



Corporate Governance in an Emerging Market – What Does the Market Trust?

Rajesh Chakrabarti

&

Subrata Sarkar

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Rajesh Chakrabarti

Assistant Professor of Finance
Indian School of Business
Gachibowli, Hyderabad 500 032, INDIA
Tel: +91-40-2318-7167; Fax: 91-40-2300-7032
E-mail: rajesh_chakrabarti@isb.edu

Home Page:

<http://www.isb.edu/faculty/RajeshChakrabarti/>

Subrata Sarkar

Professor
Indira Gandhi Institute of Development Research
Film City Road, Mumbai 400 065, INDIA
Tel: + 91 22 28416577; Fax: +91 22 28402752
E-mail: ssarkar@igidr.ac.in

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Abstract

The recent corporate governance scandals at the fourth largest software firm in India, Satyam Computers Limited, provide two clean and major corporate governance events, with effects on firms across the board in India (and possibly other emerging market countries). The first instance was a shock about *board ineffectiveness* on Dec 16, when Satyam's board approved of an acquisition of two companies – one unlisted – where members of the Chairman's family were the main entrepreneurs and had majority or complete shareholding; and the second, an *accounting* shock, occurred on January 7 when it was disclosed that the firm had been fudging its accounts for several years and its much-vaunted \$1.2 billion cash holding was largely non-existent and the result of a long-drawn accounting fraud. We analyze the cross-sectional variation in the stock price reactions to these two corporate governance shocks for Indian companies. We relate the firm-specific cumulative abnormal returns on these two dates to different measures of corporate governance to find out the market perception of the validity of these measures. We show that with regard to board effectiveness, i) Board independence matters; ii) the *characteristics* of the independent directors also have a favorable effect on market reaction: companies with independent directors having more expertise (proxied by number of multiple directorships) do better; iii) institutional holdings have a salutary effect, but only for foreign institutions; iv) board size has a positive effect on market reaction; and v) there is a large discount for companies belonging to business groups. For the second episode, none of the board or audit committee independence related variables are significant, but indicators of quality of audit committee seem to matter. The discount of group companies becomes even more pronounced in this episode. These findings help us identify what variables among those identified by prior research are actually taken into account by investors in an emerging market to assess the corporate governance levels of companies and to what extent they affect valuation.

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Corporate Governance in an Emerging Market – What does the Market Trust?

I. Introduction

As research and practitioner interest in corporate governance soars around the world, we have seen a proliferation of measures and indexes that seek to describe and measure the complex and largely qualitative concept. Market returns have also been associated with select corporate governance variables, though the debate about the impact of the latter is not yet over. Nevertheless, there is little clarity over what market participants view as a meaningful indicator of corporate governance (or at least one or more of its dimensions). The divergence between now textbook measures of corporate governance and those that investors actually care about is likely to be particularly pronounced in an emerging market setting where institutional gaps often compromise the validity of certain measures that may be effective in developed markets.

One way of establishing what corporate governance indicators matter to markets would be to analyze market performance of a large number of stocks around a corporate governance “event” that sends out a market-wide shock not confounded by any other major development. Relating the cross-sectional variation of the reaction to such a stock by individual firms to their respective corporate governance indicators may point out what the markets trust as indicators of corporate governance quality. Without ascribing omniscience to the markets, such analysis may be useful to policy makers and equity market regulators in focusing on variables that the market bets on rather than those that appear to be meaningful from traditional and theoretical analysis of corporate finance and governance.

It is, however, extremely difficult to come up with well-defined corporate governance related “events” that have market-wide impact. Cases of major corporate mis-governance typically unravel over a period of time (and are often associated with other developments, unrelated to corporate governance) making a statistical analysis of their implications extremely difficult.

The corporate governance scandal involving the fourth largest software company in India, Satyam Computers Limited, that occurred in December 2008 and January 2009 provides two such clean and major corporate governance events, with effects on firms across the board in India (and possibly other emerging market countries). These events fit the bill for several reasons. They were completely unexpected by the market, involving a firm that was one of the most feted (decorated with awards for corporate governance to boot) with its ADRs trading at the NYSE; in a country an industry – software in India – that enjoyed international reputation and the image of highest professionalism and competition. Equally importantly, the event was big enough to rock the entire Indian market on both days, and made headline news for months afterwards. The events themselves were unquestionably the biggest news on their respective days and major Indian market indices dipped on both occasions. Given the fact that very transparent national level government and regulatory enquiry was initiated into the affair, it even led to an exodus of non-executive directors from several boards in India in the following weeks. So clearly these events can be viewed as “corporate governance” events – as uncontaminated by other market developments as we can hope to get them. Consequently we argue that the events served as wake up calls for investors to review of the quality of corporate governance in the respective firms and that the variation of market returns across firms on those days – suitably adjusted for overall market reaction – reflects the variation in the investor perception of the quality of governance in these firms. Consequently, associating these abnormal returns to corporate governance indicators commonly used in the literature reveals what measures “really matter” for the markets and which ones are largely inconsequential.

