



Lebanese American University Repository (LAUR)

Post-print version/Author Accepted Manuscript

Publication metadata

Title: Board independence and managerial authority

Author(s): Mustafa Dah, Mohammad Jizi, Sadim Sbeity

Journal: Benchmarking: An International Journal

DOI/Link: <https://doi.org/10.1108/BIJ-04-2017-0071>

How to cite this post-print from LAUR:

Dah, M., Jizi, M., & Sbeity, S. (2018). Board independence and managerial authority. Benchmarking: An International Journal, DOI, 10.1108/BIJ-04-2017-0071, <http://hdl.handle.net/10725/7221>

© Year 2018

This Open Access post-print is licensed under a Creative Commons Attribution-Non Commercial-No Derivatives (CC-BY-NC-ND 4.0)



This paper is posted at LAU Repository

For more information, please contact: archives@lau.edu.lb

Board Independence and Managerial Authority

Mostafa Dah, Mohammad Jizi & Sadim Sbeity

Dah, M., Jizi, M. and Sbeity, S., 2018. Board independence and managerial authority. *Benchmarking: An International Journal*, 25(3), pp.838-853.

Abstract

Purpose – The imposition of the Sarbanes Oxley Act and the NYSE/NASDAQ regulations boosted the proportion of independent directors serving on corporate boards. For certain firms, increasing the number of independent directors may impose costs that exceed the benefits. This paper examines the implications of increased independence following SOX, relative to the pre-SOX board independence benchmark, on managerial authority and entrenchment within the firm.

Design/methodology/approach – Data are collected from COMPUSTAT, ExecuComp, and RiskMetrics. Data are divided into two periods, pre-SOX (1996-2001) and post-SOX (2002-2006). The focus is on the sub-group of firms who were not complying with the board independence requirement prior to SOX and became compliant afterwards. Various regressions are employed to assess the implications of increased independence following SOX on managerial authority and entrenchment.

Findings - The appreciation in board independence post-SOX significantly inflates both managerial compensation and the likelihood of CEO duality. Also, there is a positive association between board independence and managerial entrenchment during both the pre- and post-SOX periods. Imposed board composition requirements diminished board monitoring efficiency and boosted the CEO dominance and control over the firm.

Originality/value - This research adds to the extant literature investigating the implications of SOX on internal monitoring and governance. The results are based on an off equilibrium phenomenon in which companies were obliged to alter their endogenously determined board structure. Thus, regulations to improve governance could backfire as the CEO might abuse them to extract private benefits.

Keywords Sarbanes-Oxley Act, Board Structure, Duality, CEO Compensation, Entrenchment.

JEL Classification G30, G38

Paper type Research Paper

1. Introduction

The early 2000's witnessed several accounting scandals that, consequently, led to the fall of one of the leading accounting firms (Arthur Andersen) along with several U.S. firms (Enron, Tyco, Telecom, etc.). These firms adopted aggressive and manipulative accounting techniques to misrepresent their financial statements and inflate their performance. Accordingly, the Sarbanes-Oxley (SOX) act was enacted by the U.S. Congress in 2002 in an attempt to improve the firms' corporate governance structure and control manipulative accounting. One of the main consequences of SOX, and subsequently the NYSE/NASDAQ regulations, is the increase in the percentage of independent directors serving on the board (Kay Lee et al., 2016).

The passed regulations imposed a unified minimum board independence requirement on all firms, which may have different needs and characteristics. For certain firms, increasing the number of independent directors may impose costs that exceed the benefits. In this paper, we test whether these regulations affected the soundness of the firm's internal monitoring environment.

The literature offers inconclusive and mixed evidence on the relationship between board independence and the soundness of the firm's corporate governance. Various studies indicate that independent directors are more effective monitors than insiders (Fama and Jensen, 1983; Weisbach, 1988; Borokovich et al., 1996, Arayssi, et al., 2016). Fama and Jensen (1983) indicate that reputation concerns induce outsiders to be more efficient monitors than insiders as they may serve on the boards of multiple firms. Weisbach (1988) indicate that insiders are less likely to confront or challenge the CEO's decisions than outsiders. Borokovich et al. (1996) document a positive association between the presence of outside directors and the appointment of an outsider as the firm's CEO. On the other hand, there are also disadvantages linked to

board independence. Compared to outsiders, insiders are more informed and have more firm-specific information. Thus, they are more equipped to make decisions that reflect better on the firm's operations. Outsiders however, lack firm-specific information and, thus, there are costs associated with transforming their knowledge into experience that would benefit the firm. In other words, appointing more independent directors would raise costs related to coordination, information asymmetry, and free rider problems. Maug (1997) implies that these monitoring costs may exceed their benefits.

Our research adds to the extant literature investigating the implications of SOX on internal monitoring and governance structure. We examine the effect of the increase in board independence, due to an exogenous shock (SOX), on the firm's monitoring efficiency. Specifically, we investigate whether the boost in board independence affected managerial power and authority within the organization. We focus in our analysis on the subgroup of firms which were mainly affected by the passage of the new legislations. That is, firms which were not complying with the board independence requirements prior to SOX and became complying afterwards (We refer to these firms as non-compliant firms). We specifically analyze the relation between board independence and our three measures of managerial power i.e. CEO duality, compensation, and entrenchment. Our analysis of the group of non-compliant firms is conducted for the two sub-periods pre-SOX and post-SOX to observe if there are any significant differences between the two periods. The pre-SOX period serves as the benchmark to which we compare our post-SOX findings. That is, we investigate the impact of enforced legislations on managerial authority relative to the non-imposed pre-SOX benchmark.

