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An Evaluation of Value Relevance of Consolidated Earnings and Cash Flow Reporting in India

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Abstract

This study examines the value relevance of consolidated financial statements and cash flow statements in the Indian Stock market. In the recent years several new disclosures have been mandated in India including the cash flow statement and the preparation of consolidated financial statements. The motivation for the additional disclosures has been internationalization of accounting standards as well as better transparency. Very few countries provide information on both stand alone as well as consolidated financial statements, which makes it unique in the Indian context to study the relative importance of these statements. This study provides evidence on consolidated financial statements and the preparation of cash flow statement.

Our findings are that consolidated accrual earnings and cash flows statements have no significant association with market adjusted stock return. On the contrary, the parent only earnings show significant positive relationship with the stock returns. Our results are quite contrary to the existing literature on value relevance from other counties and throws light on the way markets react to the information in an emerging market like India. These results have a policy implication for the regulators especially as we are moving towards adopting the International Financial reporting standards.

JEL classification: G10 G14 M41

Key Words: Consolidated earnings; Parent only earnings, Cash flows, Stock returns, Value relevance; Accounting information, Indian Stock Market

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1. INTRODUCTION

Corporate reporting and disclosures play a crucial role in the efficient functioning of capital markets and are important constituents of corporate governance structure (Healy and Palepu, 2001). Recent developments around the world have made the regulators and policy makers revisit the regulations relating to governance and corporate reporting in particular. Increasing globalization of capital markets reflected in rising flows of capital across borders, connection among stock exchanges in different countries, East Asian crisis and collapse of companies such as Enron and WorldCom and the financial services companies such as Lehman Brothers have shocked the investors world over. The case of Satyam Computers, the biggest fraud in the Indian corporate history has highlighted the need for increased governance in the emerging markets. As a consequence policy makers and regulators have promulgated new regulations to improve market transparency by increasing the quantity and quality of information provided to the investors. For instance, the US enacted the Sarbanes-Oxley Act, European counties have implemented the European Union Directives, and many have adopted the International Financial Reporting Standards (IFRS). India too has accelerated its reforms alongside the global developments in reporting as well as other corporate governance requirements. International Accounting Standards (IAS) such as; consolidated financial statements, accounting for deferred tax, segment reporting, reporting of related party transactions, cash flow statements, impairment of assets and accounting for financial instruments have been adopted in the Indian accounting standards. Regulators mandate companies to provide additional information on the fundamental belief that they add value to investors and other users. Value relevance of accounting information is one of the basic attributes of accounting quality (Francis et al., 2004)

The value relevance of reporting and the information content of the earnings has been examined by researchers in the past (See for example; Wilson, 1987; Bernard and Stober, 1989; Cheng et al., 1996; Pfeiffer et al 1998; Sloan, 1996, Barth et al., 1999). Summarizing the earlier studies of two decades Lev (1989) concluded that the extent of earnings usefulness of accounting numbers for determining the stock prices is limited. He attributed the results to the low quality of accounting information as well as valuation

biases in measurement of earnings. Further, increasing importance of intangible assets, use of historical cost for valuing long term assets, complex nature of business transaction, earnings management followed by companies, complex information requirement by the sophisticated investors and conservative accounting have made accounting numbers less useful for deriving the market value in the US. (see Lev and Zarowin, 1999; Francis and Schipper, (1999) Dontoh, Radhakrishnan and Ronen, (2004) (Dimitrios et al., (2009). Contrary to the earlier results, Collins et al., (1997) found that value-relevance of combined earnings and book values has not declined over the past forty years. They also report that although the value relevance of the bottom-line earnings (ie earnings including discontinued, extraordinary and special items) had declined but the value relevance of book value had increased.

Value relevance of reporting information has been tested with several accounting variables, like conservative accounting, R&D expenditure, advertising expenditure etc. A related disclosure of information is the consolidated financial statements. Consolidated financial statements (CFS) refers to the financial statements presented by the holding company related to its individual operations and also of the group as a whole. The purpose of consolidated financial statements is to present the financial statements of not only the parent company but also its subsidiaries as one entity. CFS provides more information to the investor as compared to the parent only statements, as it accounts for the interdependencies, especially when there are transactions between subsidiary and parent. There has been considerable debate over whether the parent only or the consolidated financial statements is more valuable to the investors.

In this paper we examine the value-relevance of consolidated versus parent company accounting information. In particular we investigate the value relevance of the unexpected parent and consolidated earnings and cash flows. We examine whether parent company earnings or the consolidated earnings, as currently prescribed, provide the more value relevant information for pricing parent company shares. Our study is important for several reasons. Firstly, India has seen a substantial flow of investment though foreign direct investment and as well as in the stock markets through foreign institutional investors. The foreign investment in India since liberalization in 1991 has reached around US 102,100 million dollars (DIPP, 2010). Foreign investors need better

disclosure and transparency of information. If we need to attract funds from both domestic as well as foreign investors we need to examine the financial reporting relevance. Secondly, there have been several studies examining the value relevance of accounting information especially in the developed markets and very few in developing markets. In US for example financial accounting numbers have become less value relevant for decision making. The relative usefulness of the financial statements of both the parent only and consolidated statements have been examined in still fewer studies. In the light of earlier discussion of decreasing value relevance, we need to examine the relative usefulness of information in an emerging market economy like India. Finally, the study is also useful to regulators who depend upon entity concepts of consolidation to define the extent of ownership control and the definition of the reporting group. This study highlights the effectiveness of consolidated statements in the present form i.e. using entity theory vs parent theory being value relevant to the investor. The findings of this study should also be relevant to the regulators and the Accounting Standards Board as they deliberate on setting common standards to ensure uniformity and to enhance the reliability of financial statement information. The evidence of additional disclosures is particularly important to improve the standards of disclosure and better transparency as India adopts IFRS in the near future. This study contributes to the extant literature by examining value relevance for both consolidated and parent only earnings and cash flow statements from an Indian perspective.