We find that on the first instance – with a shock about board effectiveness – firms with mid-to-large boards did better in the marketplace. As for independence, a supermajority (three-quarters or more) of independent directors mattered, but a simple majority did not. The average board tenure of a director had a positive, not negative, effect, suggesting experience beats familiarity in the market’s perception. Higher promoter share appeared to instill confidence, as did size.

With an audit failure, neither the size nor the independence of the audit committee seemed to matter. Promoter and FII holding had positive impact in the entire sample as well as for group firms. Size had similar effects as well. The auditor involved did not seem to taint its client firms significantly. In both cases, a group association seemed to flag greater concerns for the market, markedly more so with the audit shock than the board shock.

The rest of the paper is organized as follows. The next section describes the two Satyam related events and their overall impact on the Indian market. The following section discusses the data and its sources. Section 4 describes the results while the last section concludes the paper.

II. Corporate Governance at Satyam – a background

Satyam Computer Services Limited (SCL), the Hyderabad, India based software company was founded in 1987 by B Ramalinga Raju and his brother B Rama Raju. Ramalinga Raju, the driving force behind Satyam, and served as its Chairman from 1995 to January 7, 2009 and served on several corporate boards, including those belonging to the Satyam group. He served as Chairman of the National Association of Software and Service Companies (NASSCOM) and a member of the International Advisory Panel of Malaysia's Multimedia Super Corridor. He was the driving force behind the Hyderabad-based Emergency Management Research Institute (EMRI). He served as Chairman and Member of Governing Board of Emergency Management Research Institute. Among the many awards received by him, he was awarded the Corporate Citizen of the Year award during the Asian Business Leadership Summit held in Hong Kong in 2002. He was also named as the IT Man of the Year by Dataquest in 2001 and was conferred the Entrepreneur of the Year Award (Services) by Ernst & Young, India in 2000. He holds a Master of Business Administration degree from Ohio State University and has attended Harvard Business School's Advanced Management Program.

Since its foundation in 1987 Satyam grew rapidly into a four billion dollar enterprise in two decades riding on the Indian software wave. In 1991 it became a public limited company and went for an IPO that was oversubscribed 17 times. In 1999 Satyam Infoway became

the first Indian Internet company to be listed on NASDAQ and in 2001, Satyam ADR was listed on NYSE (SAY). By 2008 it was the fourth largest Indian software and BPO company after giants like Infosys, TCS and Wipro. It had operations in several countries around the globe and had clients like the World Bank, partners like GE and was selected the Official IT Services provider for FIFA World Cups 2010 (South Africa) and 2014 (Brazil). It was chosen as the first company to ring the bell by the National Stock Exchange in 2008. Months before the scandal happened, Satyam was awarded the Golden Peacock Global Award for Excellence in Corporate Governance in 2008 by The World Council for Corporate Governance (WCFCG). Previously, Investor Relations Global Rankings (IRGR) had rated Satyam as the company with Best Corporate Governance Practices for 2006 and 2007. In short, on the eve of its crisis, Satyam was one of the brightest jewels in India's corporate crown in every way. It had a market capitalization of 3.98 billion US dollars at the end of November 2008. It was also a zero-debt company with over \$ 1.2 billion in cash reserves.

Part of the reason for this reputation of Satyam was its stellar board. In late 2008 its non-executive directors comprised leading academics from India and abroad including Prof. Krishna Palepu of Harvard Business School, an authority on corporate governance, Vinod Dham, the inventor of Pentium chips at Intel, and former top bureaucrats from India. One could hardly imagine a more competent assemblage of people to steer a corporation.

Trouble started on Dec 16, when its board approved of the acquisition of 100% stake in privately-held Hyderabad-based Maytas Properties for \$1.3 billion and a 51% stake in public listed firm Maytas Infra for \$300 million. The two firms represent the Raju family's old construction and property business – Maytas is actually Satyam spelt backwards and is run by the two sons of Satyam founder S Ramalinga Raju. The decision is an even bigger surprise as Rajus had taken Maytas Infra public just one year back. As of September 31, 2008, promoters held 36.64% in Maytas Infra. The price being paid to the promoters was fixed at Rs 475 per share, 1.25% discount to the closing price of the scrip on Dec 16. The open offer will be made at Rs 525/share which is 7% premium to the ruling price as against the 52 week high of Rs 946. This would be a completely unrelated acquisition by Satyam in

a sector that was arguably as troubled, if not more, than software, because of the credit crunch.

Institutional shareholders resisted the deal from the word go. There was stiff opposition at the conference call announcing the deal itself, particularly from FII players like Templeton. The main objection was that it was not clear who had done the valuation of Maytas, why Satyam should move into an unrelated industry already under severe stress. Besides the Raju family connection looked like a clear “insider deal” to use shareholder money to bail out Raju’s sons. Institutional investors went public on the media with their displeasure and the Satyam ADRs opened 35% lower that morning at NYSE and declined further. With a similar landslide expected in India the next morning, the management rescinded the planned acquisition before Indian markets opened next morning, within eight hours of its announcement of the deal itself. But the damage had been done. On December 17, the Satyam story made headline news all over the Indian media and Satyam shares fell by 30.66% (from Rs. 226.55 to Rs. 157.10) and the Nifty 50 fell by 2.87%. This provides us with the first instance of a corporate governance “shock” – related to board ineffectiveness in monitoring management.

