Director Turnover and Loss of Directorships: A Study of Option Backdating Firms in the Post-SOX Era

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This study investigates the director turnover and loss of directorships at option backdating (OBD) firms to answer two research questions: (1) Does director turnover increase at OBD firms in the post-SOX era? (2) Does directorship of directors at OBD firms decrease after the investigation by SEC? We find that in a competitive market with limited available qualified directors, OBD firms have more difficulty than non-OBD firms in replacing existing directors. Furthermore, our findings also indicate that it's more challenging for directors of OBD firms to keep directorships at other firms because of the reputation loss from serving at OBD firms.

INTRODUCTION

Modern corporations entrust board of directors to oversee firms' performance and steward shareholders' wealth. Theoretically, vigilant directors establish their reputation as good monitors and are then rewarded with multiple directorships and equity holdings for being good watchdogs; lax directors who betray shareholders' trust can face a decline in reputation and consequently lose directorships and even have to pay penalties (Fama, 1980; Fama and Jensen, 1983). To test this reputation effect, several studies using sample mainly from the pre-SOX period have examined director turnover and loss of directorships at firms which are accused of fraudulent financial reporting. However, the reported results are mixed. For example, Agrawal et al. (1999) find little evidence to support the claim that firms suspected or charged with fraud have unusually high director turnover. Helland (2006) also finds little evidence of a negative effect associated with allegations of fraud. In fact, he discovers a consistent increase in the net number of board positions, even when directors are accused of fraud. In contrast, Srinivasan (2005) finds the likelihood of director departure increases in restatement severity, particularly for audit committee directors. His findings also show a decrease in directorships of audit committee directors in restated firms. Fich and Shivdasani (2007) find that outside directors do not face abnormal turnover on the board of the sued firms but experience a significant decline in other board seats held. This decline in other directorships is greater for more severe allegations of fraud and when the outside director bears greater responsibility for monitoring fraud.

The size and scale of financial scandals in the early 2000s resulted in a loss of confidence on corporate financial reporting. Investors started to wonder whether the reputation effect alone is sufficient to motivate directors to detect and deter frauds. In response to the financial scandals, SOX and the related

regulations by SEC and stock exchange markets were enacted to restore investors' confidence through regulations regarding corporate governance on financial reporting. These new regulations have dramatic impact on corporate boards. For example, SOX requires a majority of independent directors, a fully independent audit committee, and financial expert on audit committee. In addition, executives and directors may face criminal fraud accountabilities for committing fraudulent financial reporting. On one hand, given the amount of potential legal liabilities under the new regulations, the reputation effect in the post-SOX era might be strengthened through the SOX regulations. Specifically, fraud-affiliated directors are let go due to the pressure from shareholders and failure of votes withheld; other directors may also leave the firm to distance themselves from fraud-affiliated directors after the firm is charged for financial reporting misconducts. Thus a high director turnover is expected at firms that face fraud charges. A loss of directorships at other firms is also expected for directors at fraud firms because the directors failed their fiduciary responsibility, which is considered to be an important responsibility for directors on board after SOX.

On the other hand, in the post-SOX period, firms are under pressure to have independent directors on board, especially directors with business and financial expertise to meet the SOX requirements. With a limited pool of qualified independent directors available to firms, finding qualified board and committee members becomes a challenge for many companies after SOX. Thus firms are competing with each other to get new directors as well as to retain existing qualified directors on board. As a result, firms which are caught frauds in financial reporting will have hard time in finding qualified directors to replace existing directors. So directors at fraudulent firms may not be replaced, and the high director turnover would not occur. Similarly, a loss of directorships at other firms may not be observed because of the lack of qualified directors available to firms, suggesting that the reputation effect is not strengthened by the SOX regulation effect after SOX.

The purpose of this study is to investigate the impact of SOX regulations on the reputation effect of directors at option backdating (OBD) firms in the post-SOX period by examining the director turnover and loss of directorships at the OBD firms. The SEC initiated the OBD investigations in late 2005. This event provides us with an excellent opportunity to examine a particular type of fraud firms in the post-SOX period. We intend to answer two research questions: (1) Does director turnover increase at OBD firms which are caught in the post-SOX era? (2) Does the directorships of directors at OBD firms decrease after the investigation by SEC? Answers to the above questions provide evidence on the impact of SOX regulations on the reputation effect of directors at OBD firms.

