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INFLUENCE OF COMMITTEES ON EARNINGS MANAGEMENT

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ABSTRACT

The objective of this article was to verify whether the presence of the Audit Committee and the Board of Auditors encourages a migration from accrual-based earnings management to the management of real activities. The methodology used for the study development was empirical, quantitative and descriptive research. The data comprise Brazilian companies listed on B3 in the period from 2010 to 2017. The models were estimated by the ordinary least squares method - OLS - with panel data, controlled by year dummy and ADR. There is no evidence to indicate the presence of a trade-off. When there are audit committees and Board of Auditors, there is a decrease in both types of earnings management.

Keywords: Earnings Management. Trade-Off. Audit Committee. Board of Auditors.

1 INTRODUCTION

According to studies conducted by Martinez (2013) e Dechow, Sloan and Sweeney (1996), it was found that administrators manipulate the information of financial disclosures to obtain benefits and that weak governance structures are an incentive to manipulate earnings. This practice is known as earnings management (Martinez, 2013).

Earnings management can occur in different ways, however the presence of control instruments seems to inhibit or even direct companies to perform such management differently. Zang (2012) examined the *trade-off* between earnings management by r real activities and accrual-based management and verified that after the approval of the Sarbanes-Oxley Act (SOX), the level of earnings management based on *accruals* declines, while the level for real activities increases. Consistent with the change in type of management, there was an increase in the rigor of the analysis of accounting practices. Professionals with financial expertise, usually those that make up important control bodies such as audit committee and Board of Auditors, would help to reduce the propensity to earnings management, as well as increase the level of conservatism of the accounting

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criteria adopted by companies (Badolato, Donelson, & Ege, 2014; Silvestre, Costa, & Kronbauer, 2018).

The focus on corporate governance was renewed in the mid-2000, largely motivated by the number of corporate failures in large companies (Ghafran & O'Sullivan, 2013). For Dechow et al. (1996), internal governance processes are established to maintain the credibility of financial statements and safeguard against behavior such as profit manipulation.

Regarding the external user of accounting information, the earnings management or in spectra farther from the legality, fraud in publicly traded companies distort the information of profit and may induce a mistaken decision of the investor. This type of implication brings to light the need for greater transparency and assertiveness in the numbers evidenced by the companies (Pereira & Nascimento, 2005). However, the strengthening of corporate governance, in the post-SOX period, induced a behavior described by Cohen and Zarowin (2010), who realized that a migration of accrual-based earnings management that, in thesis could be more easily identified from the analysis of the accounting criteria adopted, for the earnings management based on real activities; the latter presents a greater difficulty defining an irrefutable proof that there was management, because this latter practice involves operational decisions, increasing or not inventories, longer term selling, selling today or tomorrow at the turn of the month etc. (Cohen and Zarowin, 2010).

Due to the possible incentive produced by the higher levels of organizational controls, the objective of this research was to verify whether the presence of Audit Committee and the Board of Auditors influence the change of the type of earnings management practiced by companies in the Brazilian market, analyzing, specifically, the if the presence of these agencies encourages a migration from accrual-based earnings management to earnings management by real activities.

It seeks to analyze the existence of a relation between internal monitoring by established governance structures and the possible exchange of earnings management practices, since there is an extensive literature on outcome management and the importance of internal monitoring in strengthening corporate governance, but it does not directly relate these two points. Based on the articles of Baioco and Almeida (2017), which analyzed the effects of the audit committee and the Board of Auditors on the quality of accounting information, and the work of Zang (2012), which evaluated *the trade-off* of the earnings management, it was noticed an opportunity to evaluate these two topics in a unique model.

It is also evaluated if any impact has occurred by the SOX standardization in Brazilian companies, influencing internal monitoring, in particular, in Brazilian companies that issue American Depositary Receipt or ADR, which is an instrument held by an American bank that allows US investors to buy shares from foreign companies trading on the U.S. stock exchange. According to Mendonça, Costa, Galdi and Funchal (2010), in order to trade in the US, Brazilian companies that issue ADRs must also follow US legislation and are subject to SOX. It is expected, therefore, to contribute to expand the understanding of students and professionals regarding the relevance of an adequate internal control system and its contribution to corporate excellence.

The methodology used was quantitative, with data analysis of Brazilian publicly traded companies listed in B3. To measure the earnings management, the Dechow and Dichev (2002) and Martinez (2013) models were used. The results obtained from the application of these models were submitted to an additional analysis, which used *dummies* variables to differentiate the companies that present Audit Committee and Board of Auditors, and companies issuing ADRs.

The results show that a decrease in the accrual-based earnings management did not cause the earnings management by real activities to increase, however, it was evidenced that the presence of the audit committee and the Board of Auditors leads to a decrease in both types of earnings management, thus emphasizing the importance of internal monitoring.