However, worse was in store for Satyam and its shareholders. The second, and bigger, event happened on January 7 morning (while the markets in India were open) when Ramalinga Raju, Satyam’s chairman, disclosed that the firm has been fudging its accounts for several years and its much-vaunted \$1.2 billion cash holding was largely non-existent and the result of a long-drawn accounting fraud. Satyam shares fell by 77.47 % (from Rs. 178.65 at opening to Rs. 40.25 at close) on that day and the Nifty 50 fell by 6.18 %. Raju and others – including two auditors from PWC – have been in police custody since. This provides us with the second instance of a corporate governance “shock” – this time related to accounting fraud and lax auditing.

The December 17 and the January 7 events thus provide us with two large, unexpected corporate governance shocks concerning the same company but distinguishable in nature.

The first one was a shock about board ineffectiveness while the latter was one of transparency and accounting malpractice.

III. Data and Methodology

The data for the analysis in this paper comes from CMIE's Prowess database and the Directors' Database created under the initiative of the Bombay Stock Exchange and designed and maintained by Prime Database. The objective of the analysis is to find out what corporate governance variables had an effect in determining the cross-sectional variation in the reaction of Indian companies to the two corporate governance shocks discussed above.

Consequently, our dependent variable is naturally, the individual returns on listed Indian stocks on or after the two critical days – December 17 and January 7. We start off by constructing the market adjusted abnormal returns around these two events and cumulate the abnormal returns over a five day period encompassing two days before and two days after each of the two events. Thus, Cumulative Abnormal Returns (CARs) over an event window of ± 2 days around the event date forms the reference variable for our analysis, though arguments can be made in favor of using raw returns as well as abnormal returns on each of the specific event days of the shocks. We use these variables in our robustness checks.

Our computation of the market adjusted abnormal returns follows the standard approach used in the event study literature (see Barber and Lyon, 1997; Mitchell and Stafford, 2000 for instance). We compute daily returns using the closing prices of two consecutive trading days using the formula $R_t = (P_t - P_{t-1})/P_{t-1}$. We use returns on all stocks listed at the National Stock Exchange as our starting point and use the Nifty 50 index to capture the market returns. 250 daily returns ending on November 30, 2008 for each stock and the respective indices are used to estimate the alphas and betas of the individual stocks and hence the expected and abnormal returns on the two days of interest.

Having constructed the CARs, we order companies in terms of their CAR (companies with highest CAR being at the top) and divide them into three equal groups (i.e., one third of the observations). We consider the top and the bottom groups and estimate a Probit model to examine if the probability of belonging to the top group (firms with the high CARs) is influenced by corporate governance characteristics.

The choice of independent variables is far more open. The corporate governance literature has dealt with several variables that may individually capture important elements of corporate governance. Given that we are looking at a within-country variation, we abstract from all institutional variables that are common to all stocks used in the analysis. Broadly speaking, we look at a set of board related variables, a set of variables that capture the ownership patterns, a set of variables that probe into the nature of auditors the firms use and variables that look at the nature and composition of the audit committee. Our choice of variables is, of course, motivated by our *a priori* expectations of drivers of stock reactions – board related variables for the first shock which primarily brought focus on the ineffectiveness of the board in restraining management from pushing through an insider deal, and auditor and audit committee related variables for the second shock that pertains mainly to accounting quality. Our choice is also influenced by the regulatory focus in recent years in India, as elsewhere, on the composition of board and its audit committee in improving corporate governance standards, so that we can comment on the extent to which the market views these mechanisms as meaningful and effective institutions of corporate governance in India.

Among the board related variables, we consider board size and board independence as measured by the proportion of independent directors on the board. In addition we probe deeper into the nature of the independent directors by looking at the tenure of the current independent directors and their age to see if the market takes these variables into considering in assessing the true independence of the board. Finally we look at the accounting knowledge of the directors serving on the board. Using Prowess data, we identify how many directors have at least a degree in accounting or finance that implies knowledge of accounting.

The ownership pattern of the firm in question is likely to play a role in its nature of corporate governance as well. Business groups constitute an important category in India with related corporate governance issues. We look at whether the firm belongs to a business group or is a standalone firm. The share of promoters in the equity of a firm is another likely important variable.

In addition to the board variables we pay special attention to the audit committee of the board that supposedly plays an important role in determining the reliability of the firm's accounting information. We look at the proportion of independent directors in the audit committee as well as the extent of accounting knowledge in the audit committee analogous to the corresponding variable at the board level.

