v.10, n.4 Vitória-ES, Out.-Dez. 2013 p. 1 - 29 ISSN 1808-2386

DOI: http://dx.doi.org/10.15728/bbr.2013.10.4.1

# Earnings management in Brazil: a survey of the literature

# Antonio Lopo Martinez<sup>†</sup> Fucape Business School

## **ABSTRACT**

This article reviews the recent academic literature on earnings management (EM) in Brazil. The objective is to identify the main research themes addressed in the Brazilian context and the results of interest to users and preparers of financial statements. It is hoped that this study will also be useful to researchers considering investigating the theme of earnings management, by providing an overview of the main discussions and methods usually employed. As a topic for academic research, earnings management is diversified and extensive, although relatively recent. The majority of Brazilian studies have been published in the past ten years, with a significant increase in academic production more recently, making this an opportune moment to reflect on the state of the art, summarize the evolution of knowledge and propose future research avenues.

**Keywords:** Earnings management; discretionary accruals; earnings management by operational decisions; incentives.

Received 06/14/2013; reviews 10/21/2013; accepted 11/20/2013; published 12/13/2013.

#### \*Corresponding Author:

<sup>†</sup>. Post Doctoral Certificate in Accounting from the University of California at Berkeley **Institution:** Professor at Fucape Business School

Institution: Professor at Fucape Business School Address: Avenida Fernando Ferrari, 1258, Vitória –

ES – Brazil

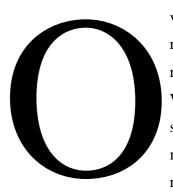
**E-mail**: antoniolopo@terra.com.br **Telephone**: (27) 4009-4444

Editor's Note: This article was accepted by Bruno Funchal and Fernando Caio Galdi



This article has a Creative Commons License - Attribution 3.0 Not Adapted.

#### 1 INTRODUCTION



ver the past decade there has been a significant global increase in academic research into the phenomenon of earnings management (EM). This line of research goes back to the seminal works of Schipper (1989) and Healy & Wahlen (1999), among others. However, the increase in the number of studies can partly be credited to the proposal of earnings management metrics (Jones, 1991; Dechow et al., 1995) and the growing concern of regulators triggered by the various accounting scandals around the world.

In Brazil this expansion of the earnings management literature has followed the international trend. Another impetus to this trend is the significant expansion in studies of a positive nature in accounting, in a sharp paradigm shift from the research at the start of the millennium, driven by the availability of more plentiful financial data on companies, as well as the exhaustion of the normative-deductive research model.

According to Baptista (2009), earnings management only started to receive substantial attention in the Brazilian academic literature in 2001 (the year of the first study in the country, the doctoral thesis of Martinez). The effervescence of the theme continues to the present, at Brazilian accounting congresses and in national periodicals.

The aim of this article is to survey Brazilian research on earnings management, to enable reflection on the evolution of the theme in the literature and to describe the current state of research by summarizing the main results. Besides a critical review of the main findings in the area, the article examines the potential extensions for future research. Under what circumstances can we really trust firms' accounting numbers? What is the diagnosis on the theme in Brazil?

The study in this article differs fundamentally from that of previous literature reviews of earnings management in Brazil, such as those of Avelar & Santos (2010), Rosa et al. (2010), Machado et al. (2011) and Machado & Beuren (2012), where the focus was on bibliometric study of the research conducted, by quantifying articles, authors and social networks.

For this survey, I sought to catalog with first priority the articles available in the Scientific Periodicals Electronic Library (SPELL®). This database contains some 50 articles, concentrated since 2008, covering earnings management in Brazil. Besides this source, I searched other databases for doctoral theses and master's dissertations on the theme of

earnings management. I also considered other sources, such as recent studies published the annals of congresses and other events.

Naturally it was not possible to reference all the intellectual production produced in Brazil, due to the dynamic nature of this output and the diversification of channels for research publication. Therefore, apologies are in order for oversights, which do not reflect any value judgment, but merely the pragmatic impossibility of including all studies. Brazil's academic production now numbers over 100 works, counting articles in periodicals, manuscripts presented at events and theses/dissertations by graduate students in accounting and business administration. The sample of works summarized here is thus a personal cross-section that inevitably reflects my particular interests.

The next part presents the concept of earnings management in light of the evolution of the literature. The third section discusses the nature of Brazilian research on the theme with respect to scientific methods employed, while the fourth part presents the most popular metrics used to measure earnings management. The fifth section is dedicated to differentiating the various incentives for earnings management and presents some consequences of this practice while the sixth section examines factors that minimize it. The seventh section summarizes the main implications of the literature for investors, preparers and regulators. Finally, the eighth part suggests some interesting avenues for future research on earnings management.

# 2 CONCEPT OF EARNINGS MANAGEMENT

Starting from the concept originally developed by Schipper (1989) and Healy & Wahlen (1999), the majority of academic studies define earnings management as occurring when administrators use judgments in the disclosure of information and structuring of transactions to modify the financial statements, be it to alter the perception of stakeholders about the firm's activities or to attain a particular result to satisfy contractual requirements linked to the accounting numbers disclosed.

With respect to the techniques of managing earnings, Martinez (2001) classifies three types: target earnings management, which occurs to increase or decrease earnings to meet established targets or expectations; income smoothing, which has the purpose of reducing the variability of earnings; and take a bath accounting, which is management to reduce the results for the purpose of increasing future results.

According to Martinez & Cardoso (2009), earnings management results from choices on accounting practices or operational decisions for the purpose of disclosing numbers that are different than would otherwise be the case.

This intervention in the accounting figures is important since the financial statements synthesize relevant information on the firm's performance, and earnings obviously play a central role in judging this performance, being used as a yardstick for various purposes.

In the Brazilian literature, following the international pattern, the definition of earnings management has evolved to incorporate not only accounting choices that affect the results reported in the financial statements, but also to include operational decisions, such as the timing of capital expenditures, spending on training programs or the setting of production levels (Martinez, 2011a; Santos et al., 2011; Rey, 2012; Cupertino, 2013).

According to the above conceptual framework, earnings management can be divided into two main categories: accruals earnings management (AEM) and operating (or real) earnings management (OEM). These categories have some fundamental differences, chief among them the impact on operating cash flow.

Since earnings can be decomposed into two elements – cash flow and accruals – managers can make choices that affect both of these to massage the reported earnings (Joosten, 2012). Operational decisions have a direct impact on the entity's cash flow while accruals only affect the timing of recognizing revenues and expenses.

According to Cupertino (2013), management by operating decisions (OEM) is undertaken during the year according to managers' perception of how the entity's activities will develop during the operational cycle. In turn, accruals earnings management (AEM) is carried out mainly at the end of the year (or other reporting period) with the publication of the financials. Managers evaluate the result from operations during the period and define the amounts to be recorded as accruals. Therefore, while operational decisions are an *ex ante* form of earnings management, decisions on accruals is considered an *ex post* form of manipulation.

The absolute majority of Brazilian studies have focused on earnings management by accruals (AEM), with the research on earnings management through operational decisions still being incipient.

In this respect, it is important to mention the international study of Graham, Harvey & Rajgopal (2005), since they suggest that research into earnings management should advance

to include decisions on the real activities, because of the growing popularity of this technique by administrators.

Another mode of managing earnings not studied in the Brazilian literature is that connected to choices on the presentation of the financial statements. According to Ronen & Yaari (2008), this variously involves the classification of an item above or below the operational results line; management of transparency (disclosure) in the presentation, through choices on highlighting an item in the statement or just in an explanatory note; and management of the informativeness of earnings by presentation of pro-forma statements. The lack of studies investigating these topics in the Brazilian literature represents an opportunity for groundbreaking research by the nation's scholars.

Based on the current state of the literature, earnings management can be defined as the practice of using discretionary accounting choices (on recognition and measurement), operational decisions and/or the selection of criteria for presentation of financial statements (disclosure), within the limits of accounting standards, to modify the earnings reported, for the purpose of influencing perceptions about the underlying economic facts.

This definition is broader than usually used in the Brazilian literature, by contemplating other options for managing earnings than those based on accounting choices. Another singular characteristic is not necessarily attributing a negative connotation to earnings management, because it can have positive effects in certain circumstances (Martinez & Castro, 2011b).

