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Do IFRS only lead to improved accounting quality for public companies? Empirical evidence from an emerging country

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Abstract

This study examines the impact of IFRS adoption on the financial reporting quality of private and public Brazilian companies, measured through metrics for earnings smoothing, discretionary accruals and management of earnings towards a target. Its findings suggest that IFRS adoption in a country such as Brazil leads to higher quality financial reporting both in private and public companies. We also found that public companies fare worse than their private counterparts in terms of such quality, both before and after IFRS adoption. In addition, we found a smaller gap between the quality of accounting information in public versus private companies after IFRS adoption.

Key Words: IFRS, Accounting quality, Private firms.

I INTRODUCTION

In spite of the economic importance of private companies and the likely differences they exhibit when compared to their public counterparts, knowledge about financial reporting by private companies is scarce, primarily due to data limitations (Hope and Vyas 2017). However, given the importance of private companies to the economy of most countries and the economic importance of accounting information for these companies, furthering our knowledge of private companies' financial reporting is of the utmost importance (Hope and Vyas 2017).

Compared to the wealth of studies that explore the adoption of IFRS by public (listed) companies, studies examining the determinants and consequences of IFRS adoption in the case of private (non-listed) companies are scant. The majority of existing studies on this issue focused on the mandatory or voluntary adoption of IFRS by public companies. Fewer studies have examined the determinants and consequences of voluntary IFRS adoption by private companies (Bassemir 2017; Cameran, Campa, and Pettinicchio 2014; Guerreiro, Rodrigues, and Craig 2012). Of these only Cameran et al. (2014) examine the impact of voluntary IFRS adoption by private firms on accounting quality.

As far as the authors are aware, no study has explored the consequences of mandatory IFRS adoption in terms of accounting quality in the case of private companies, and no study has explored differences in the consequences of IFRS adoption by private versus public companies. These issues remain under-explored in analyses of IFRS adoption, most likely because such analyses are mostly conducted in a capital market setting and in the context of countries in which the adoption of IFRS is mandatory only for public companies. In addition, there are problems pertaining to difficulties in obtaining financial data in the case of private firms, and to the inexistence of market-based measures of financial reporting quality (such as its association with share prices or returns) (Ball and Shivakumar 2005).

In this study, we will explore the differences of the consequences of IFRS adoption on accounting quality in private versus public companies in Brazil. This country presents a good setting in which to study this issue given that it is one of the few in which the adoption of IFRS is mandatory both for individual and consolidated financial statements, and both for large private and public companies. Another reason justifying the interest of studying IFRS adoption in Brazil pertains to its importance in the world economy, both actual and expected, which is widely acknowledged as testified by its relatively recent inclusion in the G-20 (Lourenço et al. 2015).

The effects of IFRS adoption in Brazil have been examined by a number of studies (Almeida and Rodrigues 2017; Black and Nakao 2017; Lopes, Walker, and Silva 2016; Lourenço, Branco, and Curto 2015; Nakao and Gray 2018; Pelucio-Grecco, Geron, Grecco, and Lima 2014; Silva and Nardi 2017; Vieira, Martins, Machado, and Domingues 2013). The overall results regarding the effects of such adoption on accounting quality suggest a positive effect. However, these studies have focused on public companies.

The findings of this study suggest that IFRS adoption in a country such as Brazil leads to higher quality financial reporting both in private and public companies. We also found that public companies fare worse than their private counterparts in terms of such quality, both before and after IFRS adoption. In addition, we found a smaller gap between the quality of accounting information in public versus private companies after IFRS adoption. Our study contributes to the literature on the effects of the implementation of IFRS by showing that the mandatory adoption of such standards has a positive influence on financial reporting quality of private companies. It also contributes to the literature on financial reporting quality in public versus private companies by showing that in certain contexts private companies present better quality accounting information than their public counterparts.

The remainder of the paper proceeds as follows. First, background information on the Brazilian context is provided. Next, a review of relevant studies is offered, and hypotheses are developed. Section IV presents the methodology employed, and Section V outlines the main findings and discusses them. The paper concludes with a recap of the contributions to the existing literature and possible future research opportunities.

II BACKGROUND

Silva and Nardi (2017) summarize the Brazilian institutional context as follows: being a code law country, protection for investors is relatively low; its capital market is poorly developed; it has a relatively weak institutional environment with corporate governance practices which are not entirely able to ensure the rights of shareholders, and this amounts to a disincentive in terms of attraction of foreign resources. Regarding the consequences of such a setting for IFRS adoption, Silva and Nardi (2017) argue that rather than serving informational needs of corporate stakeholders, financial reporting practices are more likely to be motivated by opportunistic aims. Notwithstanding, many Brazilian companies try to obtain foreign financing in the North American market through American Depositary Receipts (ADRs), which means that they had to incorporate good quality corporate governance rules, and had to adapt to the US-GAAP (Lourenço et al. 2015; Silva and Nardi 2017). As mentioned by Lourenço et al. (2015), this latter aspect is worthy of notice because this experience in using US-GAAP is likely to have a relevant impact on IFRS adoption, given the similarities between both sets of accounting standards.

