ISSN 1983-8611
Advances in Scientific and Applied Accounting
Building theories and improving applications since 2008

THE CONSOLIDATION TRAP: EMPIRICAL EVIDENCE FROM DIFFERENCES IN EARNINGS MANAGEMENT INCENTIVES AND PRACTICES IN BRAZIL

José Elias Feres de Almeida* Email: jose.e.almeida@ufes.br
Guillermo Oscar Braunbeck** Email: braunbeck@uol.com.br
Fernanda Furuta*** Email: fernandaf1@insper.edu.br
L. Nelson Carvalho**** Email: lnelson@usp.br
*Universidade Federal do Espírito Santo (UFES), Vitória/ES
**Fundação Instituto de Pesquisas Contábeis, Atuariais e Financeiras (FIPECAFI), São Paulo/SP.
***Instituto de Ensino e Pesquisa, INSPER, São Paulo/SP
****Universidade de São Paulo, São Paulo/SP

Abstract: This paper investigates a particular scenario under the Brazilian Generally Accepted Accounting Principles before IFRS adoption, which require public companies to disclose individual financial statements (legal parent entity), together with consolidated financial statements (economic entity). Notwithstanding, different incentives for earnings management can be identified in comparing legal and economic entities and their respective financial statements. We use two models of earnings management, Jones Modified with 848 observations and KS with 694 observations for the same period 2000 to 2006. This research shows certain evidence on income-decreasing expense accounting choices in legal entities financial statements, consistent with the hypothesis of management for lowering tax burden. Whereas, evidence from economic entity (consolidate accounting figures) suggests income-increasing accounting choices, consistent with the political cost and capital market pressure hypotheses. These results can contributes to understand the real impact of legal system in firms accounting in Brazil, since the disclosure requirement for individual and consolidated financial statements is mandatory for few countries around the world.

Keywords: Consolidation. Earnings Management. Accounting Choices. Legal system.

1 INTRODUCTION

Earnings management is viewed in many studies as a pervasive practice that expropriates the shareholders of the firms with bad decisions from the management or in particular interest. On the other hand, there is another perspective that shows that earnings management practices are used to improve value, as an example, using the income smoothing practice. Our perspective in this regard is based on incentives arising from gaps in regulation as well as accounting choices made by managers.

Moreover, when we look to the greater scandals in the U.S. capital markets such as Worldcom and Enron, one of the various problems evidenced that blow up the fraudulent practices was the deficient consolidation of small firms in absent of normative rule (corporate law). Therefore, the process of accounting consolidation is likely to involve relevant choices (and judgments) and, accordingly, earnings management can arise from such process. As an example, in Brazilian scenario before IFRS adoption, an evidence of accounting choices that affect differently individual and consolidated financial statements can be obtained from the banking industry, where many banks have adopted different treatments for goodwill arising from acquisitions. Such banks have recognized in legal entity financial statements such goodwill as an asset, subject to amortization as a deductible expense over five or ten years. On the other hand, such very same assets have been written-off integrally after acquisition in the consolidated financial statements.

Under Brazilian Generally Accepted Accounting Principles (BR GAAP), financial statements of public companies that control other invested entities are presented in two different ways: one regarding the public company itself (i.e. the legal entity), in which controlled companies are presented as investments on the balance sheet of the parent company; the second set regards the economic entity and shall present consolidated information for all entities according to certain law requirements (specifications of which firms are required to consolidate) under a common control (i.e. consolidated financial statements), including the controlling entity itself.

Taxation system, in all levels (direct or indirect), whenever based on accounting figures, is based on legal entity financial statements. The same is valid regarding dividends and “interest on capital”, which is a sort of dividend distributions that is deductible as a financial expense for income-tax purposes. Notwithstanding, financial market as a whole is more likely to use consolidated financial statements, since they are intended to represent the economic substance of companies under the same controlling interest, regardless the legal form or boundaries. As a result, these different treatments for entities provide incentives to manage revenues, expenses and other accounts or transactions, even more when there are different choices for the same operation for each entity (legal and economic).

Considering such dual and particular environment under BR GAAP (before IFRS adoption), this paper aims to investigate different properties of earnings management between consolidated financial statements and individual (legal) controlling entity financial statements. We focused on before IFRS adoption because pre and post analyses could be affected by different economic conditions and IFRS adoption in Brazil occurred gradually until 2010.

Our research is developed under perspective of three main hypotheses (Watts and Zimmerman, 1986) that are usually referred to in the path to explain and predict accounting practice: (i) bonus plan hypothesis; (ii) debt/equity hypothesis and (iii) political cost hypothesis. In addition, we also use a broad concept of political cost, which for the purposes of our research includes taxation issues, based on the paper of Ball *et al* (2000). These authors show differences in accounting income properties among different countries and institutional contexts. In this regard, they found evidence that in code-law countries accounting income is less timely, particularly in incorporating economic losses, consistent with the idea of a more direct link between accounting income and current payouts to employees/managers (e.g. bonuses), shareholders (e.g. dividends) and governments (e.g. taxes). We also profit from the accounting choice taxonomy developed by Fields *et al* (2001).