Our findings demonstrate a positive association between the enhanced participation of independent directors and CEO control over the firm. We show that

following SOX board independence inflates the likelihood of CEOs also serving as chairs of the board. Moreover, relative to the pre-SOX era, the appreciation in the participation of independent directors significantly increases managerial compensation after SOX. Our findings also document a positive association between the percentage of independent directors and the E-index irrespective of SOX. The E-index is based on six governance provisions having significant impact of firm performance. The six provisions identified by Bebchuk et al. (2009) are golden parachutes, poison pills, staggered boards, supermajority requirements for charter amendments, supermajority requirements for merger amendments, and limits to shareholder bylaw amendments. In other words, the observed positive impact of board independence on the E-index is not significantly different between the two sub-sample periods. We suggest that our outcomes are based on an off equilibrium result by which businesses are obliged to divert from their endogenous board composition levels.

Linck et al. (2009) propose that imposing regulations may be valuable when boards are responsible for inflating agency problems. However, enforced legislations driving firms toward an inefficiently off-equilibrium board composition inflicts deadweight costs on these corporations. Furthermore, this paper suggests that regulations to improve governance could backfire as the CEO might abuse them to extract private benefits. The SOX requirement of increasing the number of independent directors may tempt the CEO to increase his authority by appointing outsiders who are more likely to agree with his/her actions and decisions than be effective monitors. This is in conformance with Crystal (1991) who states that independent directors appointed by the CEO are less likely to vote against the CEO's decisions. Goldman and Slezak (2006) demonstrate that legislations aimed at enhancing corporate governance may just

achieve the opposite and, thus, imply an appreciation in fraudulent activities and manipulation.

2. Literature review

In the early 2000's, accounting scandals induced the Congress to enact the Sarbanes Oxley Act (SOX), which aimed at minimizing information misrepresentation and fraud through an enhancement of monitoring activities. Subsequently, NYSE and NASDAQ introduced a new listing requirement whereby a listed firm has to have a majority of independent directors serving on its board (Chhaochharia and Grinstein, 2009). This escalated the participation of independent directors serving on the boards of U.S. firms right after the passage of the new legislations (Linck et al., 2008).

Agency theory contends that the most vigilant boards of directors and most effective in monitoring usually consist of a large proportion of independent directors (Johnson et al., 1993). Fama and Jensen (1983) suggest that outsiders are induced to monitor effectively in order to protect their reputations as directors. Independent directors are more effective monitors than insiders because they are more likely to fire a CEO after a poor performance (Weisbach, 1988). Rosenstein and Wyatt (1990) show a positive reaction in stock price after a new independent director is appointed. Moreover, Uzun et al. (2004) reveal that firms where fraud has occurred have less independent directors relative to firms where no fraud has occurred.

Conversely, Crystal (1991) argues that outside directors are appointed by the CEO, and thus they may be reluctant to take positions conflicting with those taken by the CEO. This makes independent directors less effective at monitoring. Jensen (1993) proposes that the board of directors' culture might not encourage constructive criticism, which would reduce the soundness of the monitoring mechanism. Within the same

context, Guner et al. (2008) find that the participation of independent directors with financial expertise is not to the best of shareholders' interest, as their presence increases external financing and decreases investment-cash flow sensitivity. Outside directors joining the board with financial expertise are generally affiliated with financial institutions and might seek their interest rather than shareholders interest (Guner et al., 2008). Lambert et al. (1993) and Boyd (1994) illustrate a positive relation between CEO compensation and the number of external directors on the board. They suggest that those outsiders are likely to comply with the CEO's decisions since their appointment was largely influenced by the CEO. Moreover, Core et al. (1999) find no evidence on the superiority of outside directors in monitoring relative to inside directors, but instead suggest that inside directors may be superior. They suggest that CEO compensation is negatively related to both the proportion of inside directors on the board and CEO ownership. On the other hand, they show that managerial compensation is directly associated with board size, percentage of outside directors appointed by the CEO, percentage of outside directors who serve more than three terms, and CEO duality. Similarly, Brick et al. (2006) demonstrate a direct relation between the compensation of a CEO and that of the outside directors and, accordingly, suggest that there exists some form of mutual back-scratching between the CEO and those directors.

Agency theory proposes that duality leads to CEO entrenchment and decreases the board's monitoring effectiveness. Agency theory perspective opposes the concept of CEO duality which provides the CEO with more power and authority, increasing CEO entrenchment. Having CEOs on the boards of directors is likely to influence on board decisions, and consequently board monitoring might be compromised (Reddy et al., 2016). This leads CEOs to engage in activities that are aligned with their personal interests rather than the shareholders' interests (Jensen and Meckling, 1976; Fama and

Jensen, 1983; Jizi et al., 2014; Dawar, 2014; Jizi, 2017). In addition, boards chaired by CEOs are less effective in scrutinizing CEOs' compensation (Reddy et al., 2016). On the other hand, the organization theory supports CEO duality because a unity of command provides clear lines of authority (Massie, 1965) and avoids conflict among top managers (Galbraith, 1977).

The escalation of hostile takeover during the 1980's gave rise to several antitakeover provisions. Antitakeover provisions can be either firm-level or state-level. They can also either increase managers' power to prevent takeovers or reduce their vulnerability should a takeover take place. Opponents of antitakeover provisions believe that these provisions have negative effects on shareholders' interests since they entrench managers and grant them more power. Proponents of the provisions, however, believe that antitakeover provisions allow managers to defend shareholders' rights by negotiating more favorable terms should a takeover take place.

