


IFRS AND PROBABILITY OF REPUBLISHING: A STUDY OF BRAZILIAN COMPANIES LISTED ON BOVESPA

COSMEILSON RODRIGUES SOARES


Fucape Business School. **Address:** Av. Fernando Ferrari, 1358, Boa Vista | 29075-505 | Vitória/ES | Brazil.

 <http://orcid.org/0000-0002-3397-3015>

E-mail: cosmeilson@hotmail.com

FABIO YOSHIO SUGURI MOTOKI


Fucape Business School. **Address:** Av. Fernando Ferrari, 1358, Boa Vista | 29075-505 | Vitória/ES | Brazil.

 <http://orcid.org/0000-0001-7464-3330>

E-mail: fmotoki@fucape.br

DANILO SOARES MONTE-MOR

Fucape Business School. **Address:** Av. Fernando Ferrari, 1358, Boa Vista | 29075-505 | Vitória/ES | Brazil.

 <http://orcid.org/0000-0002-5677-5804>

E-mail: daniilo@fucape.br

ABSTRACT

This study analyzed the transition and post-transition period of the adoption of the International Financial Reporting Standards (IFRS) in Brazil, and its main objective was to elucidate its implications both in republishing financial reports and in issuing an accounting audit opinion, with qualification or disapproval. This research analyzed 613 companies listed on BM&FBovespa from 2001 to 2016. The analysis was prepared through a Logit model, testing the hypotheses that the adoption of IFRS in Brazil would reduce both the probability of republishing and of issuing an opinion with qualification or disapproval. The results have indicated that both in the transition and in the post-IFRS periods there was a reduction in the probability of opinions with qualification or disapproval, with a stronger effect on the latter. These results indicate that the IFRS may have positively impacted reporting quality, but not as strongly as desired.

Keywords: Republishing. Qualification. IFRS.

1 INTRODUCTION

This study aims to analyze the effect of *International Financial Reporting Standards* (IFRS) in republishing financial reports and issuing audit opinions with qualification or disapproval. There is some evidence that the adoption of IFRS results in the improvement of the accounting information generated, reflecting in the most reliable presentation of the economic and financial position of an entity (Ball, Robin, & Wu, 2003; Barth, Landsman, & Lang, 2008; Daske, Hail, Leuz, & Verdi, 2008; Gebhardt & Novotny-Farkas, 2011; Horton, Serafeim, & Serafeim, 2013; Cameran, Campa, & Pettinicchio, 2014; Lara, Torres, & Vieira, 2008; Paananen & Lin, 2009; Rathke, Santana, Lourenço, & Dalmácio, 2015). However, as supported by Daske et al. (2008) and Christensen, Hail and Leuz (2013), such outcome may depend on

Submission on 06/12/2018. **Revision on** 07/02/2018. **Acceptance on** 08/10/2018.

the country's level of enforcement. Daske, Hail, Leuz and Verdi (2013) deepen the research and find that "serious" companies enjoy economic benefits of adopting IFRS, while "front" companies do not.

More recently, Leuz & Wysocki (2016) demonstrate that the evidence of the regulatory effects of accounting reports is weak, suggesting that more researches are made on the subject. This work falls within this demand, addressing the adoption of IFRS in a low enforcement country like Brazil (Durnev & Kim, 2005). In addition, some improvement actions do not necessarily imply positive changes in the quality of accounting information, as they do not include important cultural, educational and legal factors that can lead to dubious interpretations and heterogeneous practices (Ball, 2006). Finally, Jiang, Habib and Zhou (2015) claim that the empirical evidence of republishing in emerging markets is insignificant, although these markets are more vulnerable to manipulation of accounting reports. This research seeks to contribute with empirical evidence on the subject, checking whether the adoption of IFRS in Brazil has reduced the probability of republishing and issuing audit opinion with qualification or disapproval, proxies for quality of reports.

One of the regulators' concerns is keeping the costs of a new regulation low enough so that they do not void the potential benefits of the regulation. There is evidence suggesting that the adoption of IFRS changes the form and content of accounting reports, as well as the accounting regulatory process itself, leading to an increase in compliance costs, especially regarding amendments to these publications (De George, Ferguson & Spear, 2013).

As a result of these changes, there is an increase in the costs of auditing services, giving rise to the discussion about the cost-benefit ratio of the process of aligning to international accounting standards. (Hail, Leuz, & Wysocki, 2010). Aimed at measuring gains resulting from the adoption of IFRS, Oliveira, Dias and Gomes (2014) surveyed 19 Brazilian companies with shares in the New York Stock Exchange. The results indicate that there was a 24% decrease in audit costs after IFRS, providing a positive indication for the adoption of the standard (Oliveira et al., 2014). It is worth noting that unlike the United States, the Brazilian institutional environment does not have a strict supervision and monitoring of the auditor's work, which makes the opinion analysis with qualification or disapproval so important (Durnev & Kim, 2005).

This study analyzes 613 companies listed on BM&FBovespa from 2001 to 2016, using the financial statements and audit reports obtained from the software Economatica and the website of the Brazilian Securities and Exchange Commission (CVM), in 2017. The analysis was made using a Logit model, testing the hypothesis that the adoption of IFRS in Brazil reduces both the probability of republishing and the probability of opinion with qualification or disapproval.

The results found indicate that there was a reduction in the probability of audit opinions with qualification or disapproval in the transition period of the IFRS, even considering it is a period to adapt to the new accounting system. This trend was accentuated when the post-IFRS period was analyzed, as an even more significant increase was observed in the probability of reducing the occurrence of opinions with amendments or disapproval. These results explain the robustness of the accounting reports resulting from the adoption of IFRS standards. However, this improvement in the informational environment seems to be partial, since there was no relationship between the adoption of IFRS and the probability of republication, allowing for investigations that lead to higher standards.