Our methodology uses two of the most referred models in literature (both internationally and in Brazil): the Jones Modified Model (hereafter, JM) and the Kang and Sivaramakrishnan Model (hereafter, KS). We have elected these two models aiming to capture different properties of earnings management and to improve the robustness of evidence, considering, for example, that in Brazil, we would usually not find significant incentives to increase revenues due to a relevant level of indirect taxation on sales, which would be a mean of earnings management intended to be captured by JM and KS models. Both JM and KS models have been also designed to capture earnings management through property, plant and equipment (hereafter, PPE), which we believe is likely to occur under Brazilian environment. Moreover, KS model has the virtue of including expenses captions, which are potentially very relevant in Brazilian environment, considering tax planning for income and social contribution taxes. Despite that, we must mention that recent evidence from research regarding earnings management in IPO firms show that accruals based proxies may be upward-biased measures of earnings management. Ball and Shivakumar (2008) suggest that accruals may have significant endogenous components during large transactions and other large events (e.g. IPO) which lead to biased estimates of discretionary accruals and, therefore, to overestimate earning management.

Overall, according to “classical” research models based on the assessment of discretionary accruals as a proxy for earnings management, we find no evidence to support the hypothesis of different incentives leading to different levels of earnings management between legal entities financial statements and consolidated financial statements when measured by amount of discretionary accruals.

However, KS model slope coefficient for expense accruals shows some evidence on income-decreasing expense accounting choices in legal entities financial statements, consistent with the hypothesis of management for lowering tax burden. Moreover, evidence from consolidated expense accounting suggests income-increasing choices, which could be considered consistent with market pressures for profitability, though inconsistent with political costs hypothesis.

This paper is organized with an introduction with economic and market motivations, we show the Brazilian environment of accounting practices of consolidation, present our methodology and summary conclusions.

2 BACKGROUND OF CONSOLIDATION IN BRAZIL AND INCENTIVES FOR EARNINGS MANAGEMENT

Consolidation of financial statements reflects the economical and financial situation of a parent company and its subsidiaries, as though they constituted a single economic unit. It enables users to obtain more adequate information about the company than if they were just analyzing the financial statements of the parent company.

The Brazilian Federal Accounting Council (Conselho Federal de Contabilidade - CFC), which is the entity responsible for the surveillance of accounting profession in Brazil, through its Resolution CFC 937/02, approved the Norma Brasileira de Contabilidade NBC T 8, regarding consolidated financial statement. Companies should apply such resolution for financial statements ending after December 2002. CFC establishes that consolidated financial statements are the results of the aggregation of two or more financial statements of companies, which one has the direct or indirect control over the others. Consolidated financial statements should consider independent companies with its own equity. Instead of creating a new company, an economical unit is created by the consolidation process.

Moreover, the Instituto dos Auditores Independentes do Brasil (Ibracon), independent entity representing public independent auditors, through its Resolution XXI, states that consolidated financial statements are those prepared by the aggregation of one or more subsidiaries' financial statements, caption-by-caption (considering the sum of its assets, liabilities, revenues and expenses) with its parent's financial statements, after eliminating intercompany accounts and transactions, and considering the minority shareholder.

In regarding corporations the Corporate Law 6,404/1976, requires that active company with more than 30% of its equity represented by subsidiary investments prepare and disclose consolidated financial statements together with the individual financial statements of the legal controlling company.

Moreover, Brazilian Securities Exchange Commission (Comissão de Valores Mobiliários - CVM), commission responsible for the regulation of Brazilian Capital markets, has issued Instruction CVM 247, requiring all public companies with subsidiary investments to prepare consolidated financial statements. Notwithstanding, CVM requires proportionate consolidation method to account for investments in jointly controlled investments, as in joint ventures.

Under BR GAAP (before IFRS Adoption), control of a certain investment will be detected not only by holding more than 50% of voting shares, but also will be presumed in cases where influence over the governance of the invested company is significant.

Consolidation of financial statements is not only the sum of all accounts of the parent company and its subsidiaries. The Brazilian Corporate Law 6,404/1976 for public companies (Lei das Sociedades por Ações) assert that consolidated financial statements should eliminate: investments of one company in another; intercompany accounts and equity income or loss, as well as accumulated income/losses accounts and unrealized income arising from intercompanies transactions. In this period, before IFRS adoption in 2008, consolidation techniques in Brazil were similar to many countries.

Relevant investments in subsidiaries are valuated by the equity method on the financial statements of the parent company. When the consolidated financial statements are prepared, the financial statements of subsidiaries are consolidated together with the financial statements of the parent company. In order to not have duplicity of information, investments valuated by the equity method are eliminated, since such amounts have been already recognized through the consolidation of assets and liabilities. Therefore, the investment on subsidiaries recognized on the balance sheet of the parent company is eliminated together with the shareholders equity of the subsidiary.

According to Corporate Law 6,404/1976, the second item that should be excluded when preparing the consolidation is related to intercompanies transactions. Fipecafi (2003, p. 462) states that all the transactions realized with companies that belong to the same economical group need to be excluded from the consolidated financial statements in order to obtain the amounts from transactions performed with third parties. Moreover, disclosure of intercompanies transactions is deemed very important to users of financial statements, especially minority shareholders that are under the risk of "tunneling" (JOHNSON *et al*, 2000, p. 22) by the controlling shareholders.