Until 2007, Brazilian companies were required to apply the Brazilian GAAP when preparing their financial statements. In 2008, the regulatory bodies, aiming at the modernization of the corporate law in force, and its harmonization with best international accounting practices, inserted Brazil in the movement towards the widespread adoption of IFRS worldwide. The Law 11,638/07 required public companies, as well as large private companies with assets in excess of R \$ 240 million or gross annual revenues above R \$ 300 million, to present their financial statements in accordance with the IFRS. However, the Brazilian firms underwent a transition period that lasted from 2008 to 2009, and by 2010 they were required to fully comply with international accounting standards (Full IFRS).

III DEVELOPMENT OF HYPOTHESES

The evidence provided by the most influential studies on the impacts of IFRS adoption on financial reporting quality is mixed (Barth, Landsman, and Lang 2008; Christensen et al., 2015; Ahmed, Neel, and Wang 2013a; Capkun, Collins, and Jeanjean 2016). Existing literature reviews on the issue report inconsistent results in the existing empirical studies (Ahmed, Chalmers, and Khelif 2013b; Brüggemann, Hitz, and Sellhorn 2013; Lourenço and Branco 2015; Palea 2013).

Notwithstanding, the majority of existing studies on Brazil report a positive impact of IFRS adoption on accounting quality (Black and Nakao 2017; Lopes et al. 2016; Lourenço et al. 2015; Nakao and Gray 2018; Pelucio-Grecco et al. 2014; Silva and Nardi 2017; Vieira et al. 2011). Vieira et al. (2011) provide mixed evidence regarding the impacts of partial adoption of IFRS on earnings management: a positive impact in the case of earnings smoothing and the value relevance of financial information; a negative effect on earnings management towards a target; and mixed results regarding timely loss recognition.

Lourenço et al. (2015) examine the impact of IFRS adoption on earnings management for a sample of Brazilian public companies for the period 2004-2011, and found that mandatory adoption of IFRS by Brazilian companies to be associated with a decrease in earnings management, in particular during the period of full adoption of IFRS (post-2010). They interpreted their findings as suggesting that in countries characterized by weak investor

protection and legal and enforcement regimes, of which Brazil is an example, mandatory IFRS adoption is likely to impact positively on accounting quality.

Pelucio-Grecco et al. (2014) examined the impact of IFRS adoption on the earnings management practices of Brazilian non-financial public companies, and documented a reduction of earnings management after the full IFRS adoption. Silva and Nardi (2017) examined the impact of full IFRS adoption on the earnings quality, and found an increase earnings quality for all dimensions they analyzed (earnings management, conservatism, value relevance and timeliness). Lopes et al. (2016) examined the impact of IFRS adoption on the value relevance, timeliness, and conservatism of financial reports. Their findings suggest a positive association between accounting quality and IFRS adoption, with larger effect in the case of companies with inferior governance practices.

Black and Nakao (2017) and Nakao and Gray (2018) provide more nuanced evidence. They examined whether different classes of Brazilian public companies would present different levels of accounting quality after IFRS adoption. Using a sample of public companies, Black and Nakao (2017) distinguish, first, between those issuing ADRs before IFRS adoption from those that did not, and, second, within the latter group of companies they distinguish those with economic incentives to commit to better accounting quality (serious compliers) from those without such incentives (label compliers). Black and Nakao's (2017) findings suggest that whereas in the case of serious compliers and ADR issuers an increase in accounting quality has occurred after IFRS adoption, the same was not the case for label compliers. However this study did not allowed distinguishing the partial adoption from the full adoption period. There is evidence suggesting that in the adoption of IFRS there is a learning process (Kvaal and Nobes 2012), and many Brazilian may have benefited from the partial adoption period to undergo such a learning process. Moreover, such a process is likely to have been more important for companies that have committed to good quality financial reporting before IFRS adoption.

Nakao and Gray (2018) used a sample of Brazilian public companies, and examined their financial reporting practices during the period preceding partial IFR adoption (2006 and 2007) and after full IFRS adoption (2010 and 2011). Based on the likely occurrence of "path dependency effects of historical tax considerations", their expectation was that accounting quality would not improve significantly in the case of companies with limited levels of stock market monitoring, in the period following IFRS adoption. Nakao and Gray's findings are consistent with their expectation: whereas in the case companies presenting higher levels of stock market monitoring an increase of accounting quality was detected, in the case of companies with lower levels of such monitoring the case was not the same.