Finally, the auditors play a key role in corporate governance and are likely to be particularly important when it comes to putting faith in the company's financial numbers, the critical issue in the second episode under consideration. We look at several variables related to the auditors of the company. Given the fact that Satyam's auditors, PWC, is likely to have suffered a reputation loss following the scam we use a dummy variable to see if PWC is an auditor of the company. The other Big 3 audit firms have a corresponding dummy variable. A similar variable is constructed for the top 6 domestic audit firms as well.

Table 1 provides the descriptive statistics of the variables used in the analysis.

IV. Results

a) The Dec 17 event:

Table 2 shows the results of Probit regression for December 17. The regressions look at various board-related variables as independent variables after adjusting for leverage and industry controls for 21 industries. The rationale for this is that the December 16 board meeting of Satyam approving of its acquisition plan for Maytas and the ensuing uproar

amidst international investors raised doubts, rightly or wrongly, about the ability of boards to protect minority shareholders from the promoters. Hence the quality and role of independent directors are likely to be key variables on that day.

Board size features in the list; documented evidence elsewhere has indicated its importance. Board independence as measured by the proportion of independent variables is another key variable. According to SEBI Clause 49 regulations, boards of companies with an Executive Chairman or a Chairman who is a promoter or related to the promoter must have at least 50% independent directors, while boards of other listed companies should have at least one-third as independent directors.

We probe further into the characteristics of the independent directors to check if the markets assess their quality and actual independence. We use age as an (imperfect) indicator of experience and the tenure on the board as an indicator of de facto independence with the assumption that a longer tenure on a board is likely to compromise a director's independence. Finally we look at another measure of board quality – the average number of directorships held by the independent board members. It is difficult to sign this variable a priori. Existing literature suggests that the number of board seats held by directors can point both to their quality as well as their “busyness” indicating a positive and a negative effect respectively on their quality.

Finally we look at a set of ownership variables. Promoter's share comes first in this list as prior research has indicated that high level of promoter ownership can act as a bonding device with outside shareholders to signal the commitment of owners to maximize shareholder value and not engage in the expropriation of minority shareholders. Institutional ownership features next, broken up by institution type. Foreign Institutional Investors (FIIs), Mutual Funds and Banks and Financial Institutions form the three different categories of institutional investors.

Given that the Satyam event in December centered around fears of tunneling minority shareholder's funds by promoters through transfers to other group companies, we also run

our regressions separately for the two subsets – standalone firms and group firms – within our sample.

Table 2 presents our results for the full sample as well as the sub-samples. The values in parentheses are p-values computed using heteroscedasticity-consistent standard errors.

Findings:

The regression indicates several key findings.

1. Board size matters. Companies with bigger boards did better. This supports the Naresh Chandra Committee recommendation to have a board of minimum size of 7. Forty eight percent of the companies in our sample have board size less than seven. Note that this does not mean unusually bigger boards will do better. The 95 percentile value in our sample is 12. This is also consistent with the Companies Bill stipulation that board size be capped at 12.
2. Companies with super-majority board (75 percent or more independent directors) experienced higher CAR. In separate regressions not reported here, majority board turns out to be insignificant. Market seems to give credence to “independent” directors only when they have substantial voice.
3. Tenure is positive suggesting that the positive effects of directors’ experience outweigh the negative effects of entrenchment and loss of independence from “familiarity threat” that comes from long tenure.
4. Market reaction seemed to be favorable to companies with higher promoter share, perhaps due to commitment. Note that promoters slowly divested their share ownership in Satyam over time and by the time of the scam they had divested almost their entire equity ownership.
5. Market penalized group companies. After all the controls, the group companies fared significantly worse in CAR.
6. When we look separately into group and standalone companies most of the significance of board related variables disappears. This could be an artifact of the selection

problem “independent” directors in group companies. Powerful promoters may choose “independent” directors. This is possible for standalone companies also, but promoters of group companies can appoint a person as independent directors in multiple companies in the group. Thus the cost of dissention by independent directors is likely to be more in group companies.

7. The market seems to reward the skill of independent directors (proxied by total number of directorships) but only in standalone companies and not in group companies. Similar results have been found in other research studies on India.

The overall take-away from the December 17 analysis is that while board independence matters perhaps more important are the competence and expertise of the board matter. However, promoter dominance may weaken the effectiveness of board independence. These suggest that measures to strengthen board independence through mandating the creation of “nomination committee”, proper definition of independence, and setting up an effective board process for example, by having independent directors meet without the management, may be helpful.