The third item required by Corporate Law that should be excluded from consolidation is related to unrealized income from intercompanies transactions. Fipecafi (2003, p. 241) states that the common examples are:

Revenues from companies that belong to the same group, as:

- Interests charged
- Commissions over sales
- Dividends received, in case of being revenue
- Profits from sales operations among companies that belong to the same group and remained on the assets of the buyer.

Income that should be recognized in consolidated financial statement should arise from transactions with third parties, since transactions within companies under common control do not create value from an economical standpoint.

In summary, once investments in controlled companies have been eliminated, as well as unrealized income from intercompanies transactions, assets and liabilities from all entities under consolidations are summed. Any minority interest should be disclosed apart from the consolidated shareholders equity group of accounts.

Provided that Brazilian public companies are required to present both individual (legal entity) and consolidated (economic entity - based on the procedures described above), our main objective is to assess different patterns in earnings management regarding individual and consolidated financial statements from public companies in Brazil. We use the theoretical perspective developed by Healy and Whalen (1998), in which earnings management "occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers".

In this regard, such an assessment should probably begin with the analysis of potential differences in motivations for accounting choices (including earnings management). In early stages of positive accounting theory, three main hypotheses have been developed by Watts and Zimmerman (1986) aiming to explain and predict accounting practices:

(i) bonus plan hypothesis;

(ii) debt/equity hypothesis and

(iii) political cost hypothesis.

More recently, on their essay regarding research in accounting choice, Fields *et al* (2001, p. 261) have developed a taxonomy for accounting choices, based on the theories developed by Modigliani and Miller, in which they propose choices to be classified in three main categories, as follows:

a) Contractual arrangements – accounting choice is determined to influence one or more of the firm's contractual arrangements;

b) Market pricing – accounting choice attempting to influence asset pricing;

c) Third parties – accounting choice made in order to influence external parties, such as government (e.g. taxation), regulatory agencies, labor unions and many others.

Furthermore, in connection with the political cost hypothesis *à la* Watts and Zimmerman (1986) or the influence of external parties as in Fields *et al* (2001), let us accept that differences in accounting standards and practices across countries are likely to be the result of the interactions of many environmental variables, such as historical background of the country, its culture and its legal system (WEFFORT, 2005, p. 57). Under such scenario, one could hardly disagree that taxation may be one of the most relevant influences of accounting choice in Brazil. Such presumed influence is also consistent with the idea pointed by Othman *et al* (2007, p. 9) that code-law countries (as Brazil) usually have stronger connections between accounting earnings and earnings for tax purposes.

In this regard, it becomes relevant to highlight that taxes (mainly income and social contribution taxes) in Brazil that are dependent upon accounting figures for their calculation will mainly rely on individual (i.e. legal entity) financial statements. No economic group income taxation is allowed based on consolidated figures.

Therefore, we expect taxation to be relevant for earnings management purposes in legal entities financial statements and irrelevant regarding consolidated financial statements. The same hypothesis can be drawn for dividends and interests on capital paid to shareholders, since both corporate and tax laws governing such distributions rely on entity's financial statements rather than the consolidated figures.

On the other hand, we believe that contractual arrangements and capital markets pricing pressures may influence earnings management in Brazilian public companies as well. Considering that in most cases, parties involved in such markets would be interested in the economic reality from which risks and rewards arise, we expect that consolidated figures will be more likely to be influenced by these motivations. A summary of our assumptions regarding major influences of accounting choice (including earnings management) in legal entity and consolidated levels is presented in Chat 1 below.

Chart 1: Summary of accounting choice influences in legal (parent) and economic (consolidated) entities' financial statements

	Major influence on financial statements regarding:	
Accounting choice category:	Legal entity	Economic entity
Contractual arrangements		X
Assets pricing		X
External parties – taxation	X	

Source: Developed by authors.

In this regard, our main hypothesis is that legal entity and consolidated financial statements will show different patterns of earnings management due to different set of incentives interacting in each statement taking into account discretionary accruals as well.

No similar study has being retrieved for Brazilian companies, though many researches have already been developed regarding earnings management practices in Brazil. The seminal work in such matter was the research developed by Martinez (2001) in which the influence of the capital market on companies' earnings management was assessed, as well as the impacts of earnings management in companies' value. Fuji (2004) has developed an approach based on specific allowances accounts to investigate earnings management in financial institutions. Tukamoto (2004) has investigated differences in earnings management regarding local financial statements (BR GAAP) and US GAAP financial statements (prepared by American Depositary Receipts issuers). Cardoso (2005) has analyzed earnings management in heath insurance companies subject to strong regulation and provided interesting evidence on the influence of external parties (i.e. industry regulation agency). Almeida (2006) has investigated the influence of industry and strategic group cross-sections in earnings management practices within Brazilian public companies. While Almeida *et al* (2009) compared JM and KS models among strategic groups showing that both models capture different incentives to manage earnings inside Brazilian industries. Finally, we should mention the paper developed by Rodrigues *et al* (2007) who have analyzed whether Brazilian companies take advantage of their controlling interest position in affiliated companies to manage accounting income. Within this context, the parent company may use its influence to transfer book income from or to the affiliate company. The results found evidences of earnings management, although no evidence was found that pointed out to affiliated companies being used for this purpose.

