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경영학 석사학위논문

**The Effect of  
CEO Compensation Structure  
on CSR Disclosure**

경영자의 보상구조가  
CSR 공시에 미치는 영향

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권 세 원

# **The Effect of CEO Compensation Structure on CSR Disclosure**

Kwon, Sewon

College of Business Administration

Seoul National University

**Abstract:** The determinants of CSR disclosure are not yet studied much. In this research, using traditional voluntary disclosure studies' framework, I connect CEO compensation structure with CSR disclosure. I find that if CEO's stock compensation and debt compensation become higher, the firm discloses CSR report more frequently. These results are robust if I replace the level of CEO stock and debt compensation with relative ratio of CEO's stock and debt compensation in total compensation or log value of CEO's stock and debt compensation. Furthermore, although the founder CEO does not issue CSR disclosure frequently(Chen et al. 2008), if the founder CEO receives much stock compensation, the probability to issue CSR report increases.

**Keywords:** CEO Compensation structure; CSR report; Voluntary disclosure; Founder CEO

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## 1. Introduction

In recent 10 years, many firms are increasingly willing to voluntarily issue standalone corporate social responsibility (“ CSR” hereafter) reports. By GRI<sup>1</sup>, CSR reports cover economic performance, environment performance, labor practice, human rights, society performance, and product responsibility performance which traditional annual reports did not mention much. According to CorporateRegister.com<sup>2</sup>, only few U.S. firms disclosed standalone CSR reports before mid-1990s. However, after that, more U.S. firms issued CSR disclosure, and over 46 percent of non-financial S&P 500 firms<sup>3</sup> disclosed CSR reports in 2011. This rapid increase in CSR reports makes academic researchers pay attention to the nature of this voluntary disclosure. What is the determinant of CSR disclosure(Harjoto and Jo. 2011)? What is the effect of CSR disclosure? Is it beneficial to the shareholder or the debt holder(Dhaliwal et al., 2011;Dhaliwal et al., 2012)? Does firm get benefits from CSR disclosure? Especially, can we interpret CSR disclosure as traditional research frameworks such as voluntary disclosure framework?

Prior studies find that voluntary disclosure is beneficial to the stakeholders. By reducing information asymmetry, disclosure increases stock liquidity and

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<sup>1</sup> GRI is the most widely used global reporting rules for CSR reporting. You can find more detailed information about GRI at the homepage(<http://www.globalreporting.org/>).

<sup>2</sup> CorporateRegister.com([www.CorporateRegister.com](http://www.CorporateRegister.com)) is a company that gathers and analyzes CSR reports.

<sup>3</sup> 178 firms over 385 non-financial S&P 500 firms disclosed CSR report at 2011.

lowers firm's cost of capital(Glosten and Milgrom, 1985;Botosan, 1997;Dhaliwal et al., 2011;Dhaliwal et al., 2012). Voluntary disclosure improves corporate governance and asset, stewardship, thus reducing shareholder managers' agency problems such as shirking and perquisite consumption(Bushman and Smith 2001). In debt holder side, debt rating is negatively associated with voluntary disclosure score(Francis et al 2008) and corporate disclosure quality decreases cost of debt(Sengupta. 1998).

Nagar et al.(2003) found that CEO compensation structure is one of important determinant of voluntary managerial forecast. They found that if a firm increase stock compensation, then the manager increases voluntary managerial forecast, because CEO compensation structure aligns the interest of the CEO and the interest of stock holders.

In this paper, I examine the effect of CEO compensation structure on CSR disclosure by using traditional voluntary disclosure framework(Nagar et al. 2003). Using hand collected S&P 500 firms' CSR disclosure data from 2006 to 2011, I find that if CEOs' stock compensation and debt compensation become higher, then CEOs issue CSR reports. This result is robust if I change the amount of CEO stock compensation and debt compensation with the relative ratio of stock compensation and debt compensation. Furthermore, assuming the negative change of debt compensation is 0, I also find the main result is robust.

Chen et al.(2008) found that family firms disclose less voluntary managerial forecast than non-family firms. To strengthen the main result, I investigate whether CEOs who have low incentives to disclose will also change their disclosure activity based on stock compensation and debt compensation. I find that founder CEOs are less likely to issue CSR reports than Non founder CEOs are. Furthermore I find that even founder CEO, if his/her stock compensation is bigger, then the probability to disclose CSR is higher.

There are three contributions of this paper. First, I find that CEO compensation structure has a substantial explanatory power to explain the CEO's decision to disclose CSR. Second, we can analyze CSR disclosure, using traditional voluntary disclosure framework. Third, the main result supports efficient contract theory. CEO's stock or debt compensation can be aligned with the interest of CEO and stakeholder.

Section II develops my hypotheses. Section III describes my sample and methodology. Section IV presents empirical evidence on the relation between CEO compensation structure and CSR disclosure. Section V summarizes and concludes.

## **2. Hypothesis Development**

### ***2.1 Corporate Social Responsibility Disclosure***



Up to now, there is no regulation in U.S. to force a firms' disclosure related to CSR activity regularly. So, CSR reports are entirely voluntary disclosure. In addition, different from annual reports or 10-Ks, standard CSR reports contain various information. In table 1, I summarize the relative percentage of GRI indicators<sup>4</sup>. Only 11% of indicators are related with economic factors, but 37% of indicators are related with environment factors. The other 42 percent indicators contains labor, human rights, society activities, and product responsibility. Consequently, CSR reports contain new valuable information to stakeholder which was not well covered by annual reports or 10-Ks<sup>5</sup>. Furthermore, firm's voluntary standalone CSR report indicates its devotedness to provide incremental information. As a result, CSR disclosure can reduce a firm's cost of capital and analyst forecast error(Dhaliwal et al., 2011;Dhaliwal et al., 2012).

[INSERT TABLE 1 AROUND HERE]

Although, value relevance of voluntary CSR disclosure is similar to that of voluntary managerial forecast, there is three differences between CSR disclosure and managerial forecast. First, CEOs can manage time horizon of

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<sup>4</sup> GRI suggests 81 important indicators for CSR reports. CSR reports do not need to contain all these 81 indicators. However, these indicators are widely used in CSR reports.