Although the findings of Cameran et al. (2014) suggest that the in the case of Italian private companies the adoption of IFRS did not implied better accounting quality, we have no reasons to expect the same to be the case in Brazil for a number of reasons. First, they examined earnings quality after the adoption of IFRS in 2005 by a set of Italian private companies that voluntarily adopted these standards in the period 2005-2008 versus a matched set of companies that used local GAAP, rather than analyzing the quality of financial reporting previous to the adoption and comparing it with the quality after the adoption. Second, given the time period used by Cameran and colleagues the likely effects of the learning process mentioned above were not taken into account.

In view of the above, our expectation is that the impact of IFRS adoption on accounting policy is positive both for public and for private companies.

H₁: Mandatory full adoption of IFRS impacted positively on Brazilian public companies' accounting information quality.

H₂: Mandatory full adoption of IFRS impacted positively on Brazilian private companies' accounting information quality.

The majority of existing empirical studies provide evidence of lower quality of private companies' financial reporting when compared to public firms (Ball and Shivakumar, 2005; Burgstahler et al., 2006; Hope et al., 2013). Ball and Shivakumar (2005) examined the timeliness of recognition of economic losses in the UK, and found that in spite of private and public companies facing equivalent regulatory rules timely loss recognition is substantially less prevalent in the latter than in the former. They conclude that the market demands financial reporting of lower quality in the case of private companies than in the case of public companies. Burgstahler et al. (2006) compared the properties of reported earnings of private and public firms in a number of countries from the European Union (EU). They found that private companies show higher earnings management pervasiveness than their public counterparts. Hope et al. (2013) examined financial reporting quality of US private versus public companies, and found that public companies are more conservative and present higher accrual quality than their private counterparts. Therefore, we hypothesize the following:

H₃: Public Brazilian companies present higher quality accounting information than their private counterparts both in the pre-adoption period and in the full adoption period.

In their discussion of the finding of a positive impact of IFRS adoption on accounting quality in the case of Brazilian public companies, Lourenço et al. (2015) also referred to the importance of the Brazilian companies' experience in the use of standards based in the U.S. accounting model and the cross-listing in the U.S. of many large Brazilian companies. These arguments are in consonance with evidence provided by existing studies examining the effects of the adoption of IFRS suggesting that they are different in distinct types of companies. Some studies provide evidence of the economic benefits of IFRS adoption being limited to certain companies, such as those with incentives to be transparent (Daske, Hail, Leuz, and Verdi 2008), and those companies which the adoption of IFRS is a component of a comprehensive strategy to consolidate their commitment to transparency ("label" versus "serious" adopters) (Daske, Hail, Leuz, and Verdi 2013). Zéghal, Chtourou, and Sellami (2011) examined French public companies that adopted IFRS mandatorily and found that such adoption is associated with a reduction in earnings management for companies with good corporate governance and those that depend on foreign financial markets.

The arguments and findings of Lopes et al.'s (2016) study are also in consonance with what has just been mentioned. Using a panel of Brazilian public companies from 1998 to 2014, Lopes et al. (2016) examined the impact of IFRS adoption on the value relevance, timeliness, and conservatism of financial reports. Their expectation was that IFRS adoption would have a positive effect on financial reporting quality for all companies. They also suggested that because companies with better governance structures are more likely to have already strived for a good quality financial reporting before IFRS adoption, namely to attract external sources of capital, they would present a lower marginal effect of such adoption. Their findings suggest a positive association between accounting quality and IFRS adoption, with larger effect in the case of companies with inferior governance practices.

Because, relative to their private counterparts, Brazilian public companies are more likely to have made an effort to improve the quality of their financial reporting previous to IFRS adoption, we expect that IFRS adoption to have had a more positive impact on the quality of private companies' accounting quality when compared to public companies, which lead to a lower difference in accounting quality of private versus public companies after IFRS adoption. Therefore, we hypothesize the following:

H4: The difference in the quality of accounting information between public and private companies is lower in the full adoption period than in the pre-adoption period.

IV RESEARCH DESIGN

Sample and data

As mentioned above, the Brazilian process of IFRS adoption was split into two phases, with full adoption of IFRS having occurred only from 2010 onwards. Therefore, we analyzed data for the pre-adoption period of IFRS (2003 to 2007) and post-adoption of IFRS (2010 to 2014). This helps in taking into account the learning process in IFRS adoption mentioned in the previous section.

To identify the public firms analyzed in this study, we started by looking for all the Brazilian public companies with data available every year for the period 2003–2014. Insurance and bank firms (SIC 6) are excluded because there are important structural differences between their financial statements and those of the other firms. To mitigate the effects of influential observations, we exclude, for each variable, the observations whose value is higher than three standard deviations from the mean. The final sample of public companies is composed of 1,794 firm-year observations for the metrics earnings smoothing and management of earnings towards a target. For using the discretionary accruals metric, the final sample of public companies is composed of 1,753 firm-year observations.