Finally, this definition does not mean earnings management is a form of **fraudulent** accounting, since it occurs within the flexibility allowed by accounting rules. However, the dividing line between permissible earnings management and outright fraud is very indistinct. Both earnings management and accounting fraud involve the intention to manipulate information, but since the concept of intention is itself hard to pin down, it should not be a criterion to distinguish the phenomena. The unquestionable fact is that this demarcation in practice has been rarely addressed (if at all) in the literature.

# 3 NATURE OF THE RESEARCH INTO EARNINGS MANAGEMENT IN BRAZIL

The academic research into earnings management in Brazil from the outset has been and continues to be dominated by methods based on statistical models. Starting from data collected in public and private databases, the authors have overwhelmingly applied positive methodologies. Among these databases, Economatica stands out as the main source of

information, supported by data posted at the website of the Brazilian Securities Commission (CVM) and from specialized yearbooks and periodicals.

Studies based on statistical models typically treat earnings management by analyzing large samples of observations, and draw conclusions identifying which companies have shown greater or lesser propensity to manage their earnings.

Hera a caveat is in order: although statistical models are valuable tools to build knowledge, they are only means to facilitate understanding of phenomena, and are accessory when comparing the research questions proposed for resolution. Positive studies in accounting have been criticized for placing excessive stress on the empirical approach, and for having little concern for critical and philosophical analysis and reflection on the findings (Martins, 2012).

An alternative research method, practically ignored by the national literature on earnings management, is the case study. The exception in this respect is the work by Cupertino (2006), which focuses specifically on earnings management by one of Brazil's largest financial institutions in the 1990s: Banco Nacional S.A. (BNSA).

The use of interviews or questionnaires is also a neglected research method where important advances could be made. Very few such surveys have been conducted. Two exceptions are De Souza & Castro Neto (2008), who conducted interviews with independent auditors to verify their perception of earnings management, and the qualitative study of Leite (2012), who by conducting interviews with auditors and applying content analysis with the NVIVO software indicated possible factors differentiating the work of the Big Four audit firms, allowing them to be more efficient in mitigating earnings management.

Another segment of the Brazilian literature is bibliometric studies to quantify scientific production. In this field, the works of Baptista (2009a), Avelar & Santos (2010), Rosa et al. (2010), Machado et al. (2011) and Machado & Beuren (2012) can be mentioned.

Because nearly all the articles published in Brazil on the subject are empirical studies structured from databases, there is room for analytic studies and articles reporting laboratory and experimental studies. Research growth in the area also could come through the application of new methodologies, especially those involving multi-methods.

The above comments do not mean exhaustion of research possibilities based on empirical data, because the amount of data available is growing rapidly, spurred by the creation of new databases and the greater transparency from the adoption of international accounting standards.

The evolution of research naturally reflects the technical knowledge of the researchers. It is salutary to report growing employment of more robust econometric techniques, based on better skills in applying refinements in the econometric arsenal. The strong growth of master's and doctoral programs in accounting, with quantitative chairs in Brazil, partly explains this fact. However, these programs should also stimulate disciplines and knowledge that allow expanded use of qualitative and multicriteria methods.

## 4 METRICS TO DETECT EARNINGS MANAGEMENT

#### 4.1 MODELS TO DETECT DISCRETIONARY ACCRUALS

The majority of Brazilian empirical studies use detection models based on discretionary accruals. These studies start by estimating a model to explain the level of normal accruals. In other words, they try to produce an estimate of what a firm's accruals should be under normal conditions, if accruals were not used to manage earnings. The hypothetical model of accrual level is referred to as the normal or nondiscretionary accruals model.

In Brazilian studies, total accruals are calculated by the difference between net income and operating cash flow. In the absence of a cash flow statement, the accruals have to be estimated by examining the balance sheet. Since publication of a cash flow statement only became mandatory in Brazil with the enactment of Law 11,638/2007, the majority of studies have estimated accruals by focusing on the balance sheet. It is probable that this focus will continue to be applied for some time due to the need for longer samples to assure the robustness of the results.

The specification of total accruals (TA<sub>it</sub>) by the balance sheet focus is given by:

$$TA_{it} = \left[ (\Delta CA_{it} - \Delta CCE_{it}) - (\Delta CL_{it} - \Delta Debt_{it}) - Depr_{it} \right] / A_{it-1}$$
 (1)

Where  $\Delta CA_{it}$  = variation of current assets of firm i from the end of period t-1 to the end of period t;  $\Delta CCE_{it}$  = variation of cash and cash equivalents of firm i from the end of period t-1 to the end of period t;  $\Delta CL_{it}$  = variation of current liabilities of firm i from the end of period t-1 to the end of period t;  $\Delta Div_{it}$  = variation of short-term debt of firm i from the end of period t-1 to the end of period t;  $\Delta Div_{it}$  = amount of expenses for depreciation (and amortization) of firm i during period t., $A_{it-1}$  = total assets of firm i in period t-1.

Possible variations on this equation mainly entail the inclusion of amortizations. In turn, other models concentrate only on current accruals, to the exclusion of long-term accruals (Ferreira et al., 2011).

In Brazil the modified Jones model and KS model are the most popular to detect earnings management by accruals, with no detectable preference between the two. Some authors even apply both methods. However, there are a few works that have proposed the use of alternative methods to overcome the weaknesses of the above models.

The modified Jones model seeks to measure the total discretionary accruals (current and long-term) using the following variables, as described by Dechow, Sloan & Sweeney (1995):

$$NDA_{it} = \alpha_{i}[1/A_{it-1}] + \beta 1_{i}[\Delta REV_{it} - \Delta REC_{it}] + \beta 2_{i}[PPE_{it}] + \varepsilon_{it}, \qquad (2)$$

Where  $NDA_{it}$  = nondiscretionary accruals of firm i in year t;  $\Delta REV_{it}$  = variation of gross revenue of firm i between years t and t-1, scaled by total assets at the end of year t-1;  $\Delta REC_{it}$  = variation of accounts receivable firm i between years t and t-1, scaled by total assets at the end of year t-1;  $PPE_{it}$  = property, plant and equipment (and intangibles) of firm i in year t, scaled by total assets at the end of year t-1;  $A_{it-1}$  = total assets of firm i in year t-1;  $\varepsilon_{it}$  = residual of the regression for firm i in year t.

The estimates of the parameters of Equation 2,  $\alpha_i$ ,  $\beta_{1i}$  and  $\beta_{2i}$ , are generated by the following model:

$$TA_{it}/A_{it-1} = \alpha_{i}[1/A_{it-1}] + \beta_{1i}[\Delta REV_{it}] + \beta_{2i}[PPE_{it}] + \varepsilon_{it}$$
(3)

By construction, discretionary accruals (DA) are calculated by subtracting nondiscretionary accruals (NDA) from total accruals (TA).

Most Brazilian authors recognize that this model can be biased and even can suffer from specification errors, but they use it in general because the use of more complete models can only generate small increments in informative power.

Paulo (2007), in the most complete Brazilian review of operational models to detect earnings management, pointed out among other aspects that the modified Jones model presents various problems: a) the model does not adequately control for changes caused by economic conditions, having a problem of simultaneity; b) the model assumes that all the variations in financed sales are evidence of earnings management; c) the model does not control for discretionary accruals related to costs and expenses, because these are not perfectly correlated with revenues and expenses, and d) the residuals can be serially correlated, due to the self-reversing property of accruals.

The KS model, developed by Kang & Sivaramakrishnan (1995), seeks to deal with the question of simultaneity, measurement errors in the variables and omission of variables, all of which can reduce the statistical power and lead to erroneous inferences regarding earnings management (Martinez, 2008).

