

Does Managerial Entrenchment Matter in Management Buyouts? Evidence from the Classified Board Provision*

Chaehyun Kim** · Hyeongsop Shim***

〈Abstract〉

Using a sample of 232 U.S. management buyout (MBO) announcements between 1995 and 2013, we examine whether the presence of the classified board provision affects shareholder wealth and firm performance around MBOs. Evidence shows that classified board provision is positively associated with stock returns around the time of the announcements. We examine whether the operational enhancements following MBOs result from ensuing corporate governance enhancement or private information appropriation. Controlling for firm characteristics, we find that firms with classified board provision show more pronounced improvements in operating performance between the pre- and post-announcement period, which is consistent with the private information appropriation. These findings suggest that entrenched managers have strong incentives to use private information and exploit the undervaluation of their firms when making buyout decisions.

Keywords : Management Buyouts, Managerial Entrenchment, Classified Boards

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** First Author, Senior Researcher, School of Business and Technology Management, Korea Advanced Institute of Science and Technology, E-mail: chkimfin@kaist.ac.kr

*** Corresponding Author, Associate Professor, Gachon University Business School Department of Global Management, E-mail : hshim@gachon.ac.kr

I . Introduction

It is conventional wisdom that corporate restructuring through buyouts, such as leveraged buyouts (LBOs) and management buyouts (MBOs), ensues substantial improvement in operating performance (Kaplan, 1989; Smith, 1990). Subsequently, researchers have switched their attention to the reasons for such performance improvement. Ofek (1994) provides two possible explanations for improved operating performance following MBOs. The organizational change hypothesis suggests that the managers involved in taking a firm private have a strong incentive to create value following MBOs due to the greater managerial ownership and higher financial leverage induced by buyouts. The private information hypothesis, on the other hand, contends that managers with favorable private information on future performance are more likely to exploit the firm's undervaluation by taking the firm private. While Ofek (1994) presents empirical results consistent with the organizational change hypothesis, several articles report on the opportunistic behaviors of firm managers prior to MBO announcements, such as insider trading and earnings management, casting doubt on the validity of the organizational change hypothesis.¹⁾ In addition, in a follow-up study, Guo, Hotchkiss, and Song (2011) report that buyout firms continue to enhance operating performance. Thus, the second buyout wave in the early 2000s offers a good research environment to determine which hypothesis better explains the performance enhancement arising from management buyouts.

In this study, we investigate the impact of managerial entrenchment on change in shareholder value and operating performance of MBO firms using a sample of U.S. MBOs from 1995 to 2013. Given that managers play critical roles in financial decision making, such as mergers and acquisitions, and corporate restructuring, managerial incentives might be an important determinant of MBO outcomes and change in shareholder wealth around the time of MBOs. We argue that entrenched managers have stronger incentives to rely on private information about firm's future prospects in buyout decisions than other managers in line with shareholder interest. Therefore, we analyze the relation between managerial entrenchment and firm value.

1) See Harlow and Howe (1993), Perry and Williams (1994) and Li, Qian, and Zhu (2013) among others.

Adopting the presence of classified board provision as a proxy for managerial entrenchment, we examine two issues related to managerial entrenchment in MBOs based on the private information hypothesis.²⁾ First, we study whether the classified board provision is positively associated with stock returns around MBO announcements. We expect that the markets and investors respond more positively to the announcement of MBOs by firms with the classified board provision if investors presume that entrenched managers are more likely to decide to take over their firms based on favorable information about future performance. Second, concentrating on a sample of unsuccessful MBOs, we test whether firms with classified board experience more pronounced improvement in operating performance following cancelation, as the private information hypothesis suggests that an improvement in operating performance occurs even when no organizational changes occur and that entrenched managers are more likely to rely on private information about firm undervaluation prior to the announcements.

In our first set of tests, the univariate test results show that the target firms with classified board provision exhibit marginally higher cumulative abnormal returns (CARs) than those without the provision around MBO announcements. The multivariate regression tests confirm the univariate results, consistent with our first hypothesis whereby investors positively respond to MBO announcements because MBOs initiated by entrenched managers send a stronger signal about undervaluation or positive future prospects than those by non-entrenched managers.

In the second set of tests, we observe from the univariate tests that firms with unsuccessful MBOs, on average, experience negative changes in operating performance during the years surrounding the announcements. The negative changes in operating performance are clustered around firms with the classified board. Controlling for firm characteristics and self-selection bias in our multivariate analysis, we find that instead, firms with the provision show more pronounced improvements in operating performance, further supporting the private information hypothesis.

2) Refer to Bebchuk and Cohen (2005) to check the validity of using the classified board as a measure of managerial entrenchment. We adopt the classified board or staggered board provision as our measure for managerial entrenchment, in that we should manually collect all six provisions using SEC filings for the MBO targets whose E-index cannot be determined from RiskMetrics for the majority of firms. We acknowledge that the E-index proposed by Bebchuk, Cohen, and Ferrell (2009) is the most popular measure for managerial entrenchment.

Taken together, positive market responses to the MBO announcements of firms with classified board suggests that favorable private information on future performance can be a strong motivation for entrenched managers to take their firms private. Our findings of more pronounced performance enhancements following the failed attempts of MBO firms with the classified board further support the private information hypothesis.

Our research contributes to the ongoing debate about the impact of classified boards on shareholder wealth in several ways by focusing on a specific type of M&A transaction: management buyouts. First, the positive market response to the presence of classified boards in MBO firms is congruent with the argument that the wealth effect of classified boards can be positive. This evidence also supports the view that classified boards have heterogeneous wealth effects, depending on circumstances (Rose, 2009; Duru, Wang, and Zhao, 2013).

