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The Retention of Underperforming CEOs and the Implications on Collusion – Controlling Management and Preventing Collusion by Strengthening the Independence of the Board

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## The Retention of Underperforming CEOs and the Implications on Collusion – Controlling Management and Preventing Collusion by Strengthening the Independence of the Board

**Hwa Ryung Lee**, Fellow at KDI

“An analysis of Korean firm data reveals that there is a higher tendency for CEOs in cartel firms to maintain their posts when the overall industrial performance, and not the individuals’ relative performance, is high. This implies that an incentive for collusion, instead of competition, is created. Meanwhile, the outside directors of cartel firms have more social connections with the CEO in many cases and cast fewer opposing votes than those at competitive firms. Considering that CEO replacement is not pertinent to relative performance when a large proportion of the board of directors is close to the CEO or when there are no dissenting votes, enhancing board independence can deter the inclination to collude.”

### I. Introduction

Shareholders delegate corporate management activities to the chief executive officer (CEO) with the expectation that he/she will act as a faithful agent and make decisions in their best interests. However, a lack of monitoring and supervision may result in some CEOs maximizing their own interests through the decision-making process. To encourage corporate CEOs to work more diligently for shareholders, an incentive mechanism must be put into place that can offer the proper rewards for the invested efforts.

Replacing an underperforming CEO is the basic incentive for stimulating efforts.

Simply put, the best structure for shareholders is to offer considerable compensation to competent, hard-working and well-performing CEOs and replace those with poor performance. In reality, however, incompetent or negligent CEOs are not dismissed in many cases. In a recent policy report for parliamentary audits, “Analysis on the CEOs of financial companies and management succession rules,” the argument was raised that the reappointment and management performance<sup>1)</sup> of CEOs at financial firms were extraneous. This implies that the wrong performance indicator was applied to evaluate CEOs’ capabilities and effort, or there is little correlation between the performance indicator and compensation.

Incentive mechanism for CEOs can have an impact on market competition as well as internal corporate management.

The absence of appropriate incentives for CEOs is not just a company issue. As the top decision maker and designer of the company’s market strategies, CEOs’ incentives can also influence the competition of the market in which the company belongs. For example, in a situation where the absolute earnings performance is deemed important, a CEO could easily boost his/her performance through collusion. However, if the focus was shifted to a CEO’s relative performance compared to that of rival companies then he/she may be less inclined to pursue common interests by joining forces with others and be encouraged to depart from the cartel and achieve better outcomes. Indeed, relative performance-based CEO incentives may serve to boost market competition more than those based on absolute terms.

Therefore, the incentive mechanism for CEOs is also important for fair market competition, and a full understanding about the structure is required. This study especially focuses on how performance is connected to CEO replacement,<sup>2)</sup> and analyzes whether the appropriate incentives are offered to curb market collusion. Moreover, policy directions will be presented for the design and implementation of a “socially desirable” incentive mechanism.

## II . Correlation between the CEO Incentive Mechanism and Collusion

### 1. Theoretical Prediction

In an environment wherein the monitoring of CEO behavior is difficult, there must be a tight link between CEOs’ performance and reward/punishment, in order to embolden them to work harder for the shareholders. Accordingly, it is vital that a performance indicator is implemented that can accurately evaluate CEOs’ company-related capabilities and efforts. If, on the other hand, the performance indicator is swayed more by luck than

1) *Sisa Journal e*, “Reappointment of Financial Company CEOs is not Related to Performance,” Sept. 27, 2016.

2) It is appropriate to consider both replacement and compensation as the incentive mechanism for CEOs. However, replacement was only used as an analysis factor in this study because the data on compensation for executives in Korea is severely lacking.

ability and exertion, efficiency will diminish. In this regard, relative performance, which refers to the increase in corporate value minus the profitability of the overall industry or economy, can be considered as the net performance of CEOs.

Aggarwal and Samwick (1999) centered on the fact that, despite the above, CEO rewards are often not linked to relative performance. They explained that a possible reason for this was that CEO incentives need to be dependent on the performance of the industry (so that rewards increase in line with improvements in rivals' performance) to reduce market competition.

From a theoretical point of view, if a CEO's performance is assessed via a relative evaluation, he/she will be motivated to achieve better results than the competition. Therefore, the CEO will be less inclined to pursue common interests, breaking away from the cartel and dealing a negative blow to the formation and persistence of collusion. In contrast, if the absolute performance evaluation is applied and CEO incentives are linked to the performance of the overall industry, CEOs will be more tempted to collude with other companies in order to maximize joint profits. To that end, the connection between relative performance and the CEO's fate will be weaker in companies that participate in collusion than in those that do not.

If CEO replacement is not sensitive to relative performance, collusion is more likely than competition.

