Earnings Management in Banks by Disclosing Adjusted Profit as Extraordinary Items

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Abstract

Objective: To investigate evidence of earnings management through the disclosure of adjusted profit (net profit minus extraordinary items) by Brazilian banks, considering that managers can exercise discretion when disclosing earnings to improve their remuneration or influence investors.

Method: Linear regression model estimates (fixed effects) were performed using quarterly data from 2016 to 2020 of 21 Brazilian banks listed in B3.

Results: Empirical tests revealed a positive association between extraordinary items and net profit, without the effects of adjustment of extraordinary items, confirming the hypothesis that these entities use adjusted profit disclosure as a mechanism for managing investor expectations, smoothing the recurring portion of profits.

Contributions: From a market perspective, this study contributes to alerting investors and regulators to consider adjustments in the disclosure of statements (Non-Gaap). As for international accounting standards, this study contributes to discussions regarding the IASB Exposure Draft ED/2019/7 - General Presentation and Disclosures by highlighting the practice of publicly-traded Brazilian banks in the disclosure of non-recurring items, which contributes to reducing information asymmetry in principal-agent relationships.

Keywords: Earnings Management. Banks. Extraordinary Items. Recurring Profits. Non-Gaap Measures.

1. Introduction

This study investigates evidence of Brazilian banks' earnings management by disclosing adjusted profit (net profit minus extraordinary items). The assumption supporting this expectation is that managers can exercise discretion to manage and manipulate earnings due to incentives, such as achieving a better remuneration or even increasing the entity's market value (Cain, Kolev, & McVay, 2020). It may occur by classifying transactions that integrate net profit and which negatively impact an entity's performance, as extraordinary items; i.e., potential lack of neutrality (IASB, 2019). This study is inserted in the literature addressing non-GAAP financial measures – additional information not required by accounting standards – in the capital market, in which disclosing entities seek to influence investor expectations.

Earnings management has been the object of great interest in the accounting literature since the last years of the 20th century, as verified by surveys conducted by Schipper (1989), Healy and Wahlen (1999), and Dechow and Skinner (2000), significantly impacting the development of models to measure this practice – such as Jones (1991) and Dechow, Sloan and Sweeny (1995), for instance. The study conducted by Martinez (2001) in Brazil was a landmark, and the practice has gained relevance since then, as reported by Martinez (2013).

This type of research has addressed entities in the financial system, despite banks' regulated environment. The reason is that regulation is not sufficient to suppress the so-called agency conflicts and opportunities in the legislation or in the regulatory framework. These can be used in opportunistic and discretionary behavior, to manage earnings, involving both the smoothing of profits over periods and the intention to present better results and improve economic-financial indicators. In this context, the literature addressing earnings management in financial institutions has focused on the use of provisions for credit-risk associated losses (Alali & Jaggi, 2010; Curcio & Hasan, 2015; Dantas, Medeiros, & Lustosa, 2013; Kanagaretnam, Krishnan, & Lobo, 2010; Macedo & Kelly, 2016; Silva, Niyama, Rodrigues & Lourenço, 2018; Silva & Robles Júnior, 2018; Soedarmono, Pramono & Tarazi, 2017), and the fair value of financial instruments, including derivatives (Beatty & Harris, 1999; Beatty, Ke, & Petroni, 2002; Dantas, Galdi, Capelletto, & Medeiros, 2013; Dantas, Medeiros, Galdi, & Costa, 2013; Gabriel & Corrar, 2010; Shrieves & Dahl, 2003; Zhuang, 2016).

Even though the literature addressing earnings management is quite extensive, research assessing this practice through non-GAAP measures (especially the disclosure of revenue components as extraordinary items) to convey that such items will not recur in the future is still incipient. McVay (2006), Barua, Lin and Sbraglia (2010), Fan, Baura, Cready and Thomas (2010), Lopes, Pinheiro and Dias Filho (2014), and Li, Su, Dong, and Zhu (2018) are examples of studies addressing this aspect. The assumption underlying this relationship is that the content of disclosed financial information, including non-GAAP measures, influences the economic agents' decision-making and may implicate in wealth transfer. Therefore, entities would disclose such information in the number and quality necessary, considering that economic incentives are higher than otherwise (Suzart, 2015).

A potential lack of neutrality when addressing these items has drawn attention from the International Accounting Standards Board (Iasb), which has discussed this topic and shown a concern with the way entities disclose the information of unusual items. It varies significantly depending on the entity, while classification criteria are often unclear. For this reason, Iasb incorporated the Exposure Draft ED/2019/7 – General Presentation and Disclosures, reviewing the income statement model and forecast of disclosure of infrequent or non-recurring results. The purpose is to include this disclosure, which currently integrates non-GAAP measures, into accounting standards, with criteria to ensure a consistent and uniform pattern that enables comparisons over time and between entities.

This study serves to fill in a gap in the literature addressing earnings management in financial institutions by focusing on an alternative strategy to identify this opportunistic practice, i.e., using the classification of earnings components as extraordinary items. Even though it focuses on Brazilian banking entities, which present specific characteristics, this study contributes to creating expectations regarding the use of extraordinary items in other economic segments, considering that the response of other segments to the economic incentive of this practice may be similar. We expect to identify whether the financial statements of Brazilian banks present signs of bias when disclosing extraordinary items, which may compromise reliability and neutrality and induce stakeholders (especially shareholders, regulators, and creditors) to make wrong decisions. In addition, classifying certain items in the income statement as extraordinary conveys the message that they will not repeat in the following periods, influencing users' perception regarding what recurrent earnings would be.

Unlike the management of losses associated with credit risk or recognition of the fair value of financial instruments, for instance, investors may find it challenging to detect this type of earnings management (manipulation). It does not change net profit and can be a less costly form of earnings management (Barua, Lin, & Sbraglia, 2010). It is, therefore, a less obvious approach to earnings management in banks, in which managers would influence future earnings expectations without changing the measure of present earnings.

Empirical tests used the quarterly data (2016 to 2020) from 21 Brazilian banks publicly listed in *Bolsa Balcão (B3)*. The results revealed a positive association between extraordinary items and net profit before considering the reclassification of extraordinary items.