Second, our research complements prior literature on the impact of antitakeover provisions on the shareholder wealth of target firms. Bates, Becher, and Lemmon (2008) find that there is no association between the target board classification and stock returns around the announcement of M&A. However, we show that classified boards can be associated with positive market responses when managers act as the takeover target and acquirer at the same time and, thus, such managers have unique incentives to buy their own firms and to maximize their own wealth in management buyouts. The closest to our study is Choi (2011), who shows that acquirers with more ATPs tend to pay higher takeover premiums, leading to more positive market responses to target firms around the M&A announcements. Our study, however, differs from Choi (2011) in that we focus on MBOs, a special type of M&A deal in which a firm takes both acquirer and target positions at the same time. Our findings suggest that the market responds to MBO firms with the classified board more positively because managers in those firms are more likely to enter into buyout transactions when they have private information about the firm's bright future prospects.

Finally, our study adds to the literature on the improvement in operating performance following the completion of MBOs. Using the existence of classified board as a proxy for managerial entrenchment, we provide evidence opposing the organizational change view suggested by Kaplan (1989), Smith (1990), and Ofek (1994) and supporting the

private information hypothesis. Our findings are in line with the literature suggesting that insiders have incentives to use private information before management buyouts (Harlow and Howe, 1993; Kaestner and Liu, 1996). To the best of our knowledge, this is the first attempt to look for the private information hypothesis based on the entrenchment effect of antitakeover provisions.

The remainder of this study is organized as follows. Section I reviews the literature on performance following MBOs and the classified board provision and develops various hypotheses. Section II describes our data construction and the sample. Section III presents the univariate and multivariate test results. Finally, Section IV concludes.

II. Literature Review and Hypotheses Development

We review two strands of literature and develop testable hypotheses. One line of literature considers two conflicting viewpoints on the source of operating performance enhancement following MBOs. The other line of literature examines the impact of managerial entrenchment induced by classified board provision. The hypotheses established from our review aim to test whether and how managerial entrenchment affects MBO outcomes.

Prior literature has reported improved operating performance following the completion of MBOs. Using a sample of 76 MBOs completed between 1980 and 1986, Kaplan (1989) documents that post-MBO firms experience improvements in operating performance, as measured by operating income, capital expenditure, and net cash flow within three years after deal completion. Smith (1990) examines 58 MBOs from 1977 to 1986 and presents similar results.

There are two alternative explanations about the driving force of performance improvement after the completion of MBOs: organizational change and informational advantage (Ofek, 1994). The first line of argument, the *organizational change hypothesis*, associates operating performance enhancements with the change in managerial incentives due to organizational change. This explanation highlights the fact that organizational changes ensuing MBOs, such as incentive alignment due to increased managerial ownership and higher financial leverage to acquire the controlling shares from existing shareholders, provide stronger managerial incentives to generate higher cash flows to maximize profit

and pay back a debt. The second line of argument, the *private information hypothesis*, predicts that managers with private information on future improvements are more likely to participate in buyouts to exploit their firm's undervaluation. Lowenstein (1985) suggests that managers with superior information on their own firms can buy the firms at a lower cost than any outside bidders would be willing to pay.

Although the two hypotheses discussed above are based on different assumptions, they share the same prediction that firms will experience higher operating performances after buyouts. This raises a critical question about what actually leads to these higher operating performances. Therefore, researchers have tried to identify the causes of post-MBO operational enhancement and they have obtained contrasting results.

On one hand, some scholars provide evidence supporting the organizational change hypothesis. Kaplan (1989) shows that financial projections that managers release prior to buyouts tend to be higher than realized performances post buyouts, which is inconsistent with the private information hypothesis where managers exploit private information on undervaluation at the time of buyouts. Smith (1990) compares defensive MBOs with non-defensive MBOs and finds no significant differences in performance improvement following buyouts, which is also inconsistent with the private information hypothesis as defensive MBOs are less likely to result from the private information that is exclusive to and exploited by managers. Ofek (1994) finds that improvements in operating performance after unsuccessful buyouts, which are less likely to be associated with organizational change, are not significantly and consistently positive. This evidence supports the organizational change hypothesis.

On the other hand, other scholars suggest that there are associations between the improvements in post-buyout operating performance and the improper use of private information on undervaluation by managers. Harlow and Howe (1993) investigate insider trading behavior prior to MBOs by using 121 buyout announcements from 1980 to 1989. They find that insiders abnormally accumulate shares prior to buyout announcements by reducing the amount of sales. Kaestner and Liu (1996) also examine insider trading patterns prior to going-private announcements and show the abnormal net-buying patterns of insider trading. These findings indicate that managers behave opportunistically prior to buyout announcements.

Recently, some studies focus on earnings management prior to buyouts and indicates that managers have incentives to gain private benefits from buyouts. Perry and Williams (1994) analyze a sample of 175 MBOs from 1981 to 1988 and observe the manipulation of discretionary accruals in the year prior to MBO announcements. Hafzalla (2009) examines a sample of press releases before buyouts and reports some evidence that managers release more pessimistic news to buyout their firms at a lower price. Li et al. (2013) provide more direct evidence on earnings-reducing activities by managements prior to buyouts. They find that target firms tend to exhibit abnormally higher levels of earnings management activities during the year prior to MBO announcements, partially explaining post-MBO improvements in operating performance.