2 THEORETICAL REFERENCE

2.1 earnings management

Earnings accounting management "is the use of managerial discretionarity in the realization of accounting choices, in the making of operational decisions and in the selection of presentation criteria of the income statement" (Martinez, 2013, page 5). That is, it is a change in the disclosure of the company's economic performance from the judgment of managers about the disclosure of the financial statements and the transaction system ((Healy & Wahlen, 1999; Rodrigues, Melo, & Paulo, 2019).

According to Sawicki and Shrestha (2014), earnings management is not necessarily an action to cheat or defraud, the intention is to draw up financial reports within legal standards in such a way that they present the best possible economic performance for the company. For Rodrigues, Paulo and Melo (2017), the main incentives for the practice of earnings management is to prevent small losses from being reported, but there are management applications that seek to reduce the volatility of earnings over the years to pass the idea of a greater stability (smooth earnings).

According to Dechow et al. (1996), there are several reasons for the earnings management; they highlight those related to the managers' remuneration and those intending to motivate investments and enable loans. According to Feng, Li e McVay (2009), the material fragility of these actions can influence and decrease the quality of information in accounting reports.

Gunny (2010) divided the forms of earnings management into two main ones: based on *accruals* and based on operational activities. The author points out that the main difference between the approaches is that the second changes the economic activities of the company, such as an investment or financing, while the first interferes with accounting choices. Depending on existing incentives, companies migrate between these two possible types of earnings management. This can be observed in the studies by Sohn (2016) and Commerford, Hatfield and Houston (2018), which lead to the conclusion that the degree of accrual-based earnings management (accounting choices) has been decreasing, while the relative level of earnings management by actual activities (operational decisions) has been increasing. This may suggest that increased control can encourage such a movement.

2.1.1 Accrual-based earnings management

Accruals can be understood as the difference between the generation of cash flow and profit in a given period, this difference occurs by the application of the accrual basis accounting. Pinho and Costa (2008) claim that *accruals* improve the capacity of profit to measure the company's performance , however, as they depend on the understanding that the company considers of what is the period reference is its quality ends up being the result of a subjective analysis of the companies, and this creates an environment conducive to a certain level of earnings management, which can be used opportunistically by the manager.

According to Zang (2012), accrual-based earnings management is obtained by modifying the methods or estimates used in the financial statements, for example by changing the depreciation method or the estimate of provision for doubtful receivable accounts; these decisions impact the calculation of reported profits. According to Gunny (2010), the *accruals* management is not carried out by changing operational activities, but by choosing accounting methods used to represent these activities. These choices can be made both to mask the real economic performance of the company and to adjust it to the reality through which the company goes through. But this is a discretionary decision of managers.

Based on Sohn's studies (2016), incentives to modify the company's performance through accruals management arise from opportunistic interests of managers and shareholders seeking their

own benefits, such as maintaining the company's value from the market perspective, according to the analysis performed by Badertscher (2011), who pointed out that the longer the time of overevaluation, the higher the level of earnings management. Just as Huang, Lao and McPhee (2017), they found that stock liquidity increases managers' focus on performance and motivates them to manage earnings.

Pereira and Nascimento (2005) highlight that managers are committed to implementing internal controls that prevent the occurrence of fraud, since they directly impact the company's earnings. Queries made by Commerford et al. (2018) have shown that auditors, on many occasions, restrict the use of earnings management based on customers' *accruals* , in order to avoid violation of generally accepted accounting principles.

2.1.2 Earnings management by real activities

The manipulation of real activities is an intentional action to change the reported earnings in a given direction, which is achieved by changing the timeframe or structuring of a business, investment or financing operation. This form of management modifies the execution of a real transaction that takes place during the fiscal year and has commercial consequences below ideal (Zang, 2012).

In order to generate profits or reduce expenses on research and development, advertising and maintenance, most managers claim that they use the manipulation of real activities to achieve their goals, for example, postponing a new project to meet goals and gains, as reported by Zang (2012), Sawicki and Shrestha (2014) and Sohn (2016)..

Cohen and Zarowin (2010) and Gunny (2010) refer to the earnings manipulation by real activities such as the actions that managers take that deviate from commercial practices considered normal, mixing with ideal business decisions and making them difficult to detect by auditors when compared to manipulation by *accruals.*

2.2 Audit Committee and Board of Auditors

Since the initial recommendation of the *Cadbury* Committee in 1992, audit committees have been identified as a powerful source of improvement in corporate governance. The *Cadbury* Committee argued that the appropriate structure of audit committees has the potential to improve both the quality of financial reports and to ensure the independence of audit statutes (Ghafran & O'Sullivan, 2013).

Studies conducted by Silva, Rocha and Melo (2011) and Ghafran O'Sullivan (2013) highlighted that management control should be the responsibility of the senior management and that the audit committee should supervise the completeness and integrity of the audit report, and supervise other aspects related to the audit. They also add that audit committees are increasingly assuming the quality of companies' financial information.