The rest of the paper is organized as follows: In Section 2 we trace the financial reporting environment in India, Section 3 we discuss the value relevant literature. The methodology and data are discussed in Section 4. We discuss the results in Section 5 and present our conclusion in the last section.

2. Financial Reporting Environment in India

Financial reporting in India is governed predominantly by the Companies Act, 1956, the Indian Accounting Standards formulated by the Institute of Chartered Accountants of India and to some extent by the listing agreements. Most of the laws are

modeled on UK Laws. Since the British time Indian business was structured as corporate form through limited liability. The Bombay stock exchange is in existence for more than a hundred years (formed in 1875). The companies during that period were controlled by "managing agency" which were more an investment company and a pseudo holding company. Any public issue of shares during that period were made to small investors which ensured dispersed ownership in companies resulting in managing agency having control rights disproportionate to their cash flow rights (Goswami, 1999). Post independence in 1947 India adopted a path of mixed economy where both private and state owned enterprises coexisted. Industrial growth was controlled through the Industries (Development and Regulation) Act, 1951 (IDRA), which required all existing and proposed industrial units to obtain licences from the central government for putting up production facilities or expansion or new product etc. which created several barriers to growth and development. The IDRA continued for more than forty years before being dismantled in June 1991 with liberalization and opening up of the economy. In the early 1990's India adopted a path of economic liberalization and opened its market for foreign investments. With that came the need for better transparency and good governance to attract both domestic as well as foreign capital. National Stock Exchange (NSE) is considered to be the leader in the stock exchange in India in terms of the total volume traded. The market capitalization the National Stock Exchange touched about $921.31 billion at the end of May 2009. The number of Foreign Institution Investors reached 1706 at the end of December 2009 and their net investments touched $ 72000 million (SEBI, 2009). With growing foreign investments as well as the free mobility of the investments it was evident that several domestic practices would have to be improved to be acceptable to international investors. The reforms in the capital markets begin in the late nineties. Many committees were formed (eg Kumaramanglam Birla Committee in 2000, Naresh Chandra Committee in 200, J.J.Irani Committee) which resulted in new regulations in corporate governance as well as in reporting. Some of the new regulations include the harmonization and ultimately adopting International Financial Accounting Standards by 2011, substantial revision and enhancing of Clause 49 of the listing agreement of the stock exchanges (eg; Management discussion and analysis in the directors report, Corporate Governance Reporting etc). A major reporting initiative from the accounting

year 2001 onwards was the presentation of consolidated financial statements (CFS) and statement of cash flow (SCF). The objective of CFS is to reflect in a single set of financial statement the result of all companies owned or controlled by the parent company. CFS is useful especially when there is a "dominant financial interest" of two or more companies which is also accompanied by administrative control of the resources of the company. The usefulness of CFS was emphasized by the International Accounting Standards Board (IASB) as: "for investments under the control of private equity entities, users information needs are best served by financial statements in which those investments are consolidated thus revealing the extent of the operations of the entities they control" (IASB, 2006). Investors of the parent company have an enduring interest in the subsidiary company and hence the information contained in the CFS is expected to be informative. Further, presenting CFS will highlight the profits as well as the losses of the subsidiaries that would have remained unaccounted otherwise.

Internationally, CFS was mandated decades earlier in UK and USA due to compelling business reasons. In his seminal work Bircher (1988) comments on the regulation of consolidated financial statements concludes as follows "The actual widespread adoption of consolidated accounting in Great Britain appears to have merged from a complex set of influences at the end of the war." A driving force for such presentation was also the fact that management and ownership was completely diverged in Britain by 1936 (Bircher, 1988) indicating the movement from owner to managerial society.

The proponents of consolidated statements argue that these statements provide more relevant information than individual statements as they reflect the total amount of resources held by the group. Their arguments stems from the fact that (a) the interrelation and the dependencies of companies with that of the parent is accounted for; (b) From the dividend perspective parent company's earnings and earnings form subsidiaries are relevant as they form the basis for declaring dividend; and (c) they also provides a fair presentation when one company is having controlling interests in other companies. (ARB No, 51) Thus such a disclosure would result subsidiary profits getting highlighted or on the subsidiary losses not taken up would be disclosed. On the contary, in many countries in Europe and Asia including India, companies were required

to prepare the parent-only statements for a long time until mandated to prepare the CFS. The opposition to consolidated statements came from the argument that managements desire to smooth holding company's reported profits as a means of fostering financial stability (Greg 1986). A fundamental assumption made while analyzing the consolidated statements is that the assets and liabilities of the consolidated entity are controlled by and are available to the parent company, and hence, to its shareholders. This assumption may or may not reflect the parent's ownership position. Also the consolidated statements combines companies with different operating activities and capital structures and their different economic characteristics which may make the financial statements ambiguous on the risk as well as cash-generating activities of the subsidiary, specially when non – homogeneous subsidiaries are consolidated. depending upon the financial characteristics of the subsidiary, consolidation may result in financial statements that look better or worse than the actual results (White, et al 2001). In the Japanese context, CFS did not gain importance as in US and UK mainly because of the control issues and legal ownership, interlocking of directors and mutual shareholding that may not be reflected in the consolidated statements (Hermann, et al., 2001. CFS was mandated in Japan in the 1980's after entry of foreign companies in the Japanese Stock market (McKinnon,1984). In the European Union (for most countries) after the enactment of Seventh Company Law directive in 1983 and Australia in 1971 (Whittred, 1986).). In addition to parent-only financial statements, companies in the above countries were also required to provide financial statements of subsidiary companies and/or summary of financial statements of subsidiary operations. In India, The Corporate Law Committee that was responsible for formulating the Companies Act 1956, recommended that consolidation was not required and it was felt that the stand alone financial statements of subsidiaries gave more information than a consolidated report and concluded that: "no additional information was derived from consolidation" (Rammaiya 1988). Until 2001, companies prepared the parent-only financial statements and appended financial statements of each of the subsidiary company. CFS was mandated in 2001 through the Indian Accounting Standards number 21 as a move towards achieving convergence between Indian Accounting Standards and IFRS in line with global practices. Currently Indian companies are required to prepare financial statements of parent-only and subsidiary