<sup>5</sup> Based on Dhaliwal et al.(2011), on average, standalone CSR reports are significantly longer (28.3 pages versus 1.5 pages) and cover significantly more CSR issues (6.4 issues versus 1.5 issues) compared to annual reports or 10-Ks.

disclosure. Because CSR reports are only issued once per several years<sup>6</sup>, and have no regulation about disclose date. Second, there is no consensus between stakeholders that CSR reports should be issued frequently. If the CSR performance of 2006 is good, but that of 2007 is bad, CEOs can disclose both 2006 and 2007 CSR activity in 2008 and can issue moderate tone about firm's CSR performance. Third, there is no legal regulation about CSR disclosure contents. GRI or other CSR reporting guides are voluntary rules.

## ***2.2 The Effect of CEO compensation structure on CSR disclosure***

CEOs have private information about firm's risk and future profit because they are closer to firm activities than shareholders are (Jensen and Meckling, 1976). This private information is valuable to shareholders for three reasons. First, the disclosure of private information lowers a firm's cost of equity by decreasing information asymmetry (Botosan, 1997; Dhaliwal et al., 2011; Dhaliwal et al., 2012). More disclosure also increases stock liquidity, because information asymmetry is reduced (Glosten and Milgrom, 1985). Third, the disclosure enhances corporate governance and asset stewardship. So the voluntary disclosure of managers' private information can mitigate manager's agency problems such as shirking and perquisite consumption (Bushman and

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<sup>6</sup> In my sample, only 46% of S&P 500 firms disclose CSR reports. This result indicates that firms disclose CSR report once in two years.

Smith, 2001).

But voluntary disclosure generally reduces manager's rent extraction. Insufficient disclosures weaken investors' ability to control managers. As a result, managers become entrenched, reducing the chance of replacement (Shleifer and Vishny, 1989). Self-interested managers have incentives to aggravate information asymmetry by selecting projects that maximize their own interest (Edlin and Stiglitz, 1995). Consequently, without more incentives (e.g. compensation) for disclosure, CEOs would not disclose their private information (Jensen and Meckling, 1976; Nagar, 1999).

Nagar et al. (2003) find that stock-based compensation effectively promotes managerial forecast, because 1) stock compensation is based on price, which is a timely performance measure, 2) the price formation process reflects both quality and quantity of the contents that are disclosed, and 3) stock compensation encourages not only the disclosure of good news but also that of bad news. CSR report is one of the "good" news disclosures, because the basic assumption of CSR report is that a firm would not issue CSR report without "real" CSR activities. For example, CSR report covers much of firm's environmental activities. Recently, environmental information of the firm is closely monitored by its stakeholders including stock market participants. Matsumura et al. (2012) find that the firm value increases, if a firm reports a decrease in carbon emissions. This result is due to the fact that firm's

enhanced reputation for environmental responsibility can bring economic benefits from the broader stakeholder community. CSR disclosure is one of the important sources for the firm's environment information to the public. As a result, through issuing carbon emissions decrease through CSR report, a firm can increase own firm value. So managers might issue CSR report to increase the firm value, and managers' wealth would be also higher, if they are granted stock-based compensation.

In this paper, I focus on the role of stock-based incentives in inducing CSR disclosure. Stock holdings capture the extent to which stock price directly affects managerial wealth. If the market rewards better disclosure policies such as CSR disclosure, then managers with greater shareholdings will derive greater benefits from their disclosures. So I argue that CEOs who have high stock compensation are more likely to disclose CSR report for their interests. This logic suggests my first hypothesis:

*H1: If CEOs' stock compensation increases, then CSR disclosure increases.*

Similar to the case of shareholders, there are several studies suggesting that private information of CEO is also valuable to debt holders. Francis et al.(2009) find that firms with higher credit rating (e.g. AAA) have higher

voluntary disclosure score<sup>7</sup>. Corporate disclosure quality, measured by AIMR score, is negatively associated with a firm's cost of debt (Sengupta, 1998). However, since more disclosure reduces CEO's ability to extract rents self-interested CEO would not reveal his/her private information without proper incentives to do so (Jensen and Meckling, 1976).

I argue that CEO's debt compensation encourages voluntary disclosure- especially CSR disclosure. This is because the wealth of debt holder is positively associated with the frequency of voluntary disclosure, and debt compensation of CEO aligns the interests of debt holders with the interests of the CEO. Defined benefit pensions and deferred compensation- "inside debt" contracts- are not guaranteed and not funded in many U.S. firms. So the default risk of CEO's debt compensation is same as the default risk of debt. CEOs with large inside debt holdings protect the value of their holdings by performing less risky project and financial policies (Cassel et al., 2012). Large inside debt contracts lead CEOs to avoid risk project and to keep liquidity in patterns which might be attractive to the other lenders. (Jensen and Meckling, 1976; Edmans and Liu, 2011). So, CEO's debt compensation causes CEOs to be on the same side of debt holder.

Overall, more disclosures of good news lead to better credit rating and

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<sup>7</sup> Voluntary disclosure score is a proxy for voluntary disclosure. Francis et al. constructed voluntary disclosure score using 677 firms' annual reports and 10-K filings in fiscal 2001.

lower cost of debt. To the extent that good news is beneficial for debt holders and CSR report conveys good news to the debt market participants, I expect that the CEOs who has large inside debt could be incentivized to disclose their private information. My second hypothesis as follows.

*H2: If CEO's debt compensation increases, then CSR disclosure increases.*

### **2.3 The CSR disclosure decision of founder CEO**

To investigate the relation between CEO compensation structure and CSR disclosure frequency more deeply, I investigate whether CEOs who have low incentives to disclose will also change their disclosure activity based on stock compensation and debt compensation. Family firm's unique ownership structure has important implications for their voluntary disclosure practices(Chen et al., 2008). Family owners have a longer investment horizon than other shareholders(Anderson et al., 2003). This implies that timely benefit of disclosure, such as trading profits, are less attractive to the family owners(McNichols and Trueman, 1994). In addition, family owners' direct management in firms' activities make lower information asymmetry between managers and family owners. Furthermore family owners can monitor managers more effectively. As a result the demand for disclosure about manager's proprietary information is lowered due to the substitutive relation between direct monitoring and public disclosure (Bushman et al., 2004). But

family firms also have incentives to voluntarily disclose bad news to avoid litigation risk. Withholding bad news imposes reputation costs, since investors dislike negative earnings surprises (Skinner, 1994). Following this argument, Chen et al.(2008) found that relative to nonfamily firms, family firms are less likely to issue long-run forecasts and short-run good news forecasts, but interestingly, they are more likely to issue bad news earnings warnings. CSR disclosure focuses long term relationship between firm and stakeholders and is consist of good news. Consequently, I argue that founder CEO are less likely to disclose CSR report.