In 2003, the Federal Accounting Council (CFC) approved the Brazilian Accounting Standard (NBC TI 01, 2017) of Internal Audit, which, among others, provides on the relation of internal audit and internal controls, making it understood that internal audit achieves the examinations and validations for the measurement of integrity, effectiveness and efficiency of information systems and integrated internal controls, as well as risk management, in order to assist the entity's administration to achieve its objectives.

According to Badolato et al. (2014), audit committees with financial expertise are associated with lower levels of performance management and improved accounting information quality. Dechow et al. (1996) report that firms with accounting errors are less likely to have audit committees and point out that these bodies play an important role in overseeing the financial reporting process. Baioco e Almeida (2017) state that the Board of Auditors present in the companies acts as a mechanism for monitoring the actions of the administrators, and also assume

that an inserted Board of Auditors independent of the interest of the shareholders adds to the company greater stimulus in the corporate governance system, raising the quality of accounting information.

Klein (2002) shows that there is a strong relation between the degree of independence of the boards and the level of performance management in companies. The research also concludes that independence should be monitored (for example, by the amounts of external members in the board) and that this ensures an improvement in the quality of accounting information, that is, lower earnings management.

Badolato et al. (2014) assessed whether the power to influence the decisions - the authors called this *status* - of the boards would have a greater influence on fraud and on the level of outcome management. The results show that the more effective the influencing participation of the boards (status) the less the amount of irregularities and also the earnings management.

Finally, Maia et al. (2005) stated that the internal control routine involves accounting and administrative procedures, and aims to coordinate the company so that employees assimilate and comply with the policies adopted by the administration.

Given the above, the importance of internal monitoring to the control of the earnings management is associated, building the following hypotheses:

H_1: The presence of the Audit Committee decreases the earnings management by discretionary *accruals*.

H_2: The presence of the Fiscal Committee decreases the earnings management by discretionary *accruals*.

H_3: The presence of the Audit Committee increases the earnings management by real activities.

H_4: The presence of the Fiscal Committee increases the earnings management by real activities.

3 RESEARCH METHODOLOGY

The methodology used for the study development was empirical, quantitative and descriptive research. The population for data analysis comprises the Brazilian publicly traded companies listed by B3 (Brasil, Bolsa,Balcão) and registered with the Securities and Exchange Commission (CVM) for the period from 2010 to 2017. Data on the companies' accounting and financial information were extracted from the Economatica® database and data on the committees' presence were obtained from the CVM website, through the information contained in the Reference Form, which became mandatory to securities issuing companies from 2010, through CVM Instruction number 480, of 12.07.2009. *Dummy* variables were used to differentiate the companies that present Audit Committee and Board of Auditors and ADRs issuing companies.

The calculation of the earnings results was based on the metrics used by Dechow and Dichev (2002), and Martinez (2013). Both models detect the earnings management, relying on their properties, among them the errors of estimates of working capital and cash flow, the reversals and operations related to sales, administrative and general expenses.

Dechow and Dichev (2002) developed a time series regression to derive practical measures of the quality of the working capital increase. According to the authors, this measure is based on the observation that *accruals* move or adjust the recognition of cash flows over time so that the final numbers (gains) better measure the company's performance, however, this practice requires an estimation of the future cash flow that can lead to error estimates, becoming a factor that reduces the quality of accounting information. The model was chosen because it proposes a refinement in relation to the other models of *discretionary accruals*, since it incorporates the reversions of the adjustments to minimize the effects of the possible errors of estimation; such model will be applied to detect management by *accruals*. Model of Dechow and Dichev (2002) is described by equation

1:

$$\Delta WCt = \beta_0 + \beta_1 * CFOt - 1 + \beta_2 * CFOt + \beta_3 * CFOt + 1 + \varepsilon t \ (1)$$

In Equation 1, ΔWC is the variation of the Working Capital and CFO is the cash flow of operations, being collected from the cash flow statement. The sample will be restricted to companies with full data for assets, profits, cash flows, change into accounts receivable and in stock (Dechow & Dichev, 2002).

The variation in working capital (ΔWC) in year t-1 to t is calculated as:

$$\Delta AR + \Delta Estoque - \Delta AP - \Delta TP + \Delta Outros\ Ativos\ (líquido)$$

Where ΔAR , according to the authors, variation of accounts receivable,ΔAP is the variation of the accounts payable, ΔTP is the variation of taxes payable and $\Delta Outros\ Ativos$ is the variation of other short-term operational assets. The model tests the variation of working capital in relation to cash flows, and the result other than zero will indicate the accrual-based management.

For detection of management by real activities, the model demonstrated in Martinez (2013) will be used.

