

**FUNDAÇÃO INSTITUTO CAPIXABA DE PESQUISAS EM  
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**IFRS ADVANTAGES BEYOND THE CONSOLIDATED EARNINGS: A  
VALUATION PERSPECTIVE OF PARENT-COMPANIES AND  
INVESTEES**

**VITÓRIA  
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Thesis submitted to the graduate program in Accounting of the Instituto Capixaba de Pesquisas em Contabilidade, Economia e Finanças (FUCAPE), as a partial requirement for obtaining a master's degree in accounting, in the field of research of management accounting and tax planning.

Advisor: Prof. Dr. Danilo Soares Monte-mor

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## RESUMO

Este estudo investiga os benefícios da adoção do IFRS em uma perspectiva além dos lucros consolidados, considerando uma ótica de valuation (avaliação de ativos). Especificamente, é investigado até que ponto a transição para o IFRS ajuda investidores a melhor compreender o conteúdo informativo dos lucros das empresas investidas e das empresas controladoras ao formar expectativas em relação a lucros futuros. É apresentada uma abordagem que exclui totalmente o montante correspondente ao resultado de equivalência patrimonial do lucro da empresa controladora, o qual advém do lucro das empresas investidas (i.e.: afiliadas, controladas e empreendimentos controlados em conjunto). Encontrou-se que as empresas investidas desempenham um papel importante na estrutura de capital das empresas brasileiras. Mais ainda, os resultados revelam que investidores no Brasil sobrevalorizam a persistência do lucro das investidas no período anterior à adoção do IFRS, e que esta anomalia de mercado não pôde mais ser detectada após a adoção do IFRS. Tais resultados sugerem que a adoção do IFRS gera benefícios que vão além do nível de lucros consolidados ao aumentar o nível de atenção dos investidores sobre o lucro das empresas investidas.

**Palavras-chave:** Lucro Consolidado, demonstrações individuais, empresas investidas; adoção de IFRS, mercados emergentes, anomalia de mercado

## **ABSTRACT**

This paper sheds some light on the benefits of IFRS adoption beyond consolidated earnings under a valuation perspective. Specifically, we investigate the extent to which the transition to IFRS help investors to better understand the information content of Parent-only and Investees' earnings when forming expectation about future earnings. We present an approach that totally exclude from the parent company's earnings the amount corresponding to the equity accounting result arising from the investees' earnings. This measure turns in an advantage since it allow us to completely segregate consolidated earnings into its parent-only and investees' earnings components (i.e.: affiliates, subsidiaries or joint venture). We show that investees plays an important role in the capital structure of Brazilian companies. Moreover, our results reveal that in Brazil investors overprice the persistence of the investees' earnings in the pre-IFRS period, and that this market anomaly could no longer be detected after IFRS adoption. These findings suggest that the IFRS adoption generates benefits beyond the consolidated level by increasing investors' attention on the investees and by allowing market participants to better understand affiliated transactions.

**Keywords:** Consolidated Earnings; Parent company; Investees; IFRS adoption; Emerging markets; Market anomaly.

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## **Chapter 1**

### **1 INTRODUCTION**

Previous research suggest that mandatory IFRS adoption improves earnings quality, increases investor demand for equities and helps to mitigate the information asymmetry between firms and stakeholders (European Council: 2002; Barth et al. 2008; Bartov et al.: 2005; Armstrong et al.: 2010; DeFond et al.: 2011). These analyses, however, have focused exclusively on the IFRS consequences at the consolidated level. This paper sheds some light on the benefits of IFRS adoption beyond consolidated earnings under a valuation perspective. Specifically, we investigate the extent to which the transition to IFRS help investors to better understand the information content of Parent-only and Investees' earning when forming expectation about future earnings.

In 2010, IASB and FASB jointly developed the exposure draft entitled Conceptual Framework for Financial Reporting—The Reporting Entity (IASB, 2010) by discussing the relevance of when parent-only and consolidated statements should be presented. The preliminary view of these two bodies is that controlling entities should present consolidated financial statements, since they are most likely to provide useful information to the greatest number of users of financial statements.

However, evidence suggest that this assumption is not necessarily widespread. Thomas (2004) found that through affiliated transactions, earnings management showed a bias towards parent-company over consolidated earnings. Since the parent company has significant control over the related companies, managers can increase parent-company earnings by, for example, controlling subsidiary's dividend policy (Shuto, 2009), which makes difficult to investors to

understand subsidiaries' earnings. Herrmann et al. (2001) found that Japanese stock market adjusts correctly for the persistence of parent-only earnings, but that investors on average underestimate the persistence of subsidiary earnings.