Our findings corroborate the somewhat mixed evidence found in the empirical literature regarding board independence and firm performance. While some studies in the literature find more independent boards to have a beneficial effect on firm performance (Dahya and McConnell, 2003), and on discrete tasks such as hiring and firing of chief executive officers (Weisbach, 1988), and hostile takeovers (Brickley et al., 1994), a significant number of studies find results to the contrary (Bhagat and Black, 2002; Hermalin and Weisbach, 1991). Some of the studies done in the context of India seem to suggest that more than board independence, it is the quality of the board as captured in terms of the expertise and diligence of the independent directors (beneficial effect), CEO duality (adverse effect), and the presence of controlling shareholders on board (adverse effect) that matter more in corporate governance (Sarkar et al. 2008; Sarkar and Sarkar, 2009). Similar views are also expressed on reviews of corporate governance practices based on company surveys (Grant Thornton – Ficci, 2009).

b) The January 7 event

The January event, though involving a corporate governance issue for the same company, is of a distinctly different nature as compared to the December event. Here the issue is that of failure of auditing and the doubt it casts on accounting information about Indian firms, large and small, across the board.

Consequently the independent variables used are different from the preceding analysis as well. Here we focus on the nature of the auditor and characteristics of the audit committee together with leverage, ownership variables and industry controls used above. We use a dummy to capture the effect, if any, of having Price Waterhouse Coopers (PWC) as an auditor. As for the audit committee, we use variables analogous to those used in the regression above for the board – size, independence (proportion of independent directors), mean age and tenure of audit committee members. Next we use the accounting expertise of directors constituting the audit committee. Given that the Directors' Database provides information on the educational background of individual directors we calculate the number and proportion of audit committee members who have an accounting, banking or management degree signifying accounting knowledge. While this is certainly an imperfect indicator of expertise in that it misses out on vast experience dealing with accounting at job for many and may cast more faith in certain degrees than they deserve, it is a close objective measure for what we are trying to capture, the ability of the committee to interact with the auditors and pick up accounting errors, if any. We use dummy variables, one for board and one for the committee, indicating if at least one director serving in it has the necessary expertise.

Table 3 reports the results of this regression analysis for the full sample results as well as for the standalone and business group sub-samples. As in table 2, the values in parentheses are p-values computed using heteroscedasticity-consistent standard errors. We report results using the audit committee dummy for financial expertise as the results are invariant if we use the board dummy instead.

Findings:

The major findings from Table 3 are summarized below:

1. Group companies got severely punished. The coefficient (-0.4295) is almost double this time than in the December episode (-0.2422). This is expected as the January episode raised a basic question of accounting propriety. One could no longer trust the accounting numbers. Problems likely to be exacerbated for group companies where prior research has shown the existence of expropriation of minority shareholders through tunneling, related party transactions and earnings management.
2. Promoter share remains positive and significant suggesting the importance of commitment.
3. PriceWater House dummy is insignificant. Markets did not seem to penalize companies for their PWC association. Accountants have the responsibility of verifying the quality of income statements. Quality can be inferred only a deviations from benchmarks. In Satyam's case, accounting fraud was based on doctoring of the entire accounting chain, altering the benchmark itself. Well planned, systematic. Perhaps the market gave the benefit of doubt to PWC as a firm, concluding that it was no worse than its peers in the trade.
4. Foreign institutional ownership continued to have a strong positive signaling effect on firm quality, except for the sub-sample of standalone firms.
5. Independence of the audit committee does not seem to matter. Audit committee quality (experience as proxied by tenure, and expertise as proxied by total directorships of members) seems to matter, surprisingly perhaps, only for group companies. Perhaps in the January episode, the market reacted to group companies only and variation among these. Concepts like related party transactions and tunneling are far less applicable to stand alone companies. The presence of a director with financial expertise in the audit committee did not seem to matter either. Though the current Clause 49 regulations require all members of the audit committee to be 'financially literate' with at least one member having 'accounting or related financial management expertise' the definition of financial literacy namely the

“ability to read and understand basic financial statements” is perhaps too weak to send any effective signal to the market about the financial qualification of the audit committee.

Our findings of the relative unimportance of audit committee independence and audit committee financial expertise differ from the expectations created by the empirical evidence existing in the empirical literature which has shown independent audit committees to lead to higher earnings and audit quality (Klien, 2002; Carcello et al., 2002), and such effects to be strengthened by the presence of independent directors in the audit committee with corporate or financial background (Xie et al. 2003; Yeh and Woidtke, 2007;).

Conclusions

We analyze the cross-sectional variation in individual stock returns in India on two specific days when the market was hit by news of significant corporate governance failure in a major Indian company that made national headlines for extended periods. We investigate whether the variation can be explained by corporate governance variables frequently mentioned in the literature particularly those related to the board, ownership patterns and auditor/audit committee variables. These are also generally the measures that the Indian stock market regulator SEBI, like its peers elsewhere in the world, has focused on in bringing about corporate governance reforms in recent years.

We find that on the first instance – with a shock about board effectiveness – firms with mid-to-large boards did better in the marketplace. As for independence, a supermajority (three-quarters or more) of independent directors mattered, but a simple majority did not. The average board tenure of a director had a positive, not negative, effect, suggesting experience beats familiarity in the market’s perception. Higher promoter share appears to instill confidence, as do size.

On the second episode, signaling an audit failure, neither the size nor the independence of the audit committee seemed to matter. Promoter and FII holding had positive impact in the

entire sample as well as for group firms. Size had similar effects as well. Interestingly, PWC did not seem to carry a stigma that tainted its clients significantly.