In this model, logarithm is used to simplify the calculations, since numbers with several digits will be used, thus reducing high amplitude quantities to smaller values. At the end, the residue of the equation will be in the form of logarithm and it will be necessary to transform it (Martinez, 2013).

$$Log\left(\frac{SG\&A_t}{SG\&A_{t-1}}\right) = \alpha_1 + \alpha_2 Log\left(\frac{S_t}{S_{t-1}}\right) + \alpha_3 Log\left(\frac{S_t}{S_{t-1}}\right) xDS_t + \alpha_4 Log\left(\frac{S_{t-1}}{S_{t-2}}\right) + \alpha_5 Log\left(\frac{S_{t-1}}{S_{t-2}}\right) xDS_{t-1} + \varepsilon_t \ (2)$$

Being:

$SG\&A_t$= sales, general and administrative expenses, in year t;

S_t = net revenue, in year t;

DS_t = dummy variable indicates the performance of net revenue, being 1 when $S_t < S_{t-1}$,, and zero otherwise.

According to Martinez (2013), the coefficients α_1 and α_4 are expected to be positive, because the changes that occur in SG&A follow the changes in sales (S). The coefficient is expected α_3 to be negative, since SG&A tends to remain stable in the short-term period; on the other hand, it is believed that the coefficient α_5 is positive, representing long-term reversals of SG&A.

The equation residue corresponds to the abnormal level of the transaction (Ab_SGA), signaling that companies manipulate accounting information through operational decisions related to Sales, Administrative and General expenses. The equation residue is in logarithm format, so it is necessary to transform it, according to Martinez (2013):

$$Ab\_SGA = \left\{Exp\left[Log\left(\frac{SGA_t}{SGA_{t-1}}\right)\right] - Exp\left[Log\left(\frac{SGA_t}{SGA_{t-1}}\right) - Resíduo\ de\ Log\left(\frac{SGA_t}{SGA_{t-1}}\right)\right]\right\} SGA_{t-1} \ (3)$$

Martinez (2013, page 12) further explains that “this residue is multiplied by -1 and divided by the value of the total assets in the previous period (A_{t-1})”. According to the author, in theory, the higher the Ab_SGA, the greater the probability that the company is reducing sales, administrative and general expenses to increase profit, this means that companies with Ab_SGA positive are providing an income increasing and in contrast, a Ab_SGA negative indicates operational decisions to income decreasing.

In the study presented here, the models were tested both in companies with internal

monitoring (existence of the Audit Committee and Board of Auditors), and in companies without these internal monitoring instruments, for purposes of comparability on which types of management are being used by the analyzed sample, as well as on the possible relations between the management and the effectiveness of these controls. Both types of result management and the identification of companies with internal monitoring and without internal monitoring were incorporated into the models, using *a dummy* variable to flag this situation. Table 1 shows the variables that were used in this study.

The Audit Committee and Board of Auditors variables are informed in the Reference Form as an effective or non-effective audit committee and permanent or non-permanent Board of Auditors, these variables appear in the results tables subdivided into two types each.

Table 1
Variables and sources

Variables	Measurement	Data Source	Expectations	Literature
Dependent Variables				
$GRit$(GRA)	Result calculated from equation 1	Economática®	N/A	Dechow and Dichev (2002)
$GRit$ (GRR)	Result calculated from equation 2	Economática®	N/A	Anderson, Banker, Janakiraman By Martinez (2013)
Independent Variables				
CA (Audit Committee)	Dummy variable value 1 if it presents; 0 if it does not present	CVM Reference Form	- for GRA + for GRR	Baioco and Almeida (2017)
CF Board of Auditors.	Dummy variable value 1 if it presents; 0 if it does not present	CVM Reference Form	- for GRA + for GRR	Baioco and Almeida (2017)
Control Variables				
BFour (Big Four)	Dummy variable value 1 if it presents; 0 if it does not present	CVM Reference Form		Baioco and Almeida (2017)
ROA (Return on Asset)	Division of Operational Profit by Total Asset	Economática®		Zang (2012)
AOL (Net Operational Assets)	Result of PL – Cash – Negotiable Securities+ Total Debt	Economática®		Zang (2012)
P (Price per Share)	Division of Equity by the number of shares	Economática®		Baioco and Almeida (2017)
ADR (American Depositary Receipt)	Dummy variable value 1 if it presents; 0 if it does not present			Baioco and Almeida (2017)

Source: Elaborated by the authors.

The control variables added to the equations were selected based on the literature studied. Baioco e Almeida (2017) used BigFour (BFour), because the presence of audits of this standard may be a restriction to the earnings management. The return on assets (ROA) was applied by Zang (2012) to analyze whether the company's performance is being affected by possible earnings management. The net operating asset variable (AOL) was inserted in Zang's studies (2012) to test the *trade-off* the earnings management. The price per share (P) was considered an important variable by Baioco e Almeida (2017), since the profit and financial information disclosed may influence the share price in the financial market. The American *Depositary Receipt* (ADR) variable

was included as *a dummy* with the purpose of analyzing ADR issuing companies.