A governance index (G-index) consisting of 24 governance provisions was constructed by Gompers, Ishii, and Metrick (2003) to measure the effectiveness of a certain firm's governance structure. Gompers et al. (2003) demonstrate the existence of a strong negative correlation between the G-index and stockholder return. Subsequently, Bebchuck, Cohen, and Ferrell (2009) create the E-index which is based on 6 of the 24 G-index provisions. Bebchuk et al. (2009) show that out of the 24 G-index provisions, only their 6 provisions have significant impact on firm performance. The six provisions¹ are: golden parachutes, poison pills, staggered boards (or classified boards), supermajority requirements for charter amendments, supermajority requirements for merger amendments, and limits to shareholder bylaw amendments.

Most studies on the relation between antitakeover provisions and firm performance prove that these provisions entrench managers and conversely affect shareholders. Gompers et al. (2003) demonstrate the existence of a negative relation between the G-index and firm performance. They find that, during the 1990s, firms with a lower G-index performed better than firms with a higher G-index. Core et al. (2006) also reveal that firms with a lower G-index have better stock price and operating performance than firms with a higher G-index. Bebchuk et al. (2009) establish that this negative relation between the G-index and firm performance exists because of the presence of only 6 provisions. They claim that these 6 provisions are the most entrenching among the 24 provisions in the G-index. Straska and Waller (2013) propose that some governance rating agencies penalize firms by giving them lower ratings if they have antitakeover provisions.

The passage of SOX and the NYSE/NASDAQ legislations presented an exogenous shock to several U.S. firms in which their boards of directors experienced an appreciation in the participation of independent directors. This paper investigates the implications of the increase in the presence of independent directors on the board monitoring efficacy and effectiveness.

3. Data and methodology

We obtain data over the period 1996-2006 for board independence, CEO entrenchment, CEO duality, managerial compensation, and various control variables through several databases: Compustat for accounting and financial information; ExecuComp for data regarding top executives' characteristics and compensation; RiskMetrics for information on managerial entrenchment and board composition. Data is divided into two periods, pre-SOX (1996-2001) and post-SOX (2002-2006), in order to study the effect of SOX on the association between board independence and our three measures

of managerial power and control: CEO duality, entrenchment, and compensation. We focus on the sub-group of firms who were mainly affected by the legislation's independence requirement. That is, firms which were not in compliance with the board independence requirement prior to SOX and became complying afterwards. We refer to these firms as non-compliant firms. A firm is said to be in compliance with the board structure legislations if at least 50% of its directors are independent in a given year. Thus, non-compliant firms are those with less than 50% board independence during 2001 and greater than 50% board independence in the couple of years after the passage of SOX ².

SOX is a dummy variable that takes the value of 1 during the post-SOX period, and 0 otherwise. Duality is a dummy variable taking a value of 1 if the CEO is also chair of the board of directors, and 0 otherwise. The CEO's salary, bonus, Black-Scholes value of options granted, value of restricted stock³, long-term incentive payouts, and other compensation are summed up to calculate the CEO's compensation (Shiah-Hou, 2016). Gompers et al. (2003) measure the efficiency of a firm's corporate governance using their G-index which is comprised of 24 governance provisions. Consequently, Bebchuk et al. (2009) construct the E-index containing the six provisions that were shown to have a significant effect on firm performance. We use Bebchuk et al. (2009)'s E-index to account for managerial entrenchment. The six provisions forming the E-index are as follows: Golden parachute, poison pill, classified boards, and supermajority requirements for both charter and merger amendments, and limits to shareholder by-law amendments. The presence of any of the aforementioned provisions adds a value of 1 to the e-index value. For example, a firm with an e-index of 4 is a firm in which 4 of the 6 provisions are applied. All 6 provisions are equally weighted. Thus,

the e-index score ranges from 0 (none of the 6 provisions is applied) to 6 (all 6 provisions are applied).

[Table 1 about here]

CEO, firm, and governance characteristics are accounted for using several control variables. We also control for unobserved industry and year specific characteristics using industry dummy variables. Industry is defined following the Fama and French (1997) 48-industry definition. White (1980) robust standard errors technique is used to account for heteroskedasticity. All variables are further explained in Table 1.

Table 2 presents a correlation matrix of the independent variables used in our regressions. As expected, we observe a positive correlation between SOX and board independence for non-compliant firms. However, as suggested by the correlation table, we do not expect any serious multicollinearity issues in our models.

[Table 2 about here]

Figure 1 shows that during both periods our sample is comprised of approximately 12.6% non-compliant firms. These are the firms that were primarily affected by the independence legislations and, thus, are the focus of this research paper.

Figure 1 - The Percentage of Non-compliant and Compliant Firms

Figure 1 presents the percentage of non-compliant and compliant firms during both the pre-SOX and post-SOX periods.