In both cases, a group association seemed to flag greater concerns for the market, markedly more so with the audit shock than the board shock.

This paper provides a first-cut analysis of impact of corporate governance perception shocks to different firms. It seems to suggest that the market's perception of corporate governance indicators are not necessarily in complete agreement with the list of "usual suspects" frequently discussed in the literature and targeted by regulators. It is possible that the ground-level realities of an emerging market environment like India's and the dynamics of board selection and decision-making reduce or modify the manner in which these variables are said to work in countries marked by arm's length transactions. In particular there seems to be considerable gap between the market's view and conventional wisdom regarding the importance of independent directors. The analysis suggests that, perhaps more than board and audit independence per se, it is the quality and expertise of the board and the audit committee, and the process of selection of independent directors and the setting up of an effective board and audit process that are important for effective governance.

Naturally, a lot remains to be done to advance this line of enquiry. Can independent directors provide effective corporate governance in companies with promoter dominance as is typical of India and many East Asian corporations?? Does their contribution depend upon the regulatory environment that varies across countries? Do big name audit firms provide a remedy to lax *de facto* accounting and auditing standards? How strong is the effect of auditor reputation on a firm's returns? These and many such questions need to be understood for a better understanding as well as effective regulation of emerging market firms. The event-study methodology adopted here may provide answers to some, though not all such questions.

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Table 1: Descriptive Statistics

Panel A: December 17 Event

<u>Variables</u>	<u>Lower Quartile</u>	<u>Mean</u>	<u>Median</u>	<u>Upper Quartile</u>	<u>Std Dev</u>
<i>Board size</i>	5.00	7.06	7.00	9.00	2.50
<i>Board independence (%)</i>	45.45	53.20	50.00	60.00	15.65
<i>Majority board (dummy)</i>	0.00	0.74	1.00	1.00	0.44
<i>Super majority board (dummy)</i>	0	0.10	0	0	0.30
<i>Average age of independent directors (years)</i>	52.75	58.93	60.00	65.75	9.63
<i>Average tenure of independent directors (years)</i>	4.25	7.75	6.67	10.00	4.56
<i>Average no. of directorships of independent directors</i>	2.00	3.32	2.71	4.00	2.66
<i>Promoters' share ownership (%)</i>	36.93	48.36	50.29	61.39	18.37
<i>Foreign Institutional Investors' share ownership (%)</i>	0	4.21	0	4.75	8.29
<i>Mutual Funds' share ownership (%)</i>	0	1.87	0.02	1.52	4.01
<i>Banks and Financial Institutions' share ownership (%)</i>	0	1.92	0.02	1.67	4.23

Table 1 panel A (contd.)

	<u>Standalone Companies</u>			<u>Group Companies</u>			<u>All Companies</u>		
	Abnormal Return on Dec 17 vis-à- vis Nifty 50	5-day CAR vis- à-vis Nifty 50	Return on Dec 17	Abnormal Return on Dec 17 vis-à-vis Nifty 50	5-day CAR vis-à- vis Nifty 50	Return on Dec 17	Abnormal Return on Dec 17 vis-à- vis Nifty 50	5-day CAR vis- à-vis Nifty 50	Return on Dec 17
<i>5th percentile</i>	-0.9871	-0.1269	-0.0863	-0.082	-0.1219	-0.0943	-0.1214	-0.1248	-0.09
<i>10th percentile</i>	-0.069	-0.0955	-0.0622	-0.0582	-0.0899	-0.0718	-0.0633	-0.093	-0.0675
<i>first quartile</i>	-0.0326	-0.0447	-0.0425	-0.0309	-0.0508	-0.0486	-0.032	-0.0472	-0.046
<i>Mean</i>	-0.0523	0.0152	-0.0094	-0.0268	-0.0022	-0.0202	-0.0415	0.0079	-0.014
<i>Median</i>	0.002	0.0099	-0.0071	-0.0043	-0.0072	-0.0226	-0.0013	0.0025	-0.0141
<i>Third quartile</i>	0.0341	0.0694	0.0188	0.0214	0.0356	0.0046	0.0306	0.0555	0.0128
<i>90th percentile</i>	0.061	0.1361	0.049	0.0565	0.0975	0.0411	0.0589	0.1206	0.0484
<i>95th percentile</i>	0.0702	0.1895	0.05	0.065	0.1379	0.0494	0.0684	0.1706	0.0499
Number of observations	965	952	952	703	699	699	1668	1651	1651