Consistent with prior research using market returns, Hermann et al (2007) find that financial analysts also underestimate the persistence of subsidiary earnings by documenting a significant positive relation between subsidiary earnings and future forecast errors of consolidated earnings. In the post-IFRS period, however, Hermann et al (2007) show that financial analysts no longer underestimate the persistence of subsidiary earnings.

Such results suggest that market participants do not fully understand the information content in the subsidiary earnings, and that the IFRS increase decision usefulness by improving the ability of the market and financial analysts to predict the overall firm performance. In line with these results, we argue that parent company financial statements provides an useful set of information beyond consolidated earnings under a valuation perspective by allowing investors and market participants to better understand affiliated transactions.

To shed some light on the benefits of IFRS information on the content of Investees' earnings when forming expectation about future earnings, we use firms listed on the Brazilian Stock Exchange (Bovespa). Brazil is a good choice in this respect since the Brazilian legal system requires public companies to report both consolidated and parent company financial statements since 1976, long before the full adoption of IFRS in 2010, and it still requires parent company statements to be disclosed.



Moreover, Brazilian accounting rules require parent-only to have a minimum mandatory dividend distribution and to serve as basis for tax calculations, among other corporate effects that are not applied for consolidated earnings (Circular CVM; 2007). Therefore, Brazil provides parent company data for the period before and after IFRS adoption and also provides regulation that raise the probability of managers to engage in earnings management by increasing investees' earnings than by increasing the parent company earnings, as in the last case it could imply in more taxes and profit distribution.

Our research differs from previous studies in Japan in at least two important issues. First: we use a different methodology to measure the parent-only earnings. While Japan requires the investment in affiliate, subsidiary and joint venture to be recognized in the individual parent company statements using the cost method (Herrmann et al, 2001), Brazil requires the equity method to be used in such statements. Our definition of parent-only's earnings *totally* exclude from the parent company's earnings the amount corresponding to the equity accounting result (REP), which arises from investees' earnings (i.e. affiliate, subsidiary and joint venture earnings). This measure for the parent-only earnings in the Brazilian institutional environment allow us to completely segregate the consolidated earnings into its parent-only and its investees' earnings components (whether they are affiliates, subsidiaries or joint venture).

Second, we use a sample from an emerging country that is the biggest and most representative equity market in Latin America (Galdi et al; 2013), and also address a different research question aiming to evaluate the impact of IFRS adoption on the market valuation of the parent-only and investees' earnings.

Our results show that the persistence of consolidated earnings is explained by both investees and parent-only earnings, and that the mean of the consolidated to parent-only asset ratio is 2.73, which suggest that investees earnings plays an important role in the capital structure of Brazilian companies. Moreover, our results suggest that in Brazil investors underpriced the persistence of the investees' earnings in the pre-IFRS period, and that this market anomaly could no longer be detected after IFRS adoption. These findings suggest that IFRS adoption generated benefits beyond the consolidated level by increasing investors' attention on the investees earnings.

This paper contributes to the literature that investigates the relevance of having two sets of financial statements, and provides a discussion that contributes to the understanding of the role played by the individual parent company statements in a valuation perspective. This study has important implications for regulators and investors in countries where both parent company and consolidated statements are disclosed, and in countries that are considering the maintenance or the use of individual statements during the IFRS convergence.

## Chapter 2

### 2 EARNINGS OF INVESTEEES AND HYPOTHESES DEVELOPMENT

#### 2.1 Measuring Earnings Of Investees Using the Equity Accounting Result (REP)

Our approach differs from previous studies in Japan since we use a different methodology to measure the parent-only earnings. While Japan requires the investment in affiliate, subsidiary and joint venture to be recognized in the individual parent company statements using the cost method (Herrmann et al, 2001), Brazil requires the equity method to be used in such statements.

The Brazilian accounting rules require public firms to report in the individual parent company income statements their participation in the affiliate, subsidiary and joint venture earnings using the equity method, just before the EBITDA presentation. In order to obtain the portion of earnings attributable only to the parent-company, we must exclude from the parent-company EBITDA the amount corresponding to the equity accounting result (REP - *Resultado de Equivalência Patrimonial*), which arises from the investees' earnings. In this case, the parent-only earnings is defined as the difference between parent-company EBITDA and REP of the Parent Company.

$$\text{Parent Only Earnings} = \text{EBITDA}_{\text{Parent Company}} - \text{REP}_{\text{Parent Company}} \quad (1)$$

The consolidation practices determine that parent-only and subsidiary earnings should be fully consolidated, and that the earnings resulting from the investment in affiliates and joint venture should be consolidated using the equity method. Our measure of investees' earnings represent the portion of earnings arising from the investment in affiliate, subsidiary and joint venture earnings, that sum up to compose the total consolidated earnings. In this case, as consolidated earnings

accounts for the parent only and investees earnings, the investees' earnings are defined as the portion of consolidated earnings beyond the parent-only earnings.

$$\text{Investees' Earnings} = \text{Consolidated Earnings} - \text{Parent Only Earnings} \quad (2)$$

Tables 1 and 2 present an example that explain the earnings measurement process of investees using the equity method for both the parent company and the consolidated earnings, respectively.