This evidence is compatible with assumptions of smoothing adjusted net profit – a proxy for what would be recurring earnings. It suggests that bank managers attempt to influence the expectations of users toward future earnings, using the "extraordinary items" classification to convey stability and predictability of the profits "ordinary" share", influencing expectations regarding future earnings, which is in line with existing literature. Additionally, this study's results reinforce the concern shown by Iasb with ED/2019/7 with the need to regulate the disclosure of infrequent or non-recurring events, establishing minimum criteria to ensure neutrality when disclosing statements.

2. Literature Review

2.1 Earnings Management in Financial Institutions

Considering that the objective of financial statements is to provide useful information to facilitate the efficient allocation of resources and stakeholders' decisions, managers have to exercise discretion and judgment to convey information regarding the companies' performance when there is asymmetry (Cohen & Zarowin, 2007). Discretion may be used to maximize value opportunistically though; that is, managers may have incentives to transmit information for their own benefit, choosing accounting methods and estimates that do not faithfully reflect underlying economic conditions, making room for earnings management (Araújo, Lustosa, & Paulo, 2018; Watts & Zimmerman, 1986).

Schipper (1989) defines earnings management as a purposeful intervention in the process of developing external financial statements to obtain a particular benefit. Alternatively, Healy and Whalen (1999) consider earnings management when managers make judgments based on the reports and structuring of transactions to change financial statements. Finally, Martinez (2013) explains that earnings management is intended to change the stakeholders' perceptions of an entity's activities or achieve a given outcome in agreements linked to the disclosure of accounting information.

The managers' opportunistic actions to the detriment of shareholders/investors may arise from conflicts of interest between agents (managers) and principals (shareholders/investors), explained by the Theory of Agency, the focus of which is to determine a more efficient contract to guide the principal-agent relationship (Eisenhardt, 1988). Jensen and Meckling (1976) predicted that agents are more likely to behave in line with the principal's interests by establishing an outcome-based contract, considering that the rewards for both agent and principal depend on the same actions. As a consequence, outcome-based contracts would be more effective in inhibiting managerial opportunism.

Dittmann and Maug (2007) state that to decrease the impact arising from agent-principal conflict of interests, shareholders started offering remuneration packages to managers, usually driven by results, to encourage the desired outcomes. Agents have preferences and tend to seek personal benefits, however, instead of effectively working to improve a company's value (Jensen & Meckling, 1976). Managers may use accounting information to manage earnings and achieve their desired compensation, achieving the performance the principal expected, only as of the result the management produced.

Earnings management in financial institutions may take many forms. For instance, through the provision for credit risk losses (PCL), by measuring the fair value of financial instruments and recognizing it as the period's revenue or as other comprehensive earnings, or by directly manipulating profits. This type of entity has an incentive to manipulate earnings because accounting profits convey information to investors and play an essential role in assessing an entity's performance and accounting-based contracting (Warfield, Wild, & Wild, 1995).

Various empirical studies sought evidence for earnings management in banking entities. For instance, Curcio and Hasan (2015) found evidence that it is an important factor affecting decisions concerning the provision for credit risk losses in European Union banks and other countries outside the European Union. Dantas, Medeiros, and Lustosa (2013) found that PCL is used to manage earnings. In the same line, though focusing on the presence of foreign capital, Macedo and Kelly (2016) report evidence that the level of profit has influenced PCL.

More recently, Silva and Robles Júnior (2018) confirmed the relevance of PCL, mainly in the results of financial institutions, because this provision works as a source that decreases credit portfolio and directly impacts these entities' results. Dantas, Medeiros, Galdi, and Costa (2013) also approached management in banks, seeking to verify whether there is discretion in recognizing and measuring derivative financial instruments for earnings management. They found that banks use this practice to smooth results, and it more frequently occurs among private institutions with smaller asset sizes and lower capitalization levels.

In turn, Koch, Waggoner, and Wall (2018) examined the impact of recent guidelines from banks in the United States to offset incentives in the banks' efforts to create countercyclical capital buffers to absorb losses during periods of economic weakness. The results suggest that earnings-based accounting guidelines create earnings management incentives consistent with countercyclical capital buffers. However, the parties that encourage payment of compensation in the form of equity-linked instruments may encourage senior managers to lower capital buffers during periods of higher earnings.

These are some examples of studies addressing earnings management in financial institutions, with studies more frequently exploring provisions for credit losses, an interest that is explained by the fact that these represent the main accruals in banks (Kanagaretnam, Lim, & Lobo, 2010), but also involving other types of operations or information.

2.2 Earnings Management through Adjusted Profit

Earnings management involving adjusted profit smoothing may include recognizing extraordinary items to influence earnings distribution (Lopes, Pinheiro, & Dias Filho, 2014). It appears, based on a preliminary analysis of the financial statements disclosed by Brazilian banks, that they classify revenues and expenses included in the income statement as extraordinary items, which, however, do not arise from financial intermediation or revenues deriving from the provision of services. Banks usually classify part of the legal civil and tax demands, for instance, expenses with layoffs and retirements, non-recurring tax credits, profit or loss on the sale of shares, among others, as extraordinary items, in line with these entities' quarterly reports.

This first impression suggests that transactions or events with a negative impact on an entity's results (expenses/losses) are more frequently classified as uncommon or infrequent than positive transactions and events (revenue/profits). It suggests a lack of neutrality in the approach, justifying and reinforcing the concern IASB expressed with ED-2019/7, which proposes regulating unusual or non-recurring items. Even though these are not currently regulated in accounting standards, extraordinary items are seen as items that do not result from an entity's intrinsic activity. Hence, they do not refer to a new classification as operational and non-operational because they are unpredictable. Unlike profits generated by continuous operation, these items are unique and contingency (Li, Su, Dong, & Zhu, 2018).

With Brazilian accounting converging to the IFRS standards, presenting extraordinary items in the income statement is now prohibited, as established by International Accounting Standards (IAS) 1 – Presentation of Financial Statements – paragraph 87: "An entity shall not present any items of income and expense as extraordinary items, either on the face of the income statement or in the notes". As from the 2020 annual statements, BCB resolution No. 2, from 2020, established the mandatory disclosure in the explanatory notes of recurring and non-recurring results separately.