In this sense, this research is expected to contribute both to the academy and to the capital market, as well as to the boards of directors and shareholders and regulatory and control bodies regarding: (a) implications in the process of aligning to international accounting standards in Brazil; (b) the adoption of IFRS and its effects on the probability of increase in republications of financial statements; and (c) its effects in issuing audit opinion with reservations.

2 LITERATURE REVIEW

2.1 IFRS and the quality of accounting information

The need to implement IFRS in Brazil derives mainly from issues related to the standardization of international accounting standards, as well as the incentive to foster foreign investments in the country. A recent survey evidences that, among approximately 48,000 companies listed on the world's 85 major stock exchanges, more than 25 thousand adopt IFRS accounting standards. In addition, among companies that do not apply IFRS, more than 80% are listed on the stock exchanges of China, India, Japan and the United States (Giroto, 2017).

The introduction of IFRS has influenced accounting practices, with significant impact, particularly on the way financial reports are prepared. Prior to IFRS (the Brazilian GAAP), the Brazilian accounting standard was formulated with interests that did not prioritize information to the market and, therefore, had a lower level of information (Oliveira & Lemes, 2011). While the international accounting standard was based on the provision of information that impacts the strategic decisions of agents, especially focused on meeting investors' needs (Cavalier & Tiras, 2013).

Although the adoption of IFRS has brought more demands regarding better accounting information (IFRS, 2018), it does not necessarily lead to the extinction of fraudulent actions or to the reduction of impacts resulting from failures in accounting procedures (De George, Patel, & Zeckhauser, 1999; Dechow, Ge, & Schrand, 2010). The process of adopting IFRS in Brazil may have provided greater flexibility in the accounting treatment, which did not exist under the BR GAAP, of primary tax nature. This allows, at the same time, choices that best reflect the company's economic-financial reality and managers to manipulate accounting records. (Cavalier & Tiras, 2013).

The purpose of the audit is to be a tool capable of minimizing the impacts caused by conflicts of interest (Barry & Brown, 1985; Merton, 1987). The idea of an audit is that a third party independently ensures that the company presents information that reflects its economic-financial background under GAAP. Research relate audit quality with a number of factors, among which: audit firm size, audit insurance, whether or not a *Big Four*, change of audit firm and auditor experience, length of the relationship between the company and the audit, among others (DeAngelo, 1981; Watts & Zimmerman, 1981; Dye, 1993; Solomon, Shields & Whittington, 1999; Geiger & Raghunandan, 2002; Ghosh & Moon, 2002; Myers, Myers & Omer, 2003; Francis, 2011).

On the other hand, as regards the association of the audit with the quality of the information presented, there is an inherent difficulty to include the adoption of IFRS, since the accounting standard is relatively recent and is considered to be a broad and complex process. Although there are several measures to assess the quality of accounting information (Dechow et al., 2010), there is still no consensus on the effect of adopting IFRSs (Francis, Olsson, & Schipper, 2006; Daske et al., 2008; Dechow et al., 2010, Horton et al., 2013, Leuz & Wysocki, 2016, Marques, 2016). This work is within this context, by checking if the adoption of new standards is related to republication - an indication of low quality audit - with qualification or disapproval.

2.2 IFRS and republication

The republishing of the accounting reports refers to the disclosure of incorrect or incomplete information. The opinions expressed in the audit report may approve the accounting of amounts not seen in the original preparation of the balance sheet. The importance of these values can motivate the republishing of the balance sheet (Law No. 6,404, 1976).

A number of studies (Kinney, Palmrose, & Scholz, 2004; Stanley & Dezoort, 2007; McGuire, Omer, & Sharp, 2012; Schmidt, 2012; Francis & Michas, 2013; Lobo & Zhao, 2013; Jiang et al., 2015) evidence that republishing can be considered a measure capable of assess audit quality. The results of the research done by Christensen et al. (2013) found that the readjustments of the financial statements are considered by auditors and investors to be the

main indicator of poor audit quality. Previous research, such as Kinney et al. (2004) and Stanley & Dezoort (2007), show material misstatements, such as enforcement actions by the Securities and Exchange Commission (SEC) related to fraudulent financial reports. These cases, however, are considered rare and suggest very low rates of audit deficiency.

There is some evidence that the changes promoted by the adoption of IFRS in Brazil may have increased the level expected from accounting models (Oliveira & Lemes, 2011; Pelucio-Grecco, Geron, Grecco, & Lima, 2015; Linhares, Costa, & Beiruth, 2018). On the other hand, the adoption of a new model may have required the auditor to: (1) have seek qualification, (2) have changed his practices, (3) have been more careful or conservative as it is an entirely new process, or (4) any combination of the factors above. It is possible to assume that such higher qualification or greater care have some effect similar to the audit change, whose evidence points to an improvement in the quality of the report (Silvestre, Costa & Kronbauer, 2018). Thus, the adoption of IFRS may result in a higher incidence of republication due to a stronger audit. Thus, we postulate the first hypothesis (**H1**): the changes promoted by the adoption of IFRS in Brazil reduce the chance of republishing.

2.3 IFRS and reservations or disapproval

There is a conflict of interest within companies (Jensen & Meckling, 1976; Barry & Brown, 1985; Merton, 1987): managers are motivated to adopt assessment criteria that allow accounting statements to be prepared according to their own interests and distorting the original purpose of informing investors (Becker, 1998; Chen, Chen, & Su, 2001; Paulo, 2007).