Despite the apparent technical superiority of this model, Brazilian studies that apply it suffer from a significant loss of data, since its estimation requires the use of instrumental variables, which restricts the observations to a greater generalization in the Brazilian context. The model employs the following formula:

$$TA_{it} = \varphi_0 + \varphi_1 \times \left[\delta_1 x R E V_{it}\right] + \varphi_2 \times \left[\delta_2 x E X P_{it}\right] + \varphi_3 \times \left[\delta_3 x P P E_{it}\right] + \varepsilon_{it} \tag{4}$$

Where  $EXP_{it}$  = operating costs and expenses before depreciation and amortization;  $\delta_1$  =  $AR_{i,t-1}/REV_{it}$ ,  $\delta_2$  =  $(NWC - AR_{i,t-1})/EXP_{i,t-1}$  and  $\delta_3$  =  $DEP_{i,t-1}/PPE_{i,t-1}$ ; NWC = net working capital (excluding cash and cash equivalents and short-term financing);  $AR_{i,t-1}$  = accounts receivable in period t-1;  $DEP_{it}$  = expenses from depreciation and amortization in period t; and  $TA_{it}$ ,  $REV_{it}$ ,  $EXP_{it}$  and  $PPE_{it}$  are all scaled by total assets in period t-1 ( $A_{t-1}$ ).

The discretionary accruals (DA) are computed as the residual of Equation 4, in the following terms:

$$DA_{it} = TA_{it} - \left\{ -\varphi_0 + \varphi_1 \times \left[ \delta_1 x REV_{it} \right] + \varphi_2 \times \left[ \delta_2 x EXP_{it} \right] + \varphi_3 \times \left[ \delta_3 x PPE_{it} \right] \right\}$$
 (5)

The KS model is not free of criticisms, as noted by Paulo (2007), who mentions it has problems of use of variables that can be contaminated by earnings management, serially correlated residuals and lack of control for economic performance. Furthermore the KS model cannot assure that the instrumental variables used are always correlated with the explanatory variables and not correlated with the random errors.

As possible improvements in the models, the paper by Kothari et al. (2005) stands out. They propose an adjusted model based on the traditional Jones model, suggesting a compared analysis of accruals with performance, controlling the calculation of discretionary accruals with firms in a single group and comparison with performance This can be a solution also applied in the Brazilian literature. Another improvement recognized specifically in Brazil, according to Almeida et al. (2009), is control for strategic groups and sectors.

Challenging researchers, these models do not manage to deal with the problem of the inevitable reversal of accruals, which hampers interpretation of the results. As a possible

solution, Dechow et al. (2012) can be mentioned, for proposing a refinement of the discretionary accruals model by incorporating this aspect.

Brazilian research seems to be in a stationary state regarding discretionary accruals models. Despite the pertinent criticisms of Paulo (2007), most researchers have not used more refined models to estimate discretionary accruals, instead sticking with the modified Jones and KS models, except for efforts for adjustment by performance, sectors and analysis of panel data. The same trend can be found in the international literature, because since 2005 the literature has converged more to models oriented to earnings management by operational decisions.

Nevertheless, the discretionary accruals models, despite their failings, are a pragmatic way to comparatively separate companies that manage earnings more and less. And in any event, discretionary accruals should be interpreted in context. By this metric, all firms manage earnings at a determined moment, but this is misleading or even irrelevant. What is most important is to verify from the metric which firms manage earnings more or less. In comparative analysis, the proxies for discretionary accruals can offer important information to evaluate circumstances and contingencies in which users can trust the accounting numbers disclosed more or less.

# 4.2 MODELS TO DETECT EARNINGS MANAGEMENT BY OPERATIONAL DECISIONS

Starting with the work of Graham, Harvey & Rajgopal (2005), there has been growing interest in models to identify earnings management by operational decisions. According to Roychowdhury (2006), study of the use of decisions on real activities to manipulate results can shed valuable light on earnings management. Among the aspects studied is the relationship between accounting choices and the use of operational decisions as alternative earnings management strategies. This has become a recurring subject in the literature, as noted by Machado (2012).

In Brazil, the first articles to use the model considering operational decisions were Martinez & Cardoso (2009) and Martinez (2011a), using the same models proposed by Roychowdhury (2006) and Gummy (2010). Particularly useful in this respect is the model developed by Anderson, Banker & Janakiraman (as cited in Martinez, 2011a):

$$Log\left(\frac{SG & A_{t}}{SG & A_{t}}\right) = \alpha_{1} + \alpha_{2} Log\left(\frac{S_{t}}{S_{t-1}}\right) + \alpha_{3} Log\left(\frac{S_{t}}{S_{t-1}}\right) xDS_{t} + \alpha_{4} Log\left(\frac{S_{t-1}}{S_{t-2}}\right) + \alpha_{5} Log\left(\frac{S_{t-1}}{S_{t-2}}\right) xDS_{t} + \varepsilon$$

$$\alpha_{5} Log\left(\frac{S_{t-1}}{S_{t-2}}\right) xDS_{t-1} + \varepsilon$$

$$(6)$$

Where:  $SG\&A_t =$  selling, general and administrative expenses in year t;  $S_t =$  net revenue in year t;  $DS_t =$  a dummy variable that indicates the behavior of net revenue, equal to 1 when  $S_t < S_{t-1}$ , and zero otherwise.

The coefficients  $\alpha_2$  and  $\alpha_4$  are expected to be positive, because changes in SG&A normally accompany the behavior of sales (S). In turn, the coefficient  $\alpha_3$  is expected to be negative, because SG&A tend to remain constant in the short run, Finally, the coefficient  $\alpha_5$  is expected to be positive, reflecting the reversals of SG&A over the long run.

The residual of Equation (6) represents the level of abnormal transactions (Ab\_SGA), indicating that the firm manipulates the accounting results by operational decisions related to selling, general and administrative expenses. The residual of Equation (6) is in log form, so it is necessary to transform it as follows:

$$Ab\_SGA = \{Exp[Log(SGA_t/SGA_{t-1})] - Exp[Log(SGA_t/SGA_{t-1}) - residual \ of \ Log(SGA_t/SGA_{t-1})]\} \ SGA_{t-1} \eqno(7)$$

This residual is multiplied by -1 and divided by the value of total assets in the previous period  $(A_{t-1})$ . Technically speaking, the higher Ab\_SGA is, the higher the probability will be that the firms is reducing its selling, general and administrative expenses to boost earnings. In other words, companies with positive Ab\_SGA are engaging management to increase their income while those with negative Ab\_SGA are decreasing it.

Another model, used by Roychowdhury (2006), is the following:

$$\frac{\Pr{od_{t}}}{A_{t-1}} = \alpha_{1} \frac{1}{A_{t-1}} + \alpha_{2} \frac{S_{t}}{A_{t-1}} + \alpha_{3} \frac{\Delta S_{t}}{A_{t-1}} + \alpha_{4} \frac{\Delta S_{t-1}}{A_{t-1}} + \varepsilon_{4}$$
(8)

Where:  $Prod_t = COGS_t + \Delta Inventories_t$ ;  $S_t = net$  revenue in year t;  $\Delta S_t = S_t - S_{t-1}$ , with Prod. = production costs and COGS denoting the cost of goods sold.

In this model, all the coefficients are expected to be positive, since the higher sales are, the greater the production costs will be. The residual of Equation (8) represents the abnormal level of production (Ab\_Prod), indicating firms that manipulate accounting information by operational decisions related to the level of production. An abnormal increase in production

will reduce unit production costs, given that fixed costs are distributed over a greater quantity of units. If the reduction in the fixed cost per unit is not outweighed by the added marginal cost per unit, the total cost per unit will fall. This situation leads to a lower production cost, with a positive effect on the accounting profit in the period.

A positive Ab\_Prod indicates a greater probability that the firm is engaging in earnings management to increase income, while a negative Ab\_Prod suggests the objective is to decrease income.

Although this topic is still incipient in the Brazilian literature, mention can be made of some recent doctoral theses addressing earnings management by operational decisions. Machado (2012) studied the relationship of earnings management with executive compensation. In turn, Cupertino (2013) focused on, among other points, the perception of investors regarding the effects of this type of manipulation, as well as the relationship between earnings management strategies and their determining costs and the impact on firms' future performance. Mention should also be made of the works of Santos et al. (2011) and Rey (2011), who incorporated operational decisions in their earnings management models.

# 4.3 OTHER METRICS USED IN THE LITERATURE

## 4.3.1 Frequency distribution approach

Another alternative to investigate the existence of earnings management is to study the frequency distribution of profits and losses. This approach in general lines seeks to examine the cross-sectional statistical properties of this distribution in the accounting results.