Panel B: January 7 Event

<u>Variables</u>	<u>Lower Quartile</u>	<u>Mean</u>	<u>Median</u>	<u>Upper Quartile</u>	<u>Std Dev</u>
<i>Size of audit committee</i>	3.00	2.99	3.00	3.00	1.02
<i>Audit committee independence (%)</i>	66.67	78.58	75.00	100.00	23.21
<i>Fully independent audit committee (dummy)</i>	0.00	0.34	0.00	1.00	0.47
<i>Average age of independent directors on audit committee (years)</i>	38.33	47.46	48.00	59.00	16.36
<i>Average tenure of independent directors on audit committee (years)</i>	3.25	6.64	5.50	9.00	4.65
<i>Average no. of directorships of independent directors on audit committee</i>	2.00	2.90	2.33	3.50	2.56
<i>Financial expert on audit committee (dummy)</i>	0.00	0.63	1.00	1.00	0.48
<i>Financial expert on board (dummy)</i>	1.00	0.91	1.00	1.00	0.29
<i>Price Waterhouse Coopers (dummy)</i>	0.00	0.03	0.00	0.00	0.18

Table 1 panel B (contd.)

	<u>Standalone Companies</u>			<u>Group Companies</u>			<u>All Companies</u>		
	Abnormal Return on Jan 7 vis- à-vis Nifty 50	5-day CAR vis-à-vis Nifty 50	Return on Jan 7	Abnormal Return on Jan 7 vis- à-vis Nifty 50	5-day CAR vis-à-vis Nifty 50	Return on Jan 7	Abnormal Return on Jan 7 vis- à-vis Nifty 50	5-day CAR vis-à-vis Nifty 50	Return on Jan 7
<i>5th percentile</i>	-0.9908	-0.1594	-0.1417	-0.1227	-0.1534	-0.1405	-0.9748	-0.1584	-0.1415
<i>10th percentile</i>	-0.1106	-0.1413	-0.1135	-0.0833	-0.1212	-0.1183	-0.1005	-0.1357	-0.1159
<i>first quartile</i>	-0.0603	-0.0772	-0.0835	-0.0582	-0.0691	-0.0906	-0.0587	-0.0711	-0.0874
<i>Mean</i>	-0.089	-0.0095	-0.0464	-0.0573	-0.0161	-0.0588	-0.0758	-0.0122	-0.0516
<i>Median</i>	-0.0263	-0.0109	-0.048	-0.0272	-0.0174	-0.0522	-0.0267	-0.0131	-0.0491
<i>Third quartile</i>	0.0044	0.0559	-0.0057	-0.0012	0.0444	-0.0266	0.0024	0.0497	-0.0155
<i>90th percentile</i>	0.0459	0.1044	0.0207	0.03	0.0901	0	0.0382	0.0986	0.0097
<i>95th percentile</i>	0.0622	0.152	0.0476	0.0508	0.1143	0.0222	0.0578	0.1372	0.0417
Number of observations	997	984	984	711	707	707	1708	1691	1691

Table 2: Regression Results – Dec 17 Event

Variables	All Companies			Standalone Companies			Group Companies		
	Estimate	Standard Error	Pr> ChiSq	Estimate	Standard Error	Pr> ChiSq	Estimate	Standard Error	Pr> ChiSq
<i>Intercept</i>	-0.1383	0.4411	0.7538	0.0806	0.5288	0.8788	-0.6872	0.9146	0.4525
<i>Board size</i>	0.0574	0.0290	0.0479**	0.0508	0.0382	0.1833	0.0685	0.0455	0.1326
<i>Super majority board</i>	0.4296	0.2216	0.0526**	0.6513	0.2920	0.0257**	0.1547	0.3530	0.6612
<i>Mean age of independent directors on the board</i>	-0.0030	0.0084	0.7174	-0.0075	0.0104	0.4680	0.0065	0.0153	0.6702
<i>Mean tenure of independent directors on the board</i>	0.0498	0.0157	0.0015***	0.0432	0.0220	0.0496**	0.0436	0.0238	0.0670*
<i>Promoters' share ownership</i>	0.0262	0.0040	<.0001***	0.0292	0.0051	<.0001***	0.0199	0.0069	0.0039***
<i>Mean no. of directorships of independent directors on the board</i>	0.0345	0.0465	0.4575	0.1625	0.0751	0.0305**	-0.0990	0.0673	0.1411
<i>Group company</i>	-0.2422	0.1408	0.0854*						
<i>FII's share ownership</i>	-0.0139	0.0104	0.1815	-0.0206	0.0149	0.1680	-0.0089	0.0150	0.5550
<i>Mutual funds' share ownership</i>	-0.0085	0.0172	0.6224	-0.0132	0.0235	0.5760	-0.0076	0.0265	0.7743
<i>Banks and financial institutions' share ownership</i>	0.0646	0.0162	<.0001***	0.0992	0.0250	<.0001***	0.0341	0.0211	0.1052*
<i>Log of total assets</i>	-0.3412	0.0533	<.0001***	-0.3961	0.0703	<.0001***	-0.2697	0.0875	0.0021***
<i>Debt-equity ratio</i>	-0.0065	0.0122	0.5934	-0.0093	0.0276	0.7352	-0.0070	0.0138	0.6098
-2 Log L	1465.002			892.135			556.669		
Number of Obs.	1176			742			434		

***, **, * denote coefficient significant at the 1%, 5%, and 10% level, respectively

This table presents the results of the Probit regression. Companies are ordered in terms of their CAR (companies with highest CAR being at the top) and divided into three equal groups (i.e., one third of the observations). The top and the bottom groups are used to estimate a Probit model to examine how the probability of belonging to the top group (firms with the high CAR) is influenced by corporate governance characteristics.