The ADRs control variable can be of three types: level 1, where the offer is made in the over- the- counter market and there are few requirements in the disclosure of the company's information. Whereas t levels 2 and 3, trading is done in stock exchange. With this, the company has the obligation to disclose its financial information in the form of the SEC (Securities and Exchange Commission), an agency that regulates the US stock market, equivalent to the Brazilian CVM. In both cases, the company is not obliged to enter shares in the market. At level 3, however, ADR can only be backed up on new shares. Due to these differences, the study was chosen by ADR type analysis.

Another important detail in the modeling is that the Audit Committee and Board of Auditors variables are informed in the Reference Form as an effective or non-effective audit committee and permanent or non-permanent Board of Auditors, and for that reason these variables appear in the results tables subdivided into two types each. Taking into account the status issue pointed out by Badolato et al. (2014), it was opted for calculating the earnings separately.

Below the estimated models:

$$GRA_{it} = \beta_0 + \beta_1 CF\_PERM_{it} + \beta_2 CF\_NPERM_{it} + \beta_3 BIG4_{it} + \beta_4 ROA_{it} + \beta_5 P_{it} + \beta_6 AOL_{it} + \beta_7 DummyADR_{it} + \beta_8 DummyANO_{it} + \varepsilon_{it} \quad (4)$$

$$GRR_{it} = \beta_0 + \beta_1 CF\_PERM_{it} + \beta_2 CF\_NPERM_{it} + \beta_3 BIG4_{it} + \beta_4 ROA_{it} + \beta_5 P_{it} + \beta_6 AOL_{it} + \beta_7 DummyADR_{it} + \beta_8 DummyANO_{it} + \varepsilon_{it} \quad (5)$$

$$GRA_{it} = \beta_0 + \beta_1 CA\_EFET_{it} + \beta_2 CA\_NEFET_{it} + \beta_3 BIG4_{it} + \beta_4 ROA_{it} + \beta_5 P_{it} + \beta_6 AOL_{it} + \beta_7 DummyADR_{it} + \beta_8 DummyANO_{it} + \varepsilon_{it} \quad (6)$$

$$GRR_{it} = \beta_0 + \beta_1 CA\_EFET_{it} + \beta_2 CA\_NEFET_{it} + \beta_3 BIG4_{it} + \beta_4 ROA_{it} + \beta_5 P_{it} + \beta_6 AOL_{it} + \beta_7 DummyADR_{it} + \beta_8 DummyANO_{it} + \varepsilon_{it} \quad (7)$$

4 RESULTS

4.1 Data analysis

Table 2 presents the descriptive statistics of the variables, referring to 570 observations representing 95 companies. Only companies that presented complete observations for the 6 years of analysis were maintained, and thus we had a balanced panel. Data winsorization was applied at 1% so that extreme values were close to the means. The independent variable Audit Committee (CA) is represented by the variables CA_EFETIVO and CA_NEFETIVO, as well as the variable Board of Auditors (CF) appears as CF_PERM and CF_NPERM.

Table 2
Descriptive Statistics

	Mean	Standard Deviation	Minimum	Maximum	Notes
GRA	243106	3592373	-1397237	3.57e+07	570
GRR	-0.0012	0.1922	-1.6584	1.0196	570
CF_PERM	0.0561	0.2304	0	1	570
CF_NPERM	0.0912	0.2882	0	1	570
CA_EFETIVO	0.0930	0.2907	0	1	570
CA_NEFETIVO	0.0000	0.0000	0	0	570

BIG4	0.7123	0.4531	0	1	570
ROA	0.0188	0.0888	-0.4471	0.2435	570
P	15.5268	18.8894	0.0745	165	570
AOL	14.5836	1.7982	7.8188	20.2873	570

Note. GRA=accrual-based earnings management; GRR= earnings management by real activities; CF_PERM=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CF_NPERM=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CA_EFETIVO=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CA_NEFETIVO= dummy variable that assumes value 1 if there is presence in the company and zero if there is not; BIG4=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; ROA=company's return on assets; P=company's share price; AOL=company's value of operating assets.
Source: Elaborated by the authors.

Table 3 shows the correlations among the variables. It is observed that the earnings show low correlation and most are not statistically significant.

Table 3
Correlations Table

	GRA	**GRR**	**CF_PE**	**CF_NPE**	**CA_EFE**	**CA_NEFE**	**BIG4**	**ROA**	**P**	**AOL**
GRA	1.0000									
GRR	- 0.0337	1.0000								
CF_PER	- 0.0207	0.0751	1.0000							
CF_NPER	- 0.0626	0.0231	- 0.0773	1.0000						
CA_EFET	- 0.0421	- 0.0580	0.2368*	0.1293*	1.0000					
CA_NEFE	-	-	-	-	-	-				
BIG4	0.1047	0.0139	-0.0470	- 0.1082*	0.0567	-	1.0000			
ROA	-0.0065	0.1473*	0.0119	-0.0507	- 0.0141	-	0.1075	1.0000		
P	0.0652	0.1158*	0.0765	-0.0963	0.0582	-	0.0690	0.3376*	1.0000	
AOL	0.5928*	0.0067	0.0709	- 0.0633	0.0855	-	0.2898*	0.1569*	0.1894*	1.000

Note. GRA=accrual-based earnings management; GRR= earnings management by real activities; CF_PERM=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CF_NPERM=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CA_EFETIVO=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; CA_NEFETIVO= dummy variable that assumes value 1 if there is presence in the company and zero if there is not; BIG4=dummy variable that assumes value 1 if there is presence in the company and zero if there is not; ROA=company's return on assets; P=company's share price; AOL=company's value of operating assets. Significance level: *** 1%; ** 5%; *10%.
Source: Elaborated by the authors.

