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

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1. Introduction

As the interest in corporate governance among researchers and practitioners soars around the world, there has been a proliferation of measures and indexes that seek to describe and measure this 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 continues. 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 what are now textbook measures of corporate governance and those that investors actually care about is likely to be particularly pronounced in the setting of an emerging market, where institutional gaps often compromise the validity of certain measures that may be effective in developed markets.

One way of establishing the corporate governance indicators that matter to specific markets would be to analyse the market performance of a large number of stocks to a particular corporate governance event that sends out a market-wide shock not confounded by any other major development.

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Assessing the cross-sectional variation of individual firms' reactions to such a shock, and relating this to their respective corporate governance indicators may indicate what the markets trust as indicators of corporate governance quality. Without ascribing omniscience to the markets, such an analysis could prove useful to policy makers and equity market regulators by helping them to focus on those variables that the market bets on rather than those that appear to be meaningful from traditional and theoretical analyses of corporate finance and governance.

It is however extremely difficult to come across such well defined events related to corporate governance that have market-wide impact. Cases of major corporate misgovernance 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 Satyam Computer Services Limited (now known as Mahindra Satyam), the fourth largest software company in India, that occurred in December 2008 and January 2009 provides two such clean and major corporate governance events which affected firms across the board in India (and possibly other emerging market countries). These events, which are discussed in detail in the next section, are particularly suitable for the kind of analysis suggested earlier on several counts. The events were completely unexpected by the market, and involved a firm that was highly feted (decorated with awards for corporate governance to boot), with its American Depository Receipts (ADRs) trading at the New York Stock Exchange (NYSE). Moreover, these events happened in a country that had until then enjoyed an international reputation for its high degree of professionalism and healthy competition in the software industry. Equally importantly these events were big enough to rock the entire Indian market on both days, and made headlines for months afterwards. They made for the biggest news events on both days, and major Indian market indices dipped on both occasions. A very transparent national-level government and regulatory enquiry was initiated to investigate the affair; the following weeks witnessed an exodus of non-

executive directors from several boards in India. So these two events can be viewed as purely corporate governance events, as uncontaminated by other market developments as we can hope to get them. Consequently we argue that these events served as wake up calls for investors to review the quality of corporate governance in the respective firms, and that the variation in the market returns across the firms on those two days—suitably adjusted for overall market reaction—reflects the variation in the investors' perception of the quality of governance in these firms. Associating these abnormal returns to the corporate governance indicators commonly used in the literature would therefore reveal those measures that really matter for the markets and those which are largely inconsequential.

The rest of the paper is organised as follows. The next section describes the two Satyam related events and their overall impact on the Indian market. The third section discusses the data and methodology adopted for this study. Section 4 describes the results, while the last section concludes the paper.

2. Corporate governance scandal at Satyam: A background

Satyam Computer Services Limited, the Hyderabad based Indian software company, was founded in 1987 by B. Ramalinga Raju and his brother B. Rama Raju. Ramalinga Raju served as Chairman of Satyam 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 was 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), and served as Chairman and Member of its Governing Board. He received the Corporate Citizen of the Year award during the Asian Business Leadership Summit held in Hong Kong in 2002. He was also named 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.

Since its foundation in 1987 Satyam rapidly grew into a four billion dollar enterprise in two decades. 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 service provider to be listed on NASDAQ, and in 2001 Satyam's ADR was listed on NYSE (SAY). By 2008 it was the fourth largest Indian software and Business Process Outsourcing (BPO) company after giants like Infosys, Tata Consultancy Services (TCS) and Wipro. It had operations in several countries across the world, and had clients like the World Bank and partners like GE, and was selected as the official IT services provider for the FIFA World Cup to be held in 2010 in South Africa, as well as the 2014 World Cup to be held in Brazil. A few months before the scandal, Satyam was awarded the Golden Peacock Global Award for Excellence in Corporate Governance in 2008 by the World Council for Corporate Governance.[1] Previously, the Investor's Relations Global Rankings (IRGR) had rated Satyam as the company with Best Corporate Governance Practices for the years 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 possible way. It had a market capitalisation of 3.98 billion US dollars at the end of November 2008. It was also a zero-debt company with over 1.2 billion dollars in cash reserves.