companies as per the provisions of Companies Act, 1956 and CFS as per AS 21. While financial statements of parent-only and CFS are to be provided to all shareholder, Indian companies have an option to provide the subsidiary companies financial statements to those shareholders who ask for the same. Consolidated financial statements are prepared using the line by line consolidation as specified in the IFRS.

The capital market regulator (Securities and Exchange Board of India, SEBI) required all listed companies to provide statement of cash flows (SCF) since 1995. SEBI while mandating SCF argues "cash flow information is useful in assessing the ability of the company to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different companies. It also enhances comparability of the reporting of operating performance of different companies because it eliminates the effects of using different accounting treatments for the same transaction and events. Historical cash flow information is often used as an indicator of the amount, timing and certainty of future cash flows. It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices." In the next section we review the literature on the consolidated statements as well as the cash flow statements.

3. Literature review

Value relevance of financial statements has been subject matter or research over many years. Value relevance can be termed as the ability of a financial statement to explain the market numbers. Several studies have empirically examined the value relevance of disclosures. Lev (1989) provides a summary of such studies between 1968 and 1988 and in the US. He finds that only 5-10% of the stock returns can be explained by the financial earning numbers. Lev, argues that this is probably due to incidence of temporary items, noise from accounting manipulations. Studies by Kothari (2001), Haley and Palepu (2001) and Verrecchia (2001) have extensively reviewed studies examining the relation between accounting information and security prices. These studies concluded that financial reports provide new and relevant information to investors

although the relevance has considerably come down. Brown et al., (1999) found that the relations between stock returns, earnings and book values have deteriorated over time. Collins et al., (1997), Francis and Schipper (1999), and Ely and Waymire (1999) examine the relation between returns, earnings and book values. They conclude that the relation between returns and earnings has deteriorated, but that this has been offset by an increase in the value relevance of book values. Most of these studies are inconclusive about value of relevance and report that results also depends on variables such as firm characteristics, and country-specific institutions and are also subject to alternative interpretations. A recent study by Dontoh et al., (2004) suggests that the decline in value relevance is more caused by noise in the stock market rather than accounting numbers. Ball and Shivakumar (2008) examined the new information content to the investor using quarterly earnings announcement. They find that quarterly results constituted a mere 1% - 2% of the total annual information, which provided only a "modest" amount of incremental information to the market. The relevance of accounting information can also vary with firm size and the kind of financial system, the accounting standards setting bodies amongst others (see Collins and Kothari, 1989; Alford et al., 1993; Ball et al., 2000, Hung 2001). Hung (2001) examined the value relevance of the financial statements in the international context and found that shareholder protection improved the effectiveness of accrual accounting. Using data from 16 countries between 1986 and 1995, Ali and Hwang (2000) examined the value relevance of accounting information to five country level factors such as bank oriented financial systems, continentals vs British- American model, tax rules and audit spending. Would moving to IFRS improve the relevance of financial statements ? Chen et al., (2001) empirically examined the data between 1991 and 1998 and found that accounting information was value relevant despite the market being relatively young and with in-adequate reporting at that time. More lately, Heibatollah and Zhou (2004) compared the value relevance of accounting information in different segments of the Chinese stock market which used Chinese GAAP and International Accounting standards. They find that the accounts prepared using international GAAP was more value relevant than that of Chinese GAAP. Recent study by Brimble and Hodgson (2007) examined the value relevance of accounting statements in the Australian context. After controlling for market inefficiencies and

nonlinearity, they find that the value relevance of the conventional core accounting earnings had not declined in the last twenty eight years.

The relative importance of consolidated vs parent only earnings and the way consolidated statements are prepared have been debated a great deal though remained inconclusive. The information content of consolidated financial statements and parent only financial statements has been researched in several countries (See Harris et al., 1997; Niskanen, 1998; Ishikawa, 2000; Abad et. al. 2000; Herrmann et al., 2001; and Okuda and Shiiba, 2006). Niskanen (1998), using data of 35 Finnish companies finds that consolidated financial earnings are a significant incremental explanatory variable for stock returns. Further they also suggest that the CFS also improved the information content as compared to the parent only earnings. Abad et al., investigated the value relevance of parent vs subsidiary of Spanish companies between 1991 and 97. Their result suggests that from a valuation perspective CFS was more value relevant, however the results questions the equity based consolidation method and its usefulness to the investors. Japan is another country that disclosed both parent only and consolidated earnings. Darrough and Harris (1991) found that consolidated data provided very little incremental information content in Japan. . Conroy et. al. (2000) in a different context also observed that analysts in Japan used parent only financial statements historically although this is changing. Hermann et al., (2001) using data from Japanese stock market provided evidence that the stock markets adjusts to persistent parent only earnings and underestimates the subsidiary earnings. Okuda and Shiiba (2006) conducted a study using variance decomposition approach and found that subsidiary return on equity had greater effect in stock returns than the parent only return on equity news. In the German context, a study by Harris et al., (1997) provided a weak evidence of value relevance of consolidated data over unconsolidated data.