One of the big advantages of this method is that it allows identification of earnings management without incurring measurement errors and misspecification, as in discretionary accruals models. However, a simple discontinuity does not demonstrate the true reason for its origin, thus not allowing segregation of companies according to their earnings management practices. In practice, all firms in a determined earnings range are suspect.

This approach has been used by Martinez (2001), Cardoso (2005), Cupertino & Martinez (2007), Paulo, Martins & Corrar (2007) and Ferreira et al. (2012). Formigoni et al. (2012), among others. It is characterized by graphical presentation of frequency distributions of earnings realizations. Evidence of this nature can be valuable as an instrument to support investigations in the area.

# 4.3.2 Specific accrual accounts

Some authors try to detect earnings management by the use of specific accruals, often associated with particular circumstances or specific economic sectors or industries that have their own accounting standards.

In Brazil various studies have been published focusing on specific accrual accounts, such as provisions for bad debts, depreciation expense and provision for deferred tax credits. Among these works are those of Martinez (2006), Santos & Paulo (2006), Rodigues (2007) and Santos, Machado & Scarpin (2012).

The financial sector is particularly noteworthy regarding the use of models to detect earnings management through use of specific accruals. Among these are the articles by Fuji (2004), Zendersky (2005), Xavier (2007) and Goulart (2008).

Gabriel & Corrar (2009) studied in detail the securities trading accounts of Brazilian financial institutions, finding frequent use of discretionary marking-to-market criteria as a way manage earnings. Dantas et al. (2013a) presented evidence that the valuation of derivative instruments is also used to manage earnings, while Dantas et al. (2013b) found that banks also use provisions for bad debts for the same purpose.

Among the advantages of this methodology is the fact that investigators can develop a particular intuition about the key factors that influence the behavior regarding the specific accrual element. The problem is that managers can use their discretionarity to make accounting choices with other accruals, which can weaken the generalization of the result.

The technique is mainly valid when there are few opportunities to manipulate the accounting result by other means, but if these exist, the pertinence of the test is questionable. In short, the full functioning of this approach requires a situation were the firm or industry under investigation has a particularly relevant accrual category, with few alternatives to manage earnings.

## 4.3.3 Indicators of income smoothing

The methods applied by Brazilian researchers to measure income smoothing are based on the model of coefficients of variation proposed by Eckel (1981) and by the models of Leuz, Nanda & Wisocky (2003).

According to the model of Eckel (1981), if net income is a linear function of sales, the unitary cost variable remains constant in time, fixed costs do not decline and gross sales cannot be analyzed artificially, then the coefficient of variation of the fluctuations in sales is

less than the coefficient of variation of oscillations in net income. If this does not hold, i.e., if the variability of the oscillations in net income is lower than the coefficient of variation of sales, it is an indication of income smoothing:

$$CV\Delta\%NetIncome \le CV\Delta\%Sales \Rightarrow Smoothing$$
 (9)

Where  $\Delta$ % NetIncome = the annual variation of net income; and  $\Delta$ % Sales = the annual variation of sales, with

$$CV(x) = \sigma(x) / \mu(x) \tag{10}$$

Where; CV(x) = coefficient of variation of the random variable;  $\mu$  (x) = mean of the random variable;  $\sigma$  (x) = standard deviation of the random variable.

$$IA_{l} = \frac{CV\Delta\%NetIncome}{CV\Delta\%Sales}$$
(11)

Besides these metrics to empirically measure income smoothing, Leuz, Nanda & Wisocky (2003) also applied another metric, the quotient of the standard deviation of operating income over the standard deviation of operating cash flow. The scaling by operating cash flow acts as a general control of the difference of variability of economic performance.

$$IA_{2} = \frac{\sigma (Operating \_Income_{it})}{\sigma (Operating \_CashFlow_{it})}$$
(12)

These metrics are useful to identify the presence of income smoothing, but just because income smoothing is found to be present does not automatically mean the existence of earnings management, because such smoothing can be natural to the business activity. In Brazil, these metrics have been used by Lopes, Tukamoto & Galdi (2007) and Martinez & Castro (2011a), among others.

# 4.3.4 Other possible models

DeFond & Park (2001) define abnormal working capital accruals (AWCA) with the following formula:

$$AWCA_{t} = WC_{t} - [(WC_{(t-1)} / S_{(t-1)}) * St]$$
(13)

Where: AWCAt = abnormal working capital accruals in year t (abnormal accruals of working capital in the year); WCt = non-cash working capital in year t; WC<sub>(t-1)</sub> = non-cash working capital in year t-1;  $S_t$  = sales revenue in year t; e  $S_{(t-1)}$  = sales revenue in year t-1.

The empirical analysis of earnings management in this model focuses on the abnormal value of current accruals. This model has been used in the international and Brazilian

literature as a proxy for earnings management. Martinez & Reis (2010) and Ferreira et al. (2011) have used this model in their studies.

More recently, international researchers have proposed a new proxy model for earnings management. In this respect, Stubbem (2010) advocates the application of a simple model to reveal the existence of earnings management:

$$\Delta A R_{it} = \alpha_{i} + \beta_{1i} \Delta R I \quad \beta_{it} + \beta_{2i} \Delta R A_{it} + \varepsilon_{it}$$
 (14)

Where AR = accounts receivable,  $R1_3$ <sub>it</sub> = revenue in the first three quarters; and R4it = revenue in the fourth quarter.

In the above study, the author indicated, surprisingly in light of other findings, that models based on revenues are less biased. This appears to be a promising model due to its simplicity, even though it is evidently unable to detect earnings management with transactions that involve expenses. It also would not be suitable for companies whose sales are concentrated in the last quarter.

#### 5 INCENTIVES FOR EARNINGS MANAGEMENT

Walker (2013), in analyzing the international literature on earnings management, identified three sets of incentives to use discretionary accounting choices to manage earnings:

- 1) To satisfy **contractual terms** or **targets related to financial reports**.
- 2) To influence **investors and/or financial intermediaries** in forming expectations on cash flows and/or risk perception.
- 3) To provide a set of **information to outside parties** that are interested in identifying the financial health of the firm, particularly current and potential rivals, customers, suppliers, employees, regulators, tax authorities and political groups.

The discussion below reviews some of the findings of Brazilian researchers regarding these categories of incentives.

# 5.1 INCENTIVES FROM CONTRACTUAL TERMS AND TARGETS RELATED TO FINANCIAL REPORTS

Among the contractual motivations investigated in the literature is the concern of executives with maximizing their compensation under the employment contract. Santana (2008) examined the relationship between executive compensation and earnings management in a sample of Latin American companies with ADRs in the period from 2002 to 2006, using the KS model. The results pointed to a greater level of earnings management in companies that pay variable remuneration to their executives. Vassoler (2010) repeated the same study,

in the period from 2002 to 2008, using the modified Jones model and found the same result. These two findings provide strong evidence that executive pay has an influence on the propensity to engage in earnings management by accounting choices.

Machado (2012), in her doctoral thesis, investigated earnings management both by accounting choices and operational decisions and found an influence of compensation policies on the level of earnings management by means of real activities and discretionary accruals, and that the age and expertise of executives influences this relationship, along with the segment, performance and size of the firm.

The obligation to satisfy debt covenants is also a motivation for earnings management. The studies by Silva (2008) and Silva & Lopes (2009) analyzed detailed information on covenants in loan contracts and how they influence accounting choices, concluding that managers of Brazilian companies, when obtaining long-term financing, do not make changes in voluntary accounting practices with the aim of not violating covenants. Possible explanations for this unexpected result are that such violation does not have a high cost in the Brazilian context and is already minimized by the monitoring of regulators.

Nevertheless, leverage per se is not typically seen in the Brazilian market as a factor that promotes earnings management. In this respect, mention can be made of the articles of Coelho & Lopes (2007) and Ardison, Martinez & Galdi (2011), whose findings indicate that the degree of leverage does not necessarily motivate firms to manage their accounting results.

# 5.2 CAPITAL MARKET INCENTIVES

A significant part of the earnings management literature supports the idea that managers decide to manipulate earnings to influence the perception of capital market players on the securities issued by firms, by either increasing or decreasing earnings according to the specific underlying interests. Other authors have found that managers manipulate earnings to smooth income so as to reduce the volatility of securities prices.