According to the American Institute of Certified Public Accountants (AICPA, 2017), the auditor shall issue a qualified opinion when:

- The evidence collected by the auditor indicates that the financial statements as a whole present material misstatements.
- The auditor is not able to collect sufficient evidence to conclude that the financial statements are free of material misstatements.

The changes promoted by the adoption of IFRS in Brazil may have increased the level of complexity in accounting models. However, companies' concern as to correctly understanding and implementing the new standard has the potential to significantly improve the reporting process, using a logic similar to what may have occurred with audits, and led to the preparation of H1. This would lead to a decrease in the volume of opinions issued with qualification or disapproval because, despite their greater scrutiny potential, companies would tend to waive the requirements mentioned for the issuance of a reservation. Thus, we have the second hypothesis (**H2**): the changes promoted by the adoption of IFRS in Brazil reduce the chances of audit firms issuing opinions with qualification or disapproval.

3 METHODOLOGY

In order to verify the effects of the adoption of IFRS on the chances of republishing the financial statements and the audit opinion with qualification or disapproval of Brazilian companies listed on BM&FBovespa, data were collected from software Economatica and the CVM in 2017. Data were collected from listed Brazilian companies that disclose information on republication and that issue audit opinion with reservation or disapproval.

The study population was the total of Brazilian companies listed on BM&FBovespa. However, companies with no data, holdings with no data and financial companies were excluded. Thus, the sample consists of unbalanced panel containing 6,115 firms-year in reserve and republication regressions for 613 Brazilian companies listed on BM&FBovespa, from 2001 to 2016. This study focused on the IFRS adoption transition period (2008-2009) and on the period subsequent to the adoption of IFRS, with dummy variables for the regression models, in order to assess whether or not the introduction of the new accounting standard impacts the chances of republishing and issuing of qualified opinions.

3.1 Empirical model

The regression models used were adapted from the models of Gupta, Krishnan and Yu (2012). To test H1, Equation (1) estimates the determining factors for republishing the financial

statements:

$$Prob(Rep_{i,t}) = \beta_0 + \beta_1 T_IFRS_{i,t} + \beta_2 P_IFRS_{i,t} + \theta Cont_{i,t} + \varepsilon_{i,t} \quad \text{Equation (1)}$$

In Equation (1), variable REP admits two values: zero when there is no republication of financial statements and one when these are republished. As the purpose of the analysis was to identify if the IFRS transition impacts the republication variable, the variable T_IFRS assumes value one in the years of 2008 and 2009, indicating IFRS transition, and zero for the other years. The other variable that affects republishing is the post-IFRS, defined as P_IFRS in Equation (1) as a dummy variable that corresponds to values one for the years from 2010 to 2016 and zero for the years of 2001 to 2007, which are considered as periods before the adoption of the new standard. Cont is a vector of control variables corresponding to the variables defined in Table 2, with θ indicating the parameter vector of each control.

According to Francis Olsson and Schipper (2006), even with the adoption of IFRS standards, its real implications are unknown in terms of advances in the quality of accounting information, considering that these standards are relatively new. Dechow, Ge and Schrand (2010) claim that there are many metrics for assessing the characteristics of financial information. Therefore, another concern is to identify the effects of the IFRS on the reservations and disapproval, hypothesis (H2) to be tested by Equation (2).

$$Prob(Res ou Repr_{i,t}) = \beta_0 + \beta_1 T_IFRS_{i,t} + \beta_2 P_IFRS_{i,t} + \theta Cont_{i,t} + \varepsilon_{i,t} \quad \text{Equation (2)}$$

Res or Repr is a dummy that behaves as answer variable in Equation (2), being value one if the company has issued opinion with qualification or disapproval in the year of t and zero otherwise. To assess this variable, the same independent variables of Equation (1) were considered.

3.2 Definition of variables

To test hypothesis of said regression models, an estimate was made using the dependent and independent variables described on Table 1:

Table 1
Dependent and independent variables of interest

VARIABLE	DEFINITION
Independent variables	
Republication	A dummy variable defined as one if there was republishing of financial statement and zero otherwise.
Qualification or disapproval	A dummy variable defined as one if the company has received an opinion with qualification or disapproval, and zero otherwise.
Variables of interest	
Transition of IFRS	IFRS transition dummy defined as one for the years from 2008 to 2009, and zero otherwise.
Post-IFRS period	Post-IFRS Dummy defined as one for the years from 2010 to 2016, and zero otherwise.

Source: Prepared by the author (2018).

Table 2, in turn, shows the control variables to test its implications regarding the IFRS transition periods and the period subsequent to the transition of IFRS.

Table 2
Independent variables of control

CONTROL VARIABLE	DEFINITION
LOSS	A <i>dummy</i> variable defined as one if the net profit is negative and equal zero otherwise.
LEVERAGING (ALAVFIN)	Long-term debit plus the current installment of the long-term debt, divided by the total assets.
Size (TAM)	Size of the company measured by the natural logarithm of the value of its total asset.
Return on assets (ROA)	Return on assets, measured as net profit divided by the total assets.
<i>Big Four</i> (BIGN)	A <i>dummy</i> variable defined as one if the auditor is <i>Big Four</i> (Deloitte, Ernst & Young, KPMG or PricewaterhouseCoopers) and as zero otherwise.
Specialist (ESPEC)	Variable of indicator defined as one if the auditor is specialized in the sector, that is, when a company operating in more than one segment, and as zero otherwise makes the audit.
Complexity (COMPLEX)	An indicator variable defined as one if a company operates in more than one field of activity, that is, more than one segment of economic activity.
<i>i e t</i>	Indicators of company and year, respectively.