Although, accrual earnings are important, there has been shift to use the cash flow statements. Cash flow statements give a better picture of the companies liquidity, risk bearing capacity Studies examining the value relevance of cash flow include Bowen, Burstaghler and Daley (1986), Wilson (1987), Livnat and Zarowin (1990), Charitou and Ketz (1991), Jones and Ranatunga (1997), and Charitou et al., (2000). Jones and Widjaja (1998) surveyed 159 financial statement users in Australia and found that cash flow

statement prepared using the direct method were relevant to the users. Napier (1993) compared the stock price reaction to earnings and cash flow disclosures and found that earnings had better explanatory variable that the cash flow. Even though the findings are inconclusive (Charitou, 1997), they suggest that refined cash flow measures (SCF-based) provide a different, and perhaps a better signal than earnings. Hassan et al., surveyed the relative usefulness of the cash flow statements to the mutual fund analyst in the Indian context, and fund very little evidence of its use contrary to the result in Malaysia (Christopher et al., 2001) Value relevance literature has been predominantly based on developed countries and a few from emerging economy. The existence of both Consolidated stand alone statements provide a unique opportunity to test the relevance of the stand alone as well as consolidated earnings numbers in India.

3. METHODLOGY AND DATA

We examine the relationship between market adjusted return and unexpected consolidated earning, unexpected parent-only earnings, unexpected consolidated cash flow from operations and unexpected parent-only cash flow from operations. If the market uses such additional disclosures in valuation, we expect positive relationship between market-adjusted return and unexpected consolidated earnings and cash flow from operations. We have drawn our sample from companies, which are part of CNX-S&P 500 Index, which is the largest Index available in the Indian stock market.

From the sample we observe that twenty five percent of the companies have no subsidiaries . Twenty percent of the sample have just 1 subsidiary. Eight percent of the companies have more than ten subsidiaries. The maximum number of subsidiaries for a company is twenty two. Since a large number of companies have no significant subsidiary operations, we restricted our sample only for firms in which revenues of subsidiaries are minimum twenty percent.

Though many of these new accounting standards were implemented in early part of this decade, the number of companies having subsidiaries of significant value was small during the initial years. Table 1 shows the number of companies qualified to our

condition of minimum 20% revenue between 2002 and 2008. The table also provides the number companies in which the asset base of subsidiaries is minimum of 20% of the consolidated asset base.

TABLE 1 ABOUT HERE

We have drawn our sample from firms which fulfilled the minimum 20% subsidiary revenue in the consolidated revenue during the years 2005-06, 2006-07 and 2007-08. Our final sample consists of fifty nine firms. Data is taken from the CMIE (Center for Monitoring Indian Economy) Database.

In examining value relevance of financial disclosure, earlier studies have examined the association between accounting measure and stock return. In measuring stock returns, researchers have used stock returns of different windows period or annual return. Stock returns of smaller window period are generally used if the disclosure of financial information is provided more than one time in a year like earnings announcement or events occurring occasionally like stock splits or bonus shares. Annual stock returns are generally used if the disclosure is on annual basis. Earlier studies that examined the value relevance of CFS and SFS have used unexpected annual return (Niskanen et al., (1998), Charitou (1997). Niskanen et al., (1998) regressed market adjusted stock returns on unexpected parent company earnings and on consolidated earnings. In our study we initially tested the relationship with ordinary least squares (OLS) model. As in prior research, we follow the traditional approach where the stock returns and earnings are measured in the same period. Since we have used panel data, in addition to ordinary least squares (OLS) model, we have examined the relationship using fixed effects (FE) regression model to account for differences in the intercept among sample firms and between different years. In performing fixed effects model, we have used both year and firm specific difference from the mean intercept. We have also performed additional tests to consider measurement error and firms reporting positive (negative) parent-only earnings and negative (positive) consolidated earnings or operating cash flows.

Our basic regression models are described as follows:

(1) OLS (1): $r_{it} = \beta_o + \beta_1 PE_{it} + \beta_2 CE_{it} + \beta_3 PCF_{it} + \beta_4 CCF_{it} + e_{it}$

Our fixed effect model is as follows:

(2) FE: $r_{it} = (\beta_o + uj) + \beta_1 PE_{it} + \beta_2 CE_{it} + \beta_3 PCF_{it} + \beta_4 CCF_{it} + e_{it}$

where

r_{it} = Market adjusted annual return in year t for firm i

b0 = Intercept term

b1 to b4 = Slope Coefficients of unexpected earnings and cash flows of parent and consolidated statements

PE_{it} = Change in parent-only earnings in year t over year t-1 for firm i

CE_{it} = Change in consolidated-only earnings in year t over year t-1 for firm i

PCF_{it} = Change in parent-only Operating Cash Flows in year t over year t-1 for firm i

CCF_{it} = Change in Consolidated Operating Cash Flows in year t over year t-1 for firm i

e_{it} = is the error term,

uj = is a year difference from the intercept

In Model 4, we grouped the data into three categories (i) Firms in which both consolidated and parent-only earnings are positive, (ii) Firms in which both consolidated and parent- only earnings are negative and (iii) Firms in which consolidated and parent-only earnings are of different sign. Using dummy variables for (i) and (ii), we examined

whether market reacts differently when consolidated and parent-only earnings have changed over the previous year in an opposite direction. The process was repeated for Model 5 and Model 6 in which we have examined parent-only earnings with parent-only operating cash flows and parent-only operating cash flows with consolidated operating cash flows. The Model 3 (M3) to Model (M6) are described as follows:

OLS (2): $rpt = \beta_0 + \beta_1 PEpt + \beta_2 CEpt + \beta_3 PCFpt + \beta_4 CCFpt + ept$ (M3)

OLS (3): $r_{it} = \beta_0 + \beta_1 PE_{it} + \beta_2 CE_{it} + \beta_3 D1 + \beta_4 D2 + e_{it}$ (M4)

OLS (4): $r_{it} = \beta_0 + \beta_1 PE_{it} + \beta_2 PCF_{it} + \beta_3 D1 + \beta_4 D2 + e_{it}$ (M5)

OLS (5): $r_{it} = \beta_0 + \beta_1 PCF_{it} + \beta_2 CCF_{it} + \beta_3 D1 + \beta_4 D2 + e_{it}$ (M6)

Where subscript p refers to values of portfolios, D1 is 1 if both the dependent regression variables are positive else zero and D2 is 1 if both the dependent regression variables are negative.