*H3: Founder CEOs are less likely to issue CSR report.*

#### ***2.4 The effect of founder CEO compensation structure on CSR disclosure***

Founder CEOs are less concern about trading profits than nonfamily shareholder, because they have a longer investment horizon than other shareholder (Anderson et al., 2003). So I predict that founder CEO is less likely to issue voluntary disclosure. But I argue that the interest of CEO is tied to the interest of stake holders, CEO issues more voluntary CSR disclosure. So my hypothesis 4 and 5 are as follows:

*H4: If founder CEO's stock compensation increases, even founder CEO increases CSR disclosure.*

*H5: If founder CEO's debt compensation increases, even founder CEO*

*increases CSR disclosure.*

### **3. Sample and Research Design**

#### ***3.1 Data and sample selection***

Following prior studies(Simnett et al., 2009;Dhaliwal et al., 2011; Dhaliwal et al., 2012), I collect S&P 500 firms' standalone CSR reports from Corporate Register.com(www.corporateregister.com). My research covers the period from 2006 to 2011, because debt compensation data is available from 2006. In order to obtain the required financial information, I use Compustat and CRSP database. I use Execucomp database for my CEO characteristic variables. I excluded financial firms(SIC codes 6000-6999) from the sample, because characteristic of financial firms are different form the other firms. My final sample is 2,302 firm-year observations. To mitigate any undue influence from outliers, I winsorize all variables at the top and bottom 1%.

#### ***3.2 Research Design***

To test my hypothesis, I use probit model. The probit model estimates the effect of explanatory variables on the probabilities of dependent variable. All regressions in Section III are estimated with Huber-White robust standard errors clustered by firm. These standard errors are robust to both serial correlation and heteroskedasticity (Rogers 1993). In the probit model, I



control for other determinant of CSR disclosure to eliminate potential confounding effects. Because CSR disclosure decision is one of a firm's overall voluntary disclosure strategy, I add possible factors from voluntary disclosure studies(Nagar et al. 2003;Chen et al., 2008) and CSR studies(Dhaliwal et al., 2011;Dhaliwal et al., 2012). My probit regression model for H1, H2, and H3 are specified as follows:

$$\begin{aligned}
 CSR_t = & Stockcomp_t + Debtcomp_t + Founder\_CEO_t + LogTA_t + Btm_t \\
 & + Leverage_t + ROA_t + Ret_t + Ownership_t + Litigation_t + Competition_t \\
 & + Year\ Effects + Industry\ Effects + \varepsilon_t .
 \end{aligned}
 \tag{1}$$

My main interest variable is STOCKCOMP, DEBTCOMP, and FOUNDER\_CEO. STOCKCOMP means the amount of a CEO's stock compensation(stock grant and option grant) during the fiscal year. DEBTCOMP means the change of a CEO's debt compensation(deferred compensation and pension) balance during the fiscal year. FOUNDER\_CEO is 1 if CEO is the founder of a firm, and 0 otherwise.

I control for firm size(LogTA), because size captures various factors motivating firms to issue disclosure such as public pressure or financial resources(Lang and Lundholm, 1993). I use size as the natural log of total asset. Growth firms have greater information asymmetry and agency costs (Verrecchia, 1990), and hence growth firms are expected to disclose more information than non-growth firms are(Eng and Mak, 2003). So I include

book-to-market ratio(BTM) that is calculated as the book value of equity at fiscal year-end divided by the market value at fiscal year-end.

I also control the debt ratio of a firm(LEVERAGE), because debt holders demand greater disclosure(Leftwich et al., 1981). LEVERAGE is calculated by the ratio of total debt divided by total assets. If a firm achieves good financial performance, the firm can allocate much resource to the CSR activities and disclosure. So I add return on assets(ROA) and stock return(RET) to the regression. ROA is computed as net income divided by the value of total asset at the fiscal-year-end. RET is calculated by monthly compounded annual stock returns. In addition the portion of CEO's ownership affects the disclosure strategy of the firm. For example, if a CEO owns 100 percent of the firm(family firms), the demand to provide more disclosure is low. But if a CEO owns only some percentage of share and he is not the owner of the firm(largest shareholder), because his wealth is tied to the firm's share value, he might disclose more reports. So I include OWNERSHIP. OWNERSHIP is the percentage of CEO stock holdings at the fiscal-year-end.

Litigation risk(LITIGATION) makes firms issue more voluntary disclosure to avoid potential lawsuit(Skinner, 1997). LITIGATION is an indicator variable that is 1, if a firm owns high litigation industries(SIC codes of 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370), and 0 otherwise(Francis et al.1994;Chen et al., 2008;Dhaliwal et al.,2011).

Proprietary costs arising from product market competition can reduce disclosure incentives(Dye, 1985). So I include Herfindahl-Hirschman Index multiplied by -1 (COMPETITION) to control for industry competition. I calculate this index by summing the squares of the market shares of all companies in industry. The firm's market share is calculated by a firm's sales over total sales of all companies in an industry. I define industry based on two digit SIC codes.

In addition, I perform a robustness test to address my hypotheses. I exchange compensation variables(STOCKCOMP, DEBTCOMP) with compensation ratio(STOCKCOMP(r), DEBTCOMP(r)). STOCKCOMP(r) means stock compensation divided by total compensation<sup>8</sup>. DEBTCOMP(r) means debt compensation divided by total compensation.

$$\begin{aligned}
 CSR_t = & Stockcomp(r)_t + Debtcomp(r)_t + Founder\_CEO_t + LogTA_t \\
 & + Btm_t + Leverage_t + ROA_t + Ret_t + Ownership_t + Litigation_t \\
 & + Competition_t + Year Effects + Industry Effects + \varepsilon_t .
 \end{aligned} \tag{2}$$

Negative CEO's debt compensation change does not mean that a firm diminishes its CEO's compensation. Rather, this decrease might mean the decrease in the value of pension fund that is not correlated with firm's operating activities. So I exchange DEBTCOMP with LOGDEBTCOMP.