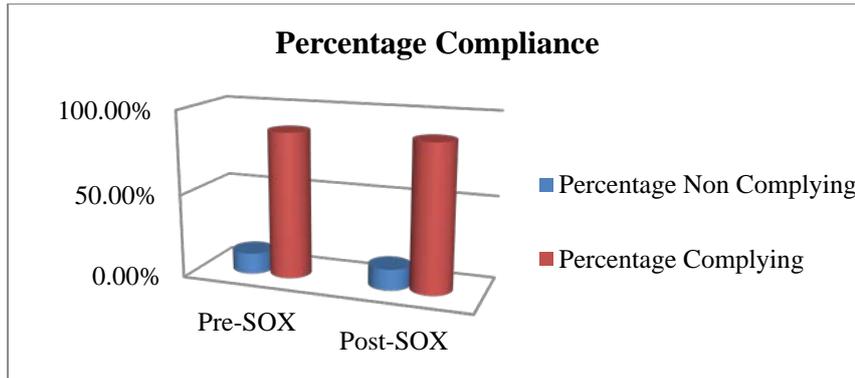
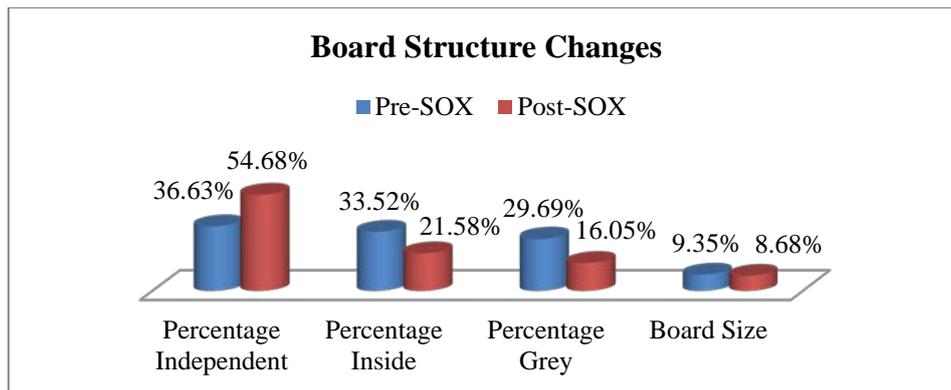


Figure 2 highlights the board composition changes for non-compliant firms between the pre-SOX and post-SOX periods. We observe an increase in the percentage of independent directors from 36.63% before SOX to 54.68% after SOX. Board size is around 9 directors on average in both periods. However, we witness a drop in the participation of inside and grey board members during 2003-2006. Therefore, the escalation in board independence came at the cost of the participation of both inside and grey directors.

Figure 2 - Board Structure Changes

Figure 2 presents the board structure changes for non-compliant firms between the pre-SOX and post-SOX periods.



4. Results discussion

Independent directors are said to improve the firm’s internal monitoring environment since they are assumed to be more objective and non-influenced board members.

Accordingly, the increased presence of independent directors on the board is expected to diminish the manager's control and authority over the firm. On the other hand, the CEO may have an influence over the appointment of independent directors and, thus, he/she might take advantage of the imposed board independence regulations to reap self-centered benefits.

In this paper, we test for the implications of the increased participation of independent directors, due to SOX and NYSE/NASDAQ regulations, on our three measures of managerial power and entrenchment: CEO Duality, CEO Compensation, and the E-index.

4.1 Board Independence and CEO Duality

We start by examining the effect of SOX on the relation between the participation of independent directors and CEO duality. Therefore, we run the following probit regression model:

$$\text{CEO Duality}_{it} = \alpha_0 + \alpha_1 \text{SOX}_{it} + \alpha_2 \text{Board Independence}_{it} + \alpha_3 \text{SOX}_{it} * \text{Board Independence}_{it} + \text{Control Variables}_{it} + \varepsilon_{it} \quad (1)$$

where $i = 1, 2, \dots, n$ refers to firm i and $t = 1996, 1997, \dots, 2006$ refers to year t . CEO duality is regressed on the SOX dummy variable (SOX), board independence, an interaction variable, and several control variables. In the absence of the interaction variable, table 3 Column (1) shows that, during 1996-2006, the coefficient estimates of SOX and board independence are not significant.

[Table 3 about here]

In Column (2) we introduce an interaction term between SOX and board independence. The coefficient estimate on SOX (α_1) is negative and significant.

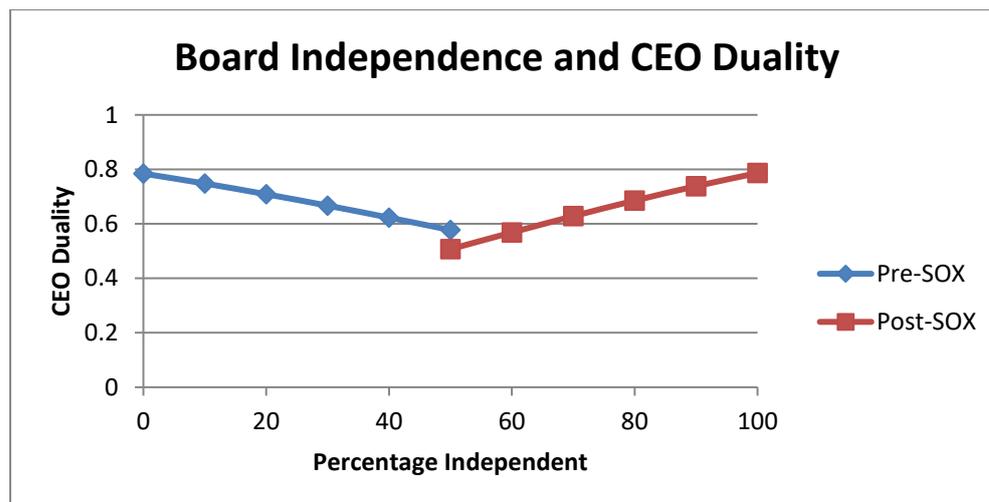
Moreover, the coefficient estimate on board independence (α_2) is significantly negative. α_2 captures the impact of board independence on duality during 1996-2001. Thus, during the pre-SOX period, the results demonstrate that an increase in the percentage of independent directors reduces the probability of the CEO also serving as the board chair. This is consistent with the notion that the presence of independent directors enhances internal monitoring and reduces managerial dominance over the firm. However, the coefficient estimate on the interaction variable is positive and significant. That is, we highlight a positively significant relationship between the probability of CEO duality and the SOX-Board Independence interaction term. α_3 captures the additional impact of board independence on duality during the post-SOX period as compared to the pre-SOX period. Accordingly, during the post-SOX era, board independence substantially appreciates the likelihood of CEO duality relative to the pre-SOX period. This proposes some sort of cronyism between the independent directors and the firm manager after SOX. While board independence decreases the likelihood of duality pre-SOX, we notice a significant depreciation in the board independence – CEO duality relationship post-SOX.