Regarding the private companies, we started by looking for all the Brazilian companies included in the special edition “Melhores e Maiores”¹ of the magazine “Exame”, a renowned publication that presents the ranking of the 1,000 largest Brazilian companies, based on size, indebtedness, profitability, among others. We select only companies with data available every year for the period 2003-2014 and we also exclude the insurance and bank companies (SIC 6). To mitigate the effects of influential observations, we also exclude, for each variable, the observations whose value is higher than three standard deviations from the mean. The final sample of private companies is composed of 1,128 firm-year observations for the metrics earnings smoothing and management of earnings towards a target. For using the discretionary accruals metric, the final sample of private companies is composed of 1,127 firm-year observations.

Models

Three metrics of accounting quality were used, which measure earnings smoothing, discretionary accruals and management of earnings toward small positive earnings.

The earnings smoothing metric is based on the variability of changes in net income, divided by lagged total assets. A small variance in changes in net income demonstrates earnings smoothing. Considering that the change in net income is likely to be sensitive to a variety of factors not attributable to the financial reporting system, and following Barth et al. (2008), our earnings variability metric is the variance of the residuals from the regression of change in net income on variables identified in prior research as controls for these factors, given by equation (1).

$$\Delta NI_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROWTH_{it} + \alpha_3 LEV_{it} + \alpha_4 DISSUE_{it} + \alpha_5 TURN_{it} + \alpha_6 ROA_{it} + \varepsilon_{it} \quad (1)$$

where:

ΔNI_{it} = annual change in net income divided by end of year total assets;

$SIZE_{it}$ = natural logarithm of end of year total assets;

$GROWTH_{it}$ = percentage change in sales;

¹ “Better and Bigger”.

LEV_{it} = end of year total liabilities divided by end of year equity book value;
 $DISSUE_{it}$ = percentage change in total liabilities;
 $TURN_{it}$ = sales divided by end of year total assets;
 ROA_{it} = net income divided by total assets.

Although previous literature may present more explanatory factors of changes in net income, we use only those for which there is information available both for publicly traded companies and for privately held companies.

We also use the magnitude of absolute discretionary accruals as a proxy for accounting quality. The magnitude of discretionary accruals measures the extent to which managers exercise discretions in reporting earnings. Greater magnitude of discretionary accruals reflects difficulties in accounting numbers in effectively measuring economic performance. The discretionary accruals are estimated based on the Modified Jones Model and as the residuals of the equation (2).

$$\frac{AT_{it}}{A_{t-1}} = \alpha_1 \left(\frac{1}{A_{t-1}} \right) + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{t-1}} + \alpha_3 \left(\frac{PPE}{A_{t-1}} \right) + \varepsilon_{it} \quad (2)$$

where:

AT_{it} = total accruals for each firm at each period
 ΔREV_{it} = annual change in revenues;
 ΔREC_{it} = annual change in net receivables;
 PPE_{it} = gross property, plant and equipment;

Following Dechow, Sloan, and Sweeney (1995), we calculate total accruals as the difference between the variation of current assets and the variation of current liabilities, minus variation on cash flow from operations and depreciation, plus the variation on debt in current liabilities. We calculate the absolute discretionary accruals separately for each industry, in order to isolate the effects of industry patterns.

The third metric of accounting quality is the frequency of small positive net income. A low frequency is viewed as evidence of less earnings management.

In order to test Hypothesis 1, we first estimate Equation (1) for the sample of publicly traded companies and we compare the measure of earnings smoothing (the variance of the residuals from the regression) between the two periods (pre and post IFRS adoption). The F test is applied to find whether the difference is statistically significant. Second, we estimate Equation (2) for the sample of publicly traded companies and we include the measure of discretionary accruals (the residuals from the regression) in Equation (3). We then test for the significance of the variable *IFRS*.

$$DA_{it} = \alpha_0 + \alpha_1 IFRS + \alpha_2 SIZE_{it} + \alpha_3 GROWTH_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 ROA_{it} + \varepsilon_{it} \quad (3)$$

where:

$IFRS_{it}$ = indicator variable that equals one for observations in the post-IFRS period and zero otherwise.

Finally, we estimate Equation (4) for the sample of public companies and we also test for the significance of the variable *IFRS*.

$$SPOS_{it} = \alpha_0 + \alpha_1 IFRS + \alpha_2 SIZE_{it} + \alpha_3 GROWTH_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 ROA_{it} + \varepsilon_{it} \quad (4)$$

where:

$SPOS_{it}$ = indicator that equals one if net income divided by total assets is between 0,00 e 0,01.

To test Hypothesis 2, we apply a similar approach to the one described above but using the sample of private companies.

In order to test Hypothesis 3, we estimate equation (1) separately for the pre-IFRS and for the post-IFRS periods and, for each of these periods, we compare the measure of earnings smoothing between the two samples (public and private companies). The F test is applied to find whether the differences are statistically significant.