Our study contributes to the literature from several perspectives. First, we extend the literature on director turnover and loss of directorships at fraud firms by focusing on OBD firms in the post-SOX period. Second, our findings show that directors at OBD firms lost more directorships at other firms than directors at non-OBD firms, suggesting that the reputation of directors at OBD firms is harmed by serving on the board of an OBD firm. Consequently, non-OBD firms will stay away from directors at OBD firms. Third, although we do not find a higher director turnover at OBD firms than non-OBD firms, this finding provides some insight on the impact of SOX on director turnover. Specifically, our result suggests that OBD firms have more difficulty in finding new qualified directors to replace existing directors on board than non-OBD firms, because qualified directors are highly sought after by all firms and they will distant themselves from fraud firms to protect their reputation.

SAMPLE

We obtain the OBD firms from the list of *Wall Street Journal* (WSJ). We exclude foreign firms, affiliated firms, and subsidiary firms from the list. We also delete the OBD firms if their proxy statements are not available for the first three event years. The final sample includes 84 individual OBD firms with 507 outside directors and 220 inside directors. We track the director turnover and changes in directorships in the five-year event window from 2005 to 2009 to examine the reputation effect of OBD on director turnover and loss of directorships in the post-SOX era.

Following previous studies (Fich and Shivdasani, 2007; Chang et al., 2011), we use the matching method to select control firms to investigate whether directors at OBD firms have abnormal turnover and/or lose more board seats in relation to the directors at control firms. We select a control firm (non-OBD firm) that is closest to an OBD firm by firm size, board size, and corporate governance measure from the same industry. Also, the control firm does not have any OBD in the period from 2005 to 2009. In detail, the selection criteria for the non-OBD firms are: (1) firm size of control firm measured by the market value is the closest to the OBD firm; (2) board size of control firm must be within a two-director difference from that of the OBD firm; (3) governance score of control firm must not have more than a two-score difference from that of the OBD firm; and (4) control firm is from the same two-digit SIC code industry as the OBD firm. The corporate governance score is aggregated using 16 internal governance factors, which are further defined in the Appendix. The matched sample includes 84 non-OBD firms with 528 outside directors and 219 inside directors. Similar to the sample firms, we track the director turnover and changes in directorships in the five-year event window for the control sample.

METHODOLOGY

We use the following OLS model to examine whether directors at OBD firms have abnormal turnover and/or loss of directorships in relation to directors at control firms:

$$DIRTURN_t \ /CHGDIRSHIP_t = \alpha_0 + \alpha_1 OBD + \alpha_2 ROA_{t-1} + \alpha_3 BRDSZ_{t-1} + \alpha_4 GSCORE_{t-1} + \alpha_5 DIRAGE_{t-1} + \alpha_6 TENURE_{t-1} + \alpha_7 OWN_{t-1} + \alpha_8 FIRMSIZE_{t-1} + \alpha_9 GROWTH_{t-1} + \alpha_{10} LEV_{t-1} + \alpha_{11} VOLATILITY_{t-1} \quad (1)$$

Following previous studies (e.g., Helland, 2006; Fich and Shivdasani, 2007), we use director turnover and the percentage change in directorships to measure the directors' reputation costs. The dependent variables are the rate of director turnover (DIRTURN), the number of director turnover in year t scaled by the board size in year t; and the percentage change in other board seats (CHGDIRSHIP) in year t from year t-1. OBD is the main independent variable with a dummy value of one for OBD firms and a value of zero for the non-OBD firms to test the reputation effect of OBD firms in the post-SOX era.

With respect to control variables, we include board size (BRDSZ), governance score (GSCORE), director age (DIRAGE), director tenure (TENURE), and the ownership (OWN) of top managers and directors to control for board-specific characteristics. Board size and corporate governance score are proxies for board structure and strength of corporate governance. Age and tenure of directors affect directors' departure and directorship changes. Furthermore, managers are likely to manage earnings when they own company's shares (Warfield et al., 1995); and when managers have higher equity ownership, they are more sensitive to linking their equity to the firm's performance (Cheng and Warfield, 2005). Also, entrenched managers with higher ownership might not be laid off even when their firms are caught in frauds. In addition, we include several control variables to control for the firm-specific characteristics. They are return on assets (ROA), firm size (FIRMSIZE), growth (GROWTH), growth volatility (VOLATILITY), and leverage (LEV). ROA is the proxy for a firm's performance. Prior studies (Gilson, 1990; Fahlenbrach et al., 2010; Asthana and Balsam, 2010) find that directors have incentives to resign when firms are financially distressed or perform poorly. Firm size (FIRMSIZE) is measured by the market value of a firm's equity. VOLATILITY is the standard deviation of a firm's past five-year ROA to control for the performance volatility. GROWTH is the market to book to control for growth opportunities. LEVERAGE is total debts scaled by total assets to control for firm risk.