4. RESULTS

Descriptive Statistics

The descriptive statistics of return, earnings and operating cash flows are given in Table 2.

TABLE 2 ABOUT HERE

The median growth in the Parent-only earnings is higher than the growth in consolidated

earnings. In contrast to this trend, median growth in parent-only operating cash flows is lower than consolidated operating cash flows. The median growth rate of earnings is in general lower than the growth in operating cash flows in most cases. While the growth rate of parent-only earning and consolidated earnings are correlated, the correlation is absent between other variables. The performance of sample firms with significant interest in subsidiaries is negative to overall market. The market-adjusted median return of the sample is negative with high standard deviation. There are several possible reasons for the below market return. Like diversification discount, investors may discount the value of firms with significant subsidiary earnings. It is also possible that subsidiaries are present in diversified industries and hence the discount observed here is actually diversification discount. Since the sample consists of only 59 firms, it may not be as diversified as market index. The positive market adjusted mean return shows that as a portfolio, the market-adjusted return of firms with subsidiaries are positive. Finally, it is possible that many of these firms are reporting lower profitability in subsidiaries and hence market adjusted return of these firms are negative. The correlations between the return and parent-only and consolidated earrings are strong. On the other hand, return and cash flows are weakly correlated. Our preliminary analysis on correlation indicates absence of additional information content in operating cash flow variables.

OLS and Fixed Effect Results

Table 3 shows the OLS results of Model 1 for each year of the sample period as well as for pooled data.

TABLE 3 ABOUT HERE

The sample size for the individual years vary on account of the condition that firms should have minimum of 20% revenue from subsidiaries. The sample size for the pooled data regression is smaller than 2006 since the level of subsidiary operations in other cases have come down below 20% on account of mergers or divestures or slow down in subsidiary business or significant growth in parent company operations. The results of

OLS model is consistent with correlation values shown earlier. Both operating cash flow variables are not providing any additional information in valuation. Parent-only earnings are consistently showing positive and strong relationship with the returns. In this study, consolidated earnings failed to provide any additional information content except when we pooled the data of all the three years.

Before concluding that market started recognizing consolidated earnings as the number of companies with subsidiary presence and dominance increasing over the years, we need to check whether such results are on account of absence of 'independence' in observation. Table 4 shows the fixed effects results of Model 2.

TABLE 4 ABOUT HERE

In performing fixed effect results, we have considered separately firm specific difference from the mean intercept and year specific difference from the mean intercept. The fixed effect model also reconfirms that consolidated earnings are not providing any additional information content in the Indian context whereas parent-only earnings provide all explanation in earning.7 Our results on consolidated earnings are consistent with the earlier studies conducted in Japan (Charitou, 1997 Hermann et al., 2001) and Germany (Harris, 1997) and inconsistent with other studies conducted in Japan (Charitou et al., 2000 and Ishikawa (2000) and Finland (Niskanen,1998). On operating cash flows variable, our results are consistent with Bowen et al., (1986) and Raybum (1986) and inconsistent with Wilson (1986), and Charitou and Vafeas (1998) and Jones and Widjaja (1998).

Results of Interaction Test

To consider whether consolidated earnings, consolidated cash flow from operating activities, parent-only operating cash flows have information content when they have different sign compared with parent-only earnings, dummy variables for both positive and both negative cases were used (See Kane et al., 1984 also Niskanen et al., (1998))

The results of Model 4 to 6 are reported in Table 5.

TABLE 5 ABOUT HERE

The model which compares the information content of parent-only and consolidated earnings again confirm the absence of information content of consolidated earnings. None of the dummy variables and intercept show significance in Model 4.The parent-only earnings continues to report positive and significant relationship with the return. The results are contrary as compared to some earlier works. Model 5 examines whether parent-only cash flows provide additional information when the changes in cash flow variable is different from changes in parent-only earnings. Here again parent-only earnings show positive relationship with returns and absence of information content in parent-only operating cash flows. The results In Model 6 both cash flow variables fail to provide any additional information. These results are consistent with earlier OLS results – except parent-only earnings, other variables are not adding any information.

The results can be explained as follows. First, unlike the studies in the developed countries where there value relevance has reduced over the years, we find that earnings have value relevance though parent only. Since a large number of Indian companies have no significant subsidiary earnings, it is possible that market is using parent-only accrual earnings in valuation. There is an apprehension that even for companies in which subsidiary earnings are significant and consolidated earnings are reported, they are not used by the investors. Secondly, although analysts and others prefer the use of cash flow statements our results show no significant association. It is possible that market prefers to use earnings rather than cash flow or the indirect method used may be less referred. As posited by Hung (2001), it is also possible that a weak shareholder protection mechanism may have a negative effect on the financial statements especially the consolidated financial statements, where there is more opportunity available for the promoters for earnings management. Since the maturity levels of markets are different and it is achieved over a time, the regulatory interference should go beyond prescribing additional

disclosures. It is important that investors recognise soundness of decision making using the cash flow statements.