For instance, consider an Alfa company that holds the following distribution of ownership in investees: 80% in subsidiary, 50% in joint venture and 10% in affiliate, which provide the following earnings: \$50, \$20 and \$100, respectively. Since these investees' earnings in the parent company statement are measured under the equity method, they must be recognized according to the amount owned by the parent company of each one of the investees: Subsidiary:  $80\% \times \$50 = \$40$ , Joint venture:  $50\% \times \$20 = \$10$ , affiliate:  $10\% \times \$100 = \$10$ , totaling \$60 (\$40+\$10+\$10). This total amount of \$60 represent the equity accounting result (REP) that must be inserted just before the EBITDA in the parent company income statement.

**TABLE 1: Example of how to measure earnings of investees using the Equity Accounting Result (REP).**

Panel A: Measurement of all investees earnings using the equity method for the parent company income statement

		<b>Subsidiary</b>	<b>Joint venture</b>	<b>Afiliates</b>	
A	Income	70	50	150	
B	(-) Expenses	20	30	50	
<b>C = A-B</b>	<b>= Earnings</b>	<b>50</b>	<b>20</b>	<b>100</b>	
D	Ownership percentage	80%	50%	10%	<b>Total REP</b>
<b>E = CxD</b>	<b>Equity account result (REP)</b>	<b>40</b>	<b>10</b>	<b>10</b>	<b>60</b>

Panel B: Alfa Parent company income statement

Income	80
(-) Expenses	50
<b>+ REP</b>	<b><u>60</u></b>
<b>= EBITDA</b>	<b>90</b>

Table 2 illustrates the measurement process of investees' earnings for the consolidated income statement. The consolidation practices determine that subsidiary earnings should be fully recognized in the consolidated income statement, regardless of the percentage of effective ownership over it. It also determines that earnings resulting from the investment in Joint venture and affiliates should be measured under the equity method. Thus in their consolidated income statement, the Alfa company should fully recognize \$50 from subsidiary earnings (100%x\$50) and, under the equity method, \$10 from joint venture (50%x\$20) and \$10 from affiliate firms (10%x\$100).

**TABLE 2: Using the Equity Accounting Result (REP) in the Consolidated Earnings**

Panel A: Measurement of Joint venture and affiliate earnings using the equity method for the consolidated income statement

		Joint venture	Affiliate	
A	Income	50	150	
B	(-) Expenses	30	50	
<b>C = A-B</b>	<b>= Earnings</b>	<b>20</b>	<b>100</b>	
D	Ownership percentage	50%	10%	<b>Total REP</b>
<b>E = CxD</b>	<b>Equity account result (REP)</b>	<b>10</b>	<b>10</b>	<b>20</b>

Panel B: Alfa Consolidated income statement

	Subsidiary	Paren-only	Total
Income	70	80	150
(-) Expenses	20	50	70
<b>+ REP</b>			<b><u>20</u></b>
<b>= EBITDA</b>			<b>100</b>

The REP in the Alfa parent company income statement contains all the earnings arising from the investees under the equity method, while the REP in the consolidated income statement contains only the earnings arising from the affiliate and joint venture firms (under the equity method). Therefore, in order to obtain the portion of earnings exclusively from the Alfa parent company, what we define as the parent-only earnings, we basically need to solve the following equation:

<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 150px;"> Parent Company Ebitda: \$90 </div>	-	<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 150px;"> Parent Company REP: \$60 </div>	=	<div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 150px;"> Parent-Only Earnings: \$30 </div>
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Figure 1: Alfa parent-only earnings

The amount beyond the Alfa parent-only earnings, which sum up to form the Alfa consolidated earnings, corresponds to the investees earnings and is measured as follow:

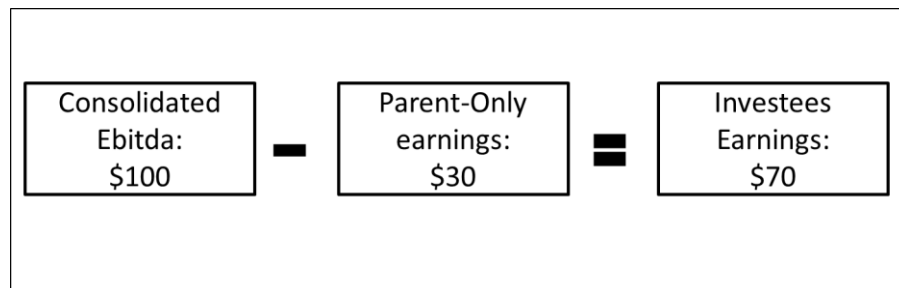


Figure 2: Alfa investees' earnings

Note that the investees earnings in the above equation (\$70) corresponds to the exactly amount necessary to reach the Alfa consolidated earnings, which are composed by fully \$50 from subsidiary earnings, \$10 from joint venture and \$10 from affiliate earnings (\$50+\$10+\$10=\$70), as illustrated in Figure 3.