Table 3 also shows a positive relationship between firm performance, CEO ownership, and board size, on the one hand, and Duality, on the other. An increase in CEO ownership inflates the manager's power within the firm and, accordingly, increases the probability of the CEO having a dual role. Better performance provides the CEO with more recognition and the trust to also serve as the board chair. Consistent with Yermack (1996), an increase in board size seems to have an inverse effect on the efficiency of board monitoring. The findings also suggest a negative association between managerial duality and firm sales suggesting that bigger size firms are less likely to have the CEO possessing a dual role.

In order to reinforce the validity of our results, Figure 3 further highlights the association between board independence and managerial duality for non-compliant firms during the pre-SOX and post-SOX periods. Prior to SOX, an appreciation in the percentage of independent directors led to a reduction in the likelihood of CEO duality. After the SOX event, which represented an exogenous shock to non-compliant firms forcing them to increase board independence above the 50% threshold, we observe that increased independence amplifies the probability of managerial duality. These findings are in conformance with our regression results.

Figure 3. Board Independence and CEO Duality

Figure 3 shows the relation between the participation of independent directors and CEO duality for non-compliant firms during both the pre-SOX and post-SOX periods.



4.2 Board Independence and CEO Compensation

We now investigate the impact of the imposed legislations on the relationship between CEO total compensation and the presence of independent directors on the board. In Table 4, we run a regression model in which the natural logarithm of CEO total compensation is regressed on the SOX dummy variable, board independence, an interaction variable, and our list of control variables. [The regression model is as follows:](#)

$$\text{Log (CEO Total Compensation)}_{it} = \alpha_0 + \alpha_1\text{SOX}_{it} + \alpha_2\text{Board Independence}_{it} + \alpha_3\text{SOX}_{it} * \text{Board Independence}_{it} + \text{Control Variables}_{it} + \varepsilon_{it} \quad (2)$$

where $i = 1, 2, \dots, n$ refers to firm i and $t = 1996, 1997, \dots, 2006$ refers to year t .

Table 4 Column (1) shows that, in the absence of the interaction variable, all else constant, CEO compensation levels are not significantly affected by the passage of SOX. Moreover, we do not observe any significant relationship between the percentage of independent directors and CEO compensation during our whole sample period.

[Table 4 about here]

In Table 4 Column (2), we introduce the SOX dummy-board independence interaction variable to examine the effect of SOX on the board independence-CEO compensation relationship. The coefficient estimate on the SOX dummy variable is negative and significant. However, the coefficient estimate on board independence (α_2) is not significant. Accordingly, no significant association is observed between board independence and CEO compensation during the pre-SOX period. Our findings also demonstrate a significant coefficient estimate (α_3) for the interaction variable. α_3 captures the additional impact of board independence on managerial compensation during the post-SOX period as compared to the pre-SOX period. Thus, an increase in the participation of independent directors inflates CEO compensation after SOX relative to the pre-SOX era. This suggests that independent directors help managers extract higher compensation level after SOX.

Our results also suggest that CEO compensation levels increase with the size of the firm. Furthermore, we highlight a direct association between board size and managerial compensation. This is in conformance with the findings of Yermack (1996) who suggests that an increase in the number of directors serving on the board has a

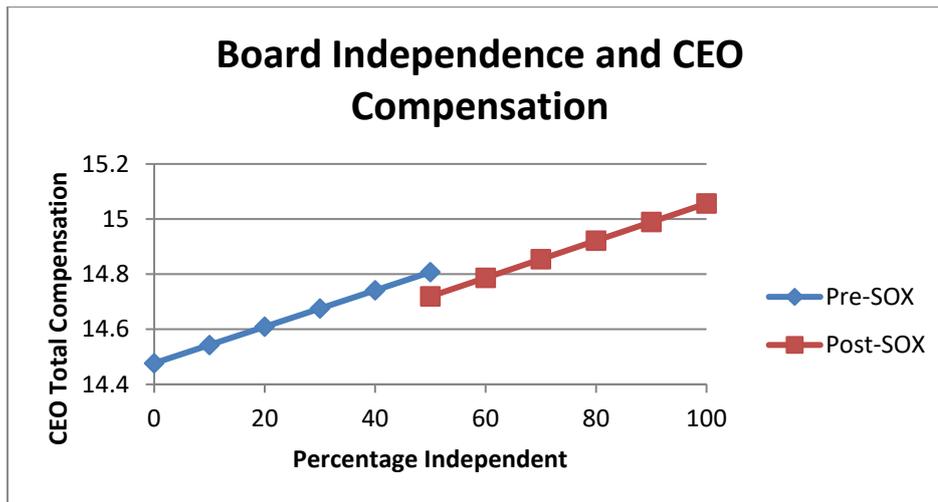
negative effect on the firm's governance and performance. Surprisingly, our findings show a converse association between managerial ownership and compensation.