RESULTS

Table 1 reports the descriptive statistics of director turnover, board characteristics and economic determinants of OBD and non-OBD firms. On average, directors at OBD firms have significant higher

turnover numbers and rates than directors at non-OBD firms following the disclosures of their SEC investigations. Furthermore, we find that directors at OBD firms have more board seats than directors at non-OBD firms in year -1 and year 0, but directors at OBD firms gradually lose their board seats after year +1. We also test the differences between OBD and non-OBD firms. We find that OBD firms have significant higher director turnover than non-OBD firms after the SEC investigations. However, we do not find that directors at OBD firms lose more board seats than directors at non-OBD firms after the SEC investigations. These descriptive results suggest that directors at OBD firms suffer from the loss of reputation and lose board seats at other firms. Consistent with Ertimur et al. (2012), these results suggest that directors at OBD firms have higher risk of losing their positions at OBD firms but they do not bear higher risk than directors at non-OBD firms from losing directorships at other firms. In addition, the results also show that OBD firms have significantly smaller ROAs than non-OBD firms following the SEC investigations and higher return volatility during the investigations.

In Table 2, we provide descriptive statistics on inside and outside directors' directorships at OBD and non-OBD firms. The results in Panel A show that the number of directorships held by outside directors is not significantly different whether they stay at or leave OBD firms over the window periods, except in year +3. However, for outside directors who stay, directors at OBD firms have more directorships than their counterparts at non-OBD firms during the SEC investigations (year +0), but the difference is not significant after the SEC investigations. Inversely, for outside directors who leave, the directorships held by OBD and non-OBD directors are not different during the SEC investigation periods, but outside directors who leave OBD firms after the SEC investigations have significantly more directorships than their counterparts. In Panel B, the univariate statistics show that for inside directors, the directorships held by OBD and non-OBD directors are not significantly different during the window periods. Yet, inside directors who stay at OBD firms have fewer directorships than those who leave the firms during their SEC investigations, but the difference is not significantly after the SEC investigations.

In Table 3, we report the regression results of the regressions modeling the director turnover and loss of directorships at OBD firms relatively to non-OBD firms. We find a significant association between loss of directorships and OBD firms, but we do not find the same association between director turnover and OBD firms after controlling for all other firm-specific variables in the regression models. Specifically, in Model 1 of Table 1, the result show that OBD (t =1.12), a dummy variable with a value of one for OBD firms and a value of zero for non-OBD firms, is not significant. But in model 2, OBD (t= −3.62) is found to be significantly related to the percentage change in directorships. Regarding the control variables, our findings show that profitability (ROA, t =−3.59) and board size (BRDSZ, t =−4.45) are negatively associated with director turnover. In addition, we find that director tenure (TENURE, t =−1.82) and leverage (LEV, t =−3.90) are negatively associated with loss of directorships, while firm size (FIRMSIZE, t =3.19) is positively associated with loss of directorships.

CONCLUSION

A fraud scandal can trigger director turnover and affect firm performance. Previous studies (e.g., Agrawal et al., 1999; Fahlenbrach et al., 2010; and Asthana and Balsam, 2010) find that directors have incentives to leave when firms perform poorly or are financially distressed. Fish and Shivdasani (2007) find that audit committee members are likely to leave when firms accused financial reporting frauds. Ertimur et al. (2012) also find that directors are more likely to leave when OBD firms have high earnings restatements and poor performance. Consistent with these studies, our descriptive statistics also show that director turnover is higher at OBD firms. However, the regression results after controlling for firm profitability and other control variables do not show a significant association between director turnover and OBD firms. Yet, we find a significant association between loss of directorships and OBD firms.

The regulations of SOX impose the independence and financial expertise on audit committee to ensure the quality of financial reporting and disclose the interlock relationship between CEOs and compensation committee members to reduce CEOs' influence on their compensation contracts. The SOX and new regulations result in a higher demand for qualified directors to serve on corporate boards,

especially the ones with financial expertise. Our results suggest that in a competitive market with limited available qualified directors, OBD firms have more difficulty than non-OBD firms in replacing existing directors. Furthermore, our findings also indicate that it's more challenging for directors of OBD firms to keep directorships at other firms than directors of non-OBD firms because of the reputation loss from serving at OBD firms. In summary, on one hand, the SOX regulations strengthen the reputation effect by making non-performing directors less desirable on directors' market. On the other hand, due to the high demand for qualified directors after SOX, firms may not be able to replace non-performing directors immediately.