In this scenario, our main purpose is to investigate whether Brazilian public companies manage earnings differently in their individual (legal entity) and consolidated financial statements (economic entity).

3 RESEARCH DESIGN AND RESULTS

We use JM and KS models[1] in Brazilian data available from each entity considered in this research (consolidated and legal entities). These models were developed in different context and the interpretation of results needs care since outputs may not be comparable. For instance, JM Model uses the variation along the years for all variables except for PPE and KS Model uses balance sheet data (in level of accounts) and instrumental variables, not to mention the inclusion of the operating expenses approach.

Both models use lagged total assets in one year to reduce problems of scale in variables due to different firms sizes in samples and, principally, to deal with the heteroscedasticity.

[1] We use both models according to Kang (1999) including the intercept. For econometric issues we indicate Kang (1999) and Paulo (2007) studies.

Our sample, as previously mentioned, is divided into two models and, therefore, we have two samples for each model (JM and KS) with the same observations for each one. Regarding JM model, final samples (one for the accounts of legal entities and other for the economic entities) totalized 848 observations in a period from 2000 to 2006.

The same procedure was performed for KS model, totalizing 694 observations for legal and economic entities in a period from 2001 to 2006. KS Model started in year 2001 since the instrumental variables requires the use of a period starting in year 2000 until 2005. This period provides opportunity to investigate earnings management before IFRS adoption in Brazil considering the set of accounting practices ruled-oriented with many interferences of tax rules.

Firstly, we start using pooled OLS regressions with white correction (or as defined in the literature as robust regression) for both models to test variables significance and to get discretionary accruals avoiding multicollinearity problem. Secondly, to complement our regression results we have performed non-parametric tests in discretionary accruals in seeking differences among entities characteristics regarding such accruals that are used as proxies for earnings management.

These models are presented as follow:

<u>JM Model</u>

$$\mathbf{TAC_{i,t} = \alpha_0 + \alpha_1\,(1/A_{t-1}) + \alpha_2\,[(\Delta REV - \Delta REC)/\,A_{t-1}] + \alpha_3\,(PPE/A_{t-1}) + \varepsilon_{i,t}}$$

Where:

$TAC_{i,t}$ = Total Accruals for firm i in year t ($TAC_{i,t}$= [($\Delta CA_{i,t}$ – $\Delta Cash_{i,t}$ – $\Delta CL_{i,t}$ – $\Delta STD_{i,t}$)– $DEP_{i,t}$]/ A_{t-1}) ;

$\Delta REV_{i,t}$ = Change in Revenues (t_t-t_{t-1}) for firm i in year t;

$\Delta REC_{i,t}$ = Change in Receivables (t_t-t_{t-1}) for firm i in year t;

$PPE_{i,t}$ = Property, Plant and Equipment for firm i in year t;

$TAC_{i,t}$ = Total Accruals for firm i in year t;

$\Delta CA_{i,t}$ = Changes in Current Assets (t_t-t_{t-1}) for firm i in year t;

$\Delta Cash_{i,t}$ = Changes in Cash and Equivalents (t_t-t_{t-1}) for firm i in year t;

$\Delta CL_{i,t}$ = Changes in Current Liabilities (t_t-t_{t-1}) for firm i in year t;

$\Delta STD_{i,t}$ = Changes in Short Term Debt (t_t-t_{t-1}) for firm i in year t;

$DEP_{i,t}$ = Depreciation and Amortization for firm i in year t;

$A_{i,t-1}$ = Total Assets for firm i in year t-1;

KS MODEL

$$AB_{i,t} = \beta_0 + \beta_1 [\delta_{1,i} REV_{i,t}] + \beta_2 [\delta_{2,i} EXP_{i,t}] + \beta_3 [\delta_{3,i} PPE_{i,t}] + \varepsilon_{i,t}$$

Where:

$AB_{i,t}$ = Accrual Balance = $(CA_{i,t}$ - $Cash_{i,t}$ - $CL_{i,t}$ - $DEP_{i,t})/A_{i,t-1}$ for firm i in year t;

$A_{i,t}$ = Total Assets for firm i in year t;

$CA_{i,t}$ = Current Assets for firm i in year t;

$Cash_{i,t}$ = Cash and Equivalents for firm i in year t;

$CL_{i,t}$ = Current Liabilities excluding taxes payable and Long-Term Debt in Current Liabilities for firm i in year t;

$DEP_{i,t}$ = Depreciation and Amortization for firm i in year t;

$REC_{i,t}$ = Receivables for firm i in year t;

OCAL = All other current assets less liabilities excluding accounting receivables for firm i in year t ($CA_{i,t}$ - $Rec_{i,t}$ - $CL_{i,t}$ - $DEP_{i,t}$);

$REV_{i,t}$ = Net Sales Revenues for firm i in year t;

$EXP_{i,t}$ = Operating expenses excluding depreciation and amortization for firm i in year t;

$PPE_{i,t}$ = Property, Plant and Equipment for firm i in year t;

