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Small firms and the value of improvements in corporate governance mechanisms☆

Bruce K. Behn [a,*], Brian T. Carver [b], Terry L. Neal [a]

[a] Department of Accounting and Information Management, The University of Tennessee, 630 Stokely Management Center, Knoxville, TN37996-0550, United States
[b] Richard C. Adkerson School of Accountancy, College of Business, Mississippi State University, P.O. Box EF, Mississippi State, MS 39762, United States

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ABSTRACT

Since 2002, many firms have been required to alter their board of directors and committees to increase management monitoring. Kinney and McDaniel (1989) and Chhaochharia and Grinstein (2007) provide empirical evidence suggesting that investments in corporate governance may differ based on firm size, and that underinvesting in monitoring may be more pronounced in smaller firms. To further test whether the benefits of recent changes in companies' governance mechanisms accrue to smaller firms that have underinvested in governance, we examine the stock market reaction to changes in board structure over the twenty-four months following the passage of the Sarbanes–Oxley Act. We construct a new composite measure of board structure and regress buy-and-hold abnormal returns on changes that occur in the Board Structure Index, finding that improvements in corporate governance quality result in economically significant abnormal returns accruing only to the smaller firms with weak initial board structures.

1. Introduction

Recent corporate scandals have caused policy makers to examine the quality of governance mechanisms more closely, particularly the ability of the board of directors and its committees to effectively monitor management's activities. The result has been the passage of the Sarbanes–Oxley Act of, 2002 (SOX) and the addition of new governance requirements to both the NYSE and the Nasdaq listing standards. The added provisions include independence requirements for the board of directors, as well as for the audit, compensation, and nominating committees. They also require that NYSE-listed firms develop and implement a governance policy. These new mandatory measures were expected to provide additional investor protections and, thus, improve the accuracy and reliability of financial reporting, especially for those firms that had underinvested in these governance mechanisms. The costs of these additional investments in the board of directors, along with other SOX-related costs, however, imposed a significant burden on firms, particularly for those that are smaller (Ahmed, McAnally, Rasmussen, & Weaver, 2010). Thus, we examine whether improvements in companies' corporate governance mechanisms surrounding the passage of SOX provided value to market participants where firms had underinvested in governance mechanisms.

The cost, as well as the benefits, of mandating changes to the governance structures of companies likely affects individual firms differently. Jensen and Meckling (1976) posit that, in order to mitigate management consumption of perquisites, firms will invest resources in monitoring activities up to the point at which monitoring costs are equal to the benefits derived from increases in firm value, and recent empirical evidence supports the idea that firms tailor their governance structures to address firm-specific needs (Coles, Daniel, & Naveen, 2008; Duchin, Matsusaka, & Ozbas, 2010; Linck, Netter, & Yang, 2008; Raheja, 2005). The actions of regulators, on the other hand, suggest that some firms may have underinvested in their monitoring mechanisms and that these firms may reap net benefits from improving governance structures. In such cases, the investment of additional firm resources in the monitoring function could yield increases in shareholder wealth.

Several recent empirical studies address this issue by examining investors' *initial* reaction to key legislative dates leading to the passage of the Sarbanes–Oxley Act. Chhaochharia and Grinstein (2007) and Hostak, Lys, Yang, and Carr (2013) indicate that firms possessing weaker governance structures are more likely to benefit from the passage of SOX, and Li, Pincus, and Rego (2008) find that firms engaging in higher levels of earnings management are more likely to benefit from the governance requirements of SOX. Zhang (2007), however, suggests that investors perceived that SOX would less adversely affect firms with greater shareholder rights, and Jain and Rezaee (2006) find that investors believed that more compliant firms would benefit from the passage of SOX. Overall, these findings support the idea that firms benefit differently from the provisions of

☆ Data: All returns and financial statement data are available from CRSP and Compustat, respectively. Corporate governance data are provided by the Corporate Library. Auditor data are available from Audit Analytics, analyst forecast data are available from I/B/E/S, and G Index scores are available from the Investor Responsibility Research Center (IRRC).

* Corresponding author. Tel.: +1 865 974 1750 (Office); fax: +1 865 974 4631.
E-mail addresses: bbehn@utk.edu (B.K. Behn), bcarver@cobilan.msstate.edu (B.T. Carver), tneal3@utk.edu (T.L. Neal).

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SOX; however, the conflicting results do not provide conclusive evidence regarding the *expected* net cost or benefits of improvements in corporate governance mechanisms. Moreover, as Ahmed et al. (2010) point out, these event studies do not examine either the realized net costs for shareholders or the realized net benefits for individual firms.

While a firm's initial investment in the monitoring function could affect the net benefits or cost of governance changes, another factor that could be important is the size of the firm. Chhaochharia and Grinstein (2007) suggest that investors believed that some of SOX's provisions would impact firms differently based on the size of the firm. Specifically, they suggest that smaller, less compliant firms would be more adversely impacted, likely resulting from higher relative implementation costs. This assertion appears to be supported by the findings of Ahmed et al. (2010). Kinney and McDaniel (1989) also provide empirical evidence suggesting that the investment level of corporate governance may differ based on firm size. Specifically, they provide evidence that restating firms are smaller than their non-restating industry counterparts, further implying that under-investing in monitoring may be more pronounced in smaller firms. Their results, however, suggest that smaller firms with less initial investment in board governance structure may present the greatest opportunity to obtain economic benefits from additional investments in corporate governance. Together, these studies indicate that smaller firms with weaker initial investments in the board may bear more costs on a relative basis but that benefits accruing to these firms could outweigh those costs.