Note. These variables were winsorized at 5%.
Source: Prepared by the author (2018).

The control variables were defined based on previous results in the literature (Larcker, Richardson & Tuna, 2007; Dechow, Ge and Schrand, 2010; Cassell, Myers, Seidel, & Zhou, 2016, Lo, Ramos and Rogo, 2017). It can be more difficult for companies with losses (LOSS) to produce a clear report because they need to further justify the viability of the business, which may increase the chances of an adverse event (republication or qualification). Leveraging (ALAVFIN) may have a similar effect, as it means the company is more exposed to financial risk. Larger companies (TAM) may have more accounting information; therefore these may be more subject to adverse events. While companies with good performance (ROA) may have less to explain, resulting in lower concerns and lower chances of adverse events. Audit conducted by one of the major audit firms (BIGN) may reduce the chances of an adverse effect, as they have more expertise and may have a more strict reporting process, increasing the quality of the report. The same effect is expected from the fact that the auditor is a specialist (SPEC). On the other hand, the complexity of the operation (COMPLEX) also has a side effect, making the preparation of the report more difficult and, therefore, exposing the company to more adverse events.

4 RESEARCH RESULTS

4.1 Result of the descriptive statistic

Table 3 shows the descriptive statistic of variables used in the models studied – Equations (1) and (2).

Table 3
Descriptive statistics

Variables	Average	SD*	Minimum	T1	Median	T3	Maximum
REP	0.00	0.07	0.00	0.00	0.00	0.00	1.00
Res or Repr	0.06	0.23	0.00	0.00	0.00	0.00	1.00
T_IFRS	0.13	0.33	0.00	0.00	0.00	0.00	1.00
P_IFRS	0.67	0.47	0.00	0.00	1.00	1.00	1.00
LOSS	0.35	0.48	0.00	0.00	0.00	1.00	1.00
TAM	12.96	2.88	5.31	11.58	13.55	14.98	17.07
ROA	-0.06	0.30	-1.14	-0.03	0.02	0.07	0.18
ALAVFIN	1.23	4.99	-11.40	0.00	1.40	2.40	14.50
ESPEC	0.88	0.33	0.00	1.00	1.00	1.00	1.00
COMPLEX	0.06	0.24	0.00	0.00	0.00	0.00	1.00

BIGN	0.63	0.48	0.00	0.00	1.00	1.00	1.00
------	------	------	------	------	------	------	------

Note. *SD = standard deviation. REP = republication; Res or Repr = qualification or disapproval; T_IFRS = period of transition IFRS (2008-2009); P_IFRS = IFRS post-transition period (2010-2016); LOSS = loss; TAM = size of the company; ROA = return on assets; ALAVFIN = level of financial leveraging; ESPEC = specialist; COMPLEX = level of complexity; BIGN = if audited by a *Big Four*. The sample comprises 613 companies/year listed at Economatica and 6,115 notes collected from 2001 to 2016. Source: Prepared by the author (2018).

Table 3 shows that the REP (republishing) and Res or Repr (qualification) variables present low values, since the first represents only 0.4% of the sample (referring to 35 republications detected during the analysis period), and the second corresponds to 6% of the total. In addition, most are found in the post-IFRS period (P_IFRS) - 67%, on average -, and only 13% during the transition period (T_IFRS).

A considerable share, representing 35% of the total, record losses. The strong negative result is reinforced by the negative average ROA (-0.06). This scenario is possibly related to the period of study, which outlines the period of the subprime crisis (Freitas and Cintra, 2008) and the Brazilian crisis (Velooso & Bonelli, 2016; Barbosa, 2017). Regarding size (TAM, total assets in logarithm), the companies are large, with an average of R\$ 425 million in assets; the smallest one has around R\$ 202 million in assets. It is worth noting that the average corporate debt (ALAVFIN) is above one, indicating that they show relatively high indebtedness. Moreover, 88% of the companies are audited by specialists, and few are found to be complex (COMPLEX) - 6% of the total. Finally, almost two-thirds of companies are audited by the Big Four (BIGN), which are considered the most important audit firms in the global economic scenario and, theoretically, holds the highest standards.

4.2 Results of mean tests

Table 4 compares the means of the variables hereunder, seeking to assess if there are differences between the transition and post-IFRS periods.

Table 4
Mean test

Variables	Transition of IFRS (n = 1254)		Post-IFRS period (n = 4389)		Difference	P-value
	Mean	Standard deviation	Mean	Standard deviation		
Res or Repr	0.0808	0.2725	0.0392	0.1941	-0.0416	0.0000***
REP	0.0058	0.0758	0.0042	0.0646	-0.0016	0.3785
TAM	12.7694	2.6662	13.1259	3.0434	0.3566	0.0000***
ROA	-0.0437	0.2750	-0.0702	0.3135	-0.0264	0.0005***
ALAVFIN	1.2188	5.1102	1.2317	4.8838	0.0130	0.9194
ESPEC	0.8503	0.3568	0.8992	0.3012	0.0488	0.0000***
COMPLEX	0.0512	0.2205	0.0664	0.2491	0.0152	0.0123**
BIGN	0.5651	0.4958	0.6849	0.4646	0.1198	0.0000***

Note. REP = republication; Res or Repr = qualification or disapproval; T_IFRS = IFRS transition period (2008-2009); P_IFRS = post-IFRS transition period (2010-2016); LOSS = loss; TAM = size of the company; ROA = return on total asset; ALAVFIN = level of financial leveraging; ESPEC = specialist in the sector; COMPLEX = level of complexity; BIGN = if audited by a *Big Four*; Difference = difference between the mean in the post-IFRS period and the transition period; ***/*** = statistically significant at the levels of 10%, 5% and 1%, respectively. The sample comprises 613 companies/year listed at Economatica and 6,115 notes, collected from 2001 to 2016. Source: Prepared by the author (2018).