Second, we estimate Equation (2) separately for the pre-IFRS and for the post-IFRS periods and we include the measures of discretionary accruals in Equation (5), which is also estimated separately for the pre-IFRS and for the post-IFRS periods. We then test for the significance of the variable *PUBLIC*.

$$DA_{it} = \alpha_0 + \alpha_1 PUBLIC + \alpha_2 SIZE_{it} + \alpha_3 GROWTH_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 ROA_{it} + \epsilon_{it} \quad (5)$$

where:

$PUBLIC_{it}$ = indicator variable that equals one for public companies and zero otherwise.

Finally, we estimate equation (6) also for the sample of public companies and we test for the significance of the variable *PUBLIC*.

$$SPOS_{it} = \alpha_0 + \alpha_1 PUBLIC + \alpha_2 SIZE_{it} + \alpha_3 GROWTH_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 ROA_{it} + \epsilon_{it} \quad (6)$$

In order to test Hypothesis 4, we compute the differences in the metric of earnings smoothing between public and private companies, and we compare these differences between the pre-IFRS and the post-IFRS period. Additionally, we estimate Equations (7) and (8) and we conclude based on the coefficients of the variables *IFRS*, *PUBLIC* and *IFRSxPUBLIC*.

$$DA_{it} = \alpha_0 + \alpha_1 IFRS + \alpha_2 PUBLIC + \alpha_3 IFRS \times PUBLIC + \alpha_4 SIZE_{it} + \alpha_5 GROWTH_{it} + \alpha_6 LEV_{it} + \alpha_7 DISSUE_{it} + \alpha_8 TURN_{it} + \alpha_9 ROA_{it} + \epsilon_{it} \quad (7)$$

$$SPOS_{it} = \alpha_0 + \alpha_1 IFRS + \alpha_2 PUBLIC + \alpha_3 IFRS \times PUBLIC + \alpha_4 SIZE_{it} + \alpha_5 GROWTH_{it} + \alpha_6 LEV_{it} + \alpha_7 DISSUE_{it} + \alpha_8 TURN_{it} + \alpha_9 ROA_{it} + \epsilon_{it} \quad (8)$$

V FINDINGS

Table 1 presents the descriptive statistics of the variables used in the empirical study.

Table 1 – Descriptive statistics

Variables	Public companies					
	Pre-IFRS adoption			Post-IFRS adoption		
	Mean	STD	N	Mean	STD	N
ΔNI_{it}	-0.004	3.402	897	0.003	3.810	897
$SPOS_{it}$	0.126	0.332	897	0.137	0.344	897
$SIZE_{it}$	13.633	2.054	897	14.354	2.091	897
$GROWTH_{it}$	0.163	0.504	897	0.193	1.784	897
LEV_{it}	3.026	6.019	897	3.178	3.816	897
$DISSUE_{it}$	0.140	0.399	897	0.149	0.405	897
$TURN_{it}$	0.783	0.577	897	0.676	0.569	897
ROA_{it}	0.014	0.212	897	-0.004	0.348	897
DA_{it}	0.165	0.146	879	0.170	0.140	874

Variables	Private companies					
	Pre-IFRS adoption			Post-IFRS adoption		
	Mean	STD	N	Mean	STD	N
ΔNI_{it}	-0.045	2.638	562	-0.101	3.260	562
$SPOS_{it}$	0.124	0.329	562	0.178	0.383	562
$SIZE_{it}$	13.945	1.106	562	14.748	1.114	562
$GROWTH_{it}$	0.160	0.278	562	0.132	0.264	562
LEV_{it}	2.974	4.602	562	5.472	8.896	562
$DISSUE_{it}$	0.137	0.420	562	0.136	0.250	562
$TURN_{it}$	1.535	1.553	562	1.415	1.208	562
ROA_{it}	0.072	0.108	562	0.056	0.113	562
DA_{it}	0.139	0.094	654	0.125	0.089	563

ΔNI_{it} = annual change in net income divided by end of year total assets; $SPOS_{it}$ = indicator that equals one if net income divided by total assets is between 0 e 0.01; $SIZE_{it}$ = natural logarithm of end of year total assets; $GROWTH_{it}$ = percentage change in sales; LEV_{it} = end of year total liabilities divided by end of year equity book value; $DISSUE_{it}$ = percentage change in total liabilities; $TURN_{it}$ = sales divided by end of year total assets; ROA_{it} = net income divided by total assets; DA_{it} = absolute value of discretionary accruals.

Table 1 provides evidence that the mean values of discretionary accruals are higher for public companies, either in the pre-IFRS period or in the post-IFRS period, when compared to private firms. Untabulated findings show that these differences are statistically significant. Table 2 also provides evidence that the mean value of discretionary accruals of public companies is higher in the post IFRS period. Conversely, the mean value of discretionary accruals of private companies is lower in the post IFRS period. Untabulated findings show that this difference is statistically significant only for the private firms.