Part of the reason for Satyam's good reputation was its stellar board. In late 2008 its non-executive directors included 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 other former top bureaucrats from across India. One could hardly imagine a more competent assemblage of people to steer a corporation.

Trouble started on Dec 16, 2008 when Satyam's board approved the acquisition of 100% of the stake in the privately-held Hyderabad-based Maytas Properties for $1.3 billion, and a 51% stake in the public-listed firm Maytas Infra for $300 million. The two firms represented the Raju family's old construction and property business; Maytas is actually Satyam spelt backwards, and was run by Ramalinga Raju's two sons. The decision came as an even bigger surprise considering that the Rajus had taken Maytas Infra public just a year prior to the acquisition proposal. As

of September 31, 2008, promoters held 36.64% in Maytas Infra. The price to be paid to the promoters was fixed at Rs. 475 per share, 1.25% discount to the closing price of the scrip on Dec 16, 2008. The open offer was to be made at Rs. 525 per share which was a 7% premium to the ruling price as against the 52nd week high of Rs. 946. This would have been a completely unrelated acquisition by Satyam in a sector that was arguably as troubled (if not more) as software given the credit crunch that the market was facing at the time.

The institutional shareholders resisted the deal right from the start. There was stiff opposition at the conference call itself which was made to announce the deal, particularly from FII players like Templeton. The main objections raised were that it was not clear (1) who had done the valuation of Maytas; and (2) why Satyam should move into an unrelated industry already under severe stress. Moreover, Maytas' connection to the Raju family looked like a clear insider deal meant to use shareholder money to bail out Raju's sons. Institutional investors went public with their displeasure and approached the media, 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 the Indian markets opened the next morning, within eight hours of the announcement of the deal. But the damage had been done. On December 17, 2008, the Satyam story made headlines across 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 event provides us with the first instance of a corporate governance shock, related to the ineffectiveness of the board in monitoring the management.

However worse was in store for Satyam and its shareholders. The second and bigger event occurred on the morning of January 7, 2009 (while the markets in India were open) when Ramalinga Raju, Satyam's Chairman, disclosed that the firm has been falsifying its accounts for several years, and that its much vaunted $1.2 billion cash holding was largely non-existent and was the result of a long-drawn accounting fraud involving Satyam's auditors PricewaterhouseCoopers (PwC). 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%. This provides us with the second instance of a corporate governance shock, this time related to accounting fraud and lax auditing.

The December 17, 2008 and the January 7, 2009 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 second was related to issues of transparency and accounting malpractice.

3. Data and Methodology

The data for the analysis in this paper came from the CMIE 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 was to find out which corporate governance variables had an effect in determining the cross-sectional variation in the reaction of Indian companies to the two corporate governance related events discussed in the previous section.

The dependent variable was the individual returns on listed Indian stocks on or after the two critical days—December 17, 2008 and January 7, 2009. We started off by constructing the market adjusted abnormal returns around these two events, and cumulated the abnormal returns over a five day period encompassing the two days before and the two days after each of the two events. The Cumulative Abnormal Returns (CAR) over an event window of ± 2 days around the event date formed the reference variable for our analysis, though arguments could be made in favour of using raw returns as well as abnormal returns on each of the specific event days of the shocks. We used these variables in our robustness checks.

Our computation of the market adjusted abnormal returns followed the standard approach used in event study literature (Barber & Lyon, 1997; Mitchell & Stafford, 2000, among others). We computed the daily returns using the closing prices of two consecutive trading days using the formula

Rt = (Pt – Pt-1)/Pt-1, where Rt stands for the daily returns, Pt represents the closing price for day 1, and Pt-1 represents the closing price for day 2. We used the returns on all the stocks listed at the National Stock Exchange as our starting point, and used the Nifty 50 index to capture the market returns. 250 daily returns ending on November 30, 2008 for each stock and the respective indices were used to estimate the alphas and betas of the individual stocks and hence the expected and abnormal returns on the two days of interest.

After constructing the CAR, we ranked the companies in terms of their CAR (in descending order of CAR) and divided them into three equal groups. We considered the top and the bottom groups, and estimated a Probit model to examine if the probability of belonging to the top group (firms with high CAR) was influenced by a firm's corporate governance characteristics.