Table 4 shows that the significant variables for the Student's t-test were the dependents Res or Repr and those of control TAM, ROA, ESPEC, COMPLEX and BIGN. Therefore, it can be understood that qualifications or disapprovals (Res or Repr) were higher in the transition period than in the post-IFRS period, due to an improvement in the accounting standards resulting from the adoption of IFRS. The results of this study are consistent with the results found by McMillan et al. (2003), and McMillan et al. (2003) and Schmidt (2003) 2012; Francis & Michas, 2013; Lobo & Zhao, 2013).

The size of the companies (TAM) was found to be higher in the post-IFRS period than in the transition period. This was expected due to the new IFRS (Hung & Subramanyam, 2007; Pires, Decourt, Camargo, & Siebel, 2012). Similarly, a negative ROA is identified, which becomes more negative from one period to another, indicating a possible persistent effect of the subprime crisis (Freitas & Cintra, 2008) and the subsequent Brazilian crisis (Velooso & Bonelli, 2016). Leveraging presents no significant difference. An increase in the number of specialists

(SPEC) in the post-IFRS period is also observed in comparison to the transition period, which may be related to the increase in the Big Four reported hereafter. Regarding complexity (COMPLEX), the same situation observed in the variable SPEC is observed: companies identified in the study operate in several segments in the post-IFRS period, indicating a diversification in their operations. Finally, the variable BIGN indicates a significant increase in the hiring of a Big Four, which may relate to a greater expertise in IFRS and a quest to reduce compliance risks.

4.3 Regression results

Tables 5 and 6 show the results of two regression models, republication (Equation 1) and qualification (Equation 2), with the Logit coefficient (non-linear), as well as the mean marginal effect (an average of the non-linear effect) and the P-value.

Table 5
Regression of the variable republication (REP)

Variables	Logit Coefficient	Default error	P-value	dy/dx Coefficient	Default error	P-value
T_IFRS	0.8722	0.5808	0.1330	0.0042	0.0028	0.1380
P_IFRS	-0.0437	0.6871	0.9490	-0.0002	0.0033	0.9490
LOSS	1.2500	0.4827	0.0100**	0.0060	0.0030	0.0480**
TAM	0.2506	0.1118	0.0250**	0.0012	0.0007	0.0650*
ROA	1.2825	1.0167	0.2070	0.0062	0.0055	0.2560
ALAVFIN	-0.0242	0.0262	0.3500	-0.0001	0.0001	0.3770
ESPEC	0.8204	0.4387	1.8700	0.0040	0.0021	0.0640*
COMPLEX	0.8111	0.4642	0.0810*	0.0039	0.0020	0.0500**
BIGN	-1.6282	0.4346	0.0000***	-0.0079	0.0027	0.0040***

Note. REP = republication; Res or Repr = qualification or disapproval; T_IFRS = IFRS transition period (2008-2009); P_IFRS = post-IFRS transition period (2010-2016); LOSS = loss; TAM = size of the company; ROA = return on total asset; ALAVFIN = level of financial leveraging; ESPEC = specialist in the sector; COMPLEX = level of complexity; BIGN = if audited by a Big Four; */**/** = statistically significant at the levels of 10%, 5% and 1%, respectively. This table describes the Equation (1) on the mean effect per Logit and the mean marginal effect, also estimated by Logit, with default errors clusterized at firm level. The sample comprises 613 companies listed on BM&FBovespa and 6,115 notes with fixed sector effect, collected from from 2001 to 2016. Source: Prepared by the author (2018).

Table 5 describes the Logit coefficient (non-linear) and the mean marginal effect of each of the variables on the probability of republishing. No statistically significant results were found both in the transition period (T_IFRS) and in the post-IFRS period (P_IFRS). Thus, the hypothesis that audits may have strengthened the process is ungrounded. However, these results are in line with Ball (2006), noting that the adoption of IFRS does not necessarily mean immediate improvement, once cultural, political, and other aspects may result in dubious interpretations. Another point to highlight is the low variety of data. As republishing is a relatively rare event, the model may be incapable of properly capturing the effects thereof.

As for controls, the variables found to affect the republication are LOSS, TAM, ESPEC, COMPLEX and BIGN variables. Analyzing the coefficients, it is possible to warn that a loss (LOSS) increases by 0.6 p.p. the chance of republishing, indicating that companies with losses are more likely to have problems in preparing a reliable report. This is a significant economic effect, considering that the average republishing rate is low (0.06% at transition and 0.04% post-IFRS). As for company size (TAM), a variation of one log point in the total asset increases the chance of republishing by 0.12 p.p., despite the poor statistical ratio. Despite specialized in the sector (SPEC), the audit has an insignificant effect only on the mean marginal effect, with an increase of 0.40 p.p. in the chances of republishing. More complex firms, operating in more than one sector (COMPLEX), also show a statistically higher significant chance of republishing, of 0.2%, probably due to the difficult nature of the report. Finally, an audition conducted by a Big Four (BIGN) is related to a 0.79 p.p. lower possibility of republishing, indicating higher quality in the audit process. ROA and leveraging are not related to the chance of republishing.