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This decision of the Central Bank of Brazil (BCB), in anticipation of the discipline intended by IASB, is in line with the statement by Flores and Lopes (2019) that after the publication of IFRS 14 – Regulatory Deferral Accounts, entities with regulated activities could adopt international standards for the disclosure of financial statements, together with statements with regulatory purposes. Thus, the publication of extraordinary items in the income statements became evident.

Some empirical studies address this topic. McVay (2006), for instance, examined the classification of extraordinary items in financial statements as a tool to manage earnings. Evidence shows that managers opportunistically transfer essential expenses to extraordinary items, and investors act surprised in the next period when these expenses return to core earnings in the following year. Using a similar methodology, McVay (2006), Barua, Lin, and Sbaraglia (2010) verified that managers also opportunistically classify operational expenses as discontinued operations to inflate basic core earnings and meet analysts' expectations. In continuation to these studies, Fan, Barua, Cready, and Thomas (2010) found further evidence of classification change when the ability of managers to manipulate accruals seems to be limited to meet gains benchmarks. Overall, evidence largely supports McVay's (2006) conclusion, according to which managers' involvement in changing classifications is not neutral. The previous study also shed light on the conditions under which managers are more likely to change classifications.

According to Andrade and Múrcia (2019), when recognizing extraordinary items, one must verify whether these are non-recurring and not related to the company's activities. These are posted after net profit, increasing or decreasing the final net profit, directly impacting reserves and dividend allocation. Earnings management arises from the discretion of professional judgment in disclosure, in which a company's performance would be presented to the market according to the agent's instead of the principal's interest.

Based on the previous discussion, the following hypothesis is proposed for empirical testing:

H_1: **Publicly traded Brazilian banks use the disclosure of extraordinary items as an earnings management mechanism by smoothing adjusted profit measures – a proxy of recurring earnings.**

3. Methodological Procedures

3.1 Data

This study, focused on the banking segment, was intended to analyze the behavior of Brazilian banks listed on *Brasil Bolsa Balcão (B3)*. These entities are obliged to comply with the decisions of the National Monetary Council (CMN), as the BCB's regulatory and supervisory body, in addition to the Brazilian Securities and Exchange Commission (CVM).

According to Lopes, Pinheiro, and Dias Filho (2014), it is possible to consider that, in a well-regulated sector, earnings management assumes a differentiated behavior, considering there would be fewer incentives for management due to the quality and amount of information demanded by regulators. According to Pelucio-Grecco, Geron, Grecco, and Lima (2014), the Brazilian regulatory environment is the most efficient restrictive factor preventing earnings management. Additionally, specifically focusing on publicly traded banks makes sense because of the availability of data in the databases and the fact that these entities have more economic incentive to influence stakeholders' expectations, especially investors, regarding recurring profits.

It included data from 21 Brazilian banks, which had shares traded on B3 in June 2021, and information available in the Refinitiv Eikon and Economática databases. Therefore, quarterly information was collected between 2016 and 2020, totaling 420 observations (bank/quarter), three of which were excluded because of insufficient data regarding at least one of the variables composing the economic model adopted. Hence, this study resulted in an unbalanced panel of 417 observations (bank/quarter).

Data were divided into two blocks: (a) block 1, containing all the 417 bank/quarter observations reporting accounting balances; and (b) block 2, composed of 210 bank/quarter observations, which effectively disclosed income and expenses as extraordinary items, that is, observations presenting zero balances were excluded.

3.2 Operational Model

A linear regression model (3.1) for panel data was developed for the empirical tests, according to Marques (2000), who considers that longitudinal regression models provide a larger amount of information, more significant data variability, less multicollinearity between variables, a greater number of degrees of freedom, and more efficiency when estimating parameters.

$$IE_{it} = \beta_0 + \beta_1 LL_{it} + \beta_2 Tam_{it} + \beta_3 Cap_{it} + \beta_4 PIB_t + \beta_5 Sel_t + e_1 \qquad (3.1)$$

Where:

IE_{it} : refers to extraordinary items reported by bank i in quarter t, relativized by total assets at the beginning of the period;

LL_{it} : refers to accounting net income – not considering the effects of classifying income components as extraordinary items – from bank i in quarter t, weighted by total assets at the beginning of the period;

Tam_{it} : a measure of entity's size, represented by the natural log of bank i's total assets in quarter t;

Cap_{it} : capitalization ratio, represented by the ratio between equity and total assets of bank i in quarter t;

PIB_t : Gross Domestic Product variation in quarter t;

Sel_t : the Brazilian economy's basic interest rate, Selic, in quarter t.

The variable of interest of the model used to test the hypothesis is net profit, without considering the effects of classifying extraordinary items, including all the study's observations (**LL**). The relationship between this variable and the dependent variable, represented by extraordinary items (**IE**), will allow us to reach conclusions regarding earnings management with the purpose of adjusted profit (**LLaj**), considering the assumptions highlighted in Figure 1.

(=) Net Profit **LL**		
If **LL** is low or negative	More negative **IE** (expenses) are recognized in the income statement	**IE** with a negative sign in the adjusted profit improves (increases) adjusted profit – a proxy of recurring revenue
If **LL** is too high	More positive **IE** (revenues) are recognized in the income statement	**IE** cwith a positive sign in the adjusted profit worsens (decreases) adjusted profit – a proxy of recurring revenue
(=) Adjusted net income in the period **LLaj**		

Figure 1. Profit adjusted according to extraordinary items to manage adjusted profit

Hence, there will be evidence of earnings management by smoothing adjusted net profit using extraordinary items (*LLaj*) if a positive relationship is found between the dependent variable (*IE*) and accounting net profit (*LL*) before considering the effects of classifying extraordinary items. This positive association, the higher (lower) the net profit, the higher (lower) the magnitude of values classified as extraordinary items, results in smoothing adjusted net profit – a proxy of recurring profit–as hypothesized in *H1*. Therefore, a bank entity conveys to investors, regulators, and depositors the message that its performance is stable and predictable, conferring trustworthiness and credibility.

Additional explanatory variables were included to improve the model's specification and control for the entity's characteristics concerning size (*Tam*) and capitalization index (*Cap*), level of economic activity (*PIB*), and the basic interest rate level (*Sel*) on the level of disclosure of extraordinary items.