The choice of the independent variables was far more open. The literature on corporate governance has dealt with several variables that may individually capture important elements of corporate governance. Since we were looking at a within-country variation, we abstracted from among all the institutional variables that were common to all the stocks used in the analysis. Broadly speaking, we looked at a set of board related variables, a set of variables that captured the ownership patterns, variables that probed into the nature of auditors the firms used, and those that looked at the nature and composition of the audit committee. Our choice of variables was motivated by our a priori expectations of the drivers of the stock reactions—board related variables for the first event which primarily brought focus on the ineffectiveness of the board in restraining the management from pushing through an insider deal, and auditor and audit committee related variables for the second event which pertained mainly to accounting quality. Our choice was also influenced by the regulatory focus in recent years in India (as elsewhere) on the composition of the board and the role of its audit committee in improving corporate governance standards; this would enable us to 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 considered board size and board independence as measured by the proportion of independent directors on the board. In addition we probed deeper into the nature of the independence of the independent directors by looking at the tenure of the current independent directors and their age, to assess if the market took these variables into consideration while assessing the true independence of the board. Finally we looked at the accounting knowledge of the directors serving on the board. Using the Prowess database, we identified how many directors had at least a degree in accounting or finance implying knowledge of accounting.

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

In addition to the board variables, we paid special attention to the audit committee of the board that is expected to play an important role in determining the reliability of a firm's accounting information. We looked 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 of a firm play a key role in its corporate governance, and are likely to be particularly important in ensuring faith in the company's financial numbers, which is the critical issue in the second event under consideration. We considered several variables related to the auditors of a company. Given that PricewaterhouseCoopers (Satyam's auditors) was likely to have suffered a loss of reputation following the scam, we used a dummy variable to find out if PwC was an auditor of the company under consideration. The three other audit firms that form the Big Three auditors were also assigned a corresponding dummy variable. A similar variable was constructed for the top six domestic audit firms as well.

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

Table 1: Descriptive statistics for the two Satyam-related corporate governance events

Event 1: December 17, 2008					
Variables	**Lower Quartile**	**Mean**	**Median**	**Upper Quartile**	**Std Dev**
Board size	5.00	7.06	7.00	9.00	2.50
Board independence (%)	45.45	53.20	50.00	60.00	15.65
Majority board (dummy)	0.00	0.74	1.00	1.00	0.44
Super-majority board (dummy)	0	0.10	0	0	0.30
Average age of independent directors (years)	52.75	58.93	60.00	65.75	9.63
Average tenure of independent directors (years)	4.25	7.75	6.67	10.00	4.56
Average no. of directorships of independent directors	2.00	3.32	2.71	4.00	2.66
Promoters' share ownership (%)	36.93	48.36	50.29	61.39	18.37
FIIs' share ownership (%)	0	4.21	0	4.75	8.29
Mutual funds' share ownership (%)	0	1.87	0.02	1.52	4.01
Banks and financial institutions' share ownership (%)	0	1.92	0.02	1.67	4.23

	Standalone Companies			**Group Companies**			**All Companies**		
	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
5th percentile	-0.9871	-0.1269	-0.0863	-0.082	-0.1219	-0.0943	-0.1214	-0.1248	-0.09
10th percentile	-0.069	-0.0955	-0.0622	-0.0582	-0.0899	-0.0718	-0.0633	-0.093	-0.0675
First quartile	-0.0326	-0.0447	-0.0425	-0.0309	-0.0508	-0.0486	-0.032	-0.0472	-0.046
Mean	-0.0523	0.0152	-0.0094	-0.0268	-0.0022	-0.0202	-0.0415	0.0079	-0.014
Median	0.002	0.0099	-0.0071	-0.0043	-0.0072	-0.0226	-0.0013	0.0025	-0.0141
Third quartile	0.0341	0.0694	0.0188	0.0214	0.0356	0.0046	0.0306	0.0555	0.0128
90th percentile	0.061	0.1361	0.049	0.0565	0.0975	0.0411	0.0589	0.1206	0.0484
95th percentile	0.0702	0.1895	0.05	0.065	0.1379	0.0494	0.0684	0.1706	0.0499
No. of observations	965	952	952	703	699	699	1668	1651	1651

