<td>-0.34986</td>
<td>-0.4581</td>
<td>-2.27**</td>
<td>-2.09**</td>
</tr>
<tr>
<td>Big4</td>
<td>0.33163</td>
<td>0.4636</td>
<td>1.92*</td>
<td>2.13*</td>
</tr>
<tr>
<td>ComAud</td>
<td>0.0441</td>
<td>0.0242</td>
<td>0.37</td>
<td>0.13</td>
</tr>
<tr>
<td>Debt</td>
<td>0.3867</td>
<td>0.5124</td>
<td>2.05**</td>
<td>2.10**</td>
</tr>
<tr>
<td>GC</td>
<td>0.0747</td>
<td>0.95958</td>
<td>0.62</td>
<td>-0.22</td>
</tr>
<tr>
<td>Afee</td>
<td>0.0468</td>
<td>0.07041</td>
<td>0.91</td>
<td>0.99</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01058</td>
<td>-0.0166</td>
<td>-3.07***</td>
<td>-3.07***</td>
</tr>
<tr>
<td>Rot</td>
<td>0.22256</td>
<td>0.32605</td>
<td>1.70*</td>
<td>2.20**</td>
</tr>
<tr>
<td>Ind</td>
<td>0.48801</td>
<td>0.54652</td>
<td>4.48***</td>
<td>3.22***</td>
</tr>
<tr>
<td>Size</td>
<td>0.07975</td>
<td>0.0866</td>
<td>3.01***</td>
<td>2.34**</td>
</tr>
<tr>
<td>Ten</td>
<td>0.02299</td>
<td>0.03271</td>
<td>0.92</td>
<td>1.03</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>4.03</td>
<td>0.98356</td>
<td>-3.07***</td>
<td>-3.07***</td>
</tr>
<tr>
<td>LR chi²</td>
<td>112.38</td>
<td>67.53</td>
<td>4.03</td>
<td>6.5</td>
</tr>
<tr>
<td>Prob &gt; chi²</td>
<td>0.00</td>
<td>0.00</td>
<td>-3.07***</td>
<td>-3.07***</td>
</tr>
</tbody>
</table>

Note: ***, **, *, significant, respectively, at 1%, 5% and 10%

5 RESULTS DISCUSSION

In the correlation and means difference analyses, the results pointed to a negative relationship between audit delay and restatement. In the regressions, however, the result was positive, in accordance with theoretical expectations; delay in the disclosure of SFS can cause market pressure for the audit to finish its service, therefore, there are greater chances of mistakes that might lead to restatement. However, there was no statistical significance, as was the result obtained by Blankley et al. (2014).

Although the correlation and means difference tests indicated a positive relationship between ADR and restatement, the regression tests brought a negative relationship between the variables, as was expected theoretically, as companies that negotiate ADRs tend to be more careful in the preparation of their SFS, which will be used in the international market, this leads to reducing the amount of restatements.

All tests indicated that there was a positive relationship between restatement and the fact that companies were audited by the Big Four. This result is in accordance with one of the theoretical lines on the relationship of these variables, that is, that companies audited by the Big Four are larger and require greater attention from the audit, which may lead to a greater possibility of some aspects of disclosure going unnoticed by auditing companies, resulting in the restatement of SFS. Such evidence seems to be characteristic of the sample of Brazilian companies, since these results were contrary to those of Eshleman and Guo (2014) and Jiang et al. (2015), whose studies were based on U.S. and Chinese companies, respectively, where the high quality of auditing is more likely to be reduced to the likelihood of restatement, even though such countries tend to have a larger and more diversified number of publicly traded
companies, which may explain the negative relationship found by them. However, a similar result was observed by Marques et al. (2017), which point to the fact that companies audited by the Big Four tend to signal greater transparency, consequently, leading to restatement.

It was found that companies that have an independent audit committee tend to restate their SFS, although that was not significant in the regressions; contrary to what was expected, that is, that the committee would reduce the agency conflict, therefore, reduce the chances of result management that would impact the need for restatement. However, it is worth mentioning that, in order for the audit committee to reduce the management of results and improve the accounting information disclosed, it needs to have three characteristics: a) size, since it is necessary to have a sufficient number to efficiently discuss emerging issues (DeZoort et al., 2002); b) independence, a characteristic for members to deliberate impartially (IBGC, 2009); and, c) expertise, because the quality of accounting information depends on the members having adequate knowledge in the areas of accounting, auditing and/or finance (IBGC, 2009).