Among the evidence documented in the literature, the following motivations for earnings management in the Brazilian market have been found:

- i) To obtain funding by issuing bonds (Martinez & Faria, 2007);
- ii) To avoid losses and sustain recent results (Martinez, 2008);
- iii) To manage expectations by disclosing information to the market in line with anticipations (Paulo & Leme, 2009);
- iv) To raise the risk rating (Martinez & Castro, 2011);

- v) To sustain capital market expectations by maintaining a high market-to-book ratio (Almeida, Lopes & Corrar, 2011);
- vi) To enhance the chances of a successful public share offering (Rodrigues, 2013); and
- vii) To improve the conditions for majority shareholders to take the company private (Souza et al., 2013).

It is important to mention that in average terms there do not appear to be significant differences in the propensity to manage earnings between public and private Brazilian companies. At least this was the conclusion reached by Coelho & Lima (2009), who did not identify significant differences between the discretionary accruals of listed and unlisted corporations.

The incentives due to the perception of capital market participants are multiple and simultaneous. Therefore, it is reasonable to assume that various incentives can coexist, making it hard to measure them individually and to formulate hypotheses. In this respect, particular mention can be made of the study by Mâcedo (2012), who included various incentives in the analysis and tried to discern their interplay in the Brazilian capital market.

#### 5.3 INCENTIVES FROM EXTERNAL PARTIES

Besides incentives from contractual relationships and the capital market, other stakeholders (external parties) also are influenced by the accounting results. In this line of research are studies that have investigated the motivations to manage earnings to influence the perceptions of competitors, customers, employees and government entities.

Among government entities, the tax authorities stand out, because of the possibility of using accounting choices regarding deferrals to manage earnings and the effect that earnings management can have on the tax liability in a particular period. Among the works that have addressed the former aspect are Oliveira, Almeida & Leme (2008), who, based on case studies, found the use of deferred tax assets as an earnings management mechanism. On the other hand, Paulo, Martins & Corrar (2009) reported they could not significantly enhance the detection of earnings management with the inclusion of tax deferrals in their model. In turn, Formigoni et al. (2012) studied the incentives to manage earnings to reduce the tax burden, and Formigoni, Antunes & Paulo (2009) and Ferreira et al. (2012) correlated the differences between accounting income and taxable income (book-tax differences) with earnings management. Finally, Rezende & Nakao (2012) found a negative relation between taxable income and earnings management.

There is a relative shortage of Brazilian studies of the incentive from external parties, except from the tax angle. Thus, there is a fertile field for research. Do profit sharing programs influence the propensity to manage earnings? Does the desire to influence the opinions of rivals, customers and suppliers encourage earnings management?

# 5.4 CONSEQUENCES OF EARNINGS MANAGEMENT

What is the effect of earnings management for Brazilian firms that practice it? According to Martinez (2001), in the long run firms that manage earnings present negative abnormal returns, while according to Nardi et al. (2009) and Nardi & Nakao (2009), earnings management causes an increase in the cost of debt capital.

Martinez & Castro (2011b) found that income smoothing has a positive effect on systematic risk, reducing it by favoring the achievement of positive abnormal returns. Additionally, according to Martinez & Castro (2011a), income smoothing has a positive impact on firms' risk ratings. Further on the topic of income smoothing, Almeida et al. (2012) concluded that the greater the smoothing of income is, the lower will be the future possibility of timely recognition of economic losses. Finally, Castro & Martinez (2009) indicated that income smoothing affects the cost of debt capital and hence the capital structure of companies.

#### 6 FATORS THAT INHIBIT EARNINGS MANAGEMENT

## 6.1 AUDITORS

According to Almeida & Almeida (2009), companies audited by one of the Big Four are less likely to manage earnings. Martinez (2011a) also found that the presence of the Big Four reduced the propensity for earnings management by accounting choices, but did not have an impact on this practice by operational decisions.

Martinez & Reis (2010) studied the effects of auditor rotation and found no significant differences in earnings management in the period from 1997 to 2007. In same sense, Silva & Bezerra (2010) concluded that changing the auditor does not influence earnings management, using the KS model in the period from 2000 to 2008. The findings of Azevedo & Costa (2012) were similar, that rotation does not reduce earnings management.

## 6.2 CORPORATE GOVERNANCE

Another aspect is the effect on earnings management of listing on trading segments that require enhanced corporate governance practices. Ramos & Martinez (2006) found that firms listed in the Novo Mercado and Levels 1 and 2 segments of the BMF&Bovespa, all of which

require stricter governance standards, present lesser variability in discretionary accruals compared to similar firms listed in the regular trading segment. Martinez (2011a) indicated that listing in one of these special governance segments reduces the employment of earnings management by accounting choices, but not by operational decisions.

Santos, Verhagem & Bezerra (2011) found evidence that more stringent corporate governance counteracts earnings management. However, Erfuth & Bezerra (2013), using data from more recent years, concluded that no differences exist regarding earnings management according to market listing segments. Because of these discrepant findings, new research should be undertaken to obtain a more definitive response to this interesting question.

## 6.3 OTHER MITIGATING FACTORS

# - Regulation

Rodrigues (2008) performed a comprehensive study to observe the effect of regulation on the propensity to manage earnings, finding that firms in regulated sectors tend to do this less. Silva, Galdi & Teixeira (2009) studied the effect of regulation and presidential elections on the earnings management of companies. More particularly, they studied firms more and less subject to regulation in the three-year periods bracketing presidential election years and in periods before and after the creation of regulatory agencies, and found greater earnings management in both periods around elections and of creation of regulatory agencies.

## - Market Analysts

Martinez (2011b) observed that more intense coverage by analysts reduces the propensity to manage earnings.

# - Rating Agencies

Vasconcelos et al. (2008) analyzed the effect of coverage by rating agencies on earnings management. The results suggested no relationship between this coverage and the propensity to manage earnings.

# - Disclosure

Murcia & Wuerge (2011) evidenced that with greater disclosure requirements in the economic dimension, there is less propensity to manage earnings, but that greater socioenvironmental disclosure has a positive relation with earnings management.

## 6.4 EFFECTS OF IFRS ADOPTION ON EARNINGS MANAGEMENT

Baptista (2009b) warned of the risks brought by international accounting standards to Brazilian accounting, since although this increases transparency, the new standards still provide various opportunities for earnings management. According to Joia (2012), the evidence does not suggest a fall in earnings management with the introduction of IFRS in Brazil. On the other hand, Klann (2011) found there was an increase in earnings management in Brazil after the adoption of IFRS, unlike in England, where earnings management diminished after convergence.

Cupertino (2013) observed that the adoption of IFRS triggered a shift from earnings management by discretionary accruals to manipulation by operational decisions. In summary, there was an increase in earnings management by operational choices and a decrease by accruals. These findings are relevant and deserve further research into the effect of adherence to international accounting rules on earnings management.

# 7 IMPLICATIONS OF THE LITERATURE

The literature on earnings management in Brazil, although relatively recent, has documented various significant results with important implications for firms, investors, regulators and auditors.

With respect to the motivations for earnings management, there is an unquestionable incentive to avoid reporting losses, a conclusion consolidated in the Brazilian literature. The results have also been convergent in demonstrating that companies try to reduce the variability of their results and sustain their recent performance. However, the concern to meet the consensus expectations of analysts does not yet constitute a pattern to motivate earnings management by Brazilian firms, unlike documented in other countries.

Incentives associated with the capital market are unquestionably also present in Brazil. Firms are more likely to manage earnings before issuing both debt and equity securities, so as to obtain better conditions.

With respect to the consequences of earnings management, it appears to have implications on the cost of capital, specifically that of debt capital. Income smoothing practices have direct effects by reducing the cost of capital, with a positive impact on stock value and the rating of public offerings.

Companies audited by one of the Big Four are less likely to engage in earnings management than companies audited by other firms. In turn, auditor rotation, which is

advocated or required periodically by regulatory authorities, does not seem to cause significant changes in the propensity to manage earnings in Brazil before and after the change in auditor.

Coverage by analysts has a negative effect on earnings management, indicating they are performing their proper role as gatekeepers in the Brazilian market.