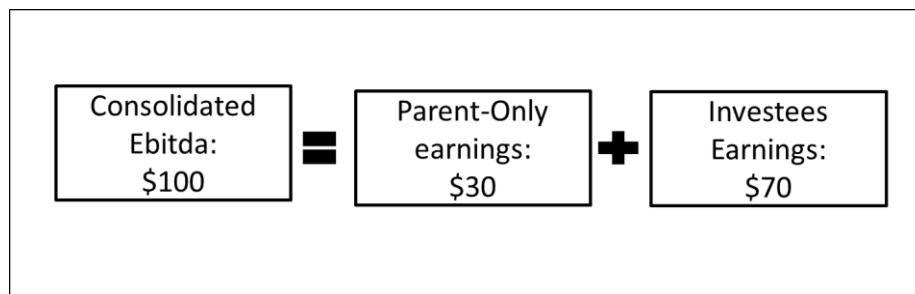


Figure 3: Consolidated earnings composition.

Studies in Japan that analyzed the market pricing of subsidiary earnings, defined subsidiary earnings as the difference between parent-only and consolidated earnings (Herrmann et al., 2001,2007; Shuto, 2009). Such measure could not be directly used in Brazil neither to measure the subsidiary earnings nor to measure the investees earnings. It happens because, as showed before, part of the earnings arising from the subsidiary, affiliates and joint venture is already in the parent company Ebitda under the equity method.

In the Brazilian case, the difference between consolidated and parent company Ebitda would represent only the portion of subsidiary earnings that is not covered by the equity method and, thus, not owned by the parent. As showed in Figure 4, this difference would be \$10, which represents the exactly 20% of the subsidiary earnings that is not owned by the parent company (see Table 1).

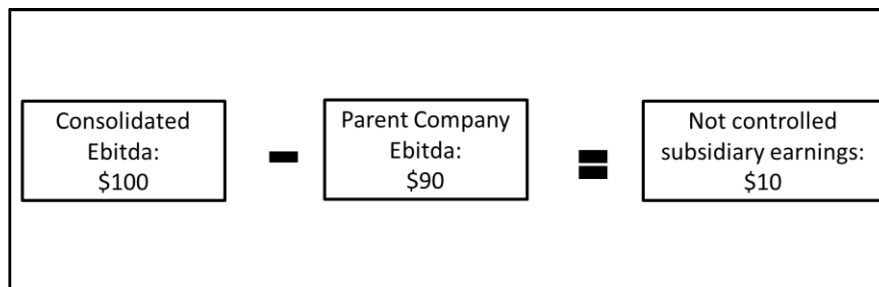


Figure 4: Obtaining the subsidiary earnings that is not owned by the parent company.

Therefore, our definition of parent-only earnings *totally* exclude from the parent company earnings the amount corresponding to the equity accounting result (REP), which arises from these investees' earnings (i.e. affiliate, subsidiary and joint venture earnings). This measure for the parent-only earnings in the Brazilian institutional environment turns in an advantage once it allow us to completely segregate the consolidated earnings into its parent-only and its investees' earnings components (whether they are affiliates, subsidiaries or joint venture).

## 2.2 Hypotheses Development

Few studies explore consolidated versus parent-only financial statements in the international literature: Niskanen et al.(1998) approached Finnish firms, Abad et al. (2000) Spanish firms, Goncharov et al. (2009) German Firms, and Müller (2011) for the three largest stock market in Europe. These studies suggest a market focus on consolidated information to the detriment of parent company individual statements



and question the necessity of publishing parent company statements when consolidated financial information has been presented.

These studies are sustained by the regulatory bodies FASB and IASB in favor of consolidated financial information. In the Exposure Draft jointly developed by the IASB and FASB; Conceptual Framework for Financial Reporting - The Reporting Entity, the preliminary view of the two bodies is that : “if an entity that controls one or more entities prepares financial reports, it should present consolidated financial statement [as they are] most likely to provide useful information to the greatest number of users.” (IASB, 2010).