Event 2: January 7, 2009					
Variables	**Lower Quartile**	**Mean**	**Median**	**Upper Quartile**	**Std Dev**
Size of audit committee	3.00	2.99	3.00	3.00	1.02
Audit committee independence (%)	66.67	78.58	75.00	100.00	23.21
Fully independent audit committee (dummy)	0.00	0.34	0.00	1.00	0.47
Average age of independent directors on audit committee (years)	38.33	47.46	48.00	59.00	16.36
Average tenure of independent directors on audit committee (years)	3.25	6.64	5.50	9.00	4.65
Average no. of directorships of independent directors on audit committee	2.00	2.90	2.33	3.50	2.56
Financial expert on audit committee (dummy)	0.00	0.63	1.00	1.00	0.48
Financial expert on board (dummy)	1.00	0.91	1.00	1.00	0.29
PricewaterhouseCoopers (dummy)	0.00	0.03	0.00	0.00	0.18

	Standalone Companies			**Group Companies**			**All Companies**		
	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
5th percentile	-0.9908	-0.1594	-0.1417	-0.1227	-0.1534	-0.1405	-0.9748	-0.1584	-0.1415
10th percentile	-0.1106	-0.1413	-0.1135	-0.0833	-0.1212	-0.1183	-0.1005	-0.1357	-0.1159
First quartile	-0.0603	-0.0772	-0.0835	-0.0582	-0.0691	-0.0906	-0.0587	-0.0711	-0.0874
Mean	-0.089	-0.0095	-0.0464	-0.0573	-0.0161	-0.0588	-0.0758	-0.0122	-0.0516
Median	-0.0263	-0.0109	-0.048	-0.0272	-0.0174	-0.0522	-0.0267	-0.0131	-0.0491
Third quartile	0.0044	0.0559	-0.0057	-0.0012	0.0444	-0.0266	0.0024	0.0497	-0.0155
90th percentile	0.0459	0.1044	0.0207	0.03	0.0901	0	0.0382	0.0986	0.0097
95th percentile	0.0622	0.152	0.0476	0.0508	0.1143	0.0222	0.0578	0.1372	0.0417
No. of bservations	997	984	984	711	707	707	1708	1691	1691

4. Results

Event 1: December 17, 2008

The results of the Probit regression for the December 17, 2008 event are presented in Table 2. The companies were ordered in terms of their CAR (companies with highest CAR being at the top), and were divided into three equal groups. The top and the bottom groups were used to estimate a Probit model to examine how the probability of belonging to the top group (firms with high CAR) was influenced by a firm's corporate

governance characteristics. The regressions considered various board-related variables as independent variables after adjusting for leverage and industry controls for 21 industries. The rationale for this was that the December 16, 2008 board meeting of Satyam, where its acquisition plan for Maytas was approved, and the ensuing uproar among international investors raised doubts—rightly or wrongly—about the ability of boards to protect minority shareholders from promoters. Hence the quality and role of independent directors were likely to be key variables on that day.

Board size featured on our list of variables—evidence from earlier research indicates its importance. Board independence as measured by the proportion of independent variables was another key variable. According to Clause 49 of the Listing Agreement, at least 50% of the board of a company with an Executive Chairman or a Chairman who is a promoter or related to the promoter must comprise independent directors, while at least one-third of the boards of other listed companies should be composed of independent directors.

We probed further into the characteristics of the independent directors to check if the markets assessed their quality and actual independence. We used age as an (imperfect) indicator of experience, and tenure on the board as an indicator of de facto independence, assuming that a longer tenure on a board is likely to compromise a director's independence. Finally we looked at another measure of board quality—the average number of directorships held by the independent board members. It was difficult to sign this variable a priori. Prior research 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 quality.

Finally we looked at a set of ownership variables. Promoter's share came first in this list as prior research indicates that a high level of promoter ownership can act as a bonding device with outside shareholders to signal the commitment of owners to maximise shareholder value and not engage in the expropriation of minority shareholders. Institutional ownership featured next, which was classified according to institution type. Foreign

Institutional Investors (FIIs), mutual funds, and banks and financial institutions form the three different categories of institutional investors.

Given that the December 2008 event centred around fears that minority shareholders' funds were being tunnelled by promoters through transfers to other group companies, we also ran 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.