The *Tam* variable was included because larger entities require more external resources to finance their investments and, therefore, seek to present better performance, which may encourage the opportunistic use of extraordinary items (Barros, Soares, & Lima, 2013; Cain, Kolev, & McVay, 2020). Additionally, considering that larger entities perform more diversified activities, it is natural to expect that they register a larger relative share of extraordinary items. As for the expected sign, considering that extraordinary items can be either income or expenses, it may be positive or negative. Therefore, the most important aspect for this study's purposes is to control for these effects so as not to compromise conclusions regarding the variable of interest.

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The explanation for incorporating the *Cap* variable is that the banks' level of capital may influence the disclosure of extraordinary items. Therefore, in theory, a positive sign is expected for the relationship between the bank's level of capitalization (*Cap*) and values recognized as extraordinary items (*IE*). The reason is that banks with higher equity levels would have fewer incentives to improve adjusted net profit (*LLaj*), decreasing the likelihood of opportunistic demands (Dantas & Medeiros, 2015) – in this case, less need to inform a larger share of expenses as extraordinary items.

In the case of the level of economic activity (*PIB*)*,* Dantas, Medeiros, Galdi, and Costa (2013) explain that demand for credit operations increases in times of greater economic dynamism. Hence, assuming that under challenging times, these demands fall, PIB may influence managers' opportunistic behavior when s/he seeks to maintain his/her earnings levels, which would lead to a greater search for accounting manipulation opportunities, among which recognizing a higher number of expenses as extraordinary items. Hence, a positive sign is naturally expected for the relationship with the dependent variable, *IE*.

Regarding the *Sel* variable, a change in the economy's basic interest rate, Selic, is expected to affect the market agents' expectations. Moreover, as an instrument of economic policy, it directly affects market liquidity (Dantas, Medeiros, Galdi & Costa, 2013), which may encourage, for instance, banks to recognize (or not) *IE* when there is a lack (or excess) of demand for liquidity, explaining the convenience of incorporating this control, though, it is not possible to specify the sign expected.

Sensitive analysis was carried out by estimating model (3.1) with all the bank/quarter observations; with/without treating outliers; with winsorization at 5%; and only with the bank/quarter observations in which the value of the extraordinary items differs from zero, also with/without winsorization at 5%. The objective was to verify whether the results were consistent in all the cases.

4. Analysis of Results

4.1 Descriptive Statistics

The first stage of the empirical tests consisted of calculating the model's (3.1) variables for blocks 1 and 2, whose descriptive statistics are presented in Table 1.

Table 1
Descriptive statistics of model (3.1) and composition of IE according to block

Panel A: Descriptive statistics of the model's continuous variables						
Block 1						
Variables	N	Mean	Median	Standard Deviation	Minimum	Maximum
IE	417	-0.0003	0.0000	0.0007	-0.0022	0.0075
LL	417	0.0051	0.0035	0.0085	-0.0515	0.0542
Tam	417	24.1571	23.8814	2.2882	18.2983	28.3338
Cap	417	0.2090	0.1047	0.2658	0.0461	0.9974
PIB	417	0.0016	0.0040	0.289	-0.0916	0.0776
Sel	417	0.0189	0.0158	0.0094	0.0047	0.0348
Block 2						
Variables	N	Mean	Median	Standard Deviation	Minimum	Maximum
IE	210	-0.0052	-0.0004	0.0009	-0.0022	0.0075
LL	210	0.0037	0.0031	0.0028	0.0000	0.0208
Tam	210	24.1548	23.8796	1.6420	22.1330	28.2020
Cap	210	0.1013	0.0954	0.0343	0.0461	0.1888
Panel B: Percentage of IE in the blocks' composition						
		Block 1		Block 2		
Without IE		47.00%		-		
Negative IE (Mostly Expenses)		49.88%		94.12%		
Positive IE (Mostly Income)		3.12%		5.88%		

Note: IE: extraordinary items; LL: accounting net profit, without the effects of the reclassification of extraordinary items; Tam : entity's size; Cap: capitalization index; PIB: Gross Domestic Product variation; Sel: the Brazilian economy's basic interest rate, Selic

The descriptive statistics of block 1's continuum variables (Panel A) reveal that the value of extraordinary items (IE) per quarter ranges from -0.22% and 0.75% of the assets, with dispersion equivalent to 0.07%. Measures of central tendency, mean and median, close to 0%, reveal an expressive number of banks presenting extraordinary items equal to zero. This is also observed in Panel B, in which approximately 47% of the bank/quarter observations composing block 1 present extraordinary items with a value equal to zero. These zero values are possibly explained by the fact that in certain quarters: (i) there were no events classified as extraordinary or (ii) extraordinary events did occur, but the managers responded to incentives and did not disclose them at discretion. Regarding extraordinary items different from zero, Panel B, block 1 shows that most of the extraordinary items concerned net expenses, suggesting that banks generally recognize a larger number of expenses, resulting in increased adjusted net profit (LLaj) in relation to accounting net profit (LL).

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Panel A in block 2, in which bank/quarter observations with zero value of extraordinary items are excluded to identify the observations that effectively represent extraordinary items of income and expenses, shows that measures of central tendency, mean and median, indicate that extraordinary items correspond to -0.52% and -0.04% of the banks' assets, respectively. Note that extraordinary expenses were more frequent than income, as the negative sign shows. As data in block 1, this prevalence of extraordinary expenses in block 2 is corroborated by Panel B, in which 94.12% of the extraordinary items disclosed by the banks are negative, suggesting they are improving adjusted net profit (*LLaj*) in relation to accounting net profit.

In the case of net profit (*LL*), the descriptive statistics (Panel A) show that quarterly data indicate an average return on assets around 0.51% and 0.37% per quarter, with a dispersion of 0.85% and 0.28% in Blocks 1 and 2, respectively. Extreme situations of positive returns (5.42% and 2.08% per quarter) in both blocks, or negative (-5.15% per quarter) for block 1, and null return for block 2, on assets, are either infrequent or neutralized by observations with signs with an inverse direction. In any case, the statistics show that these entities record an average return of 2.04% and 1.48% per year (annualized quarterly average). This indicates that the average return in block 2, presenting only bank/quarter observations with non-zero extraordinary item balances, is smaller than the set of observations (block 1). This situation suggests that because banks have smaller average returns, those with non-zero extraordinary item balances may have more incentives to use opportunistic extraordinary items, which explains smoothing adjusted net profit (*LLaj*).