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<sup>8</sup> Total compensation is the sum of stock compensation, debt compensation, current compensation(salary and bonus), and other compensation.

LOGDEBTCOMP is computed as the natural log value of debt compensation plus 1 million, if the value is positive, and 0 otherwise. Also I exchange STOCKCOMP with LOGSTOCKCOMP. LOGSTOCKCOMP is calculated by the natural log value of stock compensation plus 1 million.

$$\begin{aligned}
 CSR_t = & \text{Logstockcomp}_t + \text{Logdebtcomp}_t + \text{Founder\_CEO}_t + \text{LogTA}_t \\
 & + \text{Btm}_t + \text{Leverage}_t + \text{ROA}_t + \text{Ret}_t + \text{Ownership}_t + \text{Litigation}_t \\
 & + \text{Competition}_t + \text{Year Effects} + \text{Industry Effects} + \varepsilon_t .
 \end{aligned} \tag{3}$$

To test H4 and H5, I include two interaction term, FOUNDER\_CEO\*STOCKCOMP, and FOUNDER\_CEO\*DEBTCOMP. I argue that coefficients of these two interaction terms might be positive. My probit regression model to test H4 and H5 is as follows:

$$\begin{aligned}
 CSR_t = & \text{Stockcomp}_t + \text{Founder\_CEO} * \text{Stockcomp}_t + \text{Debtcomp}_t \\
 & + \text{Founder\_CEO} * \text{Debtcomp}_t + \text{Founder\_CEO}_t + \text{LogTA}_t + \text{Btm}_t \\
 & + \text{Leverage}_t + \text{ROA}_t + \text{Ret}_t + \text{Loss}_t + \text{Ownership}_t + \text{Litigation}_t \\
 & + \text{Competition}_t + \text{Year Effects} + \text{Industry Effects} + \varepsilon_t
 \end{aligned} \tag{4}$$

## 4. Results

### 4.1 Descriptive Statistics

[INSERT TABLE 2 AROUND HERE]

Panel A of Table 2 provides descriptive statistics for the variables included

equations. About 42% firms disclosed CSR report from 2006 to 2011. Average stock compensation of CEO is 6 million dollars and average debt compensation of CEO is 1 million dollars. The median of STOCKCOMP and DEBTCOMP is smaller than the mean value of STOCKCOMP and DEBTCOMP, so the distribution of CEO's stock compensation and debt compensation is right skewed. However, the mean of STOCKCOMP(r) is similar to the median value. The percentage of Founder CEO in total sample is 4.9% and the average CEO ownership is 0.85%.

Panel B of Table 2 describes the descriptive statistics for the CSR disclose firms and non CSR disclose firms. Stock compensation and debt compensation of CSR firms are higher than those of non CSR firms in 2.223million dollars and 0.952 million dollars, respectively. The relative ratio of stock compensation in total compensation in CSR firms is 1.5% higher than that in non CSR firms. Furthermore, the relative ratio of stock compensation in total compensation in CSR firms is 4.7% higher than that in non CSR firms. In addition, the probability of Founder CEO is higher in non CSR firms than in CSR firms. Book to market ratio in CSR firms is 0.033 higher than that in non CSR firms. Panel C of Table 2 reports sample distribution across years. The number of CSR reports increases rapidly from 2008. But the number of CSR reports decreases in 2011. The amount of CEO's debt compensation decreases from 2006 to 2008, but rebounds in 2009 and monotonically

increases from 2009 to 2011.

[INSERT TABLE 3 AROUND HERE]

Table 3 presents Pearson correlation matrix for key variables. STOCKCOMP is significantly and positively associated with CSR. DEBTCOMP is also significantly and positively correlated with CSR. FOUNDER\_CEO and CSR is significantly and negatively associated with CSR. In short, this evidence suggests that CEO who earns high stock compensation or debt compensation is more likely to disclose CSR reports. and that Founder CEO is less likely to issue CSR disclosure.

#### ***4.2 The effect of CEO compensation structure on CSR disclosure***

[INSERT TABLE 4 AROUND HERE]

Table 4 presents the results of probit regression that tests the equation (1). Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm. In column (1), I only include control variables. In column (2), and (3), I include main independent variable STOCKCOMP and DEBTCOMP separately. In column (4), I include both STOCKCOMP and DEBTCOMP in the regression model.

Consistent with my hypothesis 1, the result of column (2), and (4) suggest that higher stock compensation of CEO(STOCKCOMP) raises the probability of CSR disclosure(coefficient = 0.014, z-statistic = 2.30; coefficient = 0.013,

z-statistic = 2.22, in column (2) and (4), respectively). Also consistent with hypothesis 2, the results of column (3), and (4) indicate that debt compensation of CEO(DEBTCOMP) is significantly and positively associated with and CSR disclosure. The coefficient of DEBTCOMP is 0.071(z-statistic = 2.55) and 0.070(z-statistic=2.50) in column (3) and (4), respectively. The coefficients of FOUNDER\_CEO in all columns are negative and statistically significant in all columns. This results support hypothesis 3. If CEOs are founder, the probability to disclosure CSR report lowers.

The coefficient estimate of the LogTA is positive and statistically significant. This result means that public pressure captured by firm's size is higher, then the probability of CSR disclosure becomes higher(Lang and Lundholm, 1993). BTM is significantly and negatively correlated with CSR. As I predict, the firm which has greater information asymmetry and agency problem issue more CSR reports(Verrecchia, 1990; Eng and Mak, 2003).

#### ***4.3 The effect of CEO compensation structure on Founder CEO's disclosure decision***

[INSERT TABLE 5 AROUND HERE]

In table 5, I add two interaction terms, FOUNDER\_CEO\*STOCKCOMP and FOUNDER\_CEO\*DEBTCOMP, to test H4. As I mentioned in section III, using founder CEO as the proxy for CEO who has low incentive to disclose

voluntary CSR reports. Although, the results of interaction terms(FOUNDER\_CEO\*STOCKCOMP and FOUNDER\_CEO\*DEBTCOMP) in column (1) and (2) are not statistically significant, in column (3), FOUNDER\_CEO\*STOCKCOMP is positive and statistically significant. This result weakly supports hypothesis 4, indicates that even founder CEOs, if they earn more stock compensation, they disclose more CSR reports. But FOUNDER\_CEO\*DEBTCOMP has no relation across all columns and this result does not support H5. The reason why H5 is not supported is that CEOs are more concerned about hidden information than about debt compensation value. The coefficients of the other control variables in table 7 are similar to the result of table 4.