Table 6 shows the regression of the variable qualification estimated by Logit and by the coefficient (dy/dx), presenting the mean marginal effect:

Table 6
Regression of the variable qualification or disapproval (RES or REPR)

Variables	Logit Coefficient	Default error	P-value	dy/dx Coefficient	Default error	P-value
T_IFRS	-0.4319	0.1632	0.0008***	-0.0227	0.0073	0.0002***
P_IFRS	-0.8640	0.1949	0.0000***	-0.0454	0.0120	0.0000***
LOSS	1.0484	0.1351	0.0000***	0.0551	0.0110	0.0000***
TAM	0.0805	0.0640	0.2090	0.0042	0.0034	0.2120
ROA	0.1084	0.4157	0.7940	0.0057	0.0222	0.7970
ALAVFIN	-0.0059	0.0134	0.6580	-0.0003	0.0007	0.6550
ESPEC	-0.1848	0.5016	0.7130	-0.0097	0.0263	0.7120
COMPLEX	0.2534	0.5455	0.6420	0.0133	0.0281	0.6360
BIGN	-0.7692	0.2277	0.0001***	-0.0405	0.0141	0.0004***

Note. REP = republication; Res or Repr = qualification or disapproval; T_IFRS = IFRS transition period (2008-2009); P_IFRS = post-IFRS transition period (2010-2016); LOSS = loss; TAM = size of the company; ROA = return on the total asset; ALAVFIN = level of financial leveraging; ESPEC = specialist in the sector; COMPLEX = level of complexity; BIGN = if audited by a *Big Four*; */**/** = statistically significant at the levels of 10%, 5% and 1%, respectively. This table describes the Equation (2) on the mean effect per Logit and the mean marginal effect, also estimated by Logit, with default errors clusterized at firm level. The sample comprises 613 companies listed on BM&FBovespa and 6,115 notes with fixed sector effect, collected from 2001 to 2016. Source: Prepared by the author (2018).

Table 6 indicates that statistically significant results were found in the transition periods (T_IFRS) and post-IFRS (P_IFRS), supporting H2. A reduction of 2.27 p.p. was observed in the probability of issuing audit opinions with qualification or disapproval (Res or Repr), with an even more critical economic effect in the post-IFRS period, when there was a reduction of 4,54 p.p., which is an important effect when compared to the means of 8% and 4% in the transition and post-IFRS periods. Therefore, some indication point out that accounting reports have improved quality, corroborating results obtained in other scenarios in Brazil and abroad (Oliveira & Lemes, 2011; Pelucio-Grecco et al., 2015; Linhares, Costa & Beiruth, 2018)

As regards controls, LOSS continues with a highly significant result, showing that losses also have a significant effect on the chances of qualification or disapproval (Res or Repr), with an increase of 5.51 p.p. Auditions conducted by a Big Four continues with a similar result on qualification and disapproval, with a reduction of 4 p.p. in the probability of occurrence of such problems. The remaining controls were not significant.

Thus, there is some evidence pointing that the adoption of IFRS may not have had such a strong impact on the financial statements, in view of the lack of results in republishing demonstrated hereof. This result is in line with the assumptions by Ball et al. (2003) that economic incentives stands above accounting standards in determining the quality of financial statements. However, evidences indicate some improvement, since the amount of opinions dropped during the post-IFRS period.

5 CONCLUSION

The objective of this study was to analyze the effect of International Financial Reporting Standards (IFRS) on the republication of financial reports and issuance of audit opinions with qualification or disapproval. Using the database of Economática and CVM, a sample was collected to answer the question of the research. From 2001 to 2016, 613 publicly traded companies listed on BM&FBovespa were studied hereunder.

The results of this study indicate a positive effect of the adoption of IFRS on the quality of the Brazilian accounting statements when evidenced a decrease in the occurrence of qualification and disapproval by audit firms. However, no effect related to the possibility of republishing was observed, that is, although audit firms decrease the amount of qualifications and disapproval, no reduction is observed in the possibility of republishing them. In this sense, the results of this research may be useful for regulators such as the CVM, the Accounting Pronouncements Committee (CPC) or the International Accounting Standards Board (IASB) itself – whose purpose is bringing transparency, accountability and efficiency to financial markets – insofar as it indicates a partial improvement in the quality of the financial statements.

This study does not analyze audited private companies, and is limited to listed

companies. As it involves private companies with lower disclosure requirements, the effects of IFRS could be extended if such companies were analyzed. Finally, future research should verify the effects of adopting international standards beyond the universe of listed companies. Finally, it is worth emphasizing that there are opportunities for new studies, researching, for example, other forms of assessing the adoption of IFRS, namely: i) which are the most cost-effective organizations; ii) what are the effects of the adoption of IFRS in the use of accounting information by other users; iii) to check, in detail, if the companies adopt IFRS, that is, to assess the level of compliance with the new rules established by this accounting paradigm; among others.