Regarding debt, the correlation analysis and mean test organized by a restatement dummy indicated a negative relationship between the variables, although the correlation result was not statistically significant. However, when organizing the data in order of debt, the results indicated that the companies with higher level of debt present higher rates of restatement. This result was corroborated by regression analysis and is in accordance with the expected, since debt may result in greater difficulty in presenting accounting reports more faithful to reality, which leads an increase in the discretionary component of the profits, since managers tend to present reports more favorable to their needs, being aligned with the idea that the individual ends up being opportunistic in their choices. This result corroborates the studies by Sengupta (1998), Grossman and Hart (1982), Healy and Wahlen (1999), Defond and Jiambalvo (1994), Sun and Rath (2008). In addition, it is also aligned with Marques et al. (2017), which highlight that the remuneration of managers can be a factor in the search for one's own well-being, and consequently of results management, the result of opportunism based on agency theory.

This present study presents evidence that companies adopting corporate governance practices have greater SFS restatement, although this result was not significant for regression tests. This positive relationship may be related to the fact that the listing at these levels requires greater rules of adherence (Camargos & Barbosa, 2010), which may result in increased probabilities of the entity making a mistake and causing the need for republishing of SFS. Marques et al. (2017) also observed a positive relationship between the adoption of corporate governance practices and the SFS restatement. This result may signal that the implementation of these good corporate conducts may not indicate effective control mechanisms, especially for the protection of the principals in the face of information generation by agents.

The results indicate that companies with higher audit fees have more restatement, although the findings were not statistically significant by regression analysis. This result is aligned with that obtained by Blankley et al. (2012), who considered that higher fees might influence the auditor's judgment and impartiality, leading to the need for restatement. Thus, there are indications of the presence of opportunism and conflicts of interest between auditors with higher remuneration and the quality of information made available to users.

Regarding the age of the companies, the results indicated a negative relationship with the SFS restatement. This result follows the expected, because it is assumed that the older the company, the greater its business experience, resulting in an increase in the level of professionalization (Beisland & Mersland, 2013), therefore, the lower the probability of making mistakes capable of result in restatement.
As for audit rotation, the results of correlation and mean difference showed evidence of a positive relationship with the restatement, although not significant. However, regression tests confirm the positive relationship between the variables to be statistically significant. This finding is aligned with what is expected by the literature (DeAngelo, 1981) due to the fact that one of the consequences of rotation is the need for time for audits to adapt to their client's accounts and controls. Moreover, contrary to what was expected in the literature (Stanley & DeZoort, 2007), the test results showed that companies employing the same audit companies for longer are more likely to have SFS restatement. This can occur because in longer relationships between the auditor and the client company might lead to accommodation; that is, less rigor in the analysis and reduction of critical sentiment in the analysis of financial accounting information (CGAA, 2003).

The results also indicated that companies in self-regulated industries are those with higher tendencies for SFS restatement, as expected; as the self-regulated industries, as well as needing to follow accounting standards, need to adapt to the industry-specific regulations (Bryan & Mason, 2016; Bryan & Mason, 2017; Urhoghide & Izedonmi, 2015).

Finally, for larger companies, all tests indicated a tendency to restate the SFS, according to literature considerations (Cunha et al., 2017), because larger companies have more assets and greater degree of complexity of operations (Borges, Nardi & Silva, 2017; Francis, 1984; Simunic, 1980). Therefore, it is assumed that there is an increase in the chances of making a mistake that results in restatement. Additionally, the benefit of restatement, might greater than the cost of doing so, as that might represent to the market that this specific large company is transparent. (Marques et al., 2016). This result corroborates that found by Marques et al. (2017), which highlights that it does not mean that larger companies have more irregularities, but rather that, in Brazil, most restatement are the result of spontaneous acts.

In general, the study identified as possible determinants of SFS restatements the fact that the company: a) is audited by the Big Four confirming the results of studies by Eshleman and Guo (2014) and Marques et al. (2017), b) has higher debt, c) has gone through rotation of audits, d) is on the self-regulated industry, and) is larger and f) has a longer audit time. In addition, the study observed that older companies are less likely to restate and that companies with independent audit committees are more likely to restate the SFS.