With respect to corporate governance, the initial studies indicated that good governance practices reduce the propensity to manage earnings. However, more recent studies have contradicted these earlier findings, indicating that listing in a trading segment requiring enhanced governance does not necessarily mean a reduced tendency to manage earnings.

Finally, on the matter of the effect of IFRS adoption on earnings management, there is a need for further research, since the studies so far in Brazil have reached contradictory conclusions. This is a fruitful area for further investigation, especially with the full consolidation to international standards and familiarity of preparers with the new rules.

# 8 OPPORTUNITIES FOR FUTURE RESEARCH

There are many opportunities for further research into earnings management in Brazil. The area is very fertile and is not only of interest to domestic users, but also to foreigners interested in gaining insight into various accounting phenomena in emerging markets. The items below briefly touch on some research opportunities.

# 8.1 CAUSES, CONSEQUENCES AND FACTORS MITIGATING EARNINGS MANAGEMENT BY OPERATIONAL DECISIONS

This is a very incipient research theme in Brazil, meaning ample opportunities for research into the factors motivating this type of earnings management, its consequences and how it can be mitigated a priori. Studies in this line will have to consider the complementarity between earnings management by accounting choices and through operational choices.

# 8.2 EFFECTS OF IFRS ADOPTION ON EARNINGS MANAGEMENT

How does the adoption of IFRS affect the use of discretion in accounting choices, operational decisions and selection of criteria for presentation of financial statements? Are there differences between sectors, particularly regarding subjection to regulation, and size of the company? Understanding the consequences of adopting IFRS and the potential risks is crucial to regulators and auditors.

# 8.3 INTERACTION OF QUALITY OF DISCLOSURE AND EARNINGS MANAGEMENT

Companies can alter the perception of investors and other stakeholders by the nature of their presentations. What strategies are used by firms in their disclosure when they want to change a certain perception? What is the nature of the disclosure of companies facing financial difficulties? How does the quality of disclosure affect the propensity to manage earnings? These are but some of the questions that have rarely been investigated in the Brazilian literature.

# 8.4 PROMOTION OF GREATER INTEGRATION WITH NEW RESEARCH TECHNIQUES

It is important to carry out surveys based on interviews and analytical models. A natural path given the affinity of the theme with the behavioral aspect would be to undertake experiments to verify the effects on agents, by discussing relevant points to investors, preparers and auditors. A change, even if modest, in the orientation of Brazilian earnings management research from its empirical focus to other techniques would be welcome.

#### 8.5 SHIFT FOCUS FROM ANALYSIS OF THE MEAN TO THE EXTREMES

The majority of studies of earnings management emphasize the average behavior of firms to identify patterns. To produce studies that can have greater impact, it would be good to study how to avoid extremes or to stimulate desirable behaviors, by concentrating more on the extremities, i.e., firms that manage earnings more. Why do they do this? How can this be inhibited? And on the other side of the coin, how can the behavior of firms that refrain from managing earnings be explained? Might it be possible to emulate those conditions to assure information that is more neutral and more realistically represents the underlying economic situation of companies?

# 8.6 DEEPEN THE STUDY OF THE RELATIONSHIP BETWEEN GATEKEEPERS AND EARNINGS MANAGEMENT

There is ample room to expand investigation of the role of auditors in deterring earnings management, by focusing on aspects such as expertise, nature of remuneration, tenure and scope of services. Other promising areas would be to focus more on the circumstances associated with corporate governance and their effect on earnings management, the role of market analysts, rating agencies and the specialized press as agents to inhibit earnings management.

#### REFERENCES

- ALMEIDA et al. Earnings management no Brasil: grupos estratégicos como nova variável explanatória. **Revista de Contabilidade e Organizações**, v. 3, n. 6, p. 81-95, 2009.
- ALMEIDA, J. E. F. et al. Alguns aspectos das práticas de suavização de resultados no conservadorismo das companhias abertas listadas na BM&FBOVESPA. **Revista Contabilidade & Finanças**, v. 23, n. 58, p. 65-75, 2012.
- ALMEIDA, J. E. F.; ALMEIDA, J. C. G. Auditoria e earnings management: estudo empírico nas empresas abertas auditadas pelas big four e demais firmas de auditoria. **Revista Contabilidade & Finanças**, v. 20, n. 50, p. 62-74, 2009.
- ALMEIDA, J. E. F.; LOPES, A. B.; CORRAR, L. J. Gerenciamento de resultados para sustentar a expectativa do mercado de capitais: impactos no índice market-to-book. **Advances in Scientific and Applied Accounting**, v. 4, n. 1, p. 44-62, 2011.
- ARDISON, K. M. M.; MARTINEZ, A. L.; GALDI, F. C. The effect of leverage on earnings management in Brazil. **Advances in Scientific and Applied Accounting**, v. 5, n. 3, p. 305-324, 2012.
- AVELAR, E. A.; SANTOS, T. S. **Gerenciamento de resultados contábeis**: uma análise das pesquisas realizadas no Brasil entre os anos de 2000 e 2009. Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ, v. 15, n. 3, p. 19-33, 2010.
- AZEVEDO, F. B.; COSTA, F. M. Efeito da troca da firma de auditoria no gerenciamento de resultados das companhias abertas brasileiras. **Revista de Administração Mackenzie**, v. 13, n. 5, p. 65-100, 2012.
- BAPTISTA, E. M. B. Ganhos em transparência versus novos instrumentos de manipulação: o paradoxo das modificações trazidas pela lei nº 11.638. **Revista de Administração de Empresas**, v. 49, n. 2, p. 234-239, 2009b.
- BAPTISTA, E. M. B. Teoria em gerenciamento de resultados. **Revista de Contabilidade da UFBA**, v. 3, n. 2, p. 5-20, 2009a.
- CARDOSO, R. L. **Regulação econômica e as escolhas de práticas contábeis**: evidências no mercado de saúde suplementar. 2005. 154 f. Tese (Doutorado em Ciências Contábeis) Programa de Pós-Graduação em Ciências Contábeis, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2005.
- CASTRO, M. A.; MARTINEZ, A. L. Income smoothing, custo de capital de terceiros e estrutura de capital no Brasil. **Revista de Administração Mackenzie**, v. 10, n. 6, p. 25-46, 2009.
- COELHO, A. C.; LIMA, I. S. Gerenciamento de resultados contábeis no Brasil: comparação entre companhias de capital fechado e de capital aberto. **Revista de Administração**, v. 44, n. 3, p. 207-221, 2009.

COELHO, A. C.; LOPES, A. B. Avaliação da prática de gerenciamento de resultados na apuração de lucro por companhias abertas brasileiras conforme seu grau de alavancagem financeira. **Revista de Administração de Empresas**, v. 11, n. especial 2, p. 121-144, 2007.

CUPERTINO, C. M. Earnings management: estudo de caso do Banco Nacional. **Revista** Contabilidade & Finanças, v. 17, n. 41, p. 110-120, 2006.

CUPERTINO, C. M. Gerenciamento de resultados por decisões operacionais no mercado de capitais brasileiro. 2013. Tese (Doutorado em Administração) – Programa de Pós-Graduação em Administração, Universidade Federal de Santa Catarina, Florianópolis, 2013.

CUPERTINO, C. M.; MARTINEZ, A. L. Qualidade da auditoria e earnings management: risk assessment através do nível dos accruals discricionários. **Contabilidade Vista & Revista**, v. 19, v. 3, p. 69-93, 2008.

DANTAS, J. A. et al. Discricionariedade na mensuração de derivativos como mecanismo de gerenciamento de resultados em bancos. **Revista Brasileira de Finanças**, v. 11, n. 1, 17-48, 2013a.

DANTAS, J. A. et al. Gerenciamento de resultados em bancos com uso de TVM: validação de modelo de dois estágios. **Revista Contabilidade & Finanças**, v. 24, n. 61, p. 37-54, 2013b.

DECHOW, P. M. et al. Detecting earnings management: a new approach. **Journal of Accounting Research**, v. 50, n. 2, p. 275-334, 2012.

DECHOW, P. M; SLOAN, R. G.; SWEENY, A. P. Detecting earnings management. **The Accounting Review**, v. 70, n. 2, p. 193-225, 1995.