Prior literature also suggests that the managerial exploitation of shareholders around the MBO announcement is significantly associated with managerial entrenchment. For example, Li et al. (2013) suggest that earnings-reducing activities prior to MBOs are more pronounced in firms with higher insider ownership, weaker monitoring, and higher information asymmetry. Although antitakeover provisions such as the classified board have been known to have strong managerial entrenchment effects (i.e., encouraging managers to gain private benefits at the expense of existing shareholders), no research has been done on the effect of the classified board on MBO outcomes. We, therefore, are the first to try to fill this gap.

Classified board provision (also known as staggered board provision) is a board structure in which directors are divided into different classes (usually three classes) and only one class of directors is elected each year. The provision guarantees a longer tenure for incumbents and protects them from disciplinary replacement by shareholders and from changes in corporate control by outside investors as only one class of directors can be replaced each year. Using hostile takeover bids during the period from 1996 to 2000, Bebchuk, Coates IV, and Subramanian (2002a, b) find that targets firms with the classified board are more likely to remain independent by bidding bidders' time until the second annual election of directors.

From the opponents' standpoint, antitakeover provisions such as classified board, entrenched incumbent managers, which, in turn, reduces the wealth of shareholders (Choi, 2011). Bebchuk and Cohen (2005) examine the effect of the classified board on firm

value, as measured by Tobin's Q, and find that the provision significantly reduces firm value. Guo, Kruse, and Nohel (2008) investigate the wealth effects of announcements on the intention to de-stagger boards and find that firms immediately adopting a policy of annual director elections have significantly positive abnormal returns around announcements. Jiraporn and Liu (2008) test whether the classified board affects capital structure decisions and demonstrate that classified board is associated with a lower leverage. Chen (2012) demonstrates that classified board is significantly and negatively associated with the cost of debt, as measured by bond spreads. They also find that the negative effect is due to managerial incentives to diminish firm risk and the agency cost of debt. Bebchuk and Cohen (2005) show that classified board provision has stronger entrenchment effects than a variety of other governance provisions.

In contrast, proponents of classified board assert that classified board ensures board stability and allows board members to make effective long-term decisions by increasing board independence and continuity. For target firms, the provision can be effectively used to ward off hostile takeover attempts or to raise the premium that bidders must pay. However, Faleye (2007) finds no empirical evidence that classified board reduces turnover rates for both the inside and outside directors. Faleye (2009) further examines the relationship between the classified board and board stability, as measured by the proportion of directors in 1995 that remained on the boards until 2002, and finds no significant difference between firms with and without classified board.

If classified board provision entrenches incumbent managers, they may try to gain private benefits around the announcement of buyouts. Managers participating in MBO transactions act as both acquirers and targets at the same time. This unique property of MBOs, which cannot be observed in other types of corporate restructuring, provides entrenched managers with unique incentives around announcements. As incumbents of target firms, managers with strong incentives to go private may use the provision to deter takeover attempts by hostile outside bidders. As acquirers of target firms at the same time, they have incentives to buy out their own firms more cheaply. As managers increase their ownership by making their firms go private, higher future operating performances following MBOs will lead to greater private wealth. Going private when firms are undervalued can further augment the incumbents' private wealth. In this study,

we argue that entrenched managers are more likely to exploit private information on firm undervaluation prior to MBO announcements.

If outside investors and market participants understand such incentives, they may expect future prospects for operating performance to be more promising when entrenched managers engage in buyouts. Therefore, we expect positive stock returns around the time of MBO announcements to be more pronounced for firms with the classified board. This argument is consistent with the private information hypothesis.

Hypothesis 1 (H1): Target firms with the classified board experience significantly higher stock returns around MBO deal announcements than those without the provision.

Our second hypothesis tests the two conflicting hypotheses more directly using variables measuring operating performance. Motivated by Ofek (1994), we focus on firms with unsuccessful MBOs and compare changes in operating performance between pre- and post-deal cancelations. If managers engage in buyouts based on favorable private information on future firm value, improvements in future operating performance following MBO announcements should last, regardless of definitive deal outcomes. In addition, the stronger incentives of entrenched managers to use this favorable private information suggest that target firms with the classified board will experience more positive changes in performance following MBO announcements than those without the provision.

Hypothesis 2 (H2): Classified board provision is positively associated with changes in operating performance from pre-announcement to post-cancelation.

III. Sample Construction and Sample Description

1. Sample Construction

We begin our sample construction by extracting deal information on completed and withdrawn MBOs of publicly traded U.S. target firms between 1995 and 2013 from the Securities Data Company's (SDC Platinum) Mergers and Acquisitions database.³⁾ We

obtain deal announcements and cancelation dates, CUSIP, and deal history, as well as target firms' public status and nationality from the database. We include MBO announcements in our sample if the following conditions are met: (1) the management of target firm is engaged in the buyout deal (as indicated by SDC) and (2) each transaction has a deal value exceeding US \$5 million. Our final sample includes 232 MBO deals that satisfy the above criteria, with 148 completed and 84 withdrawn deals.

Given our research focus on the role of managerial entrenchment for MBOs, we use an indicator variable for the existence of classified board provision. We manually obtain the information on classified board provision for each target firm from corporate proxy statements in SEC filings (Form DEF 14A). We define that a firm has a classified board structure if its directors are divided into several classes in the year prior to the MBO deal announcement date and construct an indicator variable, *Cboard*, which takes one if directors are staggered and zero otherwise.