We also investigate the impact of the independence legislations on both CEO-equity based compensation and fixed compensation. Table 4 Column (3) suggests that board independence has a positive effect on CEO equity compensation. However, Column (4) shows that this direct association between board independence and equity compensation is only significant in the post-SOX period. Columns (5) and (6) propose no significant relationship between board independence and CEO fixed compensation. Thus, the independence requirements effect on CEO compensation mainly arises from its positive impact on managerial equity based compensation.

To emphasize the legitimacy of our findings, Figure 4 demonstrates the association between board independence and CEO total compensation for non-compliant firms during the pre-SOX and post-SOX periods. Prior to SOX, we observe a direct relationship between board independence and CEO total compensation. After the board independence increase triggered by the SOX event, Figure 4 demonstrates an upward shift in the positive association between board independence and managerial compensation. Again, these findings provide further support to our regression analysis.

Figure 4. Board Independence and CEO Compensation

Figure 4 shows the relation between the participation of independent directors and CEO total compensation for non-compliant firms during both the pre-SOX and post-SOX periods.



4.3 Board Independence and CEO Entrenchment

In this section, we analyze whether the relation between board independence and managerial entrenchment was affected by the passage of SOX. We use the E-index developed by Bebchuk et al. (2009) to proxy for CEO entrenchment. Accordingly, we run a regression model in which the entrenchment index is regressed on the SOX dummy variable, board independence, an interaction variable, and various control variables. The regression model is as follows:

$$\text{E-Index}_{it} = \alpha_0 + \alpha_1 \text{SOX}_{it} + \alpha_2 \text{Board Independence}_{it} + \alpha_3 \text{SOX}_{it} * \text{Board Independence}_{it} + \text{Control Variables}_{it} + \varepsilon_{it} \quad (3)$$

where $i = 1, 2, \dots, n$ refers to firm i and $t = 1996, 1997, \dots, 2006$ refers to year t .

[Table 5 about here]

Table 5 Column (1) demonstrates that, during 1996-2006, SOX has not significantly affected the level of managerial entrenchment. The results suggest that a higher percentage of independent directors increases CEO entrenchment. We introduce the interaction variable in Column (2). The coefficient estimate on board independence (α_2) suggests that board independence increases managerial entrenchment during the pre-SOX period. The coefficient estimate of the SOX-board independence interaction

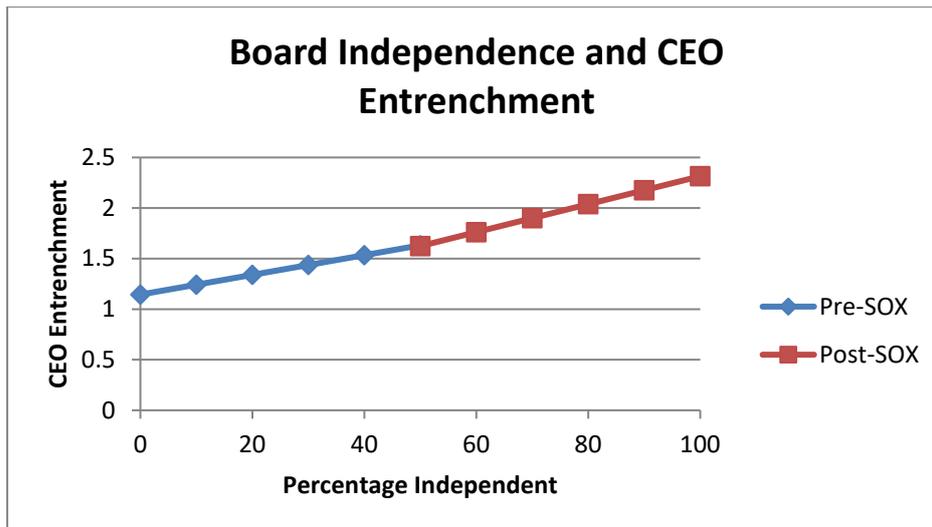
variable is positive but not significant. However, the total effect of board independence on the E-index after SOX ($\alpha_2 + \alpha_3$) is positive. Thus, though SOX does not significantly affect the board independence-CEO entrenchment association, board independence inflates managerial power and authority in both the pre-SOX and post-SOX periods.

The results also highlight a direct association between firm performance and the E-index. Better performance gives the CEO more recognition and power within the firm. As expected, older managers have more control and power. Our findings also indicate that shareholders of smaller firms have lower rights.

Figure 5 supports our regression findings regarding the effect of SOX on the board independence – managerial entrenchment relationship for non-compliant firms. A positive association between board independence and CEO entrenchment is observed pre-SOX. After firms were exposed to the exogenous shock represented by the passage of the SOX, the appreciation in board independence continues to have a positive effect on the E-index. Furthermore, while both positive, the slope of the board independence – CEO entrenchment relationship is a bit higher post-SOX as opposed to pre-SOX.

Figure 5. Board Independence and CEO Entrenchment

Figure 5 shows the relation between the participation of independent directors and CEO entrenchment for non-compliant firms during both the pre-SOX and post-SOX periods.