However, several researchers argue that the well documented associations between earnings and stock returns reflect investor preoccupation with reported earnings rather than its ability in correctly understanding available information, especially in forecasting future earnings performance (Ou, 1989; Bernard, 1990; Hand, 1990; Maines, 1996; Sloan, 1996; Xie, 2001, Herrmann et al, 2001).

In comparison to studies conducted in the U.S., we argue that studies of market mispricing should take into account the existence of Parent-only financial statements when it is available, especially in countries with higher restriction to earnings management compared to consolidated and investees earnings.

Previous studies in Japan have examined issues related to the parent-company, subsidiary and consolidated earnings, since Japan shares the Brazilian practice of compelling the disclosure of both sets of financial statements. Herrmann et al. (2001) found that investors in Japan underestimate the persistence of the subsidiary earnings into year ahead consolidated earnings, even though they are more persistent than parent-company earnings. Okuda (2010) provides evidences

that subsidiary return on equity (ROE) has a greater effect in driving current stock returns than parent-only ROE.

Additional research shows that a lack of focus on the persistence of subsidiary earnings also extends to analysts' forecasts (Herrmann et al., 2007). Thomas (2004) found evidences that through affiliated transactions, earnings management showed a bias towards parent-company earnings over consolidated earnings. Since the parent company has significant control over the related companies, they can also increase the parent-company earnings by controlling the subsidiary's dividend policy (Shuto, 2009), which makes difficult to investors to understand subsidiaries' earnings. Under these perspectives and considering the institutional environment of higher managerial discretion among the investees' earnings in Brazil, we state our first hyphotesis:

**H1:** The earnings expectations embedded in stock prices fail to reflect fully the earnings persistence attributable to investees component of consolidated earnings.

This hypothesis makes predictions about deviations in the expectations embedded in stock prices from the historical relationships between investees' earnings and one-year-ahead consolidated earnings. Our next hypothesis empathizes the effect of IFRS convergence on such expectations.

Studies analyzing the benefits and economic consequences of IFRS convergence show an improvement on the quality of corporate disclosures after IFRS adoption. Specifically, these studies suggest that IFRS adoption leads to higher earnings response coefficients (Bartov et al. 2005), less aggressive earnings management, more timely recognition of economic losses and greater value relevance of accounting amounts (Barth et al. 2008), higher market liquidity and

trading volume (Leuz et al., 2000), lower cost of equity (Li, 2010), greater investment flows from attracting more foreign mutual funds (Covrig et al. 2007), increases the propensity of firms cross-listing (Chen et al, 2015), reduces information asymmetry and cost of capital (Li, 2010), increases cross-border investment from foreign funds (Covrig et al. : 2007; Florou et al.: 2012; DeFond et al.: 2011), and promotes higher analyst following and improved analyst forecast precision (Tan et al.: 2011; Horton et al.: 2013).

Other studies show that IFRS adoption creates advantages over local standard in many countries. These studies suggest that IFRS is more useful to investors since it is more capital-oriented (Hail et al., 2010), IFRS increases the level of required disclosures (Leuz et al.: 2000; Ashbaugh et al. 2001), constrains managerial discretion as it reduces the choice of accounting methods (Ashbaugh et al. 2001; Barth et al: 2008), provides more relevant information for investment decisions since it requires accounting measurements and recognition that better reflect a firm's underlying economic position (IASB 1989; Barth et al. 2008), among others.

All these benefits suggest that IFRS improves the information environment by increasing earnings quality and the monitoring levels, and reducing the information asymmetry between the firm and stakeholders. The next hypothesis contributes to the literature that investigates the relevance in providing the parent-only financial statement. It empathizes the effect of IFRS convergence on the extent to which the transition to IFRS help investors to better understand the information content of Parent-only and Investees' earning when forming expectation about future earnings.

**H2:** The IFRS reduces the market mispricing of the persistence of investees earnings in predicting one-year-ahead consolidated earnings.

## **Chapter 3**

### **3 RESEARCH DESIGN**

#### **3.1 SAMPLE FORMATION**

We conduct our empirical tests using firms listed on the Brazilian Stock Exchange (Bovespa). Data comes from the Economática® databases in the period that range from 1990 to 2015. We excluded all financial and insurance firms since they are subjected to specific accounting regulation in Brazil. Our analyses requires that firms disclose financial statements on the parent company and consolidated level. We exclude the transition years of 2008 and 2009, since in such period Brazilian companies were allowed to choose between adopting or not the IFRS in their financial disclosures. Our final sample consists of 665 firms and 2923 firm-year observation. To mitigate the effects of outliers, all variables were winsorized at 1%. We also scaled all financial statements variables by total assets of the beginning of the fiscal year.