REFERENCES

- AICPA (2017). *Modifications to the Opinion in the Independent Auditor's Report*. Recuperado de <https://www.aicpa.org/research/standards/auditattest/downloadabledocuments/au-c-00705.pdf>
- Ball, R. (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and Business Research*, 36(1), 5-27. doi: 10.1080/00014788.2006.99730040
- Ball, R., Robin, A., & Wu, J. S. (2003). Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of Accounting and Economics*, 36(1), 235-270. doi: <https://doi.org/10.1016/j.jacceco.2003.10.003>
- Barbosa, F. de H., Filho (2017). A crise econômica de 2014/2017. *Estudos Avançados*, 31(89), 51-60.
- Barry, C. B. & Brown, S. J. (1985). Differential information and security market equilibrium. *Journal of Financial and Quantitative Analysis*, 20(4), 407-422.
- Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International Accounting Standards and Accounting Quality. *Journal of Accounting Research*, 46(3), 467-498. doi: 10.1111/j.1475-679X.2008.00287.x
- Becker, C. L., DeFond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The effect of audit quality on earnings management. *Contemporary accounting research*, 15(1), 1-24.
- Cameran, M., Campa, D., & Pettinicchio, A. (2014). IFRS Adoption Among Private Companies: Impact on Earnings Quality. *Journal of Accounting, Auditing & Finance*, 29(3), 278-305. doi: 10.1177/0148558X14534260
- Cassell, C. A., Myers, L. A., Seidel, T. A., & Zhou, J. (2016). The Effect of Lame Duck Auditors on Management Discretion: An Empirical Analysis. *Auditing: A Journal of Practice & Theory*, 35(3), 51-73. doi: <https://doi.org/10.2308/ajpt-51378>
- Cavalier, G. R. & Tiras, S. L. (2013). Brazil's adoption of IFRS: fertile ground for examining earnings management. *Brazilian Business Review*, 10(4), 133.
- Chen, C. J. P., Chen, S., & Su, X. (2001). Profitability Regulation, Earnings Management, and Modified Audit Opinions: Evidence from China. *AUDITING: A Journal of Practice & Theory*, 20(2), 9-30.
- Christensen, H. B., Hail, L., Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, 56, 147-177. doi: 10.1016/j.jacceco.2013.10.007

- Daske, H., Hail, L., Leuz, C. & Verdi, R. (2008). Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research*, 46, 1085-1142. doi: 10.1111/j.1475-679X.2008.00306.x
- Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a Label: Heterogeneity in the Economic Consequences Around IAS/IFRS Adoptions. *Journal of Accounting Research*, 51, 495-547. doi: 10.1111/1475-679X.12005
- De George, E. T., Ferguson, C. B., & Spear, N. A. (2012). How much does IFRS cost? IFRS adoption and audit fees. *The Accounting Review*, 88(2), 429-462.
- De George, F., Patel, J., & Zeckhauser, R. (1999). Earnings management to exceed thresholds. *The Journal of Business*, 72(1), 1-33.
- DeAngelo, L. E. (1981). Auditor independence, 'low balling', and disclosure regulation. *Journal of accounting and Economics*, 3(2), 113-127.
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of accounting and economics*, 50(2-3), 344-401.
- Durnev, A. & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. *The Journal of Finance*, 60, 1461-1493.
- Dye, R. A. (1993). Auditing standards, legal liability, and auditor wealth. *Journal of political Economy*, 101(5), 887-914.
- Francis, J. R. (2011). A framework for understanding and researching audit quality. *Auditing: A journal of practice & theory*, 30(2), 125-152.
- Francis, J. R., & Michas, P. N. (2013). The contagion effect of low-quality audits. *The Accounting Review*, 88(2), 521-552.
- Francis, J., Olsson, P., & Schipper, K. (2006). *Earnings Quality: foundations and trends in accounting*. Boston: Now Publisher Inc.
- Freitas, M. C. P. D., & Cintra, M. A. M. (2008). Inflação e deflação de ativos a partir do mercado imobiliário americano. *Revista de Economia Política*, 28(3).
- Gebhardt, G., & Novotny-Farkas, Z. (2011). Mandatory IFRS Adoption and Accounting Quality of European Banks. *Journal of Business Finance & Accounting*, 38(3-4), 289-333. doi: <https://doi.org/10.1111/j.1468-5957.2011.02242.x>
- Geiger, M. A. & Raghunandan, K. (2002). Auditor tenure and audit reporting failures. *Auditing: A Journal of Practice & Theory*, 21(1), 67-78.
- Ghosh, A. & Moon D. (2002). Does Auditor Tenure Impair Audit Quality? *Working paper, Baruch College*.
- Giroto, M. (2017). Pesquisas apontam os resultados da adoção das normas IFRS no Brasil. *Revista Brasileira de Contabilidade*, (222), 6-15. Recuperado de <http://rbc.cfc.org.br/index.php/rbc/article/view/1482>
- Gupta, P., Krishnan, G., & Yu, W. (2012). *Do Auditors Allow Earnings Management When Audit Fees Are Low?* Recuperado de <http://ssrn.com/abstract=1836829>. doi: 10.2139/ssrn.1836829