Overall, our findings suggest that the independence requirements amplified managerial authority and power in firms. Instead of improving internal monitoring, the imposed legislations induced board collusion and socialization between the CEO and independent board members. The increased participation of independent directors may have been favorable to CEOs who became more entrenched. The requirement to increase board independence may tempt CEOs to appoint directors who are more likely to agree with their actions and decisions rather than perform their monitoring duties. Thus, the independence requirements exacerbated agency problems. These results are consistent with the extant literature highlighting the disadvantages of independent board members, cronyism and mutual back-scratching on the board, and the unintended consequences of SOX. In a theoretical framework, Raheja (2005) proposes that there are costs associated with hiring outside board members. These costs are related to the lack of firm specific information and free rider problems. The author suggests that as the cost of appointing outsiders increases, the participation of outside board members on corporate boards should diminish. Bhagat and Bolton (2008) highlight a negative relationship between board independence and firm performance. Crystal (1991) and Hermalin and Weisbach (1998) propose that CEOs can significantly influence the appointment of board members. Thus, the so called ‘independent’ directors may not

truly be independent. This may give rise to a CEO dominated and collusive board. Crystal (1991) suggest that CEO appointed outsiders are not expected to confront the CEO. Lambert et al. (1993) and Boyd (1994) highlight a positive relation between board independence and CEO compensation. Brick et al. (2006) and Dah and Frye (2017) demonstrate a direct association between outsiders' excess compensation and CEO pay. Dah, Frye, and Hurst (2014) suggest that the passage of the board independence legislation had a negative and unintended consequence on the sample of firms that were already complying with the requirements. Goldman and Slezak (2006) propose that regulations intended to improve governance structures may instead lead to an increase in manipulative activities.

5. Conclusion

This paper studies the effect of SOX board structure implications on the efficacy of board monitoring and managerial entrenchment. We suggest that the imposed board independence requirements have a converse influence on corporate governance as it deviates the firm's board composition away from its endogenously determined equilibrium level.

Our paper complements the existing literature by analyzing the effect of the increase in board independence following SOX, relative to the pre-SOX benchmark, on managerial entrenchment and authority. We suggest that, despite of the legislators' genuine intentions, boosting board independence increases managerial power within the firm and, thus, has a converse effect on the soundness of the firm's governance structure. Specifically, relative to the pre-SOX era, we highlight a positively significant association between board independence after SOX and the rise in both managerial compensation and the probability of CEO duality. Though we do not observe a significant change in the relation between the participation of independent directors and

the E-index between the pre- and post-SOX periods, our findings document a positive relation between board independence and managerial entrenchment during both periods.

Rather than improving corporate governance, the board independence legislative requirements appear to diminish board monitoring effectiveness. The Sarbanes Oxley Act may have allowed the CEO to take advantage of newly appointed CEO complying independent directors and, thus, appreciate his dominance and authority over the firm. Accordingly, we propose that regulations may lead to converse consequences if they are abused by managers to extract private benefits. We conclude that moving firms away from their equilibrium board structure may reflect negatively on shareholders.

References

- Arayssi, M., Dah, M and Jizi, M. (2016), “Women on boards, sustainability reporting and firm performance”, *Sustainability Accounting, Management and Policy Journal*, Vol. 7 No. 3, pp. 376-401.
- Bebchuk, L., Cohen, A. and Ferrell, A. (2009), “What matters in corporate governance?”, *Review of Financial studies*, Vol. 22 No. 2, pp. 783-827.
- Bhagat, S., and Bolton, B. (2008), “Corporate governance and firm performance”, *Journal of Corporate Finance*, Vol. 14, pp. 257-273.
- Borokhovich, K. A., parrino, R. and trapani, T. (1996), “Outside directors and CEO selection’, *Journal of Financial and Quantitative Analysis*, Vol. 31 No.3, pp. 337-355.
- Boyd, B. K. (1994), “Board control and CEO compensation”, *Strategic Management Journal*, Vol. 15 No. 5, pp. 335-344.
- Brick, I. E., Palmon, O. and Wald, J. K. (2006), “CEO compensation, director compensation, and firm performance: Evidence of cronyism?”, *Journal of Corporate Finance*, Vol. 12 No. 3, pp. 403-423.
- Guner, B., Malmendier, U. and Tate G. (2008), “Financial expertise of directors”, *Journal of Financial Economics*, Vol 88, pp. 323–354
- Chhaochharia, V., and Grinstein, Y. (2009), “CEO Compensation and Board Structure”, *The Journal of Finance*, Vol. 64 No. 1, pp. 231-261.
- Core, J. E., Guay, W. R. and Rusticus, T. O. (2006), “Does weak governance cause weak stock returns? An examination of firm operating performance and investors’ expectations”, *The Journal of Finance*, Vo. 61 No.2, pp. 655-687.
- Core, J. E., Holthausen, R. W. and larcker, D. F. (1999), “Corporate governance, chief executive officer compensation, and firm performance”, *Journal of financial economics*, Vol. 51 No. 3, pp. 371-406.
- Crystal, G. S. (1991), *In search of excess: The overcompensation of American executives*, Norton.