#### **3.2 THE MISHKIN TEST**

In the pursuit of examining market's rational expectation and efficiency in a macroeconomics setting, Mishkin (1983) developed a testable framework based on a nonlinear estimation procedure. The literature has widely used this framework to figure whether the market rationally prices the implications of current earnings information, and its components, for future stock returns (Sloan, 1996; Xie, 2001; Kasznik, 1999; Cupertino et al 2012; Herrmann 2001).

In our context we use the Mishkin test to investigate whether investors in the Brazilian market fail to fully appreciate the persistence of the parent-only and investees' earnings into one-year-ahead consolidated earnings. The Mishkin test requires the simultaneous estimation of the following equations using non-linear least squares.

$$\text{EARNCE}_{t+1} = \alpha_0 + \alpha_1 \text{PARENT}_t + \alpha_2 \text{INVESTEES}_t + \varepsilon_{1t+1} \quad (3)$$

$$\text{ABNRET}_{t+1} = \beta_0 + \beta_1 (\text{EARNCE}_{t+1} - \alpha_0 - \alpha_1 \text{PARENT}_t - \alpha_2 \text{INVESTEES}_t) + \varepsilon_{2t+1} \quad (4)$$

where  $\text{EARNCE}_{t+1}$  represents one-year-ahead consolidated earnings,  $\text{PARENT}_t$  and  $\text{INVESTEES}_t$  represent earnings of parent-only and investees, respectively, and  $\text{ABNRET}_{t+1}$  equals size-adjusted abnormal returns from the 12-month period ending 3 months after the fiscal-year-end month, as in Sloan (1996).

The first equation measures the historical persistence ( $\alpha_i$ ) of year  $t$  parent-only and investees' earnings into one-year-ahead consolidated earnings. The second equation represents the valuation equation and allow us to estimate how the market measure the persistence ( $\alpha_i^*$ ) of year  $t$  parent-only and investees' earnings into one-year-ahead consolidated earnings. An efficient market requires stock prices to correctly forecast the persistence of consolidated earnings components, which imposes the nonlinear constraint of  $\alpha_i = \alpha_i^*$ .

If the earnings expectations embedded in stock prices fail to fully reflect the earnings persistence attributable to a component of the consolidated earnings, then we must have  $\alpha_i \neq \alpha_i^*$ . More specifically,  $\alpha_i^* < \alpha_i$  ( $\alpha_i^* > \alpha_i$ ) would suggest underpricing (overpricing). Following Sloan (1996), we use a likelihood ratio statistic to test the null of market efficiency, which is asymptotically  $\chi^2(q)$  distributed:

$$2n * \log \left( \frac{SSR^C}{SSR^u} \right)$$

where  $q$  represents the number of constraints imposed by market efficiency,  $n$  represents the number of observations,  $SSR^C$  is the sum of squared residuals from the constrained weighted system, and  $SSR^u$  is the sum of squared residuals from the unconstrained weighted system. To access our hypotheses H1 and H2, we estimate equations 3 and 4 in the full period and in the pre and post-IFRS period, respectively.

## Chapter 4

### 4 DESCRIPTIVE STATISTICS AND RESULTS

Table 3 presents the descriptive statistics and median tests of our covariates for the years before and after the full adoption of IFRS in Brazil. Panel A presents descriptive statistics considering the whole sample period. Panel B presents mean and Mann-Whitney median comparison tests for all variables in the pre and post-IFRS period.

Panel A of Table 3 shows that the mean of the investees' earnings are greater than those of the parent-only earnings, suggesting that on average earnings of investees are more representative on consolidated earnings over parent-only earnings. Untabulated results also review that the mean of the consolidated to parent company asset ratio is 2.73. Together, these results suggest that the investees play an important role in the capital structure of Brazilian companies.

Panel A of Table 3 still show that while more than 75% of investees' earnings are positive ( $Q1 > 0$ ), almost 50% of parent-only earnings are negative (median=0). Such results corroborate with Thomas (2004), who found that through affiliated transactions earnings management show a bias towards parent-company over consolidated earnings.

Panel B of Table 3 shows that there was a significant reduction in the median of abnormal returns in the post-IFRS period. The results of the t-test, in spite of the lack of significance, also show a reduction in the average levels of abnormal returns. These results are consistent with findings in the literature which suggest that IFRS is more useful to investors since it is more capital-oriented (Hail et al., 2010), IFRS and provides more relevant information for investment decisions by requiring accounting

measurements and recognition that better reflect a firm's underlying economic position (IASB 1989; Barth et al. 2008).