Table 2: Regression results for the Satyam-related December 17, 2008 event

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

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

Findings

The regression indicates several key findings.

The results indicate that board size does matter—companies with bigger boards did better. This supports the recommendation made in the Naresh Chandra Committee report that the minimum size of the board should be seven. 48% of the companies in our sample had board sizes that were less than seven. This does not mean that unusually bigger boards will do better. The 95th percentile value in our sample is 12, which is consistent with the Companies Bill stipulation that board size be capped at 12.

Companies with super-majority boards (composed of 75% or more independent directors) experienced higher CAR. In separate regressions that have not been reported here, majority board turned out to be insignificant. The market seems to give credence to independent directors only when they have substantial voice.

The value for the tenure variable is positive suggesting that the positive effects of directors' experience outweigh the negative effects of entrenchment and loss of independence from the threat of familiarity associated with long tenures.

The market reaction seemed to in favour of companies with higher promoter share, perhaps due to the notion of commitment. Note that the promoters slowly divested their share ownership in Satyam over time, and by the time the scandal occurred they had divested almost their entire equity ownership.

The market penalised group companies. After all the controls, group companies fared significantly worse in CAR.

When we looked at group and standalone companies separately most of the significance of board related variables disappeared. This could be an artefact of the problem of selecting independent directors in group companies—powerful promoters may choose "independent" directors (who are then no longer independent). This could happen in standalone companies as well, but the promoters of group companies could also appoint the same person as an independent director in multiple companies

within the group. Thus the cost of dissent by independent directors is likely to be more in group companies.

The market seemed 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 reported by other research studies on the Indian situation.

The overall take away from the analysis of the December 17, 2008 event is that while board independence matters, the competence and expertise of the board are perhaps more important. However, promoter dominance may weaken the effectiveness of board independence. These findings suggest that measures to strengthen board independence by mandating the creation of a nomination committee, defining independence properly and unambiguously, and setting up an effective process for the functioning of the board—by having the independent directors meet without the interference of the management for instance—may be helpful.

Our findings corroborate the relatively mixed evidence found in the empirical literature regarding board independence and firm performance. While some of these studies find that boards which are more independent have a beneficial effect on firm performance (Dahya & McConnell, 2003), and on discrete tasks such as the hiring and firing of chief executive officers (Weisbach, 1988), and hostile takeovers (Brickley et al., 1994), a significant number of studies report results to the contrary (Bhagat & Black, 2002; Hermalin & Weisbach, 1991). Some of the studies in the Indian context seem to suggest that more than board independence, factors like 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 the board (adverse effect) matter more in corporate governance (Sarkar et al., 2008; Sarkar & Sarkar, 2009). Similar views are also expressed in reviews of corporate governance practices based on company surveys (FICCI-Grant Thornton, 2009).

Event 2: January 7, 2009

The January 2009 event was of a distinctly different nature when

compared to the December 2008 event even though it was related to a corporate governance issue involving the same company. In the second event, the issue was the failure of auditing and the doubt it cast on accounting information about Indian firms, large and small, across the board.

Consequently the independent variables used were different from the preceding analysis. We focused on the nature of the auditor, and the characteristics of the audit committee together with leverage, ownership variables, and the industry controls used for the first event. We used a dummy to capture the effect, if any, of having PricewaterhouseCoopers as an auditor. For the audit committee, we used variables for board size, independence (proportion of independent directors), mean age, and tenure of audit committee members that were analogous to those used in the regression for the first event. Next we took into consideration the accounting expertise of directors constituting the audit committee. Using the information provided by the Directors' Database on the educational background of individual directors we calculated the number and the proportion of the audit committee members who had an accounting, banking, or management degree which we assumed indicated knowledge of accounting. While this was certainly an imperfect indicator of expertise in that it missed out on the vast experience many people gain by dealing with accounting at work and instead cast faith in certain academic degrees (perhaps more than they deserved), it was a close objective measure for what we were trying to capture—the ability of the committee to interact with the auditors and to pick up accounting errors, if any. We used dummy variables—one for the board and one for the committee—to verify if at least one director serving in it had the necessary expertise.