DeFOND, M. L.; PARK, C. W. The reversal of abnormal accruals and the market valuation of earnings surprises. **The Accounting Review**, v. 76, n. 3, p. 375-404, 2001.

ECKEL, N. The income smoothing hypothesis revisited. **Abacus**, v. 17, n. 1, p. 28-40, 1981.

ERFURTH, A. E.; BEZERRA, F. A. Gerenciamento de resultados nos diferentes níveis de governança corporativa. **BASE - Revista de Administração e Contabilidade da Unisinos,** v. 10, n. 1, p. 32-42, 2013.

FERREIRA, F. R. et al. Auditing and earnings management in Brazilian HMOs. **American Accounting Association**, v. 8, n. 6-10, p. 632-644, 2011.

FERREIRA, F. R. et al. Book-tax differences e gerenciamento de resultados no mercado de ações do Brasil. **Revista de Administração de Empresas**, v. 52, n. 5, p. 488-501, 2012.

FORMIGONI, H. et al. Estudo sobre os incentivos tributários para o gerenciamento de resultados contábeis nas companhias abertas brasileiras. **BASE - Revista de Administração e Contabilidade da Unisinos**, v. 9, n. 1, p. 41-52, 2012.

FORMIGONI, H.; ANTUNES, M. T. P.; PAULO, E. Diferença entre o lucro contábil e lucro tributável: uma análise sobre o gerenciamento de resultados contábeis e gerenciamento

- tributário nas companhias abertas brasileiras. **BBR Brazilian Business Review**, v. 6, n. 1, p. 44-61, 2009.
- FUJI, A. H. Gerenciamento de resultados contábeis no âmbito das instituições financeiras atuantes no Brasil. 2004. Dissertação (Mestrado em Contabilidade) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2004.
- GABRIEL, F.; CORRAR, L. J. **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, v. 15, n. 2, art. 4, p. 49-62, 2010.
- GOULART, A. M. C. **Gerenciamento de resultados contábeis em instituições financeiras no Brasil**. 2008. 219 f. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2008.
- GRAHAM, J. R.; HARVEY, C.; RAJGOPAL, S. The economic implications of corporate financial reporting. **Journal of Accounting and Economics**, v. 40, n. 1-3, p. 3-73, 2005.
- GUNNY, K. The relation between earnings management using real activities manipulation and future performance: evidence from meeting earnings benchmarks. **Contemporary Accounting Research**, v. 27, n. 3, p. 855-888, 2010.
- HEALY, P. M.; WAHLEN, J. M. A review of the earnings management literature and its implications for standard setting. **Accounting Horizons**, v. 13, n. 4, p. 365-383, 1999.
- JOIA, R. M. Adoção de IFRS e gerenciamento de resultado nas empresas brasileiras de capital aberto. 2012. 62 f. Dissertação (Mestrado em Ciências) Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, 2012.
- JONES, J. J. Earnings management during import relief investigations. **Journal of Accounting Research**, v. 29, n. 2, p. 193-228, 1991.
- JOOSTEN, C. Real earnings management and accrual-based earnings management as substitutes. Thesis (Master thesis in Accountancy) Department Accountancy, Tilburg University, Tilburg, 2012.
- KANG, Sok-Hyon; SIVARAMAKRISHNAN, K. Issues in testing earnings management and an instrumental variable approach. **Journal of Accounting Research**, v. 33, n. 2, p. 353-367, 1995.
- KLANN, R. C. **Gerenciamento de resultados:** análise comparativa de empresas brasileiras e inglesas antes e após a adoção das IFRS. 2011. 371 f. Tese (Doutorado em Ciências Contábeis e Administração) Programa de Pós-Graduação em Ciências Contábeis da Universidade Regional de Blumenau, Blumenau, 2011.
- KOTHARI, S. P.; LEONE, A.; WASLEY, C. Performance matched discretionary accrual measures. **Journal of Accounting & Economics**, v. 39, n. 1, p. 163-197, 2005.

LEITE, R. R. Avaliação do uso de accruals discricionários: uma abordagem qualitativa quanto às práticas de auditoria e seu poder de mitigação. 2012. Dissertação (Mestrado em Ciências Contábeis) — Programa de Pós-Graduação em Ciências Contábeis, Universidade Presbiteriana Mackenzie, São Paulo, 2012.

- LEUZ, C.; NANDA, D.; WYSOCKI, P. Earnings management and investor protection: an international comparison. **Journal of Financial Economics**, v. 27, n. 3, p. 505-527, 2003.
- LOPES, A. B.; TUKAMOTO, Y.; GALDI, F. C. Earnings management and cross listing in Brasil. In: CONGRESSO DA ASSOCIAÇÃO NACIONAL DOS PROGRAMAS DE PÓS-GRADUAÇÃO EM CIÊNCIAS CONTÁBEIS, 1., 2007, Gramado-RS. **Anais**... ANPCONT, 2007.
- MACÊDO, H. C. Incentivos múltiplos para o gerenciamento de resultados contábeis: uma análise empírica no mercado de capitais brasileiro. 2012. 53 f. Dissertação (Mestrado em Ciências Contábeis) Programa Multi-institucional e Inter-Regional de Pós-Graduação em Ciências Contábeis da Universidade de Brasília, da Universidade Federal da Paraíba e da Universidade Federal do Rio Grande do Norte, João Pessoa, 2012.
- MACHADO, D. G. Influência da política de remuneração dos executivos no nível de gerenciamento de resultados em empresas industriais brasileiras, estadunidenses e inglesas. 2012. 273 f. Tese (Doutorado em Ciências Contábeis e Administração) Programa de Pós-Graduação em Ciências Contábeis, Universidade Regional de Blumenau, 2012.
- MACHADO, D. G.; BENNETTI, J.; BEZERRA, F. Análise da produção científica sobre earnings management em periódicos brasileiros e internacionais de contabilidade. **Revista Portuguesa e Brasileira de Gestão,** v. 10, n. 4, p. 50-66, 2011.
- MACHADO, D. G.; BEUREN I. M. **Gerenciamento de resultados**: análise das publicações em periódicos. In: CONVIBRA ADMINISTRACIÓN. CONGRESSO VIRTUAL BRASILEÑO, 9., 2012.
- MARTINEZ, A. L. "Gerenciamento" dos resultados contábeis: estudo empírico das companhias abertas brasileiras. 2001. 162 f. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2001.
- MARTINEZ, A. L. Detectando *earnings management* no Brasil: estimando os *accruals* discricionários. **Contabilidade & Finanças**, v. 19, n. 46, p. 7-17, 2008.
- MARTINEZ, A. L. Do corporate governance special listing segments and auditing curb real earnings management and accrual-based earnings management? Evidence from Brazil. **Universo Contábil**, v. 7, n. 4, p. 98-117, 2011a.
- MARTINEZ, A. L. Minimizando a variabilidade dos resultados contábeis: estudo empírico do income smoothing no Brasil. **Universo Contábil**, v. 2, n. 1, p. 9-25, 2006.
- MARTINEZ, A. L. The role of analysts as gatekeepers: enhancing transparency and curbing earnings management in Brazil. **Revista de Administração Contemporânea**, v. 15, n. 4, p. 712-719, 2011b.