**Table 3: Descriptive statistics, mean and median comparison test**

<b>Panel A: Descriptive Statistics for the whole sample period</b>					
	Mean	Std. Dev.	Median	Q1	Q3
Abnormal return	-0.06	6.79	-0.06	-0.38	0.24
Consolidated Ebitda	0.10	0.30	0.07	0.02	0.14
Parent company Ebitda	-0.01	3.58	0.04	0.00	0.11
Parent company equity accounting result (REP)	0.10	5.79	0.01	0.00	0.04
Parent-only earnings	0.03	0.18	0.00	-0.01	0.07
Investees' earnings	0.06	0.21	0.03	0.00	0.08

<b>Panel B: Mean comparison test (t- test), and Mann-Whitney test before and after the IFRS full adoption</b>						
	Mean			Median		
	Before IFRS	After IFRS	P-value	Before IFRS	After IFRS	P-value
Abnormal return	-0.10	0.00	0.75	-0.46	-0.23	0.00
Consolidated Ebitda	0.12	0.04	0.00	0.08	0.05	0.00
Parent company Ebitda	-0.02	0.01	0.81	0.05	0.04	0.00
Parent company equity accounting result (REP)	0.16	0.01	0.47	0.01	0.01	0.18
Parent-only earnings	0.04	0.02	0.00	0.01	0.00	0.00
Investees' earnings	0.07	0.03	0.00	0.03	0.02	0.87

Table 4 reports the results of the Mishkin test considering only the persistence of consolidated earnings. The forecasting coefficient measures the historical persistence of year  $t$  consolidated earnings into one-year ahead consolidated earnings, while the valuation coefficient measures such persistence as reflected by stock prices. Panel A of Table 4 contains the estimations for the whole sample period, and Panels B and C contain the estimation for the pre and post-IFRS adoption period, respectively. In all Panels, the consolidated earnings coefficient in the valuation equation is not statistically different of the valuation coefficient. This result suggest that investors in the Brazilian market do not fail to fully appreciate the persistence of earnings at the consolidated level, which support the findings in Cupertino et al (2012) using Brazilian data and in Sloan(1996) using U.S. data.



Panels B and C of Table 4 still show that the persistence of consolidated earnings increased in the post-IFRS period (from 0.3824 to 0.5368). This results support prior studies that suggest an increase in earnings quality at the consolidated level.

Panels A, B and C of Table 5 report the results for the forecasting and valuation coefficient of parent-only and investees' earnings for the whole sample period, and for the pre and post-IFRS adoption period, respectively. Panel A of Table 5 show that while the valuation and forecasting coefficient of the parent-only are not statistically different, the valuation coefficient is larger than its counterpart in the forecasting equation for the investees at 1% significance level ( $\alpha_2^* = 0.7703 > 0.4871 = \alpha_2$ ). These results suggest that the Brazilian market do not fail to fully appreciate the persistence of parent-only' earnings, but overprices earnings of investees, supporting hypothesis H1.



**Table 5: Market pricing of parent-only and investees' earnings regarding their implications for one-year-ahead consolidated earnings**

**Models used:**

$$\text{EARNCE}_{t+1} = \alpha_0 + \alpha_1 \text{PARENT}_t + \alpha_2 \text{INVESTEES}_t + V_{t+1}$$

$$\text{ABNRET}_{t+1} = \beta_0 + \beta_1 (\text{EARNCE}_{t+1} - \alpha_0 - \alpha_1 \text{PARENT}_t - \alpha_2 \text{INVESTEES}_t) + \varepsilon_{t+1}$$

Forecasting Coefficients			Valuation Coefficients			Efficiency test <sup>1</sup>
Parameter	Estimate	Asymptotic Std. Deviation	Parameter	Estimate	Asymptotic Std. Deviation	P-value
$\alpha_1$ (PARENT)	0.4291	0.0000	$\alpha_1^*$ (PARENT)	0.3045	0.0144	0.3290
$\alpha_2$ (INVESTEES)	0.4871	0.0000	$\alpha_2^*$ (INVESTEES)	0.7703	0.0000	0.0100

**Panel B: Results for the period before the full adoption of IFRS (i.e. From 1991 until 2007)**

Forecasting Coefficients			Valuation Coefficients			Efficiency test <sup>1</sup>
Parameter	Estimate	Asymptotic Std. Deviation	Parameter	Estimate	Asymptotic Std. Deviation	P-value
$\alpha_1$ (PARENT)	0.3990	0.0000	$\alpha_1^*$ (PARENT)	0.2640	0.0738	0.3737
$\alpha_2$ (INVESTEES)	0.4840	0.0000	$\alpha_2^*$ (INVESTEES)	0.7637	0.0000	0.0264

**Panel C: Results for the period after the full adoption of IFRS (i.e. From 2010 until 2014)**

Forecasting Coefficients			Valuation Coefficients			Efficiency test <sup>1</sup>
Parameter	Estimate	Asymptotic Std. Deviation	Parameter	Estimate	Asymptotic Std. Deviation	P-value
$\alpha_1$ (PARENT)	0.6244	0.0000	$\alpha_1^*$ (PARENT)	0.5069	0.006	0.4421
$\alpha_2$ (INVESTEES)	0.4638	0.0000	$\alpha_2^*$ (INVESTEES)	0.3790	0.0572	0.6793

1- Test of rational pricing of Parent-only and Investees' earnings components, in which the null hypotheses of efficiency requires the coefficients of the forecasting and valuation to be equal.