Table 4 below shows the results of the estimated models. The models were estimated by the ordinary least squares method - OLS - with panel data, controlled by year *dummy* and ADR.

In parentheses, the standard deviations of the variables are presented; and the asterisks represent: *** statistically significant coefficient at the level of 1% significance, ** statistically significant coefficient at the level of 5% and * at the level of 10%.

The p-value of the variable CA_NEFETIVO was omitted in all the models, since the variable had zero value in all the observations, becoming insignificant for the results.

Table 4
Estimated Model Results

Panel A: Regression with panel data. Model estimated by MQO. Controlled by year *dummy* and ADR_1 and ADR_2_3. Robust errors controlled by the residues heteroscedasticity.
Model 4 has as dependent variable GRA and model 5, GRR.
* represents a statistically significant coefficient at 10% significance, ** at 5% and *** at 1%.

VARIABLE	Model 4	Model 5
CF_PERM	-613864***	0.0467
	(237095)	(0.0363)
CF_NPERM	-178099	0.0185
	(121492)	(0.0229)
BIG4	-161635	0.0022
	(112816)	(0.0160)
ROA	-1413777**	0.2605**
	(621456)	(0.1074)
P	1750963	0.0006**
	(2589068)	(0.0003)
AOL	611008***	0.0000
	(59984)	(0.0066)
2013	111961	-0.0835***
	(207174)	(0.0282)
2014	-14185	-0.0629***
	(211564)	(0.0245)
2015	-74221	-0.0691***
	(206527)	(0.0269)
2016	-18944	-0.0563**
	(212395)	(0.0260)
2017	41562	-0.0447*
	(221052)	(0.0250)
ADR_1	4022917***	-0.0376
	(570749)	(0.0345)
ADR_2_3	256054	-0.0075
	(269175)	(0.0430)
CONSTANT	-8980073***	0.0357
	(802786)	(0.0901)
Prob> F	0.0000	0.0000
R^2 Adjusted	0.6615	0.0620
NOTES	570	570

Panel B: Regression with panel data. Model estimated by MQO. Controlled by year *dummy* and ADR_1 and ADR_2_3. Robust errors controlled by the residues heteroscedasticity.
Model 6 has as dependent variable GRA and model 7, GRR.
* represents a statistically significant coefficient at 10% significance, ** at 5% and *** at 1%.

VARIABLE	Model 6	Model 7
CA_EFET	-491082***	-0.0535*
	(125750.2)	(0.0281)
BIG4	-115912.6	0.0001
	(109242)	(0.0159)
ROA	-1447774**	0.2387**
	(616717.5)	(0.1046)
P_U	3813631	0.0006**
	(2546213)	(0.0003)
AOL	611048.3***	0.0020

	(59653.4)	(0.0065)
2013	120821.8	-0.0870***
	(207990.1)	(0.0284)
2014	32988.5	-0.0716***
	(207374.5)	(0.0246)
2015	-29100.5	-0.0830***
	(199738.1)	(0.0261)
2016	25447.4	-0.0743***
	(201747.6)	(0.0252)
2017	73603.2	-0.0649***
	(213135)	(0.0247)
ADR_1	4001629***	-0.0481
	(572922)	(0.0338)
ADR_2_3	283020.3	-0.0076
	(251308.8)	(0.0431)
CONSTANT	-9050209***	0.0285
	(810790.6)	(0.0895)
Prob> F	0.0000	0.0000
R^2 Adjusted	0.6615	0.0655
NOTES	570	570

Source: Elaborated by the authors.

Based on Panel A, where model 4 has GRA as dependent variable and model 5 GRR, it can be observed that both models had the expected signal behavior according to hypotheses 2 and 4, which assess whether with the presence of the Board of Auditors the GRA decreases and the GRR increases respectively. However, only for model 7 the variable effective Board of Auditors was statistically significant at the level of 1% significance, confirming hypothesis 2. Hypothesis 4 was not confirmed.

In model 4, the variables ROA, AOL and ADR were statistically significant. The variables AOL and ADR presented positive coefficients, therefore, an increase in these variables tends to positively impact the accrual-based earnings management. The ROA variable was statistically significant at 1% and with a negative coefficient. The variable ADR_1 was statistically significant, presenting a positive coefficient, which demonstrates that ADR type 1 positively affects GRA.