To identify the reason for cancelation, we manually collected the information from LexisNexis and SEC filings (forms 8-K, 10-K, 10-KSB, 10-K405, 10-Q, SC-13D, DEF 14A, PRE 14A, and S-4). Motivated by Ofek (1994), we categorized the reasons for cancelation as (1) accepted a higher bid, (2) rejected by the board, (3) unable to obtain financing, (4) uncertain economic conditions, (5) offer withdrawn, (6) rejected by the stockholders, and (7) no reason given. We constructed an indicator variable, *Unwillingly*, to identify MBO deals rejected either by the board or by shareholders.

We obtained daily stock returns for our MBO firms from CRSP. We measure cumulative abnormal returns (CARs) using CRSP value-weighted market returns. Using the estimation period from 240 days to 41 days prior to MBO announcements, we estimated market model parameters. Following Ofek (1994), we measured seven-day CARs over the minus 1 to plus 5 window, where event day 0 indicates MBO announcement dates, to measure change in shareholder wealth around the time of announcements. We also computed CARs over the period from two days after announcements to five days before completion or cancelation to measure market responses during the period.

We measured firm size (*Size*), Tobin's Q (*Q*), leverage (*Leverage*), return on assets (*ROA*), and tangibility (*Tangibility*) in the year prior to MBO announcements using

3) The starting year of our sample period coincides with the beginning of electronic SEC filings through EDGAR because we seek key information from such filings.

financial statement data from the annual Compustat database. The variable *Size* is the log of total assets (Compustat variable name AT). *Q* is the firm's market value divided by the book value of assets (AT), where the market value of assets equals total assets (AT) minus common equity (CEQ) plus the market value of equity (stock price (PRCC_F) times the common shares outstanding (CSHO)). *Leverage* is the firm's book value of debt scaled by its book value of total assets (AT), where the book value of debt equals the debt in current liabilities (DCL) plus long-term debt (DLTT). *ROA* is income before extraordinary items (IB) divided by total assets (AT). *Tangibility* is the ratio of property, plant, and equipment (PPEGT) to total assets (AT).

We also measured *ROA* and return on sales (*ROS*) from two years prior to MBO announcements to two years following the announcements to measure the change in operating performance, where *ROS* is the income before extraordinary items (IB) scaled by net sales (SALE).

2. Sample Description

Panel A of <Table 1> reports the distribution of MBOs for the full sample and subsamples for both successful and unsuccessful deals. We divide our sample based on the existence or non-existence of classified board provision, the reason given for deal cancelations (unsuccessful deals), and the year of announcements. Approximately 40.5% of firms in our sample have classified board provision. Firms with successful MBOs are more likely to have classified board provision (41.9%) than those with unsuccessful MBOs (38.1%).

It is worthwhile to note that target firms with the classified board are more likely to go private as the provision is known to have a takeover deterrence effect. A possible explanation is that entrenched managers have a stronger incentive to go private when they have favorable information on their firms' future prospects. The highly entrenched managers may need relatively greater economic benefits to participate in leveraged buyout transactions than those less entrenched because they already gain private benefits at the expense of shareholders, even under a public status.⁴⁾ If the private benefits under

4) For example, managers in firms with weak governance are able to pay themselves higher compensation (Bertrand and Mullainathan, 2000, 2001) and insider trading returns are greater for firms with weak governance (Yoon, 2013).

<Table 1> Sample Description

This table shows the descriptive statistics of MBO samples. Panel A describes the frequency of MBO firms with and without classified board and the reasons for MBO cancelations. Following Ofek (1994), we identify six reasons for cancelation: (1) accepted a higher bid, (2) rejected by the board, (3) unable to obtain financing, (4) uncertain economic conditions, (5) offer withdrawn, (6) rejected by the stockholders, and (7) no reason given. Panel B reports the distribution of MBOs by year of announcements. The data are from 1995 to 2013.

Panel A: Distribution of MBOs

	Full Sample	CBoard=1	CBoard=0	Unknown	% CBoard
Total in Sample	232	94	115	23	0.405
Successful MBOs	148	62	65	21	0.419
Unsuccessful MBOs	84	32	50	2	0.381
Reasons for Cancelation					
Acceptance of a higher bid	15	7	8	0	0.467
Rejection by the board	15	9	6	0	0.600
Inability to obtain financing	13	3	9	1	0.231
Uncertain economic conditions	7	0	7	0	0.000
Offer withdrawn	15	5	10	0	0.333
Rejection by the stockholders	6	2	4	0	0.333
No reason given	8	3	5	0	0.375
Not available	5	3	1	1	0.600
Total	84	32	50	2	0.381

Panel B: Distribution of MBO Announcements

Year	Completed Deals			Withdrawn Deals			Total
	CBoard=1	CBoard=0	Unknown	CBoard=1	CBoard=0	Unknown	
1995	0	0	2	2	3	1	8
1996	1	3	4	2	1	0	11
1997	7	4	1	3	0	0	15
1998	3	6	3	5	4	0	21
1999	8	12	2	4	7	0	33
2000	14	8	1	3	8	1	35
2001	7	5	3	2	5	0	22
2002	6	8	1	5	2	0	22
2003	5	6	3	0	5	0	19
2004	2	1	0	0	4	0	7
2005	0	1	0	0	1	0	2
2006	5	3	0	1	3	0	12
2007	1	3	0	3	3	0	10
2008	0	0	0	0	3	0	3
2009	0	0	0	0	0	0	0
2010	0	2	1	0	1	0	4
2011	1	0	0	0	0	0	1
2012	1	2	0	2	0	0	5
2013	1	1	0	0	0	0	2
Total	62	65	21	32	50	2	232

a public status are large enough, highly entrenched managers may have weaker incentives to go private than those less entrenched, unless they expect greater rewards for going private. Therefore, private information on future performance may be a more important determinant for engaging in buyouts for highly entrenched managers than for those who are less entrenched.