δ_1 = $Rec_{i,t-1}/Rev_{i,t-1}$ (turnover ratio which accomodate firm-specificity and compensate since model is estimated from a pooled sample according to Kang (1999));

δ_2 = $OCAL_{i,t-1}/ EXP_{i,t-1}$ (turnover ratio which accomodate firm-specificity and compensate since model is estimated from a pooled sample according to Kang (1999));

δ_3 = $DEP_{i,t-1}/ PPE_{i,t-1}$ (turnover ratio which accomodate firm-specificity and compensate since model is estimated from a pooled sample according to Kang (1999))

We develop for each model, two different equations including beforehand the variables names the terms “ctrl” to represent variables for legal entities and “cons” to represent economic entities (consolidated accounting figures).

Descriptive statistics in table 1 show that in mean values of JM model variables, only revenue and PPE presented small differences between consolidated financial data to non-consolidated (legal entity), however, a larger standard deviation in legal entities can be observed. The descriptive statistics of JM model is presented as follow:

Table 1 - Descriptive Statistic of JM Model

Regressors	Obs	Mean	Std. Dev.	Min.	Max.
Panel A: Consolidated Accounting Figures (Economic Entity)					
Cons_Tac	848	-0.037	0.258	-1.909	4.803
Cons_1/$AT_{i,t}$	848	4.08e-06	7.48e-06	5.45e-09	0.0001
Cons_$\Delta REV_{i,t}$ - $\Delta REC_{i,t}$	848	0.120	0.260	-1.380	1.718
Cons_$PPE_{i,t}$	848	0.472	0.279	0.005	3.712
Cons_JM_DA_AB	848	0.112	0.225	.0001	4.926
Panel B: Legal Entity Accounting Figures					
Ctrl_Tac	848	-0.031	0.400	-2.070	10.214
Ctrl_1/$AT_{i,t}$	848	5.08e-06	9.30e-06	6.49e-09	0.0001
Ctrl_$\Delta REV_{i,t}$ - $\Delta REC_{i,t}$	848	0.087	0.272	-2.57	2.066
Ctrl_$PPE_{i,t}$	848	0.586	0.342	0.016	3.712
Ctrl_JM_DA_AB	848	0.117	0.381	.00002	10.279

Notes: Cons_$Tac_{i,t}$ = total accruals of economic entities; Cons_$\Delta REV_{i,t}$ - $\Delta REC_{i,t}$= revenues adjusted by receivables of economic entities; Cons_$PPE_{i,t}$= Property, Plant and Equipment of economic entities; Cons_JM_DA_AB $_{i,t}$= Absolute Values of Discretionary Accruals of economic entities; Ctrl_$Tac_{i,t}$= Total accruals of legal entities; Ctrl_$\Delta REV_{i,t}$- $\Delta REC_{i,t}$ = Revenue adjusted by Receivables of legal entities; Ctrl_$PPE_{i,t}$= Property, Plant and Equipment of legal entities; Ctrl_JM_DA_AB $_{i,t}$ = Absolute Values of Discretionary Accruals of legal entities.

On the other hand, our results show that in KS Model variables are closer one each other, including the standard deviation, however, the variable discretionary accruals has 0.10 more volatility in legal entities than economic entities. As follow we present the KS model descriptive statistics in table 2:

Table 2 - Descriptive Statistic of KS Model

Regressors	Obs	Mean	Std. Dev.	Min.	Max.
Panel A: Consolidated Accounting Figures (Economic Entity)					
Cons_$accb_{i,t}$	694	-0.102	0.891	-11.505	0.876
Cons_ $\delta_1 REV_{i,t}$	694	0.195	0.142	0.000057	1.492
Cons_ $\delta_2 EXP_{i,t}$	694	-0.247	0.841	-10.456	2.398
Cons_ $\delta_3 PPE_{i,t}$	694	0.041	0.030	-0.070	0.245
Cons_KS_DA_$AB_{i,t}$	694	0.119	0.218	0.0003	3.514
Panel B: Legal Entity Accounting Figures					
Ctrl_accb	694	-0.113	0.883	-11.505	0.832
Ctrl_ $\delta_1 REV_{i,t}$	694	0.163	0.139	-0.0008	1.393
Ctrl_ $\delta_2 EXP_{i,t}$	694	-0.242	0.902	-11.552	0.530
Ctrl_ $\delta_3 PPE_{i,t}$	694	0.033	0.029	-0.080	0.230
Ctrl_KS_DA_$AB_{i,t}$	694	0.155	0.350	0.0002	5.293

Notes: Cons_$accb_{i,t}$= Accrual balance of economic entities; Cons_ $\delta_1 REV_{i,t}$= Revenues of economic entities; Cons_ $\delta_2 EXP_{i,t}$= Expenses of economic entities; Cons_ $\delta_3 PPE_{i,t}$ = Property, Plant and Equipment of economic entities; Cons_KS_DA_$AB_{i,t}$= Absolute Values of Discretionary Accruals of economic entities; Ctrl_$accb_{i,t}$= Accrual balance of legal entities; Ctrl_ $\delta_1 REV_{i,t}$= Revenues of legal entities; Ctrl_ $\delta_2 EXP_{i,t}$= Expenses of legal entities; Ctrl_ $\delta_3 PPE_{i,t}$= Property, Plant and Equipment of legal entities; Ctrl_KS_DA_$AB_{i,t}$= Absolute Values of Discretionary Accruals of legal entities.