5. CONCLUSION

In the recent years several new disclosures have been mandated in India including the cash flow statement and the preparation of consolidated financial statements. This study focuses on two such initiatives taken by the regulators namely consolidated financial statements and the cash flow statements with respect to their value relevance. In view of increasing trend in both number of companies having more subsidiaries and value of subsidiary earnings (Table 1), the regulating agencies move on requiring the companies to provide consolidated financial statements and statement of cash flows are relevant in the Indian context. This paper examines the value relevance of the consolidated financial statements and statement of cash flow of Indian companies. The results based on fifty nine companies, which have significant subsidiary earnings, show that such additional disclosures fail to provide any significant incremental information content. While parent-only accrual earnings show significant association with market return, there is limited evidence in favor of consolidated earnings and parent-only cash flow providing incremental information. Since a large number of Indian companies have no significant subsidiary earnings, it is possible that market is using parent-only accrual earnings in valuation. The, apprehension is even for companies in which subsidiary earnings are significant and consolidated earnings are reported, they are not used by the investors.

Despite significant improvements in governance and accounting regulations after 2000, it appears that market participants are still undermining the economic benefits of consolidated financial statements. As posited by Hung (2001), it is also possible that a weak shareholder protection mechanism may have a negative effect on the financial statements especially the consolidated financial statements, where there is more opportunity available for the promoters for earnings management. Since the maturity levels of markets are different and it is achieved over a time, the regulatory interference

should go beyond prescribing additional disclosures and more effective implementation of the regulation. Finally, as India has also proposed to adopt International Financial Reporting Standards in the near future, the practice of providing parent-only financial statements should be discontinued and disclosure requirement should be restricted to consolidated financial statements.

Tables

Table 1: No of firms in which Sales and Asset of Subsidiaries are more than 20%

Year	Sales Revenue		Assets	
	No of Firms	in %	No of Firms	in %
2001-02	40	8.00%	27	5.40%
2002-03	54	10.80%	30	6.00%
2003-04	67	13.40%	36	7.20%
2004-05	70	14.00%	47	9.40%
2005-06	78	15.60%	65	13.00%
2006-07	103	20.60%	78	15.60%
2007-08	107	21.60%	90	18.00%

Table 2: Descriptive Statistics of Earnings, Operating Cash Flows and Return

	RETURN %	PE	CE	PCF	CCF
Distributional Statistics					
Mean	19.2724	0.5133	0.3386	-0.9889	0.3558
Standard Deviation	112.6517	1.6901	2.5109	17.3935	5.5869
Lower Quartile (1st)	-32.9000	0.0083	0.0175	-0.7237	-0.3947
Median	-6.1700	0.3249	0.2825	0.1283	0.1753
Upper Quartile (3rd)	30.2000	0.6911	0.7232	0.6516	0.8919
Correlation					
RETURN	1.0000	0.4157	0.3124	0.0531	0.0335
PE		1.0000	0.4961	0.0398	-0.0337
CE			1.0000	-0.0155	0.0330
PCF				1.0000	-0.1471
CCF					1.0000

PE = Parent Only Earnings
CE = Consolidated Earnings
PCF= Parent only cash flow
CCF= Consolidated cash flow

Table 3: Results of OLS Regression (Model 1)

	2006	2007	2008	2006-08
No. of Observations	78	103	107	177
Intercept	46.1423	-5.8200	-11.9821	5.2805
t-value	2.6182***	-0.6625	-2.4661**	0.6531
PE	29.8835	15.9754	12.9816	23.0558
t-value	2.1755**	3.2696***	2.7793***	4.3690***
CE	4.7600	4.2413	0.2372	6.2805
t-value	1.6159	1.3836	0.0959	1.7692*
PCF	6.4057	2.6431	0.1050	0.3140
t-value	1.1221	1.0234	0.4763	0.6987
CCF	-7.5700	0.8888	0.7141	0.9605
t-value	-0.9757	0.6221	1.0931	0.6861
F Value	2.7817**	8.4526***	2.4691**	10.1966***
R Square	0.1323	0.2565	0.0883	0.1917

* - 10% significance ** - 5% significance *** - 1% significance

Table 4: Results of Fixed Effect Models

	Grouping Variable: Firm	Grouping Variable: Year
Sample	59	59
Intercept	NA	NA
t-value	-	-
PE	14.0502	22.2013
t-value	2.8677***	4.1743***
CE	2.5994	6.4451
t-value	0.7559	1.8426*
PCF	0.1460	0.2658
t-value	0.3529	0.6050
CCF	-0.1215	1.1844
t-value	-0.0898	0.8623
F Value	3.9887***	10.0157***
R Square	0.0844	0.1880

* - 10% significance ** - 5% significance *** - 1% significance

Table 5: Results of Interaction Test

	Model 4	Model 5	Model 6
No. of Observations	177	177	177
Intercept	-22.5905	-5.8709	0.0716
t-value	-1.0290	-0.4468	0.0045
Dummy 1	33.6899	19.8777	28.1147
t-value	1.3942	1.1550	1.3639
Dummy 2	27.0222	12.4459	25.4664
t-value	0.9386	0.5068	1.0988
PE	22.7284	27.6186	
t-value	4.2369***	5.6792***	
CE	5.4997		
t-value	1.5116		
PCF		0.1420	0.2720
t-value		0.3122	0.5379
CCF			0.8939
t-value			0.5601
F Value	10.5371	9.4712	0.7182
R Square	0.1968	0.1805	0.0164

* - 10% significance ** - 5% significance *** - 1% significance

NOTES

1. http://dipp.nic.in/fdi_statistics/india_FDI_January2009.pdf

2. For example in the United Kingdom, while the Companies Act mandated the preparation of CFS from the year 1948, the principles of consolidated accounting was accepted even before 1930. Bircher (1988) states that the primary reason for mandating was the change in the ownership and control structure of companies at that time. Walker (1976) discusses in detail the developments of the consolidated financial statements.

