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Shareholder activism and equity price reactions

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HIGHLIGHTS

- CSR proposals by activist shareholders impact on risk and returns.
- Market effects depend on the type of the proposal and the identity of the sponsor.
- Sustainability proposals, sponsored by narrow internal groups are penalized.
- Equality-ethical proposals, sponsored by elite groups are rewarded.

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ABSTRACT

Using a large dataset of 8,870 shareholder corporate social responsibility (CSR) proposals for US firms, we employ a novel methodological approach that allows for the estimation of dynamic share price and risk reactions. We show that formal activist shareholder recommendations can affect stock returns and risk. However, the direction and magnitude of these effects are conditional upon the nature of the proposal and the identity of the sponsor.

1. Introduction

The 2007–09 financial crisis has fuelled a debate over how active or passive shareholders should be in monitoring the companies for which they hold stocks in. This has created a market for socially responsible investing (SRI)—a passive and low-cost method of shareholder engagement that can align with investors' altruistic intentions. Despite the growing interest in SRI and CSR activities, it is unclear whether they create value for the firm and, if so, in which direction. From a theoretical perspective, several theories (stakeholder theory, the resource-based view and the neoclassical view) argue that such activities should influence firm risk (Becchetti et al., 2015; Jo and Na, 2012). Unfortunately, empirical literature offers ambiguous predictions, typically failing to attribute gains (or losses) to firms and investors (Flammer, 2015).

In this note, we focus our attention on shareholder proposals, which represent an important governance mechanism for outside owners to induce desirable changes by firms' management (Cuñat et al., 2012; Iliev et al., 2015). Research in this area typically employs event study methodologies and, more recently, regression discontinuity designs (RDD), in order to examine price reactions to small subsets of proposals garnering high levels of voting support. These approaches, however, largely ignore shifts in risk around proposal votes (e.g. Flammer, 2015). Thus, standard event-study approaches have been subject to criticism in the asset pricing literature; while news may often not influence future cash flows, it may convey price-relevant information about discount rates (Grullon et al., 2002). Particularly for CSR activities, which can impact firm cash flows in unknown ways, it is important to account for shifts

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in time-varying equity risk when examining stock price changes. Failing to do so can lead to misleading conclusions and an inability to draw reliable inferences as to whether CSR activities create value. Since CSR proposals are non-binding, there is no specific pass/fail threshold; the choice of 50%, commonly employed in RDD designs has been undermined by proxy support firms and recent research (e.g. Ferri and Maber, 2013) which suggests that even low levels of voting support are suggestive of 'significant' activism that can induce management to initiate changes within the firm.

We contribute to the literature by offering novel evidence that CSR proposals generate economically meaningful changes in firms' equity risk and returns. In contrast to prior studies, which implicitly assume risk is time-invariant, our novel empirical design allows us to examine dynamic risk-price reactions. We utilize a bivariate EGARCH framework, which captures the time-varying nature of volatility and accounts for asymmetric market responses arising from 'positive' and 'negative' innovations. Finally, and in contrast to prior work, we consider all relevant shareholder proposals.

2. Data and empirical methodology

2.1. Data

We analyse a rich dataset of U.S. shareholder-sponsored, non-binding SRI proposals between 1997 and 2011, distinguishing between those subjected to shareholder vote at annual general meetings (AGM) and those that are omitted/withdrawn. Data is sourced from the ISS/RiskMetrics dataset, which provides full details of all shareholder proposals in S&P 1500 firms, plus '500 widely held firms'. We reclassify each proposal by sponsor (7 categories) and proposal type (9 categories) and exclude observations where multiple proposals were voted on at the same AGM. This results in the construction of a final dataset with single proposal 'events'. The final distribution of proposals is described in Table 1. To mitigate the possibility that other 'news' surrounding an AGM and proposal vote may confound changes in price and/or risk, we 'calibrate' all empirical models using estimates for similar withdrawn/omitted proposals.

2.2. Methods

For each proposal we estimate time-varying betas using a bivariate EGARCH (Braun et al., 1995; Nelson, 1991):

$$\begin{aligned} R_{i,t} &= \omega_{i,t} + \beta_{i,t} R_{m,t} + \varepsilon_{i,t} \\ R_{m,t} &= \omega_{m,t} + \varepsilon_{m,t} \end{aligned} \tag{1}$$

where R_i identifies individual stock returns, and R_m market portfolio returns. Time-varying betas are denoted by β_i for individual stocks while constants are denoted as ω_i and ω_m. The error terms are ε_i for each stock and ε_m for the market. The variance and covariance matrix for the two error terms are given as:

$$\begin{aligned} \sigma^2\left[\varepsilon_{i,t}\right] &= \exp\left(\alpha_{i,0} + a_{i,1}\left(\left|z_{i,t-1}\right| - E\left|z_{i,t-1}\right| + \gamma_i z_{i,t-1}\right)\right. \\ &\quad \left. + \theta_i \ln\left(\sigma^2\left[\varepsilon_{i,t-1}\right]\right)\right) \\ \sigma^2\left[\varepsilon_{m,t}\right] &= \exp\left(\alpha_{m,0} + a_{m,1}\left(\left|z_{m,t-1}\right| - E\left|z_{m,t-1}\right| + \gamma_m z_{m,t-1}\right)\right. \\ &\quad \left. + \theta_m \ln\left(\sigma^2\left[\varepsilon_{m,t-1}\right]\right)\right) \\ \sigma_{i,m,t} &= \rho_{i,m}\left(\sigma^2\left[\varepsilon_{i,t}\right]\sigma^2\left[\varepsilon_{m,t}\right]\right)^{1/2} \end{aligned} \tag{2}$$

whereby normalized innovations for stock, z_i, and the market portfolio, z_m, are $z_{i,t} = \varepsilon_{i,t}/\sigma\left[\varepsilon_{i,t}\right]$ and $z_{m,t} = \varepsilon_{m,t}/\sigma\left[\varepsilon_{m,t}\right]$. The conditional covariance is denoted by $\sigma_{i,m,t}$ and the conditional correlation coefficient is $\rho_{i,m}$. The remaining terms, $\alpha_{i,0}$, $\alpha_{m,0}$, $a_{i,1}$, $a_{m,1}$, γ_i, γ_m, θ_i and θ_m, are to be estimated. The error term in (2) is drawn from a normal density distribution and maximizing the likelihood function:

$$L(\Theta) = -(T/2)\log(2\pi) - (1/2)\sum_{t=1}^{T}\left(\log|H_t| + E_t H^{-1} E'\right) \tag{3}$$

in which T denotes the number of observations, Θ the vector parameter for estimation, $E_t = \left[\varepsilon_{i,t}, \varepsilon_{m,t}\right]$ and is the vector of innovations at sample time t and $H_t = Cov_{t-1}(E_t)$. Time-varying betas, $\beta_{i,t}$ are extracted from (1) and (2):

$$\beta_{i,t} = \left(\sigma_{i,m,t}\right) / \left(\sigma^2\left[\varepsilon_{m,t}\right]\right). \tag{4}$$

Using the estimated $\beta_{i,t}$, we also model time-varying abnormal returns $AR_{i,t}$ as:

$$AR_{i,t} = e_{i,t} = R_{i,t} + \beta_{i,t} R_{m,t} \tag{5}$$

and construct 'time-varying Treynor ratios' as a means to gauge firms' cumulative excess returns per unit of time-varying market risk:

$$TR_{i,t} = \frac{\sum_{-10}^{t} AR_{i,t}}{\beta_{i,t}}. \tag{6}$$

Finally, for each sponsor and proposal type we estimate the following time-dummy OLS regression:

$$\begin{aligned} \overline{TR}_{t,Voted} - \overline{TR}_{t,NotVoted} &= \alpha + b_1(T_0, T_{30}) + b_2(T_{31}, T_{60}) \\ &\quad + b_3(T_{61}, T_{90}) + b_4(T_{91}, T_{120}) + \epsilon \end{aligned} \tag{7}$$

where the intercept (α) accounts for the difference in $\overline{TR}_{t,Voted} - \overline{TR}_{t,NotVoted}$ during the pre-AGM period, while the four 30-day time-dummies allow us to test if these calibrated risk-adjusted returns are significant across short and medium-term horizons.

3. Empirical results

In Table 1 we present, in columns (1) and (2), mean time varying betas ($\overline{\beta_{i,t}}$) estimated across not voted (NV) and voted (V) proposals during a period up to 120 days prior to the AGM (T_{-120}, T_0). Similarly, in columns (3) and (4) we present mean estimates during the post-AGM period (T_0, T_{120}). In columns (5) and (6) we 'calibrate' time-varying betas across the two periods, by subtracting the not voted estimates from the voted ones. This allows the calculation of a 'true' change in beta ($\overline{\beta_{i,t}}$) across the two periods in column (7) and the application of a series of two sample t-tests. The results in panel A support the notion that systematic risk is not static but instead rises significantly following the voting of proposals by special interest, investment, pension and union funds and drops for proposals by social funds and undisclosed sponsors. Also, $\overline{\beta_{i,t}}$ increases significantly in panel B for equality, ethical, sustainability and health and safety proposals, but declines for environmental and human rights-related proposals.

In Table 2 we present coefficients from the estimation of model (7) by sponsor (panel A) and proposal type (panel B). Unsurprisingly, valuation effects range from positive (for special interest, undisclosed and religious sponsors and for proposals on equality, ethical and human rights issues) to negative (for social, pension and union funds, and for proposals on sustainability, environmental, animal and other CSR reporting concerns). Separately, proposals sponsored by investment funds and by lobbying disclosures appear to have an overall neutral impact across the four time windows.

Interestingly, the above effects do not always manifest instantaneously (i.e. in window T_0, T_{30}), but instead build up in magnitude and significance over longer horizons. This is also evident in Figs. 1 and 2 which illustrate daily plots of $\overline{TR}_{t,Voted}$ and $\overline{TR}_{t,NotVoted}$, in addition to cross-sectional heterogeneity by sponsor and proposal type.