- Dah, M. A., Frye, M. B., and Hurst, M. (2014), “Board changes and CEO turnover: The unanticipated effects of the Sarbanes–Oxley Act”, *Journal of Banking & Finance*, Vol. 41, pp. 97-108.
- Dah, M. A., and Frye, M. B. (2017), “Is board compensation excessive?”, *Journal of Corporate Finance*, Vol. 45, pp. 566-585.
- Dawar, V. (2014), "Agency theory, capital structure and firm performance: some Indian evidence", *Managerial Finance*, Vol. 40 Iss 12, pp. 1190 – 1206.
- Fama, E. F. and French, K. R. (1997), “Industry costs of equity”, *Journal of financial economics*, Vol. 43 No. 2, pp. 153-193.
- Fama, E. F. and Jensen, M. C. (1983a), “Agency problems and residual claims”, *Journal of law and Economics*, Vol. 26 No. 2, pp. 327-349.
- Fama, E. F. and Jensen, M. C. (1983b), “Separation of ownership and control” *Journal of law and economics*, Vol. 26 No. 2, pp. 301-325.
- Galbraith, J. R. (1977), “Organization design: An information processing view”, *Organizational Effectiveness Center and School*, Vol. 21 No.3, pp. 28 – 36.
- Goldman, E. and Slezak, S. L. (2006), “An equilibrium model of incentive contracts in the presence of information manipulation”, *Journal of Financial Economics*, Vol. 80 No. 3, pp. 603-626.
- Gompers, P. A., Ishii, J. L. and Metrick, A. (2001), Corporate governance and equity prices, *National bureau of economic research*.
- Hermalin, B.E., and Weisbach, M.S. (1998), “Endogenously chosen boards of directors and their monitoring of the CEO”, *American Economic Review*, pp. 96-118.
- Jensen, M. C. (1993), “The modern industrial revolution, exit, and the failure of internal control systems”, *The Journal of Finance*, Vol. 48 No. 3, pp. 831-880.
- Jensen, M. C. and Meckling, W. H. (1976), “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure”, *Journal of Financial Economics*, Vol.3 No.4, pp. 305-360.
- Jizi, M., Salama, A, Dixon, R. and Stratling, R. (2014), “Corporate governance and the content of corporate social responsibility disclosure”, *Journal of Business Ethics*, Vol. 125 No. 4, pp. 601-615.

- Jizi, M. (2017), “The Influence of board composition on sustainable development disclosure”, *Business Strategy and the Environment*, DOI: 10.1002/bse.1943.
- Johnson, R. A., Hoskisson, R. E. and Hitt, M. A. (1993), “Board of director involvement in restructuring: The effects of board versus managerial controls and characteristics”, *Strategic Management Journal*, Vol. 14 No. 1, pp. 33-50.
- Kay Lee, S., Bosworth, W. and Kudo, F. (2016), "Compensation committees: independence and firm performance", *Managerial Finance*, Vol. 42 Iss 1, pp. 23 - 33
- Lambert, R. A., Larcker, D. F. and Weigelt, K. (1993), “The structure of organizational incentives”, *Administrative Science Quarterly*, Vol. 38 No. 3, pp. 438-461.
- Linck, J. S., netter, J. M. and yang, T. (2008), “The determinants of board structure”, *Journal of Financial Economics*, Vol. 87 No. 2, pp. 308-328.
- Linck, J. S., Netter, J. M. and Yang, T. (2009), “The effects and unintended consequences of the Sarbanes-Oxley Act on the supply and demand for directors”, *Review of Financial Studies*, Vol. 22 No. 8, pp. 3287-3328.
- Massie, J. L. (1965), Management theory. *Handbook of organizations*, 387- 422.
- Maug, E. (1997), “Boards of directors and capital structure: alternative forms of corporate restructuring”, *Journal of Corporate Finance*, Vol. 3 No. 2, pp. 113-139.
- Raheja, C. G. (2005), “Determinants of board size and composition: A theory of corporate boards”, *Journal of Financial and Quantitative Analysis*, Vol. 40 No. 2, pp. 283-306.
- Reddy, K., Abidin, S. and You, L. (2015), "Does corporate governance matter in determining CEO compensation in the publicly listed companies in New Zealand? An empirical investigation", *Managerial Finance*, Vol. 41 No. 3, pp. 301 - 327
- Rosenstein, S. and Wyatt, J. G. (1990), “Outside directors, board independence, and shareholder wealth”, *Journal of financial economics*, Vol. 26 No. 2, pp. 175-191.
- Shiah-Hou, S. (2016), "The effect of analyst coverage on CEO compensation structure: evidence from the S & P 1500", *Managerial Finance*, Vol. 42 No. 3, pp. 191 - 211

- Straska, M. and Waller, H. G. (2014), “Antitakeover provisions and shareholder wealth: A survey of the literature”, *Journal of Financial and Quantitative Analysis*, Vol. 49 No. 4, pp. 933-956.
- Uzun, H., Szewczyk, S. H. and Varma, R. (2004), “Board composition and corporate fraud”, *Financial Analysts Journal*, Vol. 60 No. 3, pp. 33-43.
- Weisbach, M. S. (1988), “Outside directors and CEO turnover”, *Journal of financial Economics*, Vol. 20, pp. 431-460.
- White, H. (1980), “A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity”, *Econometrica: Journal of the Econometric Society*, Vol. 48 No. 4, pp. 817-838.
- Yermack, D. (1996), “Higher market valuation of companies with a small board of directors”, *Journal of financial economics*, Vol. 40 No. 2, pp. 185-211.

¹A classified board has different classes of board members with only one class to be replaced each year. This delays the acquirer's control over the firm. A poison pill gives the shareholder the right to buy shares of either the target firm or the acquiring firm at a discount price in case the acquirer obtains a certain percentage of the acquired firm. Golden parachutes grant top executives with compensation packages in case a takeover takes place. This makes the takeover less costly to the managers and more costly to the acquirer. Supermajority provisions suggest that a supermajority of shareholders, which consists of 75% to 80% of the shareholders, have to grant their approval on issues related to mergers or amendments of by-laws.

² We allow two years for firms to be in compliance with the board independence requirement after SOX since it may have taken some firms more time to comply (more than 1 year) than others.

³ The value of restricted stock granted is based on the market value at the date of the grant.