“Acceptance of a Higher Bid” (15), “Rejection by the Board” (15), and “Offer Withdrawn” (15) are the most common reasons for deal cancelations. The vast majority of MBO announcements are concentrated between 1998 and 2003 when MBO transaction volume reached a peak in 2000 (35) and the number of announcements has declined sharply thereafter.

IV. Empirical Findings

1. Market Responses

In <Table 2>, we test the mean and median (in parentheses) of CARs to shareholders around MBO announcements. We conducted one sample t-tests and Wilcoxon signed-rank tests to check the significance of mean and median CARs, respectively, and two sample t-tests and Wilcoxon rank-sum tests to compare the mean and median of CARs between firms with and without classified board, respectively.

<Table 2> reports the mean and median of CARs from date -1 to date +1 around MBO announcements. The mean and median of CARs for the full sample in column 1 are 20.3% and 18.0%, respectively, and the values are statistically significant at the 1% level. Columns 2 and 3 report the mean and median of CARs for subsamples with and without classified board. The mean and median of CARs for both subsamples are positive and statistically significant as well. Column 4 shows the significance of differences in CARs between subsamples. The results show that the mean and median of CARs for the target firms with the classified board are greater than those without the provision, but the difference is not statistically significant. We find significant differences in the mean of CARs between subgroups at the 10% level when we divide the full sample into completed deals, but we find no significant difference for withdrawn deals. The

significant difference in the mean of CARs for completed deals suggests that the market tends to respond more positively to the MBO announcements of firms with the classified board. Therefore, the univariate test results in <Table 2> support Hypothesis 1 where entrenched managers are more likely to use positive information on future firm performance when going private.

<Table 2> CARs around MBO Announcements

This table reports the mean and median values of the cumulative abnormal returns (CARs) from date -1 to date +1 around MBO announcements. We report the results from one sample t-tests and Wilcoxon signed-rank tests to measure the significance of mean and median CARs, respectively, and two sample t-tests and Wilcoxon rank-sum tests to check the significance of differences between subsamples. Median values are in parentheses and the number of observations is in square brackets. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively. The data are from 1995 to 2013.

	Full	CBoard=1 (1)	CBoard=0 (2)	(2) - (1)
CARs between -1 and +1 from the announcement date				
Full	0.203*** (0.180)*** [206]	0.226*** (0.201)*** [91]	0.197*** (0.169)*** [102]	$t = -0.87$ $(z = 0.35)$
	0.202*** (0.182)*** [127]	0.240*** (0.212)*** [59]	0.182*** (0.163)*** [57]	$t = -1.66^*$ $(z = -1.54)$
	0.204*** (0.173)*** [79]	0.199*** (0.153)*** [32]	0.217*** (0.181)*** [45]	$t = 0.26$ $(z = -1.43)$
Withdrawn (4)				
(4)-(3)	$t = 0.07$ $(z = -0.32)$	$t = -0.58$ $(z = -1.69)^*$	$t = 1.11$ $(z = -1.10)$	

To examine the relation between managerial entrenchment and stock returns around MBO announcements, our regression models include the following firm characteristic variables from prior literature as the control variables: firm size (*Size*), leverage ratio (*Leverage*), Tobin's Q (*Q*), and return on assets (*ROA*). Schwert (2000) shows a negative association between target size and takeover premiums as firm size is associated with transaction costs and bidder competition. We control for leverage ratios as financial leverage is negatively related to the likelihood of being acquired (Palepu, 1986). Tobin's Q is also included because the target firms are more likely to have lower market-to-book values. Finally, as less profitable firms are more likely to be acquired, we include ROA.

In <Table 3>, we estimate ordinary least square (OLS) regressions to investigate the effect of managerial entrenchment on CARs from date -1 to date +1 around MBO announcements. This table further examines the results of the univariate analysis outlined in <Table 2>. To capture the effects of managerial entrenchment on market responses, we use the presence of classified board (*Cboard*) as a proxy for managerial entrenchment. Models 1 and 2 include our full sample, Models 3 and 4 consider only completed deals, and Models 5 and 6 analyze withdrawn deals. We use year fixed effects to control for varying macroeconomic conditions.

<Table 3> Classified Board Provision and CARs around the Announcement

This table reports the OLS regression results of CARs around MBO announcements (from date -1 to date +1) on the existence of classified board and firm characteristics. *Cboard* is an indicator variable equal to one if a firm has the provision and zero otherwise. Firm characteristic variables are calculated at the fiscal year-end immediately before MBO announcements. Models 1 and 2 report the results for our full sample, whereas Models 3 and 4 (5 and 6) present the results for completed (withdrawn) deals, respectively. All estimations use robust standard errors and have year fixed effects. *T*-statistics are in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively. The data are from 1995 to 2013.