## 2. CEO Turnover Sensitivity to Performance and Collusion - Example of Korea

The analysis into the relationship between corporate performance and CEO reappointment during the following year (Lee, 2015), using Korea's corporate data,<sup>3)</sup> also coincides with the above theoretical prediction.

[Figure 1] and [Figure 2] present the probability of CEO retention—that is, estimations on how the chances of maintaining the CEO position in a given year change according to the number of years served. The results were obtained by dividing the data according to the level of each performance indicator<sup>4)</sup> and presence of collusion, without controlling any other variables.

Firstly, [Figure 1], which is based on relative performance, reveals that in cartel firms,<sup>5)</sup> there is little difference in the possibility of maintaining the CEO position between those in the top 25% and bottom 25% in terms of relative performance (compared to industry). This stands in stark contrast to non-cartel firms, wherein low-performing CEOs have a

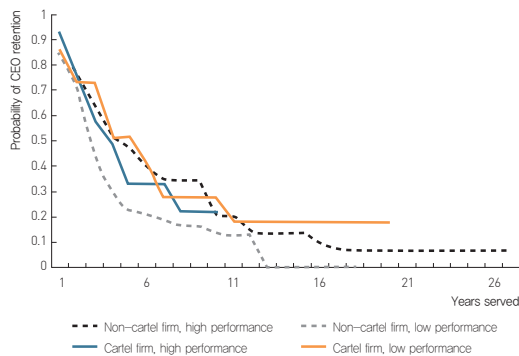
As the performance of the overall industry, and not the CEO's relative performance, increases, the chances of CEO replacement at cartel firms declines.

3) The subjects of this study include 155 listed companies in the manufacturing and construction sectors with a average asset volume of KRW 500 billion or more between 2007 and 2012. Among them, 59 enterprises were identified to have participated in collusion at least one time during the sample period. More detailed discussions can be found in Lee (2015).

4) Performance was evaluated with return on equity, and divided by 3-digit industrial category. Industrial performance was the median value of ROEs of companies in the industry, and relative performance was calculated by subtracting industrial performance from company's performance.

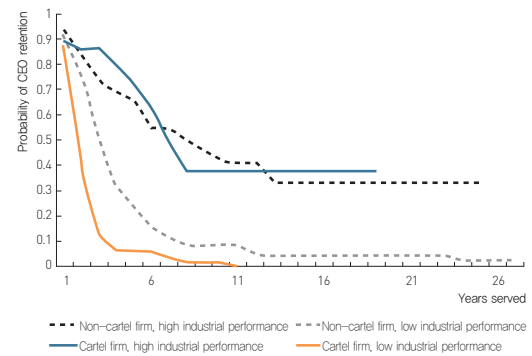
5) This study categorized companies into cartel firms if they were recognized as participating in collusion in the corresponding year under the Fair Trade Commission's decision, and the remaining firms were grouped as non-cartel firms. About 62% of research subjects had no record of forming a cartel during the documented period (2007 – 2012), and those that joined collusion even once had colluded for an average of 2.5 years.

**[Figure 1] Probability of CEO Retention According to Participation in Collusion and Relative Performance**



Note: 1) "High performance" to relative performance in the top 25% and "Low performance" to relative performance in the bottom 25%.  
2) Estimated risk of CEO replacement based on the Kaplan-Meier survival estimator.  
3) Only professional CEOs were subject to the analysis (non-family CEO).

**[Figure 2] Probability of CEO Retention According to Participation in Collusion and Industrial Performance**



Note: 1) "High performance" to relative performance in the top 25% and "Low performance" to relative performance in the bottom 25%.  
2) Estimated risk of CEO replacement based on the Kaplan-Meier survival estimator.  
3) Only professional CEOs were subject to the analysis (non-family CEO).

significantly lower chance of being reappointed than high-performing CEOs.

[Figure 2] is based on industrial performance and the results were deduced by dividing the data into the top 25% and bottom 25%, again in terms of relative performance. Unlike [Figure 1], however, it was revealed that the probability of CEO retention in cartel firms tends to be significantly lower in poor-performing industries than that in well-performing industries, compared to non-cartel companies.

The outcomes imply that cartel firms are less sensitive to relative performance compared to non-cartel firms, and that the absolute performance of the overall industry has more impact on the replacement of CEOs.

The above is supported when other variables are controlled. <Table 1> shows how the probability of CEO replacement changes in line with the previous year's performance. As it can be seen, relative performance is not statistically significant in the replacement of CEOs in cartel firms, while industrial performance exhibits a significant negative (-) correlation. That is, in cartel firms, the probability of CEO replacement tends to decline as industrial performance improves. Under the circumstances, CEOs feel more inclined to collude with rival companies to seek common interests; because common prosperity is not only beneficial for the group but also for the individual. In contrast, the probability of CEO replacement in non-cartel firms showed statistically significant growth if relative performance declines, providing CEOs with the incentive to work harder and compete for better results.