To test whether recent changes in companies' governance mechanisms are associated with realized net benefits or costs for individual firms, we examine the stock market reaction to changes in board structure over the twenty-four months following the signing of SOX into law on July 30, 2002.[1] We choose to use a long-horizon analysis because it has been demonstrated that investors appear not to fully assimilate information about complex evolving issues (e.g., Chen, Diltz, Huang, & Lung, 2011; Edmans, 2011; Yook, 2010).[2] To conduct our tests, we construct a new composite measure of board structure, called the Board Structure Index (BSI), using firms listed on the Board Analyst database.[3] We then regress 24 month buy-and-hold abnormal returns on changes in the BSI during our sample period.

Our results demonstrate that changes in the board of directors' structure are positively related to long-horizon abnormal returns for smaller firms (as measured by total assets) with a lower initial BSI. Conversely, we find no significant relation between governance changes and buy-and-hold abnormal returns for the remainder of our sample. These results suggest that, while the improvements in corporate governance mechanisms surrounding the Sarbanes–Oxley Act and the new NYSE and NASD listing rules provided net long-term benefits to the capital markets, their benefits exceeded the cost of structural improvements to the board of directors for only smaller, more weakly-governed firms. Moreover, investors appear to view changes to the governance structure of other firms as a trade-off between the benefits of improved monitoring and the cost of implementation.

We conduct three additional sensitivity tests to determine if our results are specific to the way in which changes in the BSI are measured. In our first two tests, we replace the change in BSI with two alternative measures designed to account for a firm's ability to change, and, in our final test, we replace the change in BSI with an alternative measure that represents a firm's relative change in governance. In each case, results are statistically similar to our initial findings.

These findings add to the growing literature on corporate governance and firm value. While our study is more closely related to the Chhaochharia and Grinstein (2007) paper, we extend this line of research in a number of ways. First, we use a long-window return that helps resolve many of the issues outlined earlier, and it better captures not only the costs but also the benefits of improvements in corporate governance mechanisms. Second, we find that, while small firms may have significant implementation costs, it appears that investors value these investments. Third, we have a larger consistent sample of firms. Prior research, because of research designs, performed many analyses using sample sizes of less than 500 firms.[4] Fourth, we develop a new composite measure of board structure to measure changes in governance mechanisms.

The remainder of this paper is organized as follows: Section 2 provides the theory and hypotheses development; Section 3 discusses the development of the Board Structure Index (BSI); Section 4 explains the methodology behind the development of buy-and-hold abnormal returns; Section 5 describes the sample selection; Section 6 presents the results; Section 7 presents additional tests; and Section 8 offers concluding remarks.

2. Theory and hypotheses development

The separation of ownership and control in modern corporations creates an agency relationship between the stockholders of a corporation and its managers. Assuming that both parties in the relationship are utility maximizers, managers will expend firm resources to the point at which the marginal utility derived from spending an additional dollar is equal to the marginal utility of his/her wealth reduction, while stockholders will attempt to limit the managers' ability to expend firm resources on non-pecuniary benefits to limit the reduction in their own wealth. Jensen and Meckling (1976) suggest that such managerial expenditures could decrease firm value. Stockholders, however, may monitor managers and limit their spending of firm resources on non-pecuniary benefits, thus increasing the firm's value.

Stockholders are, therefore, willing to expend resources on monitoring costs up to the point where the increase in wealth derived from the increase in firm value is just equal to the decrease in wealth due to additional monitoring expenditures. Since each firm differs in its manager's non-value maximizing activities, shareholders determine firm-specific optimal levels of monitoring.

While monitoring activities may take many forms, such as annual audits and the budgeting process, the board of directors has

[1] The Sarbanes–Oxley Act was signed into law on July 30, 2002. From this date, firms had 270 days to comply with the mandated audit committee independence standards. The SEC later issued its final rule concerning audit committee financial experts on January 24, 2003 with the rule being effective for fiscal years ending on or after July 15, 2003. The SEC then approved rule changes proposed by the NYSE and the NASD on November 11, 2003 with full implementation required by the first annual meeting following January 15, 2004 and no later than October 31, 2004.

[2] Another example of a complex, evolving law is the Dodd–Frank Act. This Act passed Congress on Friday, July 16, 2010 and yet, today, many of its provisions have yet to be operationalized, and firms are struggling to understand and respond to the law's still evolving requirements (Baram, 2011). In such cases, investors are unlikely to completely understand the ramifications on all elements of such legislation immediately upon its passage.

[3] Although our test period begins with the passage of SOX, our composite measure of board structure (BSI) includes certain improvements in corporate governance mechanisms that were not mandated by SOX or the revised stock exchange listing requirements (e.g., board size, percent of directors that own no stock in the company, percentage of institutional ownership, whether the CEO is also the Chairman, and whether directors' terms are staggered).

[4] Chhaochharia and Grinstein (2007) conduct a number of analyses, most of which have sample sizes fewer than 300 firms. A notable exception is the authors' analysis of director independence which has a sample size of 1101 firms. The sample used by Hostak et al. (2013) contains fewer than 200 firms, and the sample used by Jain and Rezaee (2006) contains fewer than 500 firms. To the contrary, Li et al. (2008) use a sample of 850 firms and Zhang (2007) uses a sample of 1224 firms.