3. Seventh Council Directive 83/349/EEC of 13 June 1983 based on the Article 54(3)(g) of the treaty on consolidated accounts.

4. Statement issued by Secondary Market Department, SEBI vide letter no. SMD(N)/JJ/2331/95 dated June 26, 1995). The Accounting standard on cash flow statement was mandated from the accounting period 2004.

5. There is no important research on CSF in the US as the data of the stand alone parent company is not provided by the US companies.

6. Under the current SEBI regulation companies have option to publish either consolidated and/or parent only results in the newspapers. Companies in general publish consolidated reports only when there is a significant subsidiary operations.

7. Even in pooled data regression, the significance level of consolidated earnings is 10%

8. We also checked using scaling by net book value of assets in the earnings regression. There was no significant differences

9. http://www.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=10915

REFERENCES

Abad, C., Laffarga, J., García-Borbolla, A., Larrán, M., Piñero, J. M. and Garrod, N. 2000. "An evaluation of the value relevance of consolidated versus unconsolidated accounting information: Evidence from quoted Spanish firms" *Journal of International Financial Management and Accounting*, Vol 11(3): 156-177.

ARB 51; Accounting Research Bulletin No. 51 Para 1, Consolidated Financial Statements, Original Pronouncements Vol (2)

Alford A., Jones, J., Leftwich, R. and M. Zmijewski (1998) "Relative Informativeness of Accounting Disclosures in different Countries," *Journal of Accounting Research (Supplement,)* pp 183-233

Ali A., and L. Hwang 2009, "Country-Specific Factors Related to Financial Reporting and the Value Relevance of Accounting Data,," *Journal of Accounting Research*, Vol38(1) (Spring) pp 1-22

Ball, R and Shivakumar L, 2008 How Much New Information, Is There in Earnings? Journal of Accounting Research Vol. 46 (5) pp 975 -1016 .

Barth, M. E., Beaver, W.H., Hand, J.R.M., and Landsman, W. R. 1999. "Accruals, cash flows and equity values." *Review of Accounting Studies,* Vol 4: 205–229.

Bernard, V.L. and Stober, T.L. 1989. "The nature and amount of information in cash flows and accruals.," *The Accounting Review, Vol* 64(4): 624- 652

Bircher, P. 1988. "The Adoption of Consolidated Accounting in Great Britain.," *Accounting and Business Research*, Vol 19 (73): 3-13

Bowen, R.M., Burgstahler, D. and Daley, L.A. 1986. "Evidence on the relationship between earnings and various measures of cash flow," *Accounting Review*, Vol 61(4): 713-725

Brimble, M. and Hodgson, A. 2007. "On the intertemporal value relevance of conventional financial accounting in Australia" *Accounting and Finance,* Vol 47: 599 - 622

Brown, S., Lo, K., Lys, T., 1999. "Use of R2 in accounting research: Measuring changes in value relevance over the last four decades," *Journal of Accounting & Economics* Vol 28: 83-115

Chang, J. 1998. "The Decline in the Valuation Relevance of Earnings and Book Value," *Working paper*, University of Pennsylvania

Charitou, A. 1997. "The role of cash flows and accruals in explaining security returns: evidence for the UK," *European Accounting Review*, Vol. 6 (4): 629-652

Charitou, A., Clubb, C. and Andreou A. 2000: "The Value Relevance of Earnings and Cash Flows: Empirical Evidence for Japan," *Journal of International Financial Management & Accounting,* Vol.11(1): 1-22.

Charitou, A., and Ketz, E. 1991. "An Empirical examination of cash flow measure," *Abacus,* Vol 27(1): 51-64

Charitou, A. and. Vafeas, N. 1998. "The Association between Operating Cash Flows and Dividend Changes: An Empirical Investigation," *Journal of Business Finance and Accounting,* Vol. 25 (1): 225-249.

Chen C.J. P., Chen, S and Su, X. 2001. "Is Accounting information Value Relevant in the emerging Chinese Stock Market ?" *Journal of International Accounting Auditing & Taxation* Vol 10 (1), 1022

Cheng, A., Liu, C.S. and Schaefer T. 1996. "Earnings permanence and the incremental information content of cash flows from operations," *Journal of Accounting Research, Vol* 34: 173–181.

Christopher, T. and Hassan, S. 1999. "The Usefulness of Statement of Cash Flows: Evidence from Malaysian Analysts," *Asian Review of Accounting*, 7(2): 84-95.

Collins, W.D., Maydew, E.L. and Weiss, L.S. 1997 "Changes in the value-relevance of earnings and book values over the past forty years," *Journal of Accounting and Economics Vol* 24: pp 39 -67

Collins, D. and Kothari, S. 1989. "An analysis of interpemproal and cross-sectional determinants of earnings response coefficients" *Journal of Accounting and Economics* Vol 11 (2–3): 143–182

Dimitrios, K.V., Anestis L.C. and Christos N.I. 2009. "Value relevance of conservative and non-conservative accounting information" *International Journal of Accounting*, Vol. 44 (3): pp 219-238

DIPP, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, http://dipp.nic.in/fdi_statistcs/india_fdi_index.htm accessed on 8/1/10

Dontoh, A., Radhakrishnan, S. and Ronen, J. 2004. "The declining value relevance of accounting information and non-information-based trading: An empirical analysis" *Contemporary Accounting Research* Vol 21: 795 - 813

Ely, K. and Waymire, G. B. "Accounting Standard-Setting Organizations and Earnings Relevance: Longitudinal Evidence from NYSE Common Stocks, 1927-93" (April 1998). Available at SSRN: http://ssrn.com/abstract=158509 or doi:10.2139/ssrn.158509

Francis, J., and K. Schipper. 1999. "Have financial statements lost their relevance?" *Journal of Accounting Research* Autumn, 319–352.