If the analysis subjects are limited to owner-family CEOs, CEO turnover sensitivity to relative performance was found to be low regardless of participation in collusion. In other words, putting aside the issues of representation and incentive for collusion, the punishment mechanism for low performance does not seem to work on owner families.

**In the case of owner-family CEOs, relative performance of the CEO does not determine replacement regardless of participation in collusion.**

&lt;Table 1&gt; Estimation Results of CEO Turnover Sensitivity to Performance

		CEO Replacement (=1)		
		Total Sample	Own-family CEO	Professional CEO
Cartel firms	Relative performance	0.228 (0.313)	-4.175 (3.828)	0.345 (0.307)
	Industrial performance	-1.389** (0.644)	-2.815 (2.573)	-1.491** (0.690)
Non-cartel firms	Relative performance	-0.439* (0.250)	-0.084 (0.584)	-0.438* (0.243)
	Industrial performance	-0.391 (0.394)	0.238 (1.530)	-0.336 (0.422)

Note: 1) Figures in brackets denote robust standard errors.

2) Estimated results of Cox PH model for CEO turnover.

3) \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

And although the result was not included in <Table 1>, it was found that the replacement risk of owner-family CEOs exhibited a meaningful increase only in times of overall economic stagnation. This indicates that the replacement of owner-family CEOs is not determined by ability or effort.

### III . Policy Proposal: Call for Board Independence to Improve Corporate Governance

Although the function of the CEO incentive mechanism is to tackle the issue of representation, the effects are not merely limited to the company as CEOs' decisions affect market competition. As such, the CEO incentive mechanism deserves more societal attention. However, such a mechanism is the company's decision to make, and not something that the government should directly address through policy. Still, the government can approach the issue by developing measures to boost the efficiency of the CEO incentive mechanism or to lower the expected benefits from collusion by strengthening the punishment of CEOs.

Above all, the government can consider direct measures to lower the expected benefits by reinforcing the penalties for CEOs upon the discovery of collusion. However, the effectiveness of this may be limited. Take for example, the stronger criminal punishment of CEOs who are found to be in collusion. Globally, there has been an upward trend in the criminal punishment of individuals involved in collusive activities. Indeed, in Korea, individuals can be criminally penalized under the Fair Trade Act. In reality, however, it is hard to find such a case. Moreover, as individuals involved in collusion are expected to face significantly heavy penalties, the courts may be lenient at the stage of cartel ruling. As a result, the impact of criminal punishment on the expected gains from collusion also becomes limited as the verdict of collusion becomes slim.

From a less direct perspective, policymakers could consider repressing cartel activities via policies to improve corporate governance, which would enhance CEO turnover sensitivity to relative performance. In this respect, the board of directors will play an important role

in management supervision and monitoring. This is because the board will be tasked with directly monitoring CEOs' decision-making and curbing their pursuit of personal interests. Accordingly, this study aims to examine how the CEO incentive mechanism is implemented in correlation to the independence of the board.

## 1. Board Independence and CEO Turnover Sensitivity to Performance

Under what circumstances does the performance sensitivity to CEO replacement become weaker? In Lee (2014), the author analyzed data on 100 Korean companies during 2010-2012 and identified that CEOs with relatively poor performance are less likely to be replaced at companies with a high percentage of outside directors who have personal connections, such as regional or academic, to the CEO.

Specifically, this study classified boards of directors into three groups based on the aforementioned connections: 1) "highly friendly" boards whose share of outside directors with social ties to the CEO is within the top 25% range; 2) "less friendly" boards whose share is in the bottom 25%; and 3) "somewhat friendly" boards whose share is in between the two. Based on this, the author estimated how sensitive CEO replacement is to relative performance in each of the three groups.

It was found that the chances of the CEO being replaced were not affected by the CEO's relative performance in the first group. In the third, however, the chances of CEO replacement increased 3.3-fold on average on a 6%p (1 standard deviation) drop in relative performance. In the second group, the chances soared as much as eightfold. This implies that an independent board is more active in replacing underperforming CEOs. The correlation was more noticeable when the analysis target was narrowed to just professional CEOs and not owner-family CEOs. Indeed, when it came to owner-family CEOs, no significant performance sensitivity was found to CEO replacement, regardless of the board's independence. Accordingly, the correlation between the punishment mechanism for underperforming CEOs and the independence of the board of directors only applies to professional CEOs. In contrast, the check-and-balance function of the board seems to lose effect for owner-family CEOs, regardless of personal connections.