#### ***4.4 Additional Analysis***

[INSERT TABLE 6 AROUND HERE]

Table 6 and table 7, I conducted robustness test for H1, H2, and H3. In table 5, I exchange STOCKCOMP and DEBTCOMP with the relative ratio of compensation variables(STOCKCOMP(R) and DEBTCOMP(R)). The results are similar to the result of table 4. Both STOCKCOMP(R) and DEBTCOMP(R) are positive and statistically significant. These results suggest that the relative ratio of stock compensation and debt compensation of CEO causes more voluntary CSR disclosure. Same as table 4, the coefficients



of FOUNDER\_CEO in all columns are negative and statistically significant in all columns.

[INSERT TABLE 7 AROUND HERE]

Sometimes a firm cuts its CEO's debt compensation due to the low firm performance. However in some cases, negative change of CEO's debt compensation indicates the decrease in the value of debt compensation (e.g. decrease in the value of pension plan). This decrease originates from decreased cash flow of pension plan. So, the change in value of pension trust is not related with the firm's operating activities. In table 7, I exchange STOCKCOMP and DEBTCOMP with LOGSTOCKCOMP and LOGDEBTCOMP. The log value of debt compensation makes the value of negative debt compensation be 0. The results indicate higher log value of stock compensation and higher log value of debt compensation raise the probability of CSR disclosure. The coefficient of FOUNDER\_CEO also has significant negative sign that I predicted in H3. In short, the results support H1, H2, and H3.

## **5. Conclusion**

In this paper, I tested CSR in traditional voluntary disclosure framework and find that higher CEO's stock compensation and debt compensation lead to CEO to issue more CSR disclosure. In addition, I find that same as Chen et

al.(2008) founder CEO does not disclose voluntary CSR disclosure and if founder CEO's stock compensation becomes higher, even founder CEO disclose CSR reports.

My research has some caveats. First, most of the control variables that I use in the CSR determination model are obtained from the traditional voluntary disclosure studies. If the characteristic of CSR disclosure is different from voluntary disclosure such as managerial forecast, there might be omitted variables in my regression. Second, because I hand collected data from Corporate Register.com, if the website missed some reports, I would also lost some data. Third, I do not examine the quality of CSR disclosure. Although these caveats exist, my research widens the understanding about the determinant of CSR disclosure.

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**TABLE 1**The indicators of GRI report

<b>Variables</b>	<b>Number of indicators</b>	<b>%</b>
<i>Economic performance indicator</i>	9	11.1%
<i>Environment performance indicator</i>	30	37.0%
<i>Labor Practices and Decent Work performance indicator</i>	14	17.3%
<i>Human Rights performance indicator</i>	11	13.6%
<i>Society performance indicator</i>	8	9.9%
<i>Product responsibility performance indicator</i>	9	11.1%
<i>Total</i>	81	100.0%

**TABLE 2 Descriptive Statistics of the Sample**

**Panel A: Full Sample**

<b>Variables<sup>a</sup></b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Q1</b>	<b>Median</b>	<b>Q3</b>
<i>CSR</i>	2,302	0.424	0.494	0.000	0.000	1.000
<i>Stockcomp</i>	2,158	6.043	6.703	2.483	4.579	7.603
<i>Debtcomp</i>	2,166	1.031	1.767	0.000	0.157	1.429
<i>Stockcomp(r)</i>	2,154	0.501	0.230	0.377	0.535	0.660
<i>Debtcomp(r)</i>	2,154	0.083	0.113	0.000	0.018	0.143
<i>Founder_CEO</i>	2,302	0.049	0.215	0.000	0.000	0.000
<i>LogTA</i>	2,302	9.245	1.158	8.409	9.158	10.083
<i>Btm</i>	2,268	0.438	0.287	0.235	0.376	0.587
<i>Leverage</i>	2,291	0.564	0.189	0.438	0.571	0.693
<i>ROA</i>	2,302	0.071	0.075	0.035	0.069	0.109
<i>Ret</i>	2,277	0.136	0.450	-0.122	0.094	0.316
<i>Ownership(%)</i>	2,302	0.85%	3.23%	0.000	0.03%	0.22%
<i>Competition</i>	2,302	-0.220	0.166	-0.258	-0.164	-0.118
<i>Litigation</i>	2,302	0.271	0.445	0.000	0.000	1.000

**Panel B: Breakdown of Sample by CSR disclosure**

<b>Variables<sup>a</sup></b>	<b>CSR=1 (CSR firms)</b>		<b>CSR=0 (Non CSR firms)</b>		<b>Diff<sup>b</sup></b>		<b>t-statistic</b>
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>			
<i>Stockcomp</i>	7.304	5.769	5.081	3.869	2.223	***	7.74
<i>Debtcomp</i>	1.573	0.739	0.620	0.000	0.952	***	12.89
<i>Stockcomp(r)</i>	0.509	0.534	0.494	0.535	0.015		1.50
<i>Debtcomp(r)</i>	0.110	0.072	0.063	0.000	0.047	***	9.74
<i>Founder_CEO</i>	0.034	0.000	0.060	0.000	-0.026	***	-2.85
<i>LogTA</i>	9.853	9.876	8.797	8.742	1.056	***	24.23
<i>Btm</i>	0.457	0.416	0.424	0.357	0.033	***	2.71
<i>Leverage</i>	0.592	0.597	0.543	0.550	0.049	***	6.15
<i>ROA</i>	0.069	0.066	0.072	0.071	-0.003		-0.98
<i>Ret</i>	0.136	0.116	0.137	0.082	-0.001		-0.06
<i>Ownership(%)</i>	0.67%	0.03%	0.99%	0.04%	-0.32%	**	-2.33
<i>Competition</i>	-0.209	-0.159	-0.228	-0.170	0.018	***	2.63
<i>Litigation</i>	0.260	0.000	0.279	0.000	-0.019		1.03



