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Investors are unwilling to pay for corporate social responsibility activities: Evidence from India's Companies Act 2013

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Abstract

We examine the effects of corporate social responsibility (CSR) activities on the values of firms. Using a non-parametric regression discontinuity design, exploiting a natural experiment induced by India's Companies Act 2013, we find investors devalue the stocks of firms that do CSR activities by 2-5%, which suggests investors are unwilling to pay for CSR activities.

Keywords: corporate social responsibility, firm objectives, firm values

JEL Classifications: G34, L21, M14

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1. Introduction

Investors may be unwilling to pay for corporate social responsibility (CSR) activities. The conflict resolution view of the CSR literature says managers do CSR activities to resolve conflicts among stakeholders, which may increase profits (Jo and Harjoto, 2011); the agency view, on the contrary, says managers do CSR activities for their own benefits, often at shareholders' costs (Barnea and Rubin, 2010).[1] Not only that the theories are debatable, the empirical evidence (many of the papers are correlation studies) is also unclear on whether CSR activities increase profits or whether investors are willing to pay for them (Kitzmueller and Shimshack, 2012; Margolis et al., 2007).

We examine the effects of CSR activities on firm values—how much investors revalue the stocks of firms when the firms do CSR activities—using a natural experiment induced by India's Companies Act 2013. The Act requires firms whose sales, net worth, or net profits are at least INR 10 billion, 5 billion, or 50 million, respectively, in the previous financial year to spend 2% of their average net profits in the three previous years on CSR activities. We argue that firms whose sales, net worth, or net profits are within a small range around INR 10 billion, 5 billion, or 50 million, respectively, are similar on average except that firms above a threshold have to do CSR activities, which means the data fit a regression discontinuity design.

[1]The debate in this literature is whether managers should maximize only shareholders' values (Friedman, 1970; Wartick and Cochran, 1985).

2. Empirical strategy and data

2.1. Empirical strategy

We compare how investors revalue the stocks of firms that have to do CSR activities and those that do not. We focus on how investors behave when the 2013-14 financial year ends on 31 March 2014, that is when they find out which firms that the Act requires to do CSR activities. If we find investors revalue the two groups of stocks differently, we can attribute the difference to CSR activities.

We use an event study analysis to examine how investors revalue the stocks; then, we use a non-parametric discontinuity design to compare investors' revaluation of the two groups of stocks. In the first stage, we estimate a market model,

$$r_{it} = \alpha + \beta r_{mt} + \varepsilon_{it}, \qquad (1)$$

for each stock, where r_{it} is the daily stock returns of stock i at time t, r_{mt} is the market returns at time t, and ε is the error terms, in an estimation window from 4 January 2010 to 28 February 2014. Then, we calculate (1) the predicted returns, $\hat{r}_{it}$, for 5-, 7-, or 15-day event-window around 31 March 2014; (2) the daily abnormal return, $r_{it} - \hat{r}_{it}$, for each trading day in each event window; and (3) the corresponding cummulative abnormal returns (CARs), $\sum r_{it} - \hat{r}_{it}$. In the second stage, we calculate the average CARs of firms that have to do CSR activities ($\overline{CAR}_{CSR}$) and that of firms that do not ($\overline{CAR}_{No\ CSR}$) in a small range around a threshold, and we test whether the difference, $\overline{CAR}_{CSR} -$

$\overline{CAR}_{No\ CSR}$, statistically differs from zero. If investors devalue the stocks of firms that have to do CSR activities, we expect the difference to be negative.

2.2. Data

We get the stock prices of firms listed in the National Stock Exchange of India from Datastream on 25 April 2014, four weeks after the 2013-14 financial year ends. We calculate daily stock returns from the stock prices and daily market returns from the CNX 500 Index.