Table 3: Regression Results – Jan 7 Event

Variables	All Companies			Standalone Companies			Group Companies		
	Estimate	Standard Error	Pr> ChiSq	Estimate	Standard Error	Pr> ChiSq	Estimate	Standard Error	Pr> ChiSq
<i>Intercept</i>	0.1818	0.5596	0.7453	0.5630	0.7392	0.4463	-0.8565	1.0096	0.3963
<i>Audit committee size</i>	0.0554	0.0849	0.5142	-0.0072	0.1101	0.9477	0.1214	0.1415	0.3908
<i>Independent audit committee</i>	0.2680	0.5579	0.6310	-0.0615	0.7280	0.9326	0.9968	0.9889	0.3135
<i>Mean age of independent directors on the audit committee</i>	-0.0072	0.0062	0.2425	0.0001	0.0078	0.9946	-0.0178	0.0108	0.0995*
<i>Mean tenure of independent directors on the audit committee</i>	0.0110	0.0191	0.5664	-0.0240	0.0270	0.3747	0.0524	0.0283	0.0638*
<i>Promoters' share ownership</i>	0.0092	0.0041	0.0255**	0.0040	0.0051	0.4299	0.0218	0.0079	0.0060***
<i>Mean no. of directorships of independent directors on the audit committee</i>	0.1148	0.0548	0.0360**	0.0278	0.0779	0.7209	0.2006	0.079	0.0111***
<i>Audit committee has financial expertise</i>	0.1218	0.1747	0.4856	0.1423	0.2189	0.5158	-0.0092	0.3044	0.9759
<i>Price Water House</i>	-0.0658	0.3662	0.8575	0.2858	0.6345	0.6524	-0.2615	0.4917	0.5948
<i>Group company</i>	-0.4295	0.1519	0.0047***						
<i>FII's share ownership</i>	0.0214	0.0099	0.0308**	-0.0093	0.0129	0.4715	0.0744	0.0173	<.0001***
<i>Mutual funds' share ownership</i>	-0.0263	0.0180	0.1434	-0.0527	0.0253	0.0375**	0.0017	0.0269	0.9506
<i>Banks and financial institutions' share ownership</i>	0.0238	0.0174	0.1724	0.0131	0.0248	0.5969	0.0481	0.0267	0.0723*
<i>Log of total assets</i>	-0.1977	0.0521	0.0001***	-0.0850	0.0649	0.1906	-0.4120	0.0949	<.0001***
<i>Debt-equity ratio</i>	0.0057	0.0087	0.5124	0.0084	0.0120	0.4852	0.0066	0.0156	0.6744
<i>-2 Log L</i>	1228.254			754.181			443.907		
<i>Number of Obs.</i>	916			560			356		

***, **, * denote coefficient significant at the 1%, 5%, and 10% level, respectively

This table presents the results of the Probit regression. Companies are ordered in terms of their CAR (companies with highest CAR being at the top) and divided into three equal groups (i.e., one third of the observations). The top and the bottom groups are used to estimate a Probit model to examine how the probability of belonging to the top group (firms with the high CAR) is influenced by corporate governance characteristics.

Appendix – I: Size and Composition of Audit Committee under Clause 49 Regulations⁺

Clause 49, Section II: Audit Committee

(A) Qualified and Independent Audit Committee

A qualified and independent audit committee shall be set up, giving the terms of reference subject to the following:

- (i) The audit committee shall have minimum three directors as members. Two-thirds of the members of audit committee shall be independent directors.
- (ii) All members of audit committee shall be financially literate and at least one member shall have accounting or related financial management expertise.

Explanation 1: The term “financially literate” means the ability to read and understand basic financial statements i.e. balance sheet, profit and loss account, and statement of cash flows.

Explanation 2: A member will be considered to have accounting or related financial management expertise if he or she possesses experience in finance or accounting, or requisite professional certification in accounting, or any other comparable experience or background which results in the individual’s financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities.

- (iii) The Chairman of the Audit Committee shall be an independent director;
- (iv) The Chairman of the Audit Committee shall be present at Annual General Meeting to answer shareholder queries;
- (v) The audit committee may invite such of the executives, as it considers appropriate (and particularly the head of the finance function) to be present at the meetings of the committee, but on occasions it may also meet without the presence of any executives of the company. The finance director, head of internal audit and a representative of the statutory auditor may be present as invitees for the meetings of the audit committee;
- (vi) The Company Secretary shall act as the secretary to the committee.

Note: As per SEBI Circular: SEBI/CFD/DIL/CG/1/2004/12/10 dated October 29, 2004