**TABLE 2 Descriptive Statistics of the Sample(Continued)**

**Panel C: Sample distribution by year**

<b>Year</b>	<b>No. of Firms</b>	<b>No. of CSR reports</b>	<b>Amount of Stock Compensation</b>	<b>Amount of Debt Compensation</b>
<b>2006</b>	382	113	5.923	0.984
<b>2007</b>	383	125	5.941	0.889
<b>2008</b>	383	158	6.336	0.878
<b>2009</b>	384	187	5.327	1.094
<b>2010</b>	385	216	6.299	1.100
<b>2011</b>	385	178	6.432	1.244

The total sample is 2,302 firm-year observations and S&P 500 firms for the period of 2006-2011. Data for CSR disclosure is hand collected from Corporate Register([www.corporateregister.com](http://www.corporateregister.com)). CEO compensation variables are obtained from EXECOMP database. Return data and financial data are obtained from CRSP and COMPUSTAT, respectively. The top and bottom 1% of the continuous variables are winsorized at 1%.

a Variable Definitions:

- CSR* = 1 if a firm discloses CSR during the fiscal year, and 0 otherwise;
- Stockcomp* = stock compensation(stock grant and option grant) of CEO during the fiscal year(in millions of dollar);
- Debtcomp* = debt compensation(deferred compensation and pension) of CEO during the fiscal year(in millions of dollar);
- Stockcomp(r)*= stock compensation divided by the sum of current compensation, stock compensation, debt compensation, and other compensation;
- Debtcomp(r)*= debt compensation divided by the sum of current compensation, stock compensation, debt compensation, and other compensation;
- Founder\_CEO*= 1 if CEO is the founder of a firm, and 0 otherwise;
- LogTA*= log value of total asset at fiscal-year-end;
- Btm*= the book value of equity at fiscal year-end divided by the market value at fiscal year-end;
- Leverage*= total debt divided by total assets;
- ROA*= net income divided by the value of total asset at the fiscal-year-end;
- Ret*= monthly compounded annual stock returns;
- Ownership*= the percentage of CEO stock holdings at the fiscal-year-end;
- Competition* Herfindahl-Hirschman Index multiplied by -1. The Herfindahl-Hirschman Index is calculated by summing the squares of the market shares of all companies in industry. The firm's market share is calculated by a firm's sales over total sales of all companies in an industry. I define industry based on two digit SIC codes;

*Litigation* indicator variable that equals 1 if the firm operates in a high-litigation industry (SIC codes of 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370), and 0 otherwise;

*Industry Fixed Effect*= industries are clustered by two-digit SIC codes.

b Diff means the difference between the mean of variables in CSR =1 and those in CSR=0. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively

**TABLE 3 Pearson Correlation Matrix <sup>a</sup>**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) <i>CSR</i>	1.000											
(2) <i>Stockcomp</i>	0.164***	1.000										
(3) <i>Debtcomp</i>	0.267***	0.125***	1.000									
(4) <i>Founder_CEO</i>	-0.059***	0.070***	-0.078***	1.000								
(5) <i>LogTA</i>	0.451***	0.316***	0.369***	-0.010	1.000							
(6) <i>Btm</i>	0.057***	0.036*	0.044**	-0.041*	0.293***	1.000						
(7) <i>Leverage</i>	0.127***	-0.040*	0.199***	-0.087***	0.256***	-0.057***	1.000					
(8) <i>ROA</i>	-0.020	-0.025	-0.037*	0.003	-0.199***	-0.461***	-0.265***	1.000				
(9) <i>Ret</i>	-0.001	-0.019	-0.007	0.032	-0.071***	-0.268***	-0.057***	0.124***	1.000			
(10) <i>Ownership</i>	-0.049**	0.049**	-0.103***	0.348***	-0.064***	-0.051**	-0.049**	0.012	0.043**	1.000		
(11) <i>Litigation</i>	-0.021	0.037*	-0.098***	0.148***	-0.076***	-0.126***	-0.227***	0.118***	0.000	0.003	1.000	
(12) <i>Competition</i>	-0.055***	-0.017	-0.112***	0.022	-0.088***	-0.031	-0.085***	0.060***	-0.013	0.067***	0.144***	1.000

The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively.

a This table presents Pearson correlations in the lower diagonal. The top and bottom 1% of the continuous variables are winsorized at 1%. The number of observations varies depending on data availability.

**TABLE 4 The effect of CEO compensation on CSR disclosure(Level) <sup>a</sup>**

Independent Variables <sup>b</sup>	Predicted sign	(1) Coefficient (z-statistic)	(2) Coefficient (z-statistic)	(3) Coefficient (z-statistic)	(4) Coefficient (z-statistic)
<i>Stockcomp<sub>t</sub></i>	+		0.014** (2.30)		0.013** (2.22)
<i>Debtcomp<sub>t</sub></i>	+			0.071** (2.55)	0.070** (2.50)
<i>Founder_CEO<sub>t</sub></i>	-	-0.531*** (-2.58)	-0.516** (-2.30)	-0.487** (-2.12)	-0.506** (-2.24)
<i>LogTA<sub>t</sub></i>	+	0.688*** (11.72)	0.673*** (11.31)	0.668*** (11.25)	0.639*** (10.57)
<i>Btm<sub>t</sub></i>	-	-0.495** (-2.42)	-0.496** (-2.36)	-0.487** (-2.31)	-0.482** (-2.29)
<i>Leverage<sub>t</sub></i>	+/-	0.254 (0.75)	0.294 (0.87)	0.157 (0.47)	0.207 (0.61)
<i>ROA<sub>t</sub></i>	+	1.186* (1.80)	1.087 (1.59)	0.985 (1.48)	1.006 (1.49)
<i>Ret<sub>t</sub></i>	+	-0.003 (-0.04)	0.008 (0.11)	0.015 (0.20)	0.012 (0.16)
<i>Ownership<sub>t</sub></i>	+	1.864 (1.13)	1.821 (1.08)	2.082 (1.30)	1.963 (1.21)
<i>Litigation<sub>t</sub></i>	+/-	-0.080 (-0.37)	-0.166 (-0.79)	-0.144 (-0.68)	-0.149 (-0.72)
<i>Competition<sub>t</sub></i>	-	0.333 (0.41)	0.403 (0.46)	0.517 (0.60)	0.428 (0.49)
<b>Constant</b>		-12.473*** (-17.29)	-12.699*** (-17.18)	-12.435*** (-16.73)	-12.378*** (-16.60)
<b>Year FE</b>		Yes	Yes	Yes	Yes
<b>Ind FE</b>		Yes	Yes	Yes	Yes
<b>Observations</b>		2,176	2,052	2,059	2,052
<b>Pseudo R-squared</b>		0.250	0.256	0.260	0.260