For the model 5, the variables ROA and P were statistically significant and positive, thus an increase in these variables tends to increase the earnings management by real activities - GRR.

Analyzing the data from Panel B, it has been observed that, in both models, the CA_efetivo (Effective Audit Committee) negatively affects the earnings management, with 1% significance for model 6 and 10% significance for model 7. Thus, the presence of the effective audit committee negatively influences both the GRA and the GRR, fulfilling only hypothesis 1, which tests the reduction of the GRA when there is a presence of an audit committee and contrary to hypothesis 3.

For model 6, the variables ROA, AOL and ADR also showed statistically significant coefficients, and the ROA has a negative coefficient, that is, an increase of this variable interferes negatively in the GRA. The other two variables, AOL and ADR, act positively on GRA.

While for model 7 the variables ROA and Share Price were statistically significant, with 5% significance, presenting positive coefficients, that is, an increase in the variable positively affects the RGR. As occurred in model 5, also for model 7 the year *dummies* were statistically significant, but now all at 1% significance.

As for *dummies*, just as for models 4 and 5, only when the dependent variable is GRA the *ADR dummy* type 1 has a positive and statistically significant coefficient at 1%.

Thus, it can be concluded that the evidence supports hypotheses 1 and 2, which are related to the decrease in the discretionary accruals-based earnings in companies with the presence of audit committee and Board of Auditors. The results were divergent from what was expected for

hypotheses 3 and 4, that is, the presence of internal monitoring, such as audit committee and Board of Auditors, does not interfere in the earnings management by real activities, even in ADR issuers level 2 and 3.

The earnings with the ROA control variable are worth highlighting, for GRA the effect of ROA is negative, but for GRR it is positive. This can occur due to the differences between the types of management, the way each can affect the result, leading to understand that when the company presents a good management of the assets, generating positive returns, the need for accrual-based earnings decreases, but on the other hand, throughout the fiscal year, the positive return on assets can influence management strategies that characterize earnings management by real activities.

5 FINAL CONSIDERATIONS AND CONTRIBUTIONS OF THE STUDY

The objective of the research was to verify whether the presence of Audit Committee and Board of Auditors influence the *trade-off* of earnings management, analyzing, specifically, whether the presence of these agencies encourages a greater migration of accrual-based to real managements.

The results indicate that internal monitoring does not influence the *trade-off* of earnings management. However, it is observed that the presence of both types of monitoring, Audit Committee and Board of Auditors, lead to a decrease in the accrual-based earnings management (GRA).

As for the influence of internal monitoring on the earnings management by real activities (GRR), only the presence of the Audit Committee is significant, also leading to its decrease, since the presence of the Board of Auditors does not affect this type of management.

It is worth noting that the results showed that when companies are ADR issuers tend to increase the accrual-based management, which can be seen as a way to meet the investors' expectations. According to studies by Santos and Costa (2008), only adjustments in equity are relevant in Brazilian companies issuing ADRs traded on the New York Stock Exchange, adjustments made as a way to meet the US GAAP.

It can be concluded that the presence of the Audit Committee has a strong relation with management monitoring, preventing, even if partially, the earnings management. However, the decrease in the discretionary accrual-based earnings management does not cause the earnings management by real activities to increase, as expected. There is, therefore, no clear evidence that a *trade-off* of earnings management occurs in Brazilian companies listed on B3.

Cohen and Zarowin (2010) claim that it is evident that companies start *a trade-off* for fear of finding manipulation of earnings, through supervision, and possible punishment. In Brazil, however, it is observed that *the* practice of *trade-off* is not being used as a management option. However, it was found that companies with internal monitoring decrease the earnings management.

The number of companies with information available for analysis decreased the possible sampling and this ends up decreasing their power to generalize the earnings, in addition, despite efforts to separate the councils' degree of effectiveness and the degree of legal imposition related to ADR´s, status issues not mapped by the article can generate significant influences on the results.

It is recommended, for future research, to examine other ways of measuring internal monitoring and the level of governance of Brazilian companies taking into account aspects of status perception of boards or even the degree of perceived influence they may have.

REFERENCES

Badertscher, B. A. (2011). Overvaluation and the choice of alternative earnings management mechanisms. *The Accounting Review*, *86*(5), 1491-1518.

Badolato, P. G., Donelson, D. C., & Ege, M. (2014). Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics, 58*, 208-230.

Baioco, V. G., & Almeida, J. E. F. (2017) Efeitos do comitê de auditoria e do conselho fiscal na qualidade da informação contábil no Brasil. *Revista de Contabilidade Financeira – USP, 28*(74), 229-248.

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and Real Earnings Management Activities around Seasoned Equity Offerings. *Journal of Accounting and Economics, 50*(1), 2-19.

Comissão de Valores Mobiliários (2017). Instrução CVM 480. Recuperado em 23 agosto, 2017, de http://www.cvm.gov.br/legislacao/instrucoes/inst480.html

Commerford, B. P., Hatfield, R. C., & Houston, R. W. (2018). The Effect of Real Earnings Management on Auditor Scrutiny of Management's Other Financial Reporting Decisions. *The Accounting Review*, *93*(5), 145-163.