Data regarding discretionary accruals suggest that private companies present lower discretionary accruals than public companies both before and after IFRS adoption, suggesting higher quality financial reporting for private firms. This is not in accordance with hypothesis 3. This univariate analysis also shows that whereas discretionary accruals have decreased as a consequence of IFRS adoption in the case of private companies, the same has not occurred in the case of public companies. Regarding this particular aspect, it seems that whereas private companies improved accounting quality, which is in accordance with hypothesis 2, public companies worsened it, contrarily to the expectation leading to hypothesis 1.

Table 2 also shows that the proportion of companies with a small net income is higher in the post IFRS period. However, untabulated findings show that the difference is statistically significant only for the group of private firms. This is indicative of more earnings management after IFRS in the post IFRS period, in contradiction with the expectation leading to hypothesis 2.

Finally, we also find that private firms are higher and more profitable, when compared to public firms. Untabulated findings show that these differences are statistically significant.

Table 2 presents results comparing the accounting quality measures before and after the IFRS adoption in the group of public companies. It reveals that after the IFRS adoption the Brazilian public companies generally evidence a lower level of earnings smoothing and a higher level of discretionary accruals.

Table 2 – Comparison between the pre-IFRS and post-IFRS periods for public companies

Metrics		Prediction	Pre-IFRS	Post-IFRS
Variability of ΔNI	(eq1)	Pre < Post	11.457 (N = 897)	13.862** (N = 897)
Discretionary accruals	(eq3)	-		0.018*** (N = 1,573)
Small positive NI	(eq4)	-		-0.037 (N = 1,794)

Eq1: equation (1) with public companies pre versus post IFRS adoption.

Eq3: equation (3) with public companies. Coefficient of the variable IFRS.

Eq4: equation (4) with public companies. Coefficient of the variable IFRS.

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

The first finding indicates that in the post-IFRS period public companies exhibit a significantly higher variability of change in net income, 13.862 versus 11.457. This difference of residual variances of 2.405 represents approximately 19% of the residual variance (2.387/12.6685), using the midpoint between the two residual variances. It seems that the Brazilian public companies exhibit less earnings smoothing after the IFRS adoption. Second, the coefficient of the variable *IFRS* in the Model (3), +0.018, is positive and statistically significant, which suggests that in the post-IFRS period public companies exhibit a significantly higher level of discretionary accruals than before the IFRS adoption. However, no significant results were observed regarding the variable that portrays the small positive earnings. Hence, our findings are only partially supportive of hypothesis 1. These findings do not corroborate the overall results of studies on the effects of IFRS adoption in the Brazilian case (Black and Nakao 2017; Lopes et al. 2016; Lourenço et al. 2015; Pelucio-Grecco et al. 2014; Silva and Nardi 2017; Vieira et al. 2011). In the case of Brazilian public companies the adoption of IFRS has not necessarily led to better quality financial reporting.

Table 3 presents results comparing the accounting quality measures before and after the IFRS adoption in the group of private companies. It reveals that after the IFRS adoption the Brazilian private companies generally evidence a lower level of earnings smoothing, a lower level of discretionary accruals and a higher level of management of earnings toward small positive earnings.

Table 3 – Comparison between the pre-IFRS and post-IFRS periods for private companies

Metrics		Prediction	Pre-IFRS	Post-IFRS
Variability of ΔNI	(eq1)	Pre < Post	6.794 (N = 562)	8.686** (N = 562)
Discretionary accruals	(eq3)	-		-0.013** (N = 1,127)
Small positive NI	(eq4)	-		0.366* (N = 1,124)

Eq1: equation (1) with public companies pre versus post IFRS adoption.

Eq3: equation (3) with public companies. Coefficient of the variable IFRS.

Eq4: equation (4) with public companies. Coefficient of the variable IFRS.

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

The first finding indicates that in the post-IFRS period private companies exhibit a significantly higher variability of change in net income, 6.794 versus 8.686. This difference of residual variances of 1.892 represents approximately 24% of the residual variance (1.892/7.740), using the midpoint between the two residual variances. It seems that the Brazilian private companies also exhibit less earnings smoothing after the IFRS adoption than before changing from the local to the international accounting standards. Second, the coefficient of the variable *IFRS* in the Model (3), -0.013, is negative and statistically significant, which indicates that in the post-IFRS period private companies exhibit a significantly lower level of discretionary accruals than before the IFRS adoption. Finally, the coefficient on *IFRS* in the Model (4), +0,366, is negative and statistically significant, which suggests that after the IFRS adoption private companies more frequently report small positive earnings, consistent with a higher probability of managing earnings towards an earnings target. Overall, these findings lend support to hypothesis 2. In the case of Brazilian private companies mandatory IFRS adoption had as a consequence higher quality accounting, except in case of managing earnings towards an earnings target.

These results are not in consonance with Black and Nakao’s (2017) findings, which suggest that public companies with lower economic incentives to commit to accounting quality do not achieve higher financial reporting quality even with IFRS adoption. However, these authors have not taken into account the possibility of companies experiencing a learning process that is likely to have been more important for companies that have committed to good quality financial reporting before IFRS adoption.