We use only sales as the criterion in our analyses. When we downloaded the data from Datastream, the net worth of most firms were unavailable and net-profits (as defined by the Act) were difficult to calculate from the information available in the database. Therefore, because the net worth and and net profits were unavailable to investors in March 2014, we can use sales as the only criterion without loss of generality.[2]

3. Results

Figure 1, a scatter-plot of the average CARs by sales, shows that firms whose sales are slightly more than INR 10 billion have smaller CARs than firms whose sales are slightly less than INR 10 billion do. (Each dot represents the average CARs of firms whose sales are within each 0.5-billion range from

[2] Moreover, firms around the sales threshold are comparable if we consider a small range of sales around it.

INR 5 to 15 billion.) Firms whose sales are slightly to the right of the threshold have 3% average CARs and firms slightly to the left have 9%, which suggests investors think CSR activities lower firm values. Even when we consider firms farther away from the threshold, similar results arise. (For example, firms whose sales are within 2 billion above the threshold have about 3% average CARs and firms below have about 6%.) The trendline of the averages, a cubic function of sales that may jump at the threshold, also shows similar picture: The average initially increases, but it falls at the threshold.

<Insert Figure 1 here>

Table 1, which presents the estimates of $\overline{CAR}_{CSR} - \overline{CAR}_{No\ CSR}$ confirms the picture we see in Figure 1. Almost all estimates are statistically significant, especially the estimates in rows 2 and 3 in which we include 2- or 4-billion range around the threshold. Some estimates in row 1 are statistically insignificant perhaps because there are too few firms in the sample so that we have insufficent statistical power. (The sampe sizes in rows 1-4 are 40, 101, 201, and 311, respectively.) The estimate in row 4 and column 3 also has big standard errors, though we should cautiously interpret those in row 4 because we include firms that are far from the threshold, which may make the firms above and below the threshold incomparable. Overall, the estimates suggest investors devalue the stocks of firms that have to do CSR activities by 2-5%, a

large effect considering that the firms are required to spend only 2% of its net-profits.[3]

<Insert Table 1 here>

We do some placebo tests using false thresholds, but, as Table 2 shows, we do not find the average CARs of firms above and below the false thresholds differ. Using INR 9 billion as the false threshold, the estimates of the difference in rows 1-3 are positive, perhaps because larger firms have bigger CARs; but they are statistically insignificant (Panel A). When we use 6-billion range around the false INR 9-billion threshold, the estimates are negative, though they are very small (less than 0.4 percent) and statistically insignificant (row 4). We get similar results when use INR 11 billion as the false threshold (Panel B): Most estimates are negative but almost all are statistically insignificant (only the estimate in row 7 and column 1 is statistically significant). Overall, therefore, the results in Table 1 are robust.

<Insert Table 2 here>

4. Concluding remarks

The natural experiment induced by India's Companies Act 2013 shows that investors devalue the stocks of firms that have to do CSR activities by 2-5%:

[3] Moreover, CSR activities are like advertising campaigns, which may, to some extent, improve firms' performance.

Average investors seem to be unwilling to pay for CSR activities.[4] The results complement correlation studies in the empirical literature on the effects of CSR activities on firm values. They seem to be in line with the agency view of the CSR literature and Friedman's (1970) idea that managers' only social responsibility is to increase profits.

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[4] In contrast, using a regression discontinuity design, Flammer (2013) finds CSR activities improve firms' financial performance.