APPENDIX: DEFINITION OF CORPORATE GOVERNANCE SCORE

Because director turnover is an endogenous governance factor, we use sixteen internal governance measures to compose a governance score for the selection of the control firms. We follow the corporate governance literature and common wisdom to compose the corporate governance score. The sixteen corporate governance measures are defined as follows: (1) more than two-thirds of directors are independent; (2) all audit committee members are independent, and the committee has at least three members; (3) all compensation committee members are independent, and the committee has at least three members; (4) all nominating committee members are independent, and the committee has at least three members; (5) the CEO is not the chair of the board; (6) the board has at least four meetings but less than the median of board meetings annually; (7) the board has at least four meetings but less than the median of compensation committee meetings annually; (8) the board has at least four meetings but less than the median of audit committee meetings annually; (9) the board has at least four meetings but less than the median of nominating committee meetings annually; (10) the board has at least three committees; (11) the board has an independent lead director; (12) the directors of the board have no relative who is a top management employee; (13) directors have no real-estate transactions with the firm; (14) directors have no other financial transactions with the firm; (15) the board has at least one female director; and (16) the board has at least one minority director. Each measure takes a dummy value equal to one if it meets the above definitions; otherwise, each measure takes a value equal to zero. The higher the index, the stronger the corporate governance is.

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TABLE 1
MEAN DESCRIPTIVE STATISTICS OF DIRECTOR TURNOVER, BOARD CHARACTERISTICS AND ECONOMIC DETERMINANTS OF OBD AND NON-OBD FIRMS

	OBD Firms				Non-OBD firms				T-tests of OBD Firms Vs. Non-OBD Firms			
	Y-1	Y+0	Y+1	Y+2	Y-1	Y+0	Y+1	Y+2	Y-1	Y+0	Y+1	Y+2
BRDSZ	7.9	7.9	8	8.3	8.2	8.2	8.3	8.5	−1.09	−1.09	−0.70	−0.55
INDDIRS	5.7	5.7	6.3	6.5	5.8	5.9	6.3	6.6	−0.60	−0.52	−0.20	−0.38
GSCORES	9.8	10.3	10.5	10.7	10.8	10.6	10.9	11.2	−4.18***	−1.02	−1.73*	−1.70*
DIRTURN	n/a	0.71	1	0.83	n/a	0.67	0.68	0.49	n/a	0.34	2.01**	2.05**
DIRSHIP	1.92	1.87	1.73	1.64	1.59	1.57	1.63	1.58	3.55***	3.11***	1.11	0.62
OWN	10.8	10.1	10.2	9.6	10.2	9.6	8.9	8.5	0.31	0.27	0.7	0.51
AT	2,678	3,023	3,645	3,941	8,051	8,913	9,713	9,253	−0.93	−0.93	−0.90	−0.84
MV	4,401	4,631	5,073	3,471	3,981	4,417	4,563	3,428	0.33	0.17	0.35	0.04
NI	155	191	177	170	191	191	212	132	−0.54	−0.01	−0.34	0.39
ROA	3.4	2.6	2.6	−2.5	4.7	5	6.1	1.1	−0.70	−1.20	−1.74*	−1.16
ROA_D	15.5	11.9	7.7	7.3	9.3	6.4	5.9	7.7	2.55**	2.47**	1.41	0.51
MTB	2.5	4.4	3.9	2	3.9	4.4	3.9	1.2	−1.52	0	0	0.54
LEV	42.4	42.2	47	50.2	46.6	48.6	50	54.2	−1.11	−1.67*	−0.71	−0.93
N	84	84	84	81	84	84	84	81	84	84	84	81

The BRDSZ is the board size, and INDDIRS is the number of independent directors on board. The GSCORE is the composite scores of 16 corporate governance variables which are defined in the appendix. DIRTURN is the percentage of the director turnover rate, which is the number of director turnovers scaled by BRDSZ in year-1. The DIRSHIP is the number of directorships held by directors. The OWN is the ownership (%) of top managers and directors. The AT (in $million) is total assets, and MV(in $million) is the market value of firm equity. The NI (in $million) is the net income before extraordinary items. The ROA is the ratio of NI scaled by AT. The ROA_D is the standard deviation of the past five-year ROA. The MTB is the ratio of MV scaled by firm's book value. The LEV is the total debt scaled by AT. The *, **, and *** are conventional significances at 10%, 5%, and 1% levels respectively.