Variables	Full sample		Completed deals		Withdrawn deals	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CBoard	0.050 (1.539)	0.053 (1.571)	0.073* (1.768)	0.076* (1.984)	0.004 (0.036)	-0.025 (-0.283)
Size	0.009 (0.524)	0.017 (0.595)	-0.014 (-0.926)	-0.016 (-0.655)	0.071 (1.480)	0.079 (1.418)
Tobin's Q	-0.019 (-1.123)	-0.021 (-1.223)	-0.015 (-0.827)	-0.016 (-0.912)	0.007 (0.182)	0.061 (1.238)
Leverage	-0.143 (-1.216)	-0.144 (-1.084)	-0.016 (-0.165)	-0.012 (-0.116)	-0.517 (-1.612)	-0.514 (-1.659)
ROA	-0.198 (-0.685)	-0.206 (-0.704)	-0.010 (-0.033)	0.032 (0.108)	-0.541 (-1.141)	-0.523 (-1.136)
CEO Duality		0.070** (2.085)		0.099** (2.072)		0.058 (0.886)
Board Size		-0.014 (-0.748)		-0.002 (-0.113)		-0.032 (-1.191)
Independence		0.070 (0.538)		0.102 (0.631)		0.205 (0.835)
Constant	0.097 (1.165)	0.077 (0.640)	0.369*** (2.966)	0.207 (1.109)	-0.125 (-0.633)	-0.120 (-0.441)
Year Dummies	Y	Y	Y	Y	Y	Y
Observations	173	173	106	106	67	67
Adj. R-squared	0.023	0.041	0.045	0.071	0.179	0.190

The results show that board classification does not carry significant coefficient estimates in our full sample (Model 1). However, for the subsample with completed deals (Model 3), the market responds more positively to target firms with the classified board. This confirms the univariate results in <Table 2> and supports the private information hypothesis. We find no significant responses for target firms with the classified board (Model 5). As a robustness test, we also include three variables in Models 2, 4, and 6, which are associated with CEO entrenchment and are agreeing with the prior literature: *CEO Duality*, *Independence*, and *Board Size*. The results are consistent, even after controlling for these variables.

<Table 4> Classified Board Provision and One-week Takeover Premiums around the Announcement

This table reports OLS regression results of the one-week takeover premiums around MBO announcements on the existence of classified board and firm characteristics. *Board* is an indicator variable equal to one, if a firm has the provision, and zero otherwise. Firm characteristic variables are calculated at the fiscal year-end immediately before MBO announcements. Models 1 and 2 report the results for our full sample, whereas Models 3 and 4 (5 and 6) present the results for completed (withdrawn) deals, respectively. All estimations use robust standard errors and have year fixed effects. *T*-statistics are in parenthesis. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively. The data are from 1995 to 2013.

Variables	Full sample		Completed deals		Withdrawn deals	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CBoard	-0.193 (-1.414)	-0.193 (-1.403)	0.030 (0.487)	0.029 (0.449)	-0.421* (-1.702)	-0.458* (-1.685)
Size	-0.057 (-1.210)	-0.033 (-0.711)	-0.046* (-1.794)	-0.073* (-1.834)	0.042 (0.517)	0.135 (1.394)
Tobin's Q	-0.197** (-2.062)	-0.185** (-1.983)	-0.075** (-2.468)	-0.070** (-2.175)	0.162 (0.545)	0.259 (0.830)
Leverage	0.594* (1.742)	0.593* (1.772)	0.391 (1.606)	0.449* (1.693)	-0.047 (-0.085)	0.118 (0.201)
ROA	-6.374** (-2.196)	-6.334** (-2.225)	-0.647 (-1.330)	-0.537 (-1.152)	-8.444*** (-3.113)	-7.981*** (-3.060)
CEO Duality		0.033 (0.314)		0.065 (0.873)		0.099 (0.392)
Board Size		0.002 (0.066)		0.018 (0.667)		-0.046 (-0.772)
Independence		-0.938 (-1.406)		0.294 (0.986)		-2.287 (-1.442)
Constant	0.803*** (2.705)	1.264** (2.456)	0.652** (2.597)	0.322 (0.973)	0.197 (0.403)	1.413 (1.200)
Year Dummies	Y	Y	Y	Y	Y	Y
Observations	173	173	106	106	67	67
Adj. R-Squared	0.509	0.508	0.172	0.169	0.662	0.664

In <Table 4>, we conduct a similar regression analysis using one-week takeover premiums as the dependent variable. If managers in target firms with the classified board can deter transaction proposals by other bidders and thereby reduce the pressure of competition, the amount of takeover premiums may be reduced. We argue that the reduced takeover premiums can offset the positive effect of board classification on the market response. Models 3 and 4 in <Table 4> show that the presence of board classification does not significantly reduce takeover premiums for completed MBO deals.

Interestingly, board classification is negatively associated with takeover premiums in Models 5 and 6 in <Table 4>, suggesting that the provision reduces takeover premiums for withdrawn deals. One possible explanation is that the lower takeover premiums induced by board classification lead to deal cancellation. The insignificant results for withdrawn deals in <Tables 2> and <Tables 3> might weaken the private information hypothesis because the hypothesis suggests that target firms with board classification are more likely to have brighter prospects on future performance, regardless of deal completion. However, <Table 4> implies that the positive signaling effect of board classification on CARs can be offset by the negative effect on takeover premiums.

2. Changes in Operating Performance

Motivated by Ofek (1994), this section uses accounting variables to investigate changes in operating performance and focuses on firms with unsuccessful MBOs. In <Table 5>, we use the following variables as a measure of operating performance: ROA and ROS. The mean and median values of absolute changes are used to represent the changes in performance. We conduct paired t-tests and Wilcoxon signed-rank tests to check the significance of changes in mean and median performance, respectively, and column 4 provides the results of two sample t-tests (Wilcoxon rank-sum tests) that compare the mean (median) performance changes of firms with and without board classification. We show the mean and median of absolute changes in performance from year -2 to year -1 (Panel A), from year -1 to year +1 (Panel B), from year -1 to year +2 (Panel C), and from year -2 to year +2 (Panel D), where year 0 is the year of MBO announcements.