There are indications of a negative relationship between restatement and the issuance of ADRs, but positive with the listing at the differentiated levels of corporate governance. Furthermore, the results were not conclusive for the variable Audit Delay.

6 FINAL REMARKS

This study aimed to identify the main determinants related to SFS restatement in Brazilian publicly traded companies.

In general, it was possible to notice that the companies with less restatement of SFS are the oldest, indicating that self-knowledge might reduce restatement, as well as those with some international requirement of disclosure, via issuance of ADRs. On the other hand, it indicated that possible mechanisms that should be applied to guide conflicts of interest between agent and principal are not factors that inhibit the SFS restatement and consequently, information asymmetry to the market, since the study made evident the negative relationship between restatement and the existence of the independent audit committee, Big Four audits and presenting good corporate governance practices. Furthermore, the study corroborates other studies (Marques et al., 2017) when mentioning triggers for the search of results.
management in the company, due to the opportunism of managers (or agents), in the scenario of higher debt.

The results found here may contribute to the scientific, national and international literature regarding the possible determinants of the SFS restatement. They can also help in the indication of variables that can be included in valuation processes, because knowing the possible determinants of the SFS restatement can help the market to incorporate, in its estimates and evaluation models, data from companies that have a profile more likely to restate.

In addition, it was observed that mechanisms, sometimes expected as being controlling, were later defined for reduction of conflicts of interest, opportunism and adverse selection, such as: i) being audited by the Big Four, ii) having an independent audit board and iii) adopting good corporate governance practices, did not present themselves as aspects capable of reducing the SFS restatement. This indicates a need for reflection and observation of regulatory bodies regarding these control mechanisms, further assisting in the determination of CVM monitoring policies, since the CVM may use these possible determining factors as parameters to monitor companies that tend to have more restatement.

Finally, it is worth noting that the present study could have considered other variables as possible determinants of the SFS restatement, such as: company growth, return, results management, among others. Yet, it could separate the restatements by requirement and the volunteers, and also classify the types of compulsory restatements. As a limitation, however, there are few observations from companies with restatement by requirement. To try to address these issues, a comparative study with other countries could be developed. As such, these are the limitations and suggestions for the next studies presented here.

REFERENCES


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Determinantes das Republicações das Demonstrações Contábeis das Empresas Brasileiras de Capital Aberto

RESUMO

Objetivo: Sob o contexto da qualidade da informação contábil para seus usuários, esse estudo teve como objetivo apontar possíveis determinantes para a republicação das demonstrações financeiras padronizadas (DFPs) das empresas brasileiras de capital aberto.

Método: Considerando o período de 2010 a 2016, foram utilizados testes de correlação, de diferença de média e de regressão logit com dados em painel.

Originalidade/Relevância: A oportunidade de pesquisa considerou a existência de resultados contraditórios nas pesquisas nacionais e internacionais, as quais apresentam análise temporal não recente, observação de poucos determinantes concomitantemente, e o uso de métodos de caráter descritivo para análise.

Resultados: Os resultados apontaram que os principais determinantes da republicação das DFPs são: ser auditada por Big Four; endividamento; rodízio de auditoria; setor; tamanho e tempo de auditoria. Verificou-se ainda que empresas mais antigas apresentam menores chances de republicação. Há indícios de relação negativa entre republicação e a emissão de ADR, mas positiva com a listagem nos níveis diferenciados de governança corporativa.

Contribuições teóricas/metodológicas: No geral, foi observado que os possíveis controles que as empresas podem adotar para reduzir conflitos de interesse, assimetria de informação e custos de agência não se apresentam como capazes de prevenir a republicação das DFPs. Os achados auxiliam na indicação de variáveis que podem ser inclusas em processo de valuation, para que o mercado possa incorporar em suas estimativas fatores que indicam empresas mais propensas a republicarem, portanto com incerteza na confiabilidade de seus resultados divulgados, e ainda, auxiliar nas políticas de monitoramento por órgãos reguladores quanto à republicação das DFPs.

Palavras-chave: ___________________________________

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