Francis, J., LaFond, P., Olsson, P. and Schipper, K. 2004. "Costs of Equity and Earnings Attributes," *The Accounting Review* 79, 967-1010.

Harris, T. S., Lang, M. H., and Moller, H. P. 1997. "Unconsolidated versus Consolidated accounting Measures: Empirical Evidence from Listed German Companies," 20th Annual Congress of the European Accounting Association.

Hassan S, Narasimhan M.S. and Christopher T., 2001. " Usefulness of the Statement of Cash Flows: Evidence from Indian Mutual Fund Analysts," *Asian Review of Accounting* Vol 9 (2), 75-98

Healy, P. M. and Palepu, K.G. 2001. "Information Asymmetry, Corporate Disclosure and the Capital Markets : A Review of the Empirical Disclosure Literature" *Journal of Accounting and Economics, Vol* 31: 405–440

Herrmann, D., Inoue, T. and Thomas,W.B. 2001. "The Relation between Incremental Subsidiary Earnings and Future Stock Returns in Japan," *Journal of Business, Finance, and Accounting*, Vol.28 :1115-1139.

Hung M. 2001. " Accounting Standards and Value Relevance of Financial Statements: An International Analysis" *Journal of Accounting and Economics,* 30, 401 -420

International Accounting Standards Board. 2006 "*International Financial Reporting Standards*," at page 1234.

Ishikawa, H. 2000. "Consolidated Accounting Information and Stock Pricing," Tokyo: Chikura Shobo, as quoted in Okuda Shin"ya. 2006. "An Evaluation of the Relative Importance of Parent-Only and Subsidiary Earnings in Japan: A Variance Decomposition Approach, ww.papers.ssrn.com/sol3/papers.cfm.abstract_id =944740

Jones, S. and Ratnatunga, J. 1997. "The Decision Usefulness of Statement of cash flows (SCF)s.: Australian Reporting Entities: Some Further Evidence," *British Accounting Review*, 29(1): 67-86

Jones, S. and Widajaja L. 1998. "The Decision Relevance of Cash -Flow Information: A note," *Abacus*, Vol 34(2): 205-219

Kane, A., Lee, Y. and Marcus A. 1984 "Earnings and Dividends Announcement :Is There a Corroboration Effect?" The Journal of Finance, 39(4): 1091-1099

Kothari, S.P. 2001. "Capital markets research in accounting," *Journal of Accounting and Economics* Vol 31: 105–231.

Lev, B. 1989. "On the Usefulness of Earnings and Earnings Research: Lessons and Directions from Two Decades of Empirical research," *Journal of Accounting Research Vol 27 (Supplement)* : 153-193

Lev, B. and Zarowin, P. 1999. "The boundaries of financial reporting and how to extend them," *Journal of Accounting Research*, 37(2), pp. 353–385.

Livnat, J. and Zarowin, P. 1990. "The Incremental Information Content of Cash-Flow Components," *Journal of Accounting and Economics*, Vol.13: 25-46.

McKinnon, J. 1984. "Application of Anglo-American Principles of Consolidation to Corporate Financial Disclosure in Japan" *Abacus*, Vol 20 (1): 18-19

Niskanen, J., Kinnuenen, J. and Kasanen, E. 1998 "A Note on the Information Content of Parent Company Versus Consolidated Earnings in Finland," *The European Accounting Review*, Vol 7 (1): 31-40

Okuda, S. and Shiiba, A. 2006. "An Evaluation of the Relative Importance of Parent-Only and Subsidiary Earnings in Japan: A Variance Decomposition Approach," *www. papers.ssrn. com/sol3/papers.cfm abstract_id=944740*

Pfeiffer, R. J., Elgers, P. T., Lo, M. H., and Rees, L.L., 1998. "Additional evidence on the incremental information content of cash flows and accruals: The impact of errors in measuring market expectations," *The Accounting Review*, *Vol*73: 373–385.

Raybum, J., 1986 "The Association of Operating Cash Flow and Accruals With Security Returns," *Journal of Accounting Research*, Supplement : 112-133.

SEBI. 2009, http://www.sebi.gov.in/Index.jsp?contentDisp=FIITrends (Securities Exchange Board of India)

Sloan, R.G., 1996. "Do stock prices fully reflect information in accruals and cash flows about future earnings?" *The Accounting Review*, Vol 71(1): 289–315.

Verrecchia, R., 2001 "Essays on disclosure, " *Journal of Accounting and Economics*, Vol 32 : 97–180

Walker, R.G., 1976. "An evaluation of information conveyed by consolidated statements," *Abacus*, Vol 12(2) : 77-115.

White, Gerald I., Ashwinpaul C. Sondhi, and Dov Fried, 2001, *The Analysis and Use of Financial Statements*, New York: John Wiley & Sons, Chapter 4.

Whittered, G., 1986. "The Evolution of Consolidated Financial Reporting in Australia," *Abacus*, Vol 22(2): 103-122

Wilson, G. P., 1986. "The Relative Information Content of Accruals and Cash Flows: Combined Evidence at the Earnings Announcement and the Annual Report Release Date," *Journal of Accounting Research*, Vol. 24 (Supplement): 165 - 200.

Wilson, G. P., 1987. "The Incremental Information Content of the Accrual and Funds Components of Earnings after Controlling for Earnings," *The Accounting Review*, Vol. 62 (April): 293-322.