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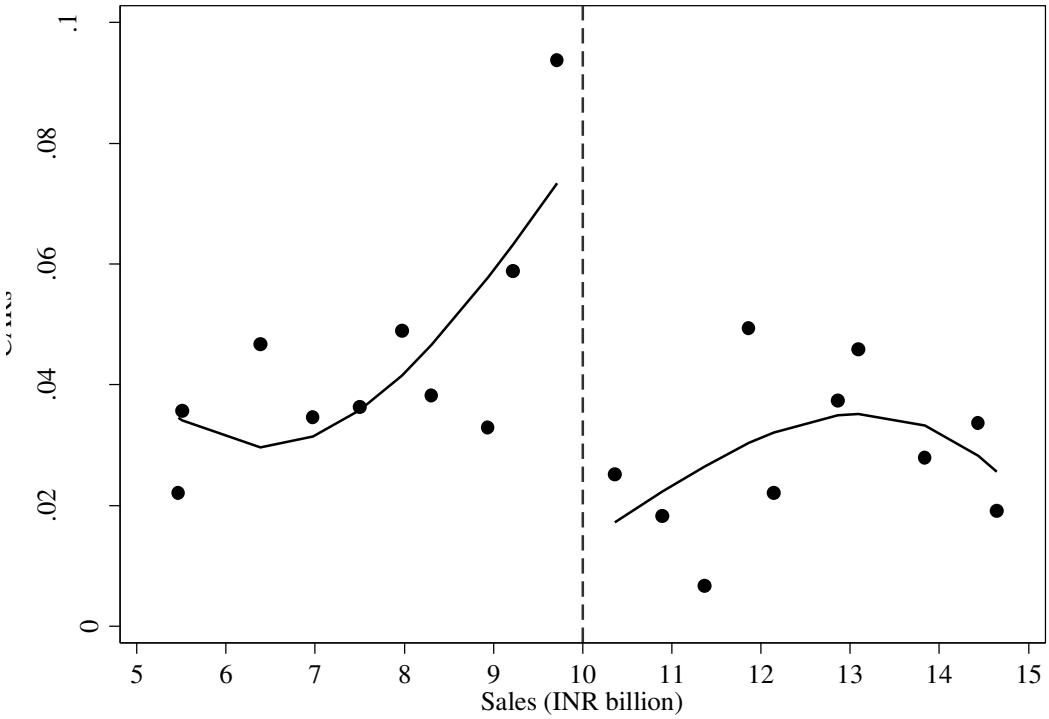
Figure 1 The average CARs and sales



Notes: Each dot is the average CARs of firms whose sales are within a 0.5-billion range from INR 5 to 15 billion. The trendline is CARs as a cubic function of sales that may jump at the INR 10 billion sales.

Table 1 Basic results

		5 days	7 days	15 days
		(1)	(2)	(3)
Range around the INR 10 billion threshold				
1 billion	(1)	-0.031*	-0.086	-0.031
		(0.014)	(0.044)	(0.029)
2 billion	(2)	-0.029**	-0.053*	-0.043*
		(0.010)	(0.024)	(0.020)
4 billion	(3)	-0.022**	-0.033*	-0.036*
		(0.007)	(0.013)	(0.015)
6 billion	(4)	-0.015*	-0.023*	-0.011
		(0.006)	(0.009)	(0.012)

Notes: The number in each cell is the estimate of the difference between the average CARs of firms above and that below the INR 10 billion threshold within the range indicated in the left column and the event window indicated in the top row. (The sample used in the first row, for example, includes firms whose sales are between INR 9.5 and INR 10.5 billion.) The numbers in parentheses are robust standard errors. The sampe sizes in rows 1-4 are 40, 101, 201, and 311, respectively. The signs * and ** indicate statistical significance at five and one percent level, respectively.

Table 2 Using false thresholds

		5 days	7 days	15 days
		(1)	(2)	(3)
A. Range around the INR 9 billion threshold				
1 billion	(1)	0.020	0.022	0.016
		(0.015)	(0.017)	(0.030)
2 billion	(2)	0.016	0.038	0.012
		(0.010)	(0.024)	(0.020)
4 billion	(3)	0.005	0.012	0.011
		(0.007)	(0.013)	(0.014)
6 billion	(4)	-0.004	0.00002	-0.002
		(0.006)	(0.010)	(0.012)
B. Range around the INR 11 billion threshold				
1 billion	(5)	-0.018	-0.020	0.005
		(0.011)	(0.016)	(0.031)
2 billion	(6)	-0.004	-0.001	0.003
		(0.010)	(0.013)	(0.022)
4 billion	(7)	-0.015*	-0.023	-0.009
		(0.007)	(0.014)	(0.016)
6 billion	(8)	-0.012	-0.014	-0.009
		(0.006)	(0.010)	(0.012)

Notes: The number in each cell is the estimate of the difference between the average CARs of firms above and that below a false threshold. See the notes to Table 1.