Regarding the variable representing the institutions' size (*Tam*), descriptive statistics reveal a marked dispersion in both blocks, showing the differences between the entities' size – which is a characteristic of the Brazilian banking market, with few large publicly traded banks such as Banco do Brasil, Itaú, Bradesco, and Santander.

As for the capitalization index (*Cap*), data show that the banks have 21% of capitalization level on average in block 1 and 10% in block 2. Statistics show in the distribution tails banks with almost integral participation (99%) of their own resources in the financing of their total assets and banks with 4.6% share in block 1. In block 2, descriptive statistics reveal that, in the cases in which there is the effective disclosure of extraordinary items (positive or negative), the capitalization index is smaller. This suggests that these entities have a greater need to manage adjusted net profit to convey they can generate results and offset their lower level of capital.

Concerning macroeconomic variations, *PIB* data reveal the economic situation in Brazil in the period under study (2016-2020), characterized by times of economic decline and small growth, reflecting an average growth close to zero. Furthermore, in the case of the *Sel* variable, data show when the basic interest rate decreased between 2016 and 2020.

4.2 Correlation Matrix and Univariate Analysis

The second stage of tests comprises an analysis of Pearson's correlation matrix between the model's (3.1) dependent and independent variables. The results are summarized in Table 2.

Table 2

Pearson's correlation matrix between the model's (3.1) variables

	Bloco 1						Bloco 2					
	IE	*LL*	*Tam*	*Cap*	*PIB*	*Sel*	*IE*	*LL*	*Tam*	*Cap*	*PIB*	*Sel*
IE	1.00						1.00					
LL	**0.08***	1.00					**0.13****	1.00				
Tam	-0.02	0.02	1.00				-0.07	**-0.16****	1.00			
Cap	**0.13***	**0.56***	**-0.47***	1.00			-0.10	**0.41***	**-0.39***	1.00		
PIB	0.02	0.03	0.00	-0.00	1.00		0.06	-0.01	0.02	-0.01	1.00	
Sel	0.03	0.00	-0.05	0.03	-0.08	1.00	0.04	0.03	-0.09	0.05	-0.11	1.00

Note: IE: extraordinary items; LL: accounting net profit, without the effects of reclassifying extraordinary items; Tam: entity's size; Cap: capitalization index; PIB: Gross Domestic Product; Sel: the economy's basic interest rate, Selic. Statistical significance level: *** 1%; ** 5%; and * 10%.

The univariate analysis – correlation between the model's (3.1) dependent variable *IE* and independent variables – initially reveals a positive correlation with the variable of interest *LL*, 8% and 13% in both blocks. This shows the first evidence of what hypothesis *H1* predicts, that is, the higher (lower) the net profit, the greater (smaller) the amounts recognized as extraordinary items, supporting the expected smoothing of the recurring earnings proxy. However, for the independent control variables – *Tam, PIB*, and *Sel* –, the correlation coefficients with the dependent variable, *IE*, are little expressive, except for *Cap* in block 1, which shows a positive and significant correlation.

Notwithstanding these first indications provided by the univariate analysis, the multivariate analysis more conclusively assesses the relevance of the independent variables of interest and control variables to explain the level of values recognized as extraordinary items in Section 4.3.

As for the correlation between independent variables, the negative correlation between *Sel* and *PIB* is noteworthy. It indicates a negative relationship between the economy's basic interest rate level and the level of economic activity in the period under study (2016-2020), suggesting that the interest rate influenced the level of economic growth – the lower the interest rate, the higher the level of economic activity.

According to the practical rule suggested by Gujarati (2006), the correlations presented in Table 2 are not sufficient to reach the threshold that would configure a high risk of multicollinearity. The author notes that this risk exists when the correlation between independent variables is at least 0.8. Additionally, the statistics of Variance Inflation Factor (VIF) tests revealed that the maximum value found was 2.21 and 1.17, in blocks 1 and 2, respectively, confirming and reinforcing evidence found in the correlation matrix and removing the risk of multicollinearity in the estimations.

4.3 Model Estimation

Tests were performed to choose the most appropriate estimation method for the multivariate analysis in blocks 1 and 2. The Chow test's result, which rejects the null hypothesis, indicates that data modeling is the most suitable for both data sets. The Breusch-Pagan test confirms this result as it rejects the hypothesis that the Pools model offers appropriate estimators; that is, there are statistically significant differences (at 5% level) between the companies over time that justify the adoption of panel modeling. Then, the Hausman test was performed to verify which model, fixed or random, would be the most appropriate. The results indicate that the hypothesis concerning the adequacy of the correction model, random effects, was rejected, revealing that the most appropriate estimation is through the fixed effects model. Hence, the model (3.1) was estimated using sectional fixed effects, combining the complete data set (block 1) restricted to the observations with non-zero extraordinary items (block 2), without treating outliers and with winsorization of data at 5%.

Table 3

Results of the model (3.1) estimation using sectional fixed effects

Model:	$IE_{it} = \beta_0 + \beta_1 LL_{it} + \beta_2 Tam_{it} + \beta_3 Cap_{it} + \beta_4 PIB_t + \beta_5 Sel_t + e_1$			
Variables:	**Block 1**		**Block 2**	
	(1)	**(2)**	**(3)**	**(4)**
C	-0.0067	0.0076	**0.0212****	0.0183
	(-1.06)	(-1.01)	(1.19)	(1.10)
LL	**0.0121***	**0.0282*****	**0.2147*****	**0.2200*****
	(1.81)	(2.83)	(6.37)	(6.66)
Tam	0.0003	-0.0003	-0.0008	-0.0007
	(1.06)	(1.00)	(-1.15)	(-1.06)
Cap	**-0.0022*****	**-0.0018***	**-0.0268*****	**-0.0256*****
	(-2.98)	(-1.88)	(-4.04)	(-4.13)
PIB	0.0008	0.0038	0.0028	0.0027
	(0.75)	(0.37)	(1.46)	(1.43)
Sel	**0.0069***	0.0055	-0.0034	-0.0022
	(1.76)	(1.31)	(-0.29)	(-0.20)
N	417	417	210	210
R²	0.2513	0.028	0.2215	0.0017
F	5.26	2.16	13.70	11.65
Prob(F-stat)	0.0000	0.0581	0.0000	0.000

Notes: *IE*: extraordinary items; *LL*: accounting net profit, without the effects of reclassifying extraordinary items; *Tam*: entity's size; *Cap*: capitalization index; *PIB*: Gross Domestic Product variation; *Sel*: the economy's basic interest rate, Selic. Statistical significance level: *** 1%; ** 5%; and * 10% (two-tailed). Estimations: (1) complete data set, without treating outliers; (2) complete data set with winsorization at 5%; (3) data restricted to non-zero *IE*, without treating outliers; and (4) data restricted to cases with non-zero *IE* and winsorization at 5%.