Meanwhile, similar results were found in the correlation between the two factors when companies were divided into two groups: one with at least one objection from outside directors to a board agenda (including deferring or altering decisions and qualified approval) and the other without. In a board without any dissenting outside members, the chances of the CEO being dismissed during the following year increased an average of twofold on a 6%p (1 standard deviation) drop in relative performance. Meanwhile, in a board with opposing members, the chances surged by fivefold on average for the same level of decreasing performance. Given the probability that boards with more than one dissenting vote exhibit stronger independence than those without, it can be said that

Underperforming CEOs have more chances of keeping their jobs in a company whose board has a high proportion of outside directors with social connections to the CEO or does not have dissenting outside directors.

underperforming CEOs in an independent board have more difficulties in retaining their position.

## 2. Board Independence and Collusion

Going back to the research that compares cartel firms with non-cartel firms, the board of the former is found to be less independent than that of the latter, meaning that a lack of board independence has a positive effect on the formation and persistence of cartels.

Firstly, there was little difference in the outside director ratio between cartel firms and non-cartel firms. However, the share of those with social ties to the CEO among outside directors showed a significant difference, posting an average of 46% and 38%, respectively. This proves that the boards of cartel firms are closer with the CEO. Furthermore, in cartel firms, outside directors with social ties to the CEO are approximately 42% less likely to leave than those without such ties, which suggests that those who are friendlier with the CEO tend to remain longer in their posts. This is not the case in non-cartel firms.

It is rare that outside directors oppose board agendas, and it is more so in cartel firms. From the 23,270 board agenda items included in the entire sample, there were only 50 cases (0.21%) in 16 companies, with at least one dissenting vote. And considering that dissenting votes are even scarcer in cartel firms, there were only two cases (0.04%) in two companies.

Although the scarcity of dissenting votes may ignite controversy over whether there is any significance in the difference, there have been media reports on the fact that not one dissenting vote has been observed in the construction industry, which is well-known for the prevalence of collusion.<sup>6)</sup> Besides, the study found that, if an outside director votes against the board, he/she faces a considerably higher risk of dismissal. This phenomenon is much more evident in cartel firms.

An analysis on the probability that collusion ends, with the corporate characteristics controlled, revealed that the more there are of outside directors with social ties to the CEO, the slimmer the chances are that collusion will stop. This implies that the collusion will persist for a longer period when boards are friendly with CEOs. The findings also support the fact that a board with a lack of supervisory capabilities builds an environment which enables CEOs to participate in collusion activities. As mentioned earlier, the punishment system for underperforming CEOs will most probably be ineffective in this type of board. Accordingly, it can be assumed that companies with a board of directors that is friendly with the CEO may induce more collusion.

Gonzalez *et al.* (2013), who analyzed US cartel firms, also argues that boards with weak monitoring functions tend to participate in collusion. To be more specific, cartel companies

**In cartel firms, the boards have a higher proportion of outside directors with social ties to the CEO, and they serve longer terms.**

6) Yonhap Infomax, "<Outside directors of construction companies-②> No oppositions...10-year consecutive appointment in some cases," 2014. 3. 25 (<http://news.einfomax.co.kr/news/articleView.html?idxno=101231>, log-in date: Nov. 16, 2016).



Outside directors in cartel firms are less likely to oppose board agendas than those in non-cartel firms and are more likely to be replaced if he/she dissents.

often appoint outside directors who are hardly likely to attend board meetings as they reside overseas or simultaneously serve directorship in multiple companies. Moreover, these companies tend not to appoint new members when such an outside director retires. The authors interpreted this result to mean that companies involved in illegal activities prefer a board of directors that is passive in its supervisory and monitoring duties.

Overall, cartel firms lack both board independence and supervision compared to their competing counterparts. Therefore, this raises the hope that measures to improve corporate governance by strengthening board independence and providing bigger incentives to CEOs that are more in line with relative performance can also serve as a deterrent for collusion.

To enhance the independence of boards, it is necessary to limit CEOs' influence in the appointment and reappointment of outside directors (refer to Kim•Lee [2015]). Meanwhile, a proper incentive mechanism should be devised based on performance indicators that can catch the genuine ability and efforts of CEOs to promote competition.

Collusion can be deterred by strengthening independence of the board and implementing proper monitoring and punishment mechanism for underperforming CEOs.

Additionally, if the market for outside directors is reinvigorated for the long-term, they could play a more active role. Campello *et al.* (2015) proved in a US document that when a company is indicted on collusion charges, their share value drops less if they have a large share of outside directors. Moreover, it was discovered that companies with more outside directors are more likely to ask for leniency, in an attempt to minimize the corporate damages resulting from the collusion charges. The report believes such a tendency is derived from outside directors who are proactive in times of corporate crisis, out of concern for their career. This mechanism can also work for the market for outsider directors in Korea if the market becomes larger and more mature in the future.

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