Column 1 in <Table 5> shows that the absolute changes are negative in years before and after MBO announcements. The only exception is the mean absolute change in ROS

<Table 5> Performance Change of Target Firms with Unsuccessful MBOs

This table reports the performance change of the target firms with unsuccessful MBOs from year -2 to year -1 (Panel A), from year -1 to year +1 (Panel B), from year -1 to year +2 (Panel C), and from year -2 to year +2 (Panel D), where year 0 is the year buyouts are announced. Columns 1, 2, and 3 in each panel tests the significance of the mean and median changes in return on assets (ROA) and return on sales (ROS) using paired t-tests and Wilcoxon signed-rank tests, respectively, and column 4 reports the significance of differences in mean and median changes between subsamples using t-tests and Wilcoxon rank-sum tests, respectively. Median values are in parentheses and the number of observations is in square brackets. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively. The data are from 1995 to 2013.

Performance Measures	Full	Cboard=1 (1)	Cboard=0 (2)	(2) - (1)
Panel A: changes from year -2 to +1				
ROA	-0.014	0.004	-0.026	-0.030
	(-0.001)	(0.004)	(-0.002)	(-0.006)
	[72]	[28]	[43]	
ROS	-0.002	0.021	-0.018	-0.039
	(0.000)	(0.002)	(0.000)	(-0.002)
	[72]	[28]	[43]	
Panel B: changes from year -1 to +1				
ROA	-0.061*	-0.154***	-0.014	0.140*
	(-0.043)***	(-0.098)***	(-0.011)	(0.087)*
	[49]	[16]	[31]	
ROS	-0.016	-0.118	0.038	0.156
	(-0.042)***	(-0.082)**	(-0.016)	(0.066)
	[49]	[16]	[31]	
Panel C: changes from year -1 to +2				
ROA	-0.004	-0.082***	0.059	0.141
	(-0.032)**	(-0.073)***	(-0.004)	(0.069)**
	[43]	[15]	[26]	
ROS	0.032	-0.044	0.095	0.139
	(-0.029)**	(-0.053)**	(-0.001)	(0.052)
	[43]	[15]	[26]	
Panel D: changes from year -2 to +2				
ROA	-0.018	-0.072***	0.016	0.088
	(-0.042)***	(-0.071)***	(-0.014)	(0.057)*
	[42]	[15]	[26]	
ROS	0.018	-0.011	0.037	0.048
	(-0.026)	(-0.028*)	(-0.014)	(0.014)
	[42]	[15]	[26]	

in Panels C and D, which shows positive and insignificant changes. From Panel B to Panel D, the mean of ROA consistently shows negative and insignificant changes in performance, but the median ROAs are significantly negative. The median ROA declines by 4.3%, 3.2%, and 4.2%, respectively. The negative sign appears to support the organizational change hypothesis as it implies that organizational changes do not occur following unsuccessful MBOs.

Next, we compare firms with and without board classification in columns 2, 3, and 4. When we divide our MBO sample into the two subgroups, firms with the classified board consistently show negative changes, whereas none of the mean and median changes are statistically significant for firms without the provision. This implies that the significantly negative changes observed in the full sample are driven by the negative changes in the subsample with board classification. The *t*-test and Wilcoxon rank-sum test results in column 4 of Panel B, C, and D suggest that the declines in the operating performance of firms with the classified board are significantly greater than those of firms without the provision. This evidence is inconsistent with Hypothesis 2, where firms with board classification experience significantly more positive changes in operating performance around MBO announcements.

In <Table 6>, we further investigate withdrawn deals after controlling for self-selection bias. Ofek (1994) argues that a large decline in CARs between MBO announcements and cancelation can be driven by the emergence of bad news about firms' prospects, which may lead to the cancelation of deals. Including these target firms in our sample may cause an underestimation of CARs and operating performance measures. Therefore, we need to control for this self-selection bias. Following Ofek (1994), we first categorize our sample based on the likelihood that a deal has been canceled due to the emergence of unfavorable information. The categorization includes seven groups, as described in Section III. Among these groups, we select two groups in which deals are more likely to be unwillingly canceled: "rejected by the board" and "rejected by the stockholders." Unwillingly canceled deals are less likely to be withdrawn due to the emergence of bad news, thus providing a better setting to observe improvement in firm performance following deal cancelation.

<Table 6> Classified Board Provision and Performance Change for Firms with Unsuccessful MBOs between Years -1 and +1

This table reports the OLS regression results of changes in ROA for firms with unsuccessful MBOs around MBO announcements (from year -1 to year +1, where year 0 is the year of MBO announcements) on the existence of board classification and firm characteristics. *Cboard* is an indicator variable equal to one if a firm has board classification and zero otherwise. Firm characteristics variables are calculated at the fiscal year-end immediately prior to MBO announcements. We use three indicator variables to control for self-selection bias: *Unwillingly* equals one if a deal is canceled either by the board or shareholders. All estimations use robust standard errors and have year fixed effects. *T*-statistics are in parentheses. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively. The data are from 1995 to 2013.