Table 3 reports the results of this regression analysis for the full sample as well as for the standalone and group firms sub-samples. As in Table 2, the values in parentheses are p-values computed using heteroscedasticity-consistent standard errors. The companies were ordered in terms of their CAR, and were divided into three equal groups. The top and the bottom groups were used to estimate a Probit model to examine how the probability of belonging to the top group was influenced by the

firm's corporate governance characteristics. We report the results using the audit committee dummy for financial expertise; the results are invariant if we use the board dummy instead.

Table 3: Regression results for the January 7, 2009 Satyam-related event

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

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

Findings

The major findings of the regression analysis shown in Table 3 are summarised below.

The results show that group companies were severely punished. The coefficient of the January 2009 event (-0.4295) was almost double that of the December 2008 episode (-0.2422). This was expected as the January episode was related to basic accounting propriety—the accounting numbers could no longer be trusted. The problems were likely to be exacerbated for group companies for whom prior research has shown the existence of expropriation of minority shareholders through tunnelling, related party transactions, and earnings management.

Promoter share remains positive and significant, suggesting the importance of commitment.

The PricewaterhouseCoopers dummy was found to be insignificant. The market did not seem to penalise companies for their PwC association. Traditionally, accountants have had the responsibility of verifying the quality of income statements, and quality can be inferred only on the basis of deviations from the benchmarks. In the case of Satyam, the accounting fraud was based on well-planned, systematic doctoring of the entire accounting chain, altering the benchmark itself. The market seems to have given the benefit of doubt to PwC as a firm, concluding that it was no worse than its peers in the trade.

Foreign institutional ownership continued to show a strong positive signalling effect on firm quality, except for the sub-sample of standalone firms.

Independence of the audit committee did not seem to matter for this particular event. Audit committee quality (experience as proxied by tenure, and expertise as proxied by total directorships of members) seemed to matter (surprisingly perhaps) only for group companies. It would appear that in the January 2009 episode, the market reacted only to group companies and variations among these. Concepts like related party transactions and tunnelling are far less applicable to standalone

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—"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.[2]

We found that audit committee independence and audit committee financial expertise were relatively unimportant for the second event. This differs from the expectations created by the empirical evidence provided in the extant literature which shows that independent audit committees lead to higher earnings and audit quality (Klein, 2002; Carcello et al., 2002), and such effects are strengthened by the presence of independent directors in the audit committee with corporate or financial background (Xie et al., 2003; Yeh & Woidtke, 2007).

5. Conclusions

We analysed the cross-sectional variation in individual stock returns in India on two specific days when the market was hit by news of significant (and unanticipated) corporate governance failure in a major Indian company which made national headlines for a long time. We investigated whether the variation could be explained by the corporate governance variables frequently mentioned in the extant 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 found that in the first instance related to a shock about board effectiveness, firms with mid to large boards did better in the market. As for independence, a super-majority (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 that experience beats familiarity in the market's perception. Higher promoter share appeared to instil confidence, as did size.

For the second episode which signalled an audit failure, neither the size nor the independence of the audit committee seemed to matter. Promoter and FII holdings had a positive impact on the entire sample as well as for group firms. Size had similar effects as well. Interestingly, PricewaterhouseCoopers did not seem to carry a stigma that affected its clients significantly.

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

This paper provides a first-cut analysis of the impact of corporate governance perception shocks on different firms. Our findings seem 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 expected to work in countries which are characterised by arm's length transactions. In particular there seems to be a considerable gap between the market's view and the 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 selecting independent directors, and the setting up of an effective board and audit process that are important for effective governance.

A lot of research 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 many Indian and East Asian corporations? Does their contribution depend on the regulatory

environment that varies across countries? Do big name audit firms provide a remedy for lax accounting and auditing standards? How strong is the effect of the auditor's reputation on a firm's returns? These and many more such issues need to be investigated for a better understanding as well as an effective regulation of firms in emerging markets. The event study methodology adopted here could provide answers to some though not all such questions.

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Notes

[1] The award was withdrawn immediately after details of the scam became public.

[2] See Appendix for details of the Clause 49 regulations.

Appendix

Size and Composition of Audit Committee under Clause 49 Regulations (as per SEBI Circular: SEBI/CFD/DIL/CG/1/2004/12/10 dated October 29, 2004).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.