Tables 4 and 5 present results comparing the accounting quality measures of public and private companies, respectively, before and after the IFRS adoption.

Table 4 – Comparison between private and public companies in the pre-IFRS period

Metrics		Prediction	Private	Public
Variability of ΔNI	(eq1)	Private < Public	6.794 (N = 562)	11,457** (N = 897)
Discretionary accruals	(e5)	-	0.004 (N = 1,443)	
Small positive NI	(e6)	-	0.013 (N = 1,459)	

Eq1: equation (1) with public companies pre versus post IFRS adoption.

Eq5: equation (5) with public companies. Coefficient of the variable PUBLIC.

Eq6: equation (6) with public companies. Coefficient of the variable PUBLIC.

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

Table 5 – Comparison between private and public companies in the post-IFRS period

Metrics		Prediction	Private	Public
Variability of ΔNI	(eq1)	Private < Public	8.686 (N = 562)	13,862** (N = 897)
Discretionary accruals	(eq5)	-	0.031*** (N = 1,437)	
Small positive NI	(eq6)	-	-0.413*** (N = 1,459)	

Eq1: equation (1) with public companies pre versus post IFRS adoption.

Eq5: equation (5) with public companies. Coefficient of the variable PUBLIC.

Eq6: equation (6) with public companies. Coefficient of the variable PUBLIC.

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

The first finding indicates that public companies exhibit a significantly higher variability of change in net income. Brazilian public companies exhibit less earnings smoothing than private companies, either before or after the IFRS adoption. This is in line with our expectation and supports hypothesis 3. However, the second finding indicates that

public companies exhibit a significantly higher level of discretionary accruals than private companies, but only after the IFRS adoption. This finding is not in accordance with our expectation and does not support hypothesis 3.

The third finding indicates that public firms less frequently report small positive earnings, but again only after the IFRS adoption. This is the result of worse accounting quality regarding this aspect for private companies after IFRS adoption. This finding partially supports hypothesis 3, but it does not support hypothesis 4 given that it is a result of the worsening of private companies accounting quality regarding this aspect after IFRS adoption.

Findings do not wholly support the hypothesis that the quality of the accounting information of public companies is significantly higher, when compared to public companies (hypothesis 3). Although public companies seem to present higher quality in terms of earnings smoothing and management of earnings toward small positive earnings, the case is the contrary in terms of discretionary accruals. Our findings do not allow us to fully corroborate the results of existing studies on private versus public companies' accounting quality (Ball and Shivakumar, 2005; Burgstahler et al., 2006; Hope et al., 2013).

Regarding the result pertaining to earnings smoothing, which seems to be the most robust (differences do exist both before and after IFRS adoption) it may be the case, as in Europe, that private companies financial accounting information is predominantly used by stakeholders for contracting purposes (Gassen and Fülbier 2015). Gassen and Fülbier (2015) present evidence for the case of European private companies suggesting that earnings smoothness is positively related to the relative importance of creditors at the company level. They also found that in countries presenting weaker debt-contracting infrastructures the effect of creditors on earnings smoothness is more pronounced. According to these authors this finding may mean that earnings smoothness represents an efficient response to enhanced bankruptcy and renegotiation costs, or it can also mean that companies make opportunistic financial reporting choices to exploit poor government contexts. Gassen and Fülbier conclude that earnings smoothness “seems to play a role in debt contracting, especially in less market-oriented governance regimes”, which “is consistent with smooth earnings being mutually beneficial when contractual partners tend to be locked in credit arrangements because of high debt enforcement and renegotiation costs.” (Gassen and Fülbier 2015, p. 174).

Table 6 presents the differences in the metrics of earnings smoothing between public and private companies, and the comparison of these differences between the pre-IFRS and the post-IFRS period. These results reveal that the differences are not statistically significant. Differences between accounting quality regarding this aspect of public and private companies are similar before and after IFRS adoption. We interpret this finding as being consistent with the idea of the importance of financial reporting for contracting purposes in the case of private companies.

Table 6 – Comparison of the differences between public and private companies between the pre-IFRS and post-IFRS periods (earnings smoothing)

Metrics	Companies	Pre-IFRS	Post-IFRS	Teste F	P-Value
Variability of ΔNI	Public	11.457	13.862	0.901	0.977
	Private	6.794	8.686		
	Public – Private	4.664	5.176		

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

Finally, Table 7 presents results of the comparison of the differences between public and private companies between the pre-IFRS and post-IFRS periods, regarding the discretionary accruals and management of earnings toward a small positive net income. These results reveal that in the post-IFRS period, the gap between public and private companies in terms of discretionary accruals practices is larger than in the pre-IFRS period, in which case

there were no significant differences. IFRS adoption seem to have led to worse accounting quality in terms of discretionary accruals for public companies and better quality for private companies. This has led to the widening of the gap. This is not consistent with the expectations pertaining to hypotheses 3 and 4. Because accounting quality of public companies was not better than that of private companies before IFRS (contrarily to what was expected) and the quality of accounting information of public companies worsened whereas that of private companies got better, the gap widened

Regarding the management of earnings toward a small positive net income, there is also a higher gap between public and private companies. However, in this case only the private companies changed their behavior. This is not in consonance with hypothesis 4. Rather than improving, the accounting quality of private companies regarding this aspect has worsened.