In table 3 our evidence in JM model shows us that revenues have doubled the slope coefficient when comparing economic entity with legal entity, but only in economic entity revenues are statistically significant. The same occurs in PPE, but in both models this variable is statistically significant.

Table 3 - Regression Results of JM Model

$$TAC_{i,t} = \beta_0 + \beta_1 [1/AT_{i,t}] + \beta_2 [\Delta REV_{i,t} - \Delta REC_{i,t}] + \beta_3 [PPE_{i,t}] + \varepsilon_{i,t}$$

Models	Intercept	$1/AT_{i,t}$	$\Delta REV_{i,t} - \Delta REC_{i,t}$	$PPE_{i,t}$	R^2
Legal Entity	0.021	-1707.48	0.040	-0.080	0.74
	[1.21]	[-0.72]	[1.42]	[-2.86]	
	(0.227)	(0.470)	(0.157)	(0.004)	
Economic Entity	0.046	-4179.51	0.087	-0.163	5.02
	[2.59]	[-2.51]	[2.71]	[-4.05]	
	(0.010)	(0.012)	(0.007)	(0.000)	

Notes: Coefficients are shown in first line, [t-statistics] appears in second line and (p-value) in third line. $TAC_{i,t}$= Total Accruals; $\Delta REV_{i,t} - \Delta REC_{i,t}$ = changes in revenues adjusted by changes in receivables; $PPE_{i,t}$ = Property, Plant and Equipment.

The JM model in economic entity has a higher R^2 (5.02) comparing with legal entity (0.74). Moreover, the incident in revenues of legal entity suggests that the economic entity captures more accruals in revenues compared to the legal entity. In fact, there is more information in consolidated data to use earnings management models.

We can see through KS model the inverse signal in expenses (δ2EXP) coefficients in table 4, positive for consolidated data and negative for non-consolidated. This evidence can shed light about differences in practices or choices in accounting figures in these different entities.

Table 4 - Regression Results of KS Model

$$AB_{i,t} = \beta_0 + \beta_1 [\delta_1 REV_{i,t}] + \beta_2 [\delta_2 EXP_{i,t}] + \beta_3 [\delta_3 PPE_{i,t}] + \varepsilon_{i,t}$$

Models	Intercept	δ1REV	δ2EXP	δ3PPE	R^2
Legal Entity	-0.071	1.193	-0.786	-1.398	80.12
	[-2.24]	[9.92]	[3.82]	[-2.15]	
	(0.026)	(0.000)	(0.000)	(0.032)	
Economic Entity	-0.057	1.165	0.961	-0.852	92.16
	[-1.94]	[11.78]	[10.36]	[-2.05]	
	(0.053)	(0.000)	(0.000)	(0.041)	

Notes: Coefficients are shown in first line, [t-statistics] appears in second line and (p-value) in third. $AB_{i,t}$ = Accrual balance; $\delta 1REV_{i,t}$= revenues adjusted by ratio δ1 in year t-1; $\delta 2EXP_{i,t}$= Expenses adjusted by ratio δ2 in year t-1; $\delta 3PPE_{i,t}$= revenues adjusted by ratio δ3 in year t-1;

Looking for δ1REV and δ3PPE variables we find that slope coefficient are higher in legal entities than economic entities, principally in δ3PPE. A possible effect from practice and theory is the use of depreciation and amortization to manage earnings.

The results of KS model using consolidated data shows a higher R^2 (92.16%) compared to non-consolidated data (R^2 80.12). Looking for the structure of Brazilian GAAP before IFRS adoption, where the consolidated accounting information aggregate results of many discretionary decisions may explain partially such higher R^2 for consolidated data.

We refrain from comparing results between JM and KS models since they use different procedures and constructs about data development and estimators.

Finally, table 5 shows us the descriptive statistics for non-parametric tests aiming to verify if there is difference in the means of discretionary accruals in absolute value between consolidated and non-consolidated data as the mean to assess different patterns in earnings management.

Table 5 - Descriptive Statistic of Non-Parametric test

Variables	N	Mean	Std Dev	Median
Cons_JM_DA_AB	848	0.112	0.225	0.061
Ctrl_JM_DA_AB	848	0.117	0.381	0.064
Cons_KS_DA_AB	694	0.119	0.218	0.066
Ctrl_KS_DA_AB	694	0.135	0.369	0.071

Obs.: Cons_JM_DA_AB= Discretionary accruals obtained in JM model in absolute value of consolidated data; **Ctrl_JM_DA_AB**= Discretionary accruals obtained in JM model in absolute value of non-consolidated data; **Cons_KS_DA_AB**= Discretionary accruals obtained in KS model in absolute value of consolidated data; **Ctrl_KS_DA_AB**= Discretionary accruals obtained in KS model in absolute value of non-consolidated data.