Dechow, P. M., & Dichev, I. D. (2002). The Quality of Accruals and Earnings: The e Role of Accrual Estimation Errors. *The Accounting Review*, *77*, 35-59.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Researc, 13*(1), 1-36.

Feng, M., Li, C., & McVay, S. (2009). Internal control and management guidance. *Journal of Accounting and Economics, 48*, 190-209.

Ghafran, C., & O'Sullivan, N. (2013). The Governance Role of Audit Committees: Reviewing a Decade of Evidence. *International Journal of Management Reviews*, *15*, 381-407.

Gunny, K. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research*, *27*(3), 855-888.

Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons, 13*(4), 365-383.

Huang, K., Lao, B., & McPhee, G. (2017). Does Stock Liquidity Affect Accrual-based Earnings Management? *Journal of Business Finance & Accounting, 44*, 417-447.

Instituto Brasileiro de Governança Corporativa (2017). CMPGPT. Recuperado em 22 agosto, 2017, de http://www.ibgc.org.br/index.php/publicacoes/codigo-das-melhores-praticas.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of accounting and economics, 33*(3), 375-400.

Maia, M. S., Silva, M. R. da., Dueñas, R., Almeida, P. P. de., Marcondes, S., & Ching, H. Y.

(2005) Contribuição do sistema de controle interno para a excelência corporativa. *Revista Universo Contábil*, *1*(1), 54-70.

Martinez, A. L. (2013). Earnings management in Brazil: a survey of the literature. *Brazilian Business Review*, *10*(4), 1-29.

Mendonça, M. M. de, Costa, F. M. da, Galdi, F. C., & Funchal, B. (2010). O impacto da Lei Sarbanes-Oxley (SOX) na qualidade do lucro das empresas brasileiras que emitiram ADRs. *Revista Contabilidade & Finanças*, *21*(52).

NBC TI 01 (2017). Recuperado em 14 agosto, 2021, de http://www1.cfc.org.br/sisweb/SRE/docs/RES_986.pdf

Pereira, A. C., & Nascimento, W. S. do. (2005) Um estudo sobre a atuação da Auditoria Interna na detecção de fraudes nas empresas do setor privado no Estado de São Paulo. *Revista Brasileira de Gestão de Negócios*, *19*.

Pinho, R. M. de, & Costa, F. M. da. (2008, setembro). Qualidade de Accruals e Persistência dos Lucros em Firmas Brasileiras Listadas na Bovespa. *Anais do Encontro Nacional da Associação Nacional de Pós-Graduação e Pesquisa em Administração*, Rio de Janeiro, RJ, Brasil, 32. Recuperado em 13 agosto, 2017, de http://www.fucape.br/_public/producao_cientifica/2/Rafaela%20Modolo%20-%20Qualidade.pdf

Rodrigues, R. M. R. C., Melo, C. L. L. de, & Paulo, E. (2019). Earnings Management and Quarterly Discretionary Accruals Level in the Brazilian Stock Market. *Brazilian Business Review*, *16*(3), 297-314.

Rodrigues, R. M. R. C., Paulo, E., & Melo, C. L. L. de. (2017). Gerenciamento de Resultados por Decisões Operacionais para Sustentar Desempenho nas Empresas Não-Financeiras do Ibovespa. *Revista Contabilidade Vista & Revista*, *28*(3), 82-102.

Santos, L. S. R. dos, & Costa, F. M. da. (2008). Conservadorismo contábil e timeliness: evidências empíricas nas demonstrações contábeis de empresas Brasileiras com ADRs negociados na bolsa de Nova Iorque. *Revista Contabilidade & Finanças*, *19*(48), 27-36.

Sawicki, J., & Shrestha, K. (2014). Misvaluation and Insider Trading Incentives for Accrual-based and Real Earnings Management. *Journal of Business Finance & Accounting*, *41*, 926-949.

Silva, W. A. C., Rocha, A. M., & Melo, A. A. O. (2011). Sistema de Gerenciamento e Controle Interno: uma Análise dos Escritórios de Contabilidade de Belo Horizonte/MG e Região Metropolitana a partir da Taxonomia de Kaplan e Cooper. *Revista de Contabilidade e Organizações*, *5*(11), 125-144.

Silvestre, A. O., Costa, C. M., & Kronbauer, C. A. (2018). Audit Rotation and Earnings Quality: An Analysis Using Discretionary Accruals. *Brazilian Business Review*, *15*(5), 410-426.

Sohn, B. C. (2016). The effect of accounting comparability on the accrual-based and real earnings management. *J. Account. PublicPolicy*.

Zang, A. Y. (2012). Evidence on the Trade-off between Real Activities Manipulation and Accrual-Based Earnings Management. *The Accounting Review*, *87*(2), 675-703.