Considering the model estimations, the results concerning the variable of interest revealed a positive and statistically significant relationship between the variable of interest *LL* and the dependent variable *IE*. This relationship existed regardless of whether the complete data set was considered or whether data were restricted to cases where extraordinary items were different from zero, or yet, whether outliers were treated or not with winsorization. This empirical evidence shows that the higher (lower) the accounting net profit before considering the effects of extraordinary items, the larger (smaller) is the amount classified as extraordinary items, impacting adjusted net profit – a proxy of recurring income measure. These findings corroborate hypothesis *H1* that managers would classify income items (income and expenses) as extraordinary items to manage earnings, smoothing adjusted profit, after excluding the effects of share that would be transitory.

The underlying assumption is that bank managers seek to influence the users' expectations toward future earnings, using the classification of "extraordinary items" to communicate greater stability and predictability of a profit's "ordinary" share. Hence, even if the net profit measure *per se* varies considerably, this "adjusted" measure is communicated as part of non-recurring earnings. The dimension and sign of this reclassification depend on the need and convenience of conveying this smoothing, giving the various stakeholders – including investors, depositors, and bank regulators – a perception of greater safety and financial strength.

This empirical evidence is compatible with the results reported by McVay (2006), that managers opportunistically transfer essential expenses to extraordinary items and later do the inverse path, according to their convenience. These findings also corroborate Fan, Barua, Cready, and Thomas (2010), who found evidence that classification was changed when there were restrictions for managers to meet benchmark gains by manipulating accruals.

Among the causes of such practice in the Brazilian market, the principal *versus* agent conflict of interest is worth noting, considering that adjusted profit is frequently one of the performance measures used to calculate the agents' variable remuneration. However, there is no regulation regarding how these bonuses are calculated, as the standards dealing with related parties only provide instructions on how to disclose the amount paid to managers.

Note that the coefficients of the variable of interest (*LL*) of estimations exclusively performed with data from non-zero extraordinary items (columns 3 and 4) are higher than the complete data set (columns 1 and 2) and estimations with winsorized data (columns 2 and 4) are higher than data without treatment of outliers (columns 1 and 3). It shows that the more restricted the observations regarding the recognition of extraordinary data, the more pronounced the relationship with the dependent variable, *IE*, and the variable of interest, *LL*. It corroborates the findings, revealing the consistency and persistence of results, regardless of the selection criteria and data treatment. Moreover, it increased the relevance of coefficients of interest when more restricted criteria are adopted for the treatment of data.

Regarding the control variables, the entities' size (*Tam*) did not significantly affect the dependent variable in any of the four estimations. Regarding the capitalization index (*Cap*), the results concerning the four estimations indicate that the financial institutions' level of capitalization negatively impacted the recognition of extraordinary items, contradicting the expectations predicted by Dantas and Medeiros (2015). The negative relationship indicates that banks presenting higher capital indexes are more likely to recognize negative than positive *IE*. This relationship is not consistent with the fact that banks with higher capitalization levels would have less incentive to improve adjusted net profit (*LLaj*).

As for the macroeconomic variables representing the level of economic activity (*PIB*) and the economy's basic interest rate (*Sel*), the results show that, in general, these variables do not explain the entities' disclosure of part of results as extraordinary items. Furthermore, it reveals that macroeconomic conditions do not influence the behavior of the values classified as transitory.

The set of results concerning the control variables helps evidence the relevance of the level of accounting net profit as determining the disclosure of extraordinary items, considering the little or no representativeness of control variables.

5. Final Considerations

This study's objective was to investigate evidence of Brazilian banks' practice of earnings management by classifying certain result items as "extraordinary" to influence stakeholders' expectations regarding the persistence of profits in the future.

The results revealed a positive association between accounting net profit and extraordinary items, suggesting that managers use the classification of extraordinary items to smooth the proxy of recurring profit, conveying the stability of future earnings. Another important finding refers to the fact that banks more frequently classify expenses as extraordinary items.

In addition to improving the market's perception, displaying better financial performance corroborates the conflict of interest described in the Theory of Agency because adjusted profit is frequently used as a measure of performance for the managers' (agents) variable remuneration. However, entities do not usually disclose performance measures used to pay managers because there is no regulation for disclosing the parameters used in the calculation.

This study contributes to the development of literature addressing the use of non-GAAP measures in the capital market, in which disclosing entities seek to influence the investors' expectations by using measures not regulated by accounting standards and focusing on the disclosure of extraordinary items by Brazilian banks. It also contributes to discussions regarding the ED/2019/7 published by IASB, as it shows the importance of a guideline for extraordinary items to alleviate the problem of information asymmetry. Finally, the findings also improve knowledge regarding how earnings management occurs and its determinants in the banking industry, highlighting the possibilities to analyze and use information concerning extraordinary items.

This study's limitations include the population size, as there is a restricted number of publicly-traded Brazilian banks with data available in the consulted database; *Refinitiv Eikon* may promote some adjustment in the classification of extraordinary items, which may present some differences in relation to what is disclosed by the banks in non-GAAP measures in addition to financial statements. Additionally, the findings are restricted to the Brazilian banking market, even though it presents evidence that may also occur in other economic segments.

Future studies addressing this subject could assess the effects of the disclosure of recurring and non-recurring items among non-financial companies and verify the extent to which such disclosures influence earnings management as reported in this study.