Table 7 – Comparison of the differences between public and private companies between the pre-IFRS and post-IFRS periods (discretionary accruals and management of earnings toward a positive net income)

Metrics	Pre-IFRS	Post IFRS	Private	Public	Interaction
Discretionary accruals (eq7)	-0.003 (N=2,880)		0.007 (N=2,880)		0.021** (N=2,880)
Small positive NI (eq8)	0.323* (N=2,880)		-0.331* (N=2,880)		-0.017 (N=2,880)

Eq7: equation (7) with all companies. Coefficients of the variables IFRS, PUBLIC and IFRSxPUBLIC.

Eq8: equation (8) with all companies. Coefficients of the variables IFRS, PUBLIC and IFRSxPUBLIC.

***, ** and * indicates significance at 1%, 5% and 10%, respectively.

Our results appear not to lend partial support to hypothesis 4. The difference in the quality of accounting information between public and private companies is not lower in the full adoption period than in the pre-adoption period, but only in the case of discretionary accruals. However, it does seem that IFRS adoption had a more significant positive impact on accounting quality in the case of private companies than in the case of public companies. Notwithstanding such improvement, because in some cases accounting quality for public companies worsened after IFRS adoption and there was no significant difference between accounting quality for both types of companies before IFRS, the gap widened. Contrary to Lopes et al. (2016), we found that in some cases the IFRS adoption was detrimental to accounting quality in the case of public companies. The finding that after IFRS adoption, public companies less frequently report small positive earnings than private companies (Table 5) is consistent with the results in Table 3, which show that after IFRS adoption private companies present more small positive earnings. Given that no significant results regarding this aspect were found for public companies, IFRS adoption had as a consequence a larger gap between private and public companies in terms of likelihood of managing earnings towards a target.

VI SUMMARY AND CONCLUDING REMARKS

This study examined the impact of IFRS adoption on the financial reporting quality of private and public Brazilian companies, measured through metrics for earnings smoothing, discretionary accruals and management of earnings towards a target. Based on prior literature, our expectations were that: (1) IFRS adoption would lead to higher quality accounting both for private and for public companies; (2) public companies presented better quality accounting both before and after IFRS adoption; and (3) the gap between the quality of private and public companies' financial reporting would decrease in the wake of IFRS adoption.

Our findings are not wholly consonant with these expectations. Findings do suggest that IFRS adoption has as a consequence higher quality accounting in both public and private

companies, but regarding different aspects. However, our findings suggest that rather than presenting better quality accounting public companies fare worse than their private counterparts in some aspects after IFRS adoption. We view this as an important contribution to the literature that suggests that because private companies typically disclose less non-accounting information, which amounts to the existence of fewer competing sources of information (Hope, Thomas, and Vyas 2017), the potential importance of financial reporting to external providers of capital in monitoring managerial activities is higher. For example, in the case of private companies, in which financial reporting is mostly used by stakeholders for contracting purposes, earnings smoothness may represent an efficient response to enhanced bankruptcy and renegotiation costs rather than opportunistic financial reporting choices (Gassen and Fülbier 2015).

This study raises awareness regarding the implication of IFRS on private companies' financial reporting quality. This has implications for research. More single and multi-country analyses on this aspect in the case of private firms are warranted, as are analyses of the economic consequences of IFRS adoption for private companies. The question of whether IFRS adoption is beneficial only for public companies is worthy of investigation. Further research on this is necessary. Our study can also be of some use for standard setters. They would be well advised to design strategies and rules to maximize the good impacts and utility of standards for the companies that use them.

Standard setters should consider mention two additional issues that reinforce the likely importance of financial reporting in the case of private companies (Hope and Vyas 2017). First, given the inexistence of market-based measures of the value of private companies (as well such of information provided by financial analysts, and other sources of information), high-quality financial reporting is likely to be extremely valuable for evaluating the performance of managers to support personnel and compensation decisions. Second, the separation between management accounting systems and financial accounting systems is less likely to occur in private firms, which is likely to to enhance the significance of accounting in internal decision-making.

Our empirical study is based on information available both for public companies and for private companies. We acknowledge that our study is limited to this data. The findings of this study should be interpreted with this limitation in mind. It would be interesting to introduce additional variables to examine the influence of, for example, family ownership. It may be the case that family ownership is more prevalent in private firms and that this may explain the results regarding the differences in accounting quality. This is an interesting avenue for further research.

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