Variables	Model 1	Model 2	Model 3
CBoard _{t-1}	-0.036 (-0.496)	-0.036 (-0.496)	-0.149 (-1.657)
Unwillingly		0.005 (0.099)	-0.068 (-1.546)
CBoard _{t-1} ×Unwillingly			0.263** (2.174)
Size _{t-1}	-0.020 (-0.670)	-0.020 (-0.665)	-0.019 (-0.733)
Tobin's Q _{t-1}	-0.076 (-1.006)	-0.076 (-0.989)	-0.081 (-1.115)
Leverage _{t-1}	-0.119 (-0.730)	-0.120 (-0.723)	-0.094 (-0.621)
ROA _{t-1}	-0.983*** (-8.646)	-0.984*** (-8.350)	-0.999*** (-6.918)
CEO Duality _{t-1}	0.032 (0.487)	0.031 (0.472)	0.024 (0.428)
Board Size _{t-1}	0.363** (2.274)	0.362** (2.237)	0.309** (2.116)
Independence _{t-1}	-0.026 (-0.099)	-0.027 (-0.100)	0.128 (0.512)
Intercept	-0.517 (-1.636)	-0.514 (-1.599)	-0.501* (-1.993)
Observations	48	48	48
Adjusted R-squared	0.638	0.623	0.685

Based on this selection, we control for *Unwillingly* (rejected either by the board or shareholders) in Models 2 and 3. We also include an interaction term, *Cboard*×*Unwillingly*, in Model 3 to estimate the effect of board classification after controlling for the effect of self-selection.

The dependent variable in <Table 6> is the change in ROA from year -1 to year

+1, where year 0 is the year of the MBO announcement. We control for firm size, leverage ratios, Tobin's Q, and ROA at $t - 1$. The standalone coefficients for *Cboard* in Models 1 and 2 show that the relation between the change in performance and the classified board provision is negative but statistically insignificant. In Model 2, the coefficient for *Unwillingly* is statistically insignificant. In Model 3, we also include the interaction terms with *Unwillingly* and find the heterogeneous effects of board classification on changes in operating performance. The standalone term *Cboard* has a negative and significant effect on change in operating performance ($t = -2.025$). However, the interaction term *Cboard*×*Unwillingly* suggests that firms with the classified board experience an increase in ROA after deals are canceled, either by the board or by the shareholders ($t = 2.519$).

This implies that the negative change in ROA in <Table 5> may result from the underestimation of changes in operating performance due to the self-selection bias in the subsample with unsuccessful deals. To sum up, the changes in operating performance in <Table 6> provide some evidence of an increase in profitability between the pre- and post-announcements for target firms with board classification. This evidence is consistent with the private information hypothesis and supports Hypothesis 2.

V. Conclusion

In this study, we provide empirical evidence on the wealth effects of classified board provision around MBO deals. We find that target firms with managerial entrenchment have better stock performances near the time of MBO announcements. This response may offset the undervaluation of firms or the manipulation of performances before the announcements, implying that the markets and outside investors understand the strong incentives of entrenched managers to respond to favorable information around MBO announcements. In addition, after controlling for self-selection bias, our findings suggest that firms with entrenched managers show greater positive changes in operating performance from the period before MBO announcements to the years following the cancelation of deals. Overall, our results largely support the private information hypothesis, where managers exploit undervaluation prior to MBO announcements and take their firms private via MBOs.

Our findings are surprising as the exploitative behavior of managers induced by managerial entrenchment actually improves shareholder wealth. Prior literature on antitakeover provisions (ATPs) suggests that the existence of ATPs destroys firm value and shareholder wealth by encouraging managers to gain private benefits. Therefore, our findings are consistent with recent literature suggesting that the impact of ATPs can be heterogeneous (Stráska and Waller, 2010; Kadyrzhanova and Rhodes-Kropf, 2011; Ahn and Shrestha, 2013).

We acknowledge the limitation of our empirical findings. Although the greater improvement of firm performance for firms with classified board following MBO withdrawal seems to support the private information hypothesis, our results do not provide direct evidence that entrenched managers are more likely to buy their firms out when their firms are undervalued.⁵⁾ Nevertheless, our paper contributes to the MBO literature by providing evidence in discord with the dominant operational change hypothesis and by linking managerial entrenchment with MBO outcomes. We hope this limitation also provides an opportunity for future research on MBO literature. The opportunistic behaviors of entrenched managers around the MBO announcements could be examined in various aspects. We consider this issue for our future research.

5) We thank for the anonymous referee to point out this limitation.

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경영자 참호효과가 경영자 매수형 피인수 기업의 재무적 성과에 미치는 영향*

김채현** · 심형섭***

〈요 약〉

본 연구는 1995년부터 2013년까지 미국에서 발생한 232개의 경영자매수 표본을 활용하여 이사회 의사결정기제가 경영자매수 전후 시점의 주주 부와 회사의 재무적 성과에 미치는 영향을 조사하였다. 실증분석 결과는 시차임기제를 도입한 기업이 경영자매수를 공시하는 경우 주가가 상승함을 나타낸다. 다음으로 경영자매수 후에 수반되는 영업성과 향상이 기업 구조의 개선에 의한 것인지 아니면 경영자의 사적 정보 유용에 따른 것인지를 조사하였다. 실증분석 결과는 이사회에 시차임기제를 도입한 회사는 그렇지 않은 회사에 비해 경영자매수를 공시하기 이전부터 이후까지 경영성과가 더 크게 향상됨을 보여준다. 이러한 결과는 경영자가 경영자매수를 시도할 때 기업의 미래 전망에 대한 사적인 정보를 유용한다는 가설을 지지한다. 또한 경영자들은 참호효과로 인해 사적인 정보를 유용하고 회사가 저평가된 시기에 매수를 선택할 강한 유인을 가지게 됨을 시사한다.

주제어 : 경영자매수, 경영자참호효과, 시차임기제

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** 제1저자, 한국과학기술원 기술경영학부 선임연구원, E-mail: chkimfin@kaist.ac.kr

*** 교신저자, 가천대학교 경영대학 부교수, E-mail: hshim@gachon.ac.kr