References

Alali, F., & Jaggi, B. (2010). Earnings versus capital ratios management: role of bank types and SFAS 114. *Review of Quantitative Finance and Accounting*, 36(1), 105-132. Doi: https://DOI.org/10.1007/s11156-010-0173-4

Andrade, G. V., & Murcia, F. D. R. (2019). A critical analysis on the additional adjustments considered in the disclosure of the non-GAAP "adjusted EBITDA" measure in the reports of Brazilian listed companies. *Revista de Educação e Pesquisa em Contabilidade* (REPeC), 13(4), 477-494. Doi: https://DOI.org/10.17524/repec.v13i4.2412

Araújo, A. M. H. B., Lustosa, P. R. B., & Paulo, E. (2018). The cyclicality of loan loss provisions under three diferent accounting models: the United Kingdom, Spain, and Brazil. *Revista Contabilidade e Finanças*, 29(76), 97–113. Doi: http://dx.DOI.org/10.1590/1808-057x201804490

Barros, C. M. E., Soares, R. O., & Lima, G. A. S. F. (2013) A relação entre governança corporativa e gerenciamento de resultados em empresas brasileiras. *Revista de Contabilidade e Organizaçõe*s, 7(19), 27-39. Doi: 10.11606/rco.v7i19.55509

Barua, A., Lin, S., & Sbaraglia, A. (2010). Earnings Management Using Discontinued Operations. *The Accounting Review*, 85, 1485–1509. Doi: https://DOI.org/10.2139/ssrn.1245863

Beatty, A., & Harris, D. G. (1999). The effects of taxes, agency costs and information asymmetry on earnings management: A comparison of public and private firms. *The Review of Accounting Studies*, 4(3&4), 299-326. Doi: https://DOI.org/10.1023/A:1009642403312

Beatty, A., Ke, B., & Petroni, K. R. (2002). Earnings management to avoid earnings declines across publicly and privately held banks. *The Accounting Review*. 77(3), 547-570. Doi: 10.2308/accr.2002.77.3.547

Cain, C. A., Kolev, K. S., & McVay, S. (2020). Detecting opportunistic special items. *Management Science*, 66(5), 2099-2119. Doi: 10.2139/ssrn.1267022

Cohen, D. A., & Zarowin, P. (2007). *Earnings Management over the Business Cycle*. Working Paper, New York University, New York, 1–39. Recuperado de https://citeseerx.ist.psu.edu/viewdoc/download?DOI=10.1.1.1060.381&rep=rep1&type=pdf

Curcio, D., & Hasan, I. (2015). Earnings and capital management and signaling: the use of loan-loss provisions by European banks. *European Journal of Finance*, 21(1), 26-50. Doi: 10.1080/1351847X.2012.762408

Dantas, J. A., Galdi, F. C., Capelleto, L. R., & Medeiros, O. R. (2013). Discricionariedade na Mensuração de Derivativos como Mecanismo de Gerenciamento de Resultados em Bancos. *Revista Brasileira Finanças*, 11(1), 17-48. Doi: 10.12660/rbfin.v11n1.2013.3658

Dantas, J. A., & Medeiros, O. R. (2015). Determinantes da qualidade da auditoria independente em bancos. *Revista Contabilidade & Finanças*, 26(67), 43-56. Doi: 10.1590/1808-057x201400030

Dantas, J. A., Medeiros, O. R., Galdi, F. C., & Costa, F.M. (2013). Securities-Based Earnings Management in Banks: Validation of a Two-Stage Model. *Revista Contabilidade & Finança*s, 24(61), 37–54. Doi: 10.1590/S1519-70772013000100005

Dantas, J. A., Medeiros, O. R., & Lustosa, P. R. B. (2013). O Papel de variáveis econômicas e atributos da carteira na estimação das provisões discricionárias para perdas em operações de crédito nos bancos brasileiros. *Brazilian Business Review*, 10(4), 69-95. Doi: 10.15728/bbr.2013.10.4.3

Dechow, P. M., & Skinner, D. (2000). Earnings Management: reconciling the views of accounting academics, practitioners and regulators. *Accounting Horizons*, 14(2), 235-250. Doi: https://DOI.org/10.2308/acch.2000.14.2.235

Dechow, P. M., Sloan, R. G., & Sweeny, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193-225. Recuperado de http://www.jstor.org/stable/248303

Dittmann, I., & Maug, E. (2007). Lower Salaries and No Options? On the Optimal Structure of Executive Pay. *The Journal of Finance*, 62(1), 303–343. Recuperado de http://www.jstor.org/stable/4123463

Eisenhardt, K. M. (1988). Agency and Institutional Theory Explanations: The Case of Retail Sales Compensation. *The Academy of Management Journal*, 31(3), 488–511. Doi: https://DOI.org/10.2307/256457

Fan, Y., Barua, A., Cready, W. M., & Thomas, W. B. (2010). Managing earnings using classification shifting: Evidence from quarterly special items. *Accounting Review*, 85(4), 1303–1323. Doi: 10.2308/accr.2010.85.4.1303

Flores, E., & Lopes, A. B. (2019). Decréscimo na Relevância da Informação Contábil das Distribuidoras de Energia Elétrica no Brasil no Período Pós-IFRS. *Revista Brasileira de Gestão de Negócios*, 21(4), 928-952. Doi: 10.7819/rbgn.v21i5.4023

Gabriel, F., & Corrar, L. J. (2010). Gerenciamento de resultados e de capital no sistema bancário brasileiro – uma investigação empírica nas aplicações em títulos e valores mobiliários. *Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ*, 15(2), 49-62. Doi: tps://DOI.org/10.12979/rcmccuerj.v15i2.5499

Gujarati, D. N. (2006*). Econometria básica*. 4 ed. São Paulo.

Healy, P., & Whalen J.M. (1999). A Review of the Earnings Management Literature and its Implications for Standard Setting. *Accounting Horizons*, 13(1), 365-384. Doi: 10.2139/ssrn.156445

IAS 1, *December 2014*. IAS 1 – *Presentation of Financial Statements*. Recuperado de https://www.ifrs.org/issued-standards/list-of-standards/ias-1-presentation-of-financial-statements/.

IASB, *December* 2019. *Exposure Draft ED*/2019/7 - General Presentation and Disclosures - Illustrative Examples. Recuperado de https://www.ifrs.org/projects/work-plan/primary-financial-statements/.