- MARTINEZ, A. L.; CARDOSO, R. L. Gerenciamento da informação contábil no Brasil mediante decisões operacionais. **REAd. Revista Eletrônica de Administração**, v. 15, n. 3, p. 1-27, 2009.
- MARTINEZ, A. L.; CASTRO, M. A. R. Bond ratings and income smoothing in Brazil. Latin American Business Review, v. 12, n. 2, p. 59-81, 2011a.
- MARTINEZ, A. L.; CASTRO, M. A. R. The smoothing hypothesis, stock returns and risk in Brazil. **BAR Brazilian Administration Review**, v. 8, n. 1, p. 1-20, 2011b.
- MARTINEZ, A. L.; FARIA, M. P. Emissão de debêntures e earnings management. **Revista de Informação Contábil**, v. 2, n. 1, p. 57-71, 2007.
- MARTINEZ, A. L.; REIS, G. M. R. Audit firm rotation and earnings management in Brazil. **Revista de Contabilidade e Organizações**, v. 4, n. 10, p. 48-64, 2010.
- MARTINS, E. A. **Pesquisa contábil brasileira**: uma análise filosófica. 2012. 268 f. Tese (Doutorado em Ciências) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2012.
- MURCIA, F. D.; WUERGES, A. Escolhas contábeis no mercado brasileiro: divulgação voluntária de informações versus gerenciamento de resultados. **Universo Contábil**, v. 7, n. 2, p. 28-44, 2011.
- NARDI, P. C. C. et al. A relação entre gerenciamento de resultados contábeis e o custo de capital das companhias abertas brasileiras. **Universo Contábil**, v. 5, n. 4, p. 6-26, 2009.
- NARDI, P. C. C.; NAKAO, S. H. Gerenciamento de resultados e a relação com o custo da dívida das empresas brasileiras abertas. **Contabilidade & Finanças**, v. 20, n. 51, p. 77-101, 2009.
- OLIVEIRA, V. A.; ALMEIDA, L. C. F.; LEMES, S. Gerenciamento de resultados contábeis por meio de ativos fiscais diferidos. **Contabilidade, Gestão e Governança**, v. 11, n. 1-2, p. 153-169, 2008.
- PAULO, E. P. **Manipulação das informações contábeis**: uma análise teórica e empírica sobre os modelos operacionais de detecção de gerenciamento de resultados. 2007. 2 v. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2007.
- PAULO, E.; LEME, J. R. Gerenciamento de resultados contábeis e o anúncio dos resultados contábeis pelas companhias abertas brasileiras. **Universo Contábil**, v. 5, n. 4, p. 27-43, 2009.
- PAULO, E.; MARTINS, E.; CORRAR, L. J. Detecção do gerenciamento de resultados pela análise do diferimento tributário. **Revista de Administração de Empresas**, v. 47, n. 1, p. 46-59, 2007.
- RAMOS, G. M.; MARTINEZ, A. L. Governança corporativa e gerenciamento de resultados contábeis. **Revista Contemporânea de Contabilidade**, v. 3, n. 6, p. 143-164, 2006.

REY, J. M. R. Gerenciamento de resultados baseado em escolhas contábeis e por decisões operacionais: estudo do impacto da Lei Sarbanes-Oxley em empresas brasileiras emissoras de ADRs. 2011. 72 f. Dissertação (Mestrado em Ciências Contábeis) – Fucape Business School, Vitoria-ES, 2011.

- REZENDE, G. P.; NAKAO, S. H. Gerenciamento de resultados e a relação com o lucro tributável das empresas brasileiras de capital aberto. **Universo Contábil**, v. 8, n. 1, p. 6-21, 2012.
- RODRIGUES, A. **Gerenciamento da informação contábil e regulação**: evidências no mercado brasileiro de seguros. 2008. 150 f. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia e Administração, Universidade de São Paulo, 2008.
- RODRIGUES, L. F. Evidência de gerenciamento de resultados em ofertas públicas de aquisição de ações de companhias abertas: análise empírica das operações realizadas no Brasil no período de 2007 a 2012. 2013. 101 f. Dissertação (Mestrado em Ciências Contábeis) Programa Multi-institucional e Inter-Regional de Pós-Graduação em Ciências Contábeis da Universidade de Brasília, da Universidade Federal da Paraíba e da Universidade Federal do Rio Grande do Norte, Brasília, 2013.
- RONEN, J.; YAARI, V. **Earning management**: earnings insights in theory practice and research. Oklahoma: Springer, 2008. (Springer Series in Accounting Scholarship, v. 3).
- ROSA et al. Earnings management no Brasil: uma análise sob a perspectiva sociométrica e bibliométrica. **Contabilidade Vista & Revista**, v. 21, n. 4, p. 189-218, 2010.
- ROYCHOWDHURY, S. Earnings management through real activities manipulation. **Journal of Accounting and Economics**, v. 42, n. 3, p. 335-370, 2006.
- SANTANA, A. F. B. **Gerenciamento de resultados e remuneração dos executivos nas companhias latino-americanas**. 2008. 93 f. Dissertação (Mestrado em Ciências Contábeis) Programa de Pós-Graduação em Ciências Contábeis, Unisinos, São Leopoldo-RS, 2008.
- SANTOS, A.; PAULO, E. Diferimento das perdas cambiais como instrumento de gerenciamento de resultados. **BBR Brazilian Business Review**, v. 3, n. 1, p. 15-31, 2006.
- SANTOS, P. S. A. D.; MACHADO, D. G.; SCARPIN, J. E. Gerenciamento de resultados no setor público: análise por meio das contas orçamentárias outras receitas e despesas correntes dos municípios de Santa Catarina. **Contabilidade Vista & Revista**, v. 23, n. 4, p. 15-43, 2012.
- SANTOS, P. S. A. D.; VERHAGEM, J. A.; BEZERRA, F. A. Gerenciamento de resultados por meio de decisões operacionais e a governança corporativa: análise das indústrias siderúrgicas e metalúrgicas brasileiras. **Revista de Contabilidade e Organizações**, v. 5, n. 13, p. 55-74, 2011.
- SCHIPPER, K. Commentary on earnings management. **Accounting Horizons**, v. 3, n. 4, p. 91-102, 1989.

- SILVA, A. H. C. **Escolha de práticas contábeis no Brasil**: uma análise sob a ótica da hipótese dos covenants contratuais. 2008. 151 f. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2008.
- SILVA, A. H. C.; LOPES, A. B. Escolha de práticas contábeis no Brasil: uma análise sob a ótica da hipótese dos covenants contratuais. In: INTERNATIONAL ACCOUNTING CONGRESS, 3., 2009, São Paulo. IAAER (International Association for Accounting Education and Research) ANPCONT (Associação Nacional dos Programas de Pós-Graduação em Ciências Contábeis). Anais... São Paulo: ANPCONT, 2009.
- SILVA, J. O.; BEZERRA, F. A. Análise do gerenciamento de resultados e o rodízio de firmas de auditoria nas empresas de capital aberto. **Revista Brasileira de Gestão de Negócios**, v. 12, n. 36, p. 304-321, 2010.
- SILVA, M. S.; GALDI, F. C.; TEIXEIRA, A. Estudo sobre o efeito das eleições presidenciais no gerenciamento de resultados de empresas atuantes em setores regulados. **Contabilidade Vista & Revista**, v. 21, n. 2, p. 45-68, 2010.
- SOUZA, J. A. S. et al. Determinantes e consequências do fechamento de capital nas práticas de gerenciamento de resultado. **Revista Evidenciação Contábil & Finanças**, v. 1, n. 1, p. 38-57, 2013.
- SOUZA, S. A.; CASTRO NETO, J. L. Earnings management: uma visão da auditoria independente. In: CONGRESSO BRASILEIRO DE CONTABILIDADE, 18., 2008, Gramado. **Anais dos Trabalhos Científicos**. Gramado: CFC, 2008.
- STUBBEN. S. Discretionary revenues as a measure of earnings management. **The Accounting Review**, v. 85, n. 2, p. 695-717, 2010.
- VASCONCELOS, C. et al. A influência da cobertura das empresas de rating sobre o gerenciamento de resultados das companhias abertas brasileiras. **Revista de Contabilidade e Organizações**, v. 2, n. 3, p. 37-52, 2008.
- VASSOLER, A. P. R. **Relação entre a remuneração de executivos e o gerenciamento de resultados contábeis**. 2010. Dissertação (Mestrado em Ciências Contábeis) Fucape Business School, Vitória-ES, 2010.
- WALKER, M. How far can we trust earnings numbers? What research tell us about earnings management. **Accounting and Business Research**, v. 43, n. 4, p. 445-481, 2013.
- XAVIER P. H. M. **Gerenciamento de resultados por bancos comerciais no Brasil**. 2007. 125 f. Tese (Doutorado em Ciências Contábeis) Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 2007.
- ZENDERSKY, C. H. **Gerenciamento de resultados em instituições financeiras no Brasil**: 2000 a 2004. 2005. 134 f. Dissertação (Mestrado em Ciências Contábeis) Programa Multi-institucional e Inter-Regional de Pós-Graduação em Ciências Contábeis da Universidade de Brasília, da Universidade Federal da Paraíba e da Universidade Federal do Rio Grande do Norte, Brasília, 2005.