We decided not use mean T-test for the two samples of discretionary accruals obtained by the models because the sums of those means are zero. Finally, we use non-parametric test (Mann-Whitney) – This test helps us in avoiding the use of means (and the related assumptions), by using medians (and relaxing assumptions), what can lead to different results, considering that discretionary accruals obtained by the models are not normal distributed. In this regard, table 6 shows Mann-Whitney tests as follows:

Table 6 - Non-Parametric Results of difference between legal and economic entities in JM and KS models

Variables	N	Median	W Statistic (P-value)
Panel A: JM Discretionary Accruals			
H_0: Cons_JM_DA_AB = Ctrl_JM_DA_AB			
Cons_JM_DA_AB	848	0.06142	719636.0
Ctrl_JM_DA_AB	848	0.06439	(0.99)
Panel B: KS Discretionary Accruals			
H_0: Cons_KS_DA_AB = Ctrl_KS_DA_AB			
Cons_KS_DA_AB	694	0.06634	473752.5
Ctrl_KS_DA_AB	694	0.07137	(0.27)

Notes: Cons_JM_DA_AB= Discretionary accruals obtained in JM model in absolute value of consolidated data; **Ctrl_JM_DA_AB**= Discretionary accruals obtained in JM model in absolute value of non-consolidated data; **Cons_KS_DA_AB**= Discretionary accruals obtained in KS model in absolute value of consolidated data; **Ctrl_KS_DA_AB**= Discretionary accruals obtained in KS model in absolute value of non-consolidated data. P-values are between parentheses.

The results of non-parametric test show us that there is no evidence of difference in discretionary accruals in legal and economic entities in both models, despite the higher standard deviation in legal entities in both models comparing to economic entities. The p-values of both of tests are higher than significance level at 5% (0.99 and 0.27 for JM and KS absolute values of discretionary accruals, respectively). We tested data in normal values and the results remain similar.

As a final remark, we should mention that discretionary accruals could be a "noisy" proxy of earnings manipulation. Our results show somehow the limitations of these proxies, since slope coefficients of regressions show significant differences in signals or significant changes from legal to economic entities while discretionary accruals do not seem to be different in comparing legal and economic entities. Anyhow, the lack of statistical significance in the non-parametric tests applied in our samples shows us that accrual system is working well in Brazil.

4 CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

According to the "classical" research models based on the assessment of discretionary accruals as a measure of earnings management, we find no evidence to support the hypothesis of different incentives leading to different practices of earnings management between legal entities financial statements and consolidated financial statements.

However, in analyzing KS model slope estimates for expense accruals, we have identified significant negative coefficient estimate for expenses accruals in legal entity financial statements, while such coefficient has been positively significant regarding consolidated financial statements. Such evidence suggests that accruals choices related to expenses accounts are performed in order to decrease income of the legal entity, while positive coefficient on consolidated figures suggests income-increasing choices in economic entity. Such evidence is consistent with the incentives of a lower tax burden on the legal entity as well as consolidated income increasing choices in expense accruals is consistent with the idea that consolidated income is more visible for shareholders, analysts and bondholders. Moreover, we find mixed results on slope coefficients in JM model and KS model for revenues and PPE.

It is important to mention, the use of earnings management measures based on accruals, even though largely used in earnings management literature, has been under serious scrutiny by recent research. At least under the particular scenario of IPO firms, Ball *et al* (2007) have concluded that accruals are significantly determined endogenously, meaning that such measure is likely to be upward-biased for earnings management. Other aspect is that both JM and KS models were developed using consolidated data as inputs; probably the use of non-consolidated data could affect the correct application of these models to capture earnings management.

In this regard, a limitation of our work regards the possibility that accruals change in comparing legal entity and economic entity financial statements is due to endogenous factors. Therefore, further research on accruals determination is desirable.

Moreover, the development of more focused proxies for earnings management under Brazilian scenario aiming to capture the influence of taxation on accounting choices seems to be a great research opportunity as well as in other code-law countries. Historically, tax rules have interfered in accounting practices and more recently such interference has been deemed as one of the barriers to international accounting convergence. In this regard, one can understand recently passed corporate law reform (Corporate Law 11.638/07), under the effort to converge with the international financial reporting standards. Such reform has reinforced a formal separation of tax and accounting books and established tax immunity to adjustment entries to comply with generally accepted accounting principles.

Such concern of recent corporate law reform reveals that tax incentives to earnings management may be one of the most relevant motivations in Brazilian influences to accounting choice. Nevertheless, growing importance of market capitalization of local stock exchanges may put Brazil closer to other developed countries set of typical incentives to earnings management. Recent changes in economic and regulatory scenario, as well as international integration of markets, including global accounting convergence, renew the interest on research agenda in accounting choices and earnings management for Brazilian companies.

Nota:

Apresentado no XXXII EnANPAD (2008) e no 20th Asian-Pacific Conference on International Accounting Issues (2008).

REFERENCES

ALMEIDA, J. E. F. **Earnings management no Brasil**: estudo empírico em indústrias e grupos estratégicos. Dissertação (Mestrado em Ciências Contábeis). Fucape, 2006.