IFRS 14, *January 2014*. IFRS 14 – *Regulatory Deferral Accounts*. Recuperado de https://www.ifrs.org/issued-standards/list-of-standards/ifrs-14-regulatory-deferral-accounts/.

Jensen, M., & Meckling, W. (1976) Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics,* 3, 305-360. Doi: https://DOI.org/10.1016/0304-405X(76)90026-X

Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, 29(2), 193-228. Doi: https://DOI.org/10.2307/2491047

Kanagaretnam, K., Krishnan, G., & Lobo, G. J. (2010). An empirical analysis of auditor independence in the banking industry. *The Accounting Review*, 85(6), 2011-2046. Doi: 10.2308/accr.2010.85.6.2011

Kanagaretnam, K., Lim, C. Y., & Lobo, G. J. (2010). Auditor Reputation and Earnings Management: International Evidence from the Banking Industry. *Journal of Banking and Finance*, 34(10), 2318-2327. Doi: 10.1016/j.jbankfin.2010.02.020

REPeC – Revista de Educação e Pesquisa em Contabilidade, ISSN 1981-8610, Brasília, v.15, n. 4, art. 5, p. 467-485, Out./Dec. 2021

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Koch, T. W., Waggoner, D. F., & Wall, L. D. (2018). Incentive compensation, accounting discretion and bank capital. *Journal of Economics and Business,* 95(1), 119–140. Doi: 10.1016/j.jeconbus.2017.03.001

Li, N., Su, H., Dong, W., & Zhu, K. (2018). The effect of non-recurring items on analysts' earnings forecasts. *China Journal of Accounting Research*, 11(1), 21–31. Doi: 10.1016/j.cjar.2017.10.001

Lopes, L. M. S., Pinheiro, F. M. G., & Dias Filho, J. M. (2014). Gerenciamento de Resultados: um estudo das empresas do setor de telecomunicações no Brasil. *Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ*, 19(1), 80-94. Recuperado de http://www.atena.org.br/revista/ojs-2.2.3-06/index.php/UERJ/article/view/1864/1802

Macedo, M. A. S, & Kelly, V. L. A. (2016). Gerenciamento de Resultados em Instituições Financeiras no Brasil: Uma Análise com Base em Provisões para Crédito de Liquidação Duvidosa. *Revista Evidenciação Contábil & Finanças*, 4(2), 82-96. Doi: 10.18405/recfin20160206

Marques, L. D. (2000) Modelos dinâmicos com dados em painel: revisão da literatura. Série Working Papers do Centro de Estudos Macroeconômicos e Previsão (CEMPRE) da Faculdade de Economia do Porto, Portugal, n. 100. Recuperado de http://wps.fep.up.pt/wps/wp100.pdf

Martinez, A. L. (2001). Gerenciamento dos resultados contábeis: estudo empírico das companhias abertas brasileiras (Tese de doutorado). Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo, SP, Brasil. Recuperado de https://www.teses.usp.br/teses/disponiveis/12/12136/tde-14052002-110538/pt-br.php

Martinez, A. L. (2013). Gerenciamento de resultados no Brasil: um survey da literatura. BBR: *Brazilian Business Review*, 10(4), 1–31. Doi: 10.15728/bbr.2013.10.4.1

McVay, S. E. (2006). Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items. *The Accounting Review*, 81(3), 501–531. Recuperado de http://www.jstor.org/stable/4093104

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: https://DOI.org/10.1016/j.ememar.2014.07.001

Resolução BCB nº 2*, de 12 de agosto de 2020.* Consolida os critérios gerais para elaboração e divulgação de demonstrações financeiras individuais e consolidadas pelas administradoras de consórcio e pelas instituições de pagamento e os procedimentos para elaboração, divulgação e remessa de demonstrações financeiras que devem ser observados pelas instituições financeiras e demais instituições autorizadas a funcionar pelo Banco Central do Brasil. Recuperado de https://www.in.gov.br/en/web/dou/-/resolucao-bcb-n-2-de-12-de-agosto-de-2020-271965214

Schipper, K. (1989). Commentary on earnings management. *Accounting Horizons*, 3(4), 91-102. Recuperado de https://www.proquest.com/openview/177246e104b43553542ab048997f1a4e/1?pq-origsite=gscholar&cbl=3330

Shrieves, R. E., & Dahl, D. (2003). Discretionary accounting and the behavior of japanese banks under financial duress. *Journal of Banking and Finance*, 27(7), 1219-1243. Doi: 10.1016/S0378-4266(02)00252-2

Silva, C. A. M., Niyama, J. K., Rodrigues, J. M., & Lourenço, I. M. E. C. (2018). Gerenciamento de resultados por meio da perda estimada de créditos em bancos brasileiros e luso-espanhóis. *Revista Contemporânea de Contabilidade*, 15(37), 139-157. Doi: 10.5007/2175 -8069

Silva, K. O., & Robles Junior, A. (2018). Provisão para créditos de liquidação duvidosa (PCLD) calculada conforme as normas do BACEN e IFRS: comparação. *Contabilidade, Atuária, Ciências e Informação* (Cafi), 1(1), 4-21. Doi: 10.23925/cafi.v1i1.36949

Soedarmono, W., Pramono, S. E., & Tarazi, A. (2017). The procyclicality of loan loss provisions in Islamic banks. *Research in International Business and Finance*, 39(B), 911–919. Doi: 10.1016/j.ribaf.2016.05.003

Suzart, J. A. S. (2015). Decompondo o Lucro Contábil: Uma Análise Dos Bancos Marka e Fonte Cindam em Período Anterior à Mudança Cambial de 1999. *Revista de Gestão e Contabilidade da UFPI*, 2(1), 40–60. Doi: 10.26694/2358.1735.2015.v2ed11979

Warfield, T. D., Wild, J. J., & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics*, 20(1), 61–91. Doi: 10.1016/0165-4101(94)00393-J.

Watts, R., & Zimmerman, J. (1986). *Positive Accounting Theory*. Prentice-Hall, Englewood Cliffs, NJ.

Zhuang, Z. (2016). Discussion of 'An evaluation of asset impairments by Australian firms and whether they were impacted by AASB 136'. *Accounting and Finance*, 56(1), 289-294. Doi: 10.1111/acfi.12199