Z-statistics are reported in parentheses under each estimated coefficient. Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm. To mitigate any undue influence from outliers, all variables are winsorized at the top and bottom 1%. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively. The detailed explanations of these tests are described in the paper.

a This table shows the coefficient estimates of the effect of CEO pay(Level) on CSR disclosure by using the following equation:

$$\begin{aligned}
 CSR_t = & \alpha_0 + \alpha_1 Stockcomp_t + \alpha_2 Debtcomp_t + \alpha_3 Founder\_CEO_t + \alpha_4 LogTA_t + \alpha_5 Btm_t \\
 & + \alpha_6 Leverage_t + \alpha_7 ROA_t + \alpha_8 Ret_t + \alpha_9 Ownership_t \\
 & + \alpha_{10} Litigation_t + \alpha_{11} Competition_t + Year\ Effects + Industry\ Effects + \varepsilon_t. \quad (1)
 \end{aligned}$$

b See Table 1 for the variable definitions.

**TABLE 5 The Effect of founder CEO's compensation on disclosure decision<sup>a</sup>**

<b>Independent Variables<sup>b</sup></b>	<b>Predicted sign</b>	<b>(1) Coefficient (z-statistic)</b>	<b>(2) Coefficient (z-statistic)</b>	<b>(3) Coefficient (z-statistic)</b>
<i>Stockcomp<sub>t</sub></i>	+	0.010 (1.47)		0.009 (1.30)
<i>Founder_CEO<sub>t</sub>*Stockcomp<sub>t</sub></i>	+	0.036* (1.75)		0.037* (1.80)
<i>Debtcomp<sub>t</sub></i>	+		0.076*** (2.61)	0.074** (2.55)
<i>Founder_CEO<sub>t</sub>*Debtcomp<sub>t</sub></i>	+		-0.096 (-1.22)	-0.064 (-0.85)
<i>Founder_CEO<sub>t</sub></i>	-	-0.797*** (-2.96)	-0.420* (-1.72)	-0.746** (-2.57)
<i>LogTA<sub>t</sub></i>	+	0.678*** (11.40)	0.667*** (11.25)	0.643*** (10.66)
<i>Btm<sub>t</sub></i>	-	-0.523** (-2.47)	-0.486** (-2.31)	-0.509** (-2.40)
<i>Leverage<sub>t</sub></i>	+/-	0.268 (0.79)	0.145 (0.43)	0.169 (0.50)
<i>ROA<sub>t</sub></i>	+	1.055 (1.55)	0.975 (1.47)	0.965 (1.43)
<i>Ret<sub>t</sub></i>	+	0.007 (0.10)	0.014 (0.19)	0.011 (0.15)
<i>Ownership<sub>t</sub></i>	+	1.607 (0.92)	2.009 (1.25)	1.677 (0.99)
<i>Litigation<sub>t</sub></i>	+/-	-0.143 (-0.67)	-0.148 (-0.70)	-0.127 (-0.60)
<i>Competition<sub>t</sub></i>	-	0.404 (0.47)	0.539 (0.62)	0.448 (0.51)
<b>Constant</b>		-12.544*** (-16.89)	-12.432*** (-16.74)	-12.220*** (-16.30)
<b>Year FE</b>		Yes	Yes	Yes
<b>Ind FE</b>		Yes	Yes	Yes
<b>Observations</b>		2,052	2,059	2,052
<b>Pseudo R-squared</b>		0.257	0.260	0.261

Z-statistics are reported in parentheses under each estimated coefficient. Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm. To mitigate any undue influence from outliers, all variables are winsorized at the top and bottom 1%. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively. The detailed explanations of these tests are described in the paper.

a This table shows the coefficient estimates of the effect of CEO pay on CSR disclosure when CEO is founder by using the following equation:

$$\begin{aligned}
CSR_t = & \alpha_0 + \alpha_1 Stockcomp_t + \alpha_2 Founder\_CEO * Stockcomp_t + \alpha_3 Debtcomp_t \\
& + \alpha_4 Founder\_CEO * Debtcomp_t + \alpha_5 Founder\_CEO_t + \alpha_6 LogTA_t + \alpha_7 Btm_t \\
& + \alpha_8 Leverage_t + \alpha_9 ROA_t + \alpha_{10} Ret_t + \alpha_{11} Ownership_t + \alpha_{12} Litigation_t \\
& + \alpha_{13} Competition_t + Year\ Effects + Industry\ Effects + \varepsilon_t .
\end{aligned}
\tag{4}$$

b The definition of the other variables are describes at Table 1 .

**TABLE 6** The effect of CEO compensation on CSR disclosure(Ratio) <sup>a</sup>

Independent Variables <sup>b</sup>	Predicted sign	(1) Coefficient (z-statistic)	(2) Coefficient (z-statistic)	(3) Coefficient (z-statistic)
<i>Stockcomp(r)<sub>t</sub></i>	+	0.307* (1.71)		0.616*** (2.92)
<i>Debtcomp(r)<sub>t</sub></i>	+		0.769** (2.34)	1.243*** (3.34)
<i>Founder_CEO<sub>t</sub></i>	-	-0.497** (-2.21)	-0.488** (-2.13)	-0.459** (-2.03)
<i>LogTA<sub>t</sub></i>	+	0.700*** (12.06)	0.688*** (11.76)	0.679*** (11.77)
<i>Btm<sub>t</sub></i>	-	-0.486** (-2.30)	-0.504** (-2.39)	-0.475** (-2.26)
<i>Leverage<sub>t</sub></i>	+/-	0.283 (0.83)	0.118 (0.34)	0.129 (0.38)
<i>ROA<sub>t</sub></i>	+	1.150* (1.70)	0.972 (1.46)	1.093 (1.63)
<i>Ret<sub>t</sub></i>	+	0.012 (0.16)	0.014 (0.19)	0.013 (0.17)
<i>Ownership<sub>t</sub></i>	+	2.476 (1.51)	2.248 (1.40)	3.146** (2.01)
<i>Litigation<sub>t</sub></i>	+/-	-0.166 (-0.79)	-0.126 (-0.60)	-0.112 (-0.54)
<i>Competition<sub>t</sub></i>	-	0.426 (0.49)	0.536 (0.62)	0.432 (0.49)
<b>Constant</b>		-13.021*** (-17.59)	-12.609*** (-17.09)	-13.117*** (-17.58)
<b>Year FE</b>		Yes	Yes	Yes
<b>Ind FE</b>		Yes	Yes	Yes
<b>Observations</b>		2,048	2,048	2,048
<b>Pseudo R-squared</b>		0.255	0.256	0.262