Where:

$\text{EARNCE}_{t+1}$  = Year ahead consolidated earnings,  $\text{ABNRET}_{t+1}$  = the 12-month excess return of a buy-hold strategy of an individual firm over a control portfolio, composed by firms ranked by size decile measured as market value,  $\text{PARENT}$  = Parent-only Earnings,  $\text{INVESTEES}$  = Investees' earnings

These results suggest a market anomaly related to the investees' earnings for pre-IFRS adoption period, with the Brazilian market paying stronger attention to parent-only earnings and failing to fully appreciate the persistence of investees' earnings. These findings corroborate with Herrmann et al (2001) that show a greater market focus on individual parent company earnings among investors in the Japanese market.

Hypothesis H1 makes predictions about deviations in the expectations embedded in stock prices from the historical relationships between investees' earnings and one-year-ahead consolidated earnings. Panels B and C of Table 5 empathizes the effect of IFRS convergence on such expectations. Panel B of Table 5 shows that, as in the whole sample period, the Brazilian market overprices the persistence of investees' earnings at 5% significance level ( $\alpha_1^* = 0.763 > 0.4840 = \alpha_1$ ), and do not fail to fully appreciate the persistence of parent-only' earnings, supporting a market anomaly related to earnings of the investees.

When we consider the post-IFRS adoption period, however, Panel C of Table 5 show that the Brazilian market correctly prices and no longer overprices the earnings persistence of the investees. This finding support hypothesis H2, suggesting that the IFRS adoption facilitated the market understanding about the role played by the investees in the consolidated earnings.

Our results support prior findings and extend the literature by presenting benefits of IFRS adoption beyond consolidated earnings under a valuation perspective. Specifically, we present evidence that the transition to IFRS helped investors to better understand the information content of Parent-only and Investees' earnings when forming expectation about future earnings.

## Chapter 5

### 5 CONCLUSION

This paper sheds some light on the benefits of IFRS adoption beyond consolidated earnings by investigating whether stock prices rationally reflect the one year ahead consolidated earnings implications of the investees' earnings.

Relating to consolidated (parent-only) earnings, our results suggest that expectations embedded in stock prices do not deviate in both pre and post-IFRS period from the historical relationships between consolidated (parent-only) earnings and one-year-ahead consolidated earnings. Relating to investees, however, we show that the Brazilian market fails to fully appreciate the persistence of investees' earnings in the pre-IFRS period, and that the Brazilian market no longer overprices the earnings persistence of the investees in the post-IFRS period.

Such results suggest that market participants do not fully understand the information content in the subsidiary earnings, and that IFRS increase decision usefulness by improving the ability of the market to predict overall firm performance. In line with these results, we argue that parent-only financial statements provides an useful set of information beyond consolidated earnings under a valuation perspective by allowing investors to increase attention on the investees and market participants to better understand affiliated transactions.

We also present a definition of parent-only earnings that *totally* exclude from the parent company earnings the amount corresponding to the equity accounting result (REP), which arises from these investees' earnings (i.e. affiliate, subsidiary and joint venture earnings). This measure for the parent-only earnings in the Brazilian

institutional environment turns in an advantage once it allow us to completely segregate the consolidated earnings into its parent-only and its investees' earnings components (whether they are affiliates, subsidiaries or joint venture).

This paper contributes to the literature that investigates the relevance of two sets of financial statements, and provides a discussion that contributes to the understanding of the role played by the individual parent company statements in a valuation perspective. This study has important implications for regulator and investor in countries where both parent company and consolidated statements are disclosed, and in countries that are considering the maintenance or the use of individual statements during the IFRS convergence.

Future research could explore causes and consequences of the investees' earnings mispricing, in comparison to the parent-only earnings components, perhaps relating earnings management as a possible explanation. While our findings suggest a market anomaly related to the investees' earnings before the IFRS, limits to arbitrageurs and risk cannot be ruled out as possible explanations. Previous studies addressing accruals anomaly suggest that the reasons for the market anomaly relates to transaction costs, low liquidity and high idiosyncratic risk (Pincus et al; 2007: Mashruwala et al.; 2006: Cohen et al.;2007: Galdi et al; 2013).

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