ALMEIDA, J. E. F.; COSTA, F. M.; FARIA, L. H. L.; BRANDÃO, M. M. Earnings management no Brasil: grupos estratégicos como nova variável explanatória. **Revista de Contabilidade e Organizações**, v. 3, p. 81-95, 2009.

BALL, R.; KOTHARI, S. P.; ROBIN, A. The effect of international institutional factors on properties of accounting earnings. **Journal of Accounting and Economics**. 2000 (29).

BALL, R.; SHIVAKUMAR, L. Earnings Quality at Initial Public Offerings. **Journal of Accounting & Economics**, v. 45, p. 324-349, 2008.

BRASIL. **Lei nº 6.404**, de 15 de junho de 1976.

CARDOSO, R. L. **Regulação econômica e escolhas de práticas contábeis**: evidências no mercado de saúde suplementar brasileiro. 2005. 163 f. Tese (Doutorado em Ciências Contábeis) – Programa de Pós-Graduação em Ciências Contábeis, Departamentos de Contabilidade e Atuária, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo, 2005.

CONSELHO FEDERAL DE CONTABILIDADE- CFC. **Resolução CFC n° 937**, de 24 de maio de 2002. Aprova a NBC T 8 – Das Demonstrações Contábeis Consolidadas.

______. **Resolução CFC nº 973**, de 27 de junho de 2003. Aprova a NBCT 17- Partes Relacionadas.

COMISSÃO DE VALORES MOBILIÁRIOS – CVM. **Deliberação 26/86**, de 05 de fevereiro de 1986. Aprova o pronunciamento emitido pelo Instituto Brasileiro de Contadores - IBRACON, sobre Transações entre Partes Relacionadas.

FIELDS, T. D.; LYS, T. Z.; VINCENT, L. Empirical research on accounting choice. **Journal of Accounting and Economics**, v.31, p.255-307, 2001.

FIPECAFI - Fundação Instituto de Pesquisas Contábeis, Atuariais e Financeiras. **Manual de Contabilidade das Sociedades por Ações** (aplicável às demais sociedades). 6 ed. São Paulo: Atlas, 2003.

FUJI, A. H. **Gerenciamento de resultados contábeis no âmbito das instituições financeiras atuantes no Brasil**. Dissertação (Mestrado em Ciências Contábeis). Departamento de Contabilidade e Atuária, Universidade de São Paulo, São Paulo, 2004. 133 p.

GIROUX, G. **Detecting Earnings Management**. Wiley, 2004.

HEALY, P. M.; WAHLEN, J. M. A review of earnings management literature and its implications for standard setting. November, 1998. **Working Paper Series**. Available at: <http://www.ssrn.com>. Access on June 11 2005.

IBRACON – Instituto Brasileiro de Contadores. **Pronunciamento XXI - Normas de consolidação**, 1982.

JOHNSON, S.; LA PORTA, R.; LOPEZ-DE-SILANES, F.; SHLEIFER, A. Tunneling. **American Economic Review**. v. 40, p. 22-27, 2000.

JONES, J. J. Earnings management during import relief investigations. **Journal of Accounting Research**. V.29, n.2, p.193-228, Autumn 1991.

KANG, S.; SIVARAMAKRISHNAN, K. Issues in testing earnings management and an instrumental variable approach. **Journal of Accounting Research**, v.33, n.2, p. 353-367, Autumn 1995.

KANG, S. **A conceptual and empirical evaluation of accrual prediction models** (January 1999). Available at SSRN: http://ssrn.com/abstract=147259. Access on 03/10/2007.

MARTINEZ, A. L. **“Gerenciamento” dos resultados contábeis**: estudo empírico das companhias abertas brasileiras. 2001. 167 f. Tese (Doutorado em Ciências Contábeis) – Programa de Pós-Graduação em Ciências Contábeis, Departamentos de Contabilidade e Atuária, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo, 2001.

OTHMAN, H. B.; ZEGHAL, D.; EL YOUNSI, B. **A comparative study of earnings management practice between Canada and France**. 2005. Working paper available at: <http://ssrn.com/abstract=990264> Access on 01/08/2007.

RODRIGUES, A.; PAULO, E.; CARVALHO, L. N.. Gerenciamento de resultados por meio das transações entre companhias brasileiras interligadas. **Revista de Administração**, São Paulo, v.42, n.2, p.216-226, 2007.

SIEGEL, J. G.; SHIM, J. K. **Accounting Handbook**. Barron's: New York, 2006.

TUKAMOTO, Y. S. **Contribuição ao estudo do gerenciamento de resultados**: uma comparação das companhias abertas brasileiras emissoras de ADR e não emissoras de ADRs. 2004. 132 f. Dissertação (Mestrado em Ciências Contábeis) – Programa de Pós-Graduação em Ciências Contábeis, Departamentos de Contabilidade e Atuária, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo, 2004.

WATTS, R. L.; ZIMMERMAN, J.mL. **Positive accounting theory**. Englewood Cliffs: Prentice Hall, 1986.

WEFFORT, E. F. J. **O Brasil e a harmonização contábil internacional:** influências dos sistemas jurídicos e educacional, da cultura e do mercado. São Paulo: Atlas, 2005.

Artigo recebido em 10/08/2013 e aceito para publicação em 17/10/2013