Z-statistics are reported in parentheses under each estimated coefficient. Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm. To mitigate any undue influence from outliers, all variables are winsorized at the top and bottom 1%. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively. The detailed explanations of these tests are described in the paper.

a This table shows the coefficient estimates of the effect of CEO pay(ratio) on CSR disclosure by using the following equation:

$$\begin{aligned}
 CSR_t = & \alpha_0 + \alpha_1 Stockcomp(r)_t + \alpha_2 Debtcomp(r)_t + \alpha_3 Founder\_CEO_t + \alpha_4 LogTA_t \\
 & + \alpha_5 Btm_t + \alpha_6 Leverage_t + \alpha_7 ROA_t + \alpha_8 Ret_t + \alpha_9 Ownership_t + \alpha_{10} Litigation_t \\
 & + \alpha_{11} Competition_t + Year\ Effects + Industry\ Effects + \varepsilon_t .
 \end{aligned} \tag{2}$$

b See Table 1 for the variable definitions.

**TABLE 7 The effect of CEO compensation on CSR disclosure(Log) <sup>a</sup>**

Independent Variables <sup>b</sup>	Predicted sign	(1) Coefficient (z-statistic)	(2) Coefficient (z-statistic)	(3) Coefficient (z-statistic)
<i>Logstockcomp<sub>t</sub></i>	+	0.049*** (2.79)		0.041** (2.25)
<i>Logdebtcomp<sub>t</sub></i>	+		0.050*** (3.37)	0.053*** (3.28)
<i>Founder_CEO<sub>t</sub></i>	-	-0.484** (-2.14)	-0.464** (-2.23)	-0.425* (-1.81)
<i>LogTA<sub>t</sub></i>	+	0.686*** (11.75)	0.652*** (11.04)	0.650*** (11.04)
<i>Btm<sub>t</sub></i>	-	-0.508** (-2.42)	-0.492** (-2.44)	-0.504** (-2.43)
<i>Leverage<sub>t</sub></i>	+/-	0.227 (0.67)	0.013 (0.04)	-0.021 (-0.06)
<i>ROA<sub>t</sub></i>	+	1.102 (1.63)	1.013 (1.58)	0.915 (1.40)
<i>Ret<sub>t</sub></i>	+	0.001 (0.01)	-0.005 (-0.06)	0.001 (0.01)
<i>Ownership<sub>t</sub></i>	+	2.724* (1.66)	2.264 (1.39)	3.104* (1.91)
<i>Litigation<sub>t</sub></i>	+/-	-0.148 (-0.71)	-0.034 (-0.16)	-0.097 (-0.47)
<i>Competition<sub>t</sub></i>	-	0.323 (0.37)	0.280 (0.33)	0.313 (0.36)
<b>Constant</b>		-13.002*** (-17.74)	-12.375*** (-17.12)	-12.736*** (-17.37)
<b>Year FE</b>		Yes	Yes	Yes
<b>Ind FE</b>		Yes	Yes	Yes
<b>Observations</b>		2,052	2,176	2,052
<b>Pseudo R-squared</b>		0.258	0.257	0.266

Z-statistics are reported in parentheses under each estimated coefficient. Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm. To mitigate any undue influence from outliers, all variables are winsorized at the top and bottom 1%. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively. The detailed explanations of these tests are described in the paper.

a This table shows the coefficient estimates of the effect of CEO pay(log) on CSR disclosure by using the following equation:

$$\begin{aligned}
 CSR_t = & \alpha_0 + \alpha_1 Logstockcomp_t + \alpha_2 Logdebtcomp_t + \alpha_3 Founder\_CEO_t + \alpha_4 LogTA_t \\
 & + \alpha_5 Btm_t + \alpha_6 Leverage_t + \alpha_7 ROA_t + \alpha_8 Ret_t + \alpha_9 Ownership_t + \alpha_{10} Litigation_t \\
 & + \alpha_{11} Competition_t + Year\ Effects + Industry\ Effects + \varepsilon_t .
 \end{aligned}
 \tag{3}$$

b See Table 1 for the variable definitions.



## 요약 (국문 초록)

지속가능경영보고서(CSR) 공시의 유인에 대한 연구는 아직 진행 중이다. 본 연구에서는 과거 자발공시에 대한 연구들에서 사용한 구조(framework)를 이용하여, 최고경영자의 보상구조와 지속가능경영보고서 공시의 연관성을 살펴보았다. 본 연구에서는 최고경영자의 주식보상급여(stock compensation)와 이연급여(debt compensation)의 크기가 커질수록, 기업의 지속가능경영보고의 공시가 늘어남을 발견하였다. 또한 이러한 결과는 최고경영자의 주식보상급여와 이연급여의 크기(Level)를 최고경영자의 총 보상액에 대한 주식보상급여와 이연급여의 비율 및 최고경영자의 주식보상급여와 이연급여의 로그값으로 바꾸었을 때에도 강건(Robust)하였다. 추가로, 선행연구(Chen et al. 2008)와 마찬가지로 창립자인 최고경영자들은 지속가능경영보고서를 공시하지 않는 경향이 있지만, 비록 창립자인 최고경영자들이라도 보다 많은 주식보상급여를 받게 된다면 지속가능경영보고서를 공시함을 밝혀 냈다.

**주요어:** 최고경영자 보상구조, 지속가능경영 보고서, 자발적 공시, 창립 최고경영자

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