- Hail, L., Leuz, C., & Wysocki, P. D. (2010). Global Accounting Convergence and the Potential Adoption of IFRS by the U.S. (Part I): Conceptual Underpinnings and Economic Analysis. *Accounting Horizons*, 24(3), 355-394.
- Horton, J., Serafeim, G., & Serafeim, I. (2013). Does Mandatory IFRS Adoption Improve the Information Environment?. *Contemporary Accounting Research*, 30, 388-423. doi: 10.1111/j.1911-3846.2012.01159.x
- Hung, M. & Subramanyam, K. R. (2007). Financial statement effects of adopting international accounting standards: the case of Germany. *Review of accounting studies*, 12(4), 623-657.
- IFRS (2018). *Why global accounting standards?* Recuperado em 25 de setembro de 2018 de <https://www.ifrs.org/use-around-the-world/why-global-accounting-standards/>.
- Jensen, M. & Mackling, W. H. (1976). Theory of The Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of Financial Economics*.
- Jiang, H., Habib, A., & Zhou, D. (2015) Accounting restatements and audit quality in China. *Advances in Accounting*, 31, 125-135. doi: 10.1016/j.adiac.2015.03.014
- Kinney, W. R., Palmrose, Z. V., & Scholz, S. (2004). Auditor Independence, Non-Audit Services, and Restatements: Was the US Government Right?. *Journal of Accounting Research*, 42(3), 561-588.
- KPMG (2009). *A fraude no Brasil*. Relatório da pesquisa 2009. Recuperado em 04 março, 2016, de http://www.kpmg.com.br/publicacoes/forensic/fraudes_2009_port.pdf
- Lara, J. M. G., Torres, J. A. R., & Veira, P. J. V. (2008). Conservatism of earnings reported under International Accounting Standards: A comparative study. *Spanish Journal of Finance and Accounting*, 37(138), 197-210. doi: <https://doi.org/10.1080/02102412.2008.10779642>
- Larcker, D. F., Richardson, S. A., & Tuna, I. (2007). Corporate Governance, Accounting Outcomes, and Organizational Performance. *The Accounting Review*, 82(4), 963-1008. doi: <https://doi.org/10.2308/accr.2007.82.4.963>
- Lei n. 6.404, de 15 de dezembro de 1976 (1976). Recuperado 23 de outubro de 2018, de http://www.planalto.gov.br/ccivil_03/LEIS/L6404consol.htm
- Leuz, C. & Wysocki, P. D. (2016). The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of Accounting Research*, 54, 525-622. doi: 10.1111/1475-679X.12115
- Linhares, F., Costa, F., & Beiruth, A. (2018). Earnings management and investment efficiency. *Review of Business Management*, 20(2), 295-310. doi: 10.7819/rbgn.v20i2.3180
- Lo, K., Ramos, F., & Rogo, R. (2017). Earnings management and annual report readability. *Journal of Accounting and Economics*, 63(1), 1-25. doi: <https://doi.org/10.1016/j.jacceco.2016.09.002>
- Lobo, G. J. & Zhao, Y. (2013). Relation between audit effort and financial report misstatements: Evidence from quarterly and annual restatements. *The Accounting Review*, 88(4), 1385-1412.
- Marques, V. (2016). *Qualidade das Informações Financeiras e o Ambiente Regulatório: Evidências empíricas no Período de 1998-2013*. Tese de Doutorado em Administração,

Centro de Pós-Graduação e Pesquisas em Administração – CEPEAD, Universidade Federal de Minas Gerais. Belo Horizonte, MG, Brazil.

- McGuire, S. T., Omer, T. C., & Sharp, N. Y. (2012). The impact of religion on financial reporting irregularities. *The Accounting Review*, 87(2), 645-673.
- Merton, R. C. (1987). A simple model of capital market equilibrium with incomplete information. *The journal of finance*, 42(3), 483-510.
- Myers, J. N., Myers, L. A., & Omer, T. C. (2003). Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation? *The Accounting Review*, 78(3), 779-799.
- Oliveira, F. S., Dias, J. M., Filho, & Gomes, S. M. da S. (2014). O Impacto do IFRS sobre os Custos de Auditoria no Brazil 2014. Anais do Encontro da ANPAD, Rio de Janeiro, RJ, Brasil, 38.
- Oliveira, V. & Lemes, S. (2011). Nível de convergência dos princípios contábeis brasileiros e norte-americanos às normas do IASB: uma contribuição para a adoção das IFRS por empresas brasileiras. *Revista Contabilidade & Finanças*, 22(56), 155-173. doi: 10.1590/S1519-70772011000200003
- Paananen, M., & Lin, H. (2009). The Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany. *Journal of International Accounting Research*, 8(1), 31-55. doi: <https://doi.org/10.2308/jiar.2009.8.1.31>
- Paulo, E. (2007). *Manipulação das informações contábeis: uma análise teórica e empírica sobre os modelos operacionais de detecção de gerenciamento de resultados*. Tese de Doutorado, Universidade de São Paulo, São Paulo, Brazil.
- Pelucio-Grecco, M. C., Geron, C. M. S., Grecco, G. B. & Lima, J. P. C. (2014). The effect of IFRS on earnings management in Brazilian non-financial public companies. *Emerging Markets Review*, 21, 42-66. doi: 10.1016/j.ememar.2014.07.001
- Pires, C. de O., Decourt, R. F., Camargo, C. U. de O., & Siebel, V. (2012). Os impactos da fase final de transição para o IFRS no Brazil. *Anais do Seminários em Administração*, São Paulo, SP, Brasil, 15.
- Rathke, A. A. T., Santana, V. de F., Lourenço, I. M. E. C., & Dalmácio, F. Z. (2016). International Financial Reporting Standards and Earnings Management in Latin America. *Revista de Administração Contemporânea*, 20(3), 368-388. doi: <https://doi.org/10.1590/1982-7849rac2016140035>
- Schmidt, J. J. (2012). Perceived auditor independence and audit litigation: The role of nonaudit services fees. *The Accounting Review*, 87(3), 1033-1065.
- Silvestre, A. O., Costa, C. M., & Kronbauer, C. A. (2018). Audit Rotation And Earnings Quality: An Analysis Using Discretionary Accruals. *Brazilian Business Review*, 15(5), 410-426. doi: 10.15728/bbr.2018.15.5.1
- Solomon, I., Shields, M. D., & Whittington, O. R. (1999). What do industry-specialist auditors know? *Journal of accounting research*, 37(1), 191-208.
- Stanley, J. D., & DeZoort, F. T. (2007). Audit firm tenure and financial restatements: An analysis of industry specialization and fee effects. *Journal of Accounting and Public Policy*, 26(2), 131-159.

Veloso, F. & Bonelli, R. (2016). *A Crise de Crescimento do Brazil*. São Paulo: Elsevier.

Watts, R. L. & Zimmerman, J. L. (1981). The markets for independence and independent auditors. *Unpublished manuscript. University of Rochester, NY.*