TABLE 2
DIRECTORS AND DIRECTORSHIPS

Panel A: Outside Directors' Directorships between OBD and Non-OBD firms

		N	AGE	TENURE	Y-1	Y+0	Y+1	Y+2
OBD Firms (1)	Total	402	59.65	6.53	2.07	1.99	1.90	1.79
	Stay	261	60.33	6.50	2.07	2.00	1.89	1.80
	Leave	141	58.40	6.60	2.06	1.99	1.93	1.78
	t-test	261 vs.141	2.19**	−0.17	0.06	0.17	−0.30	0.12
Non-OBD Firms (2)	Total	399	63.23	7.62	1.85	1.78	1.76	1.72
	Stay	317	63.15	7.48	1.79	1.77	1.79	1.80
	Leave	82	63.55	8.15	2.07	1.79	1.61	1.43
	t-test	317 vs. 82	−0.40	−0.88	−1.78*	−0.13	1.21	2.42**
T-stats of (1) vs. (2)	Total	402 vs. 399	−6.15***	−2.67***	2.35**	2.26**	1.53	0.74
	Stay	261 vs. 317	−4.40***	−1.98**	2.69***	2.05**	0.84	−0.01
	Leave	141 vs. 82	−3.90***	−2.15**	−0.04	0.95	1.66*	1.79*

Stay is defined as directors who stayed at OBD or non-OBD firms, and Leave is defined as directors who left OBD or non-OBD firms.

Panel B: Inside Directors' Directorships between OBD and Non-OBD firms

		N	AGE	TENURE	Y-1	Y+0	Y+1	Y+2
OBD Firms (1)	Total	110	57.37	9.67	1.55	1.57	1.34	1.45
	Stay	66	58.18	10.21	1.34	1.39	1.23	1.36
	Leave	44	56.16	8.86	1.84	1.84	1.50	1.59
	t-test	66 vs.44	1.13	0.86	−2.22***	−2.11**	−1.32	−0.90
Non-OBD firms (2)	Total	121	59.45	10.95	1.40	1.47	1.55	1.50
	Stay	81	58.49	11.16	1.30	1.36	1.49	1.44
	Leave	40	61.40	10.53	1.60	1.70	1.65	1.63
	t-test	81 vs. 40	−1.78*	0.33	−1.36	−1.46	−0.69	−0.72
T-stats of (1) vs. (2)	Total	110 vs. 121	−1.79*	−1.07	0.97	0.66	−1.42	−0.30
	Stay	66 vs. 81	−0.34	−0.65	0.06	−0.02	−1.67*	−0.65
	Leave	44 vs. 40	−2.56**	−0.83	1.17	0.68	−0.44	0.06

Stay is defined as directors who stayed at OBD or non-OBD firms, and Leave is defined as directors who left OBD or non-OBD firms.

TABLE 3
OLS REGRESSION RESULTS OF DIRECTOR TURNOVER AND CHANGE OF DIRECTORSHIPS AT OBD FIRMS

	DIRTURN/ OBD (1)	CHGDIRSHIP OBD (2)
INTERCEPT	19.031 (2.29**)	−0.220 (−1.11)
OBD	1.244 (1.12)	−0.095 (−3.62***)
ROA	−0.154 (−3.59***)	−0.000 (−0.28)
BRDSZ	−1.476 (−4.45***)	−0.002 (−0.19)
GSCORE	0.345 (0.99)	0.006 (0.68)
DIRAGE	−0.117 (−0.88)	−0.000 (−0.02)
TENURE	−0.153 (−1.11)	−0.007 (−1.82*)
OWN	−0.044 (−1.03)	0.002 (1.67*)
FIRMSIZE	0.857 (1.81*)	0.036 (3.19***)
GROWTH	0.060 (1.21)	0.000 (0.29)
LEV	0.015 (0.71)	−0.002 (−3.90***)
VOLATILITY	0.016 (0.41)	0.001 (0.94)
N	650	641
F-Val	4.55***	3.74***
R_Adj	5.7%	4.5%

DIRTURN is director turnover rate that is the number of director turnover scaled by board size in year t. CHGDIRSHIP is the percentage change of directorships in the year t from year t-1. OBD is the value of one for an options-backdated (OBD) firm and the value of zero for a non-OBD firm. The coefficient is presented in the first row, and the *t*-statistics are in the second row with parenthesis. The *, **, and *** present the significances of *p*-values at conventional 10%, 5%, and 1% levels respectively.