

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

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The determinants of CSR disclosure have not been researched extensively. In this research, using the framework from traditional voluntary disclosure studies, we connect CEO compensation structure with CSR disclosure. Following Nagar, Nanda, and Wysocki (2003), we predict that more stock compensation for the CEO would lead to more frequent CSR disclosures, by aligning the interest of CEOs and the interest of shareholders. Similarly, we expect that the debt compensation of the CEO would align the interest of CEOs and the interest of debt holders. Because debt holders prefer more disclosure about the private information of CEOs, we predict that there is positive relation between the amount of CEOs' debt compensation and CSR disclosure. We find that when the CEO's stock compensation and debt compensation increases, the firm discloses CSR reports more frequently. Prior study has found that the founder CEO does not issue voluntary disclosures frequently (Chen, Chen, and Cheng, 2008). However if the founder CEO receives a substantial amount of stock compensation, the probability of issuing CSR reports increases. This paper sheds lights on the CSR studies by linking the framework of voluntary disclosure studies to CSR disclosures.

Key words: CEO Compensation structure, CSR report, Voluntary disclosure, Founder CEO

## 1. Introduction

In recent years, a growing number of firms have voluntarily issued standalone corporate social responsibility("CSR" hereafter) reports.

According to 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 only briefly mentioned. According to CorporateRegister.

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1) 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/>).

com,<sup>2)</sup> only a small number of U.S. firms disclosed standalone CSR reports before the mid-1990s. However, in 2011, over 46 percent of non-financial S&P 500 firms<sup>3)</sup> disclosed CSR reports. This rapid increase in CSR reports has drawn the attention of academic researchers 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, Li, Tsang, and Yang, 2011; Dhaliwal, Radhakrishnan, Tsang, and Yang, 2012)? Do firms benefit from CSR disclosures? In particular, can we interpret CSR disclosure through traditional research frameworks such as the voluntary disclosure framework?

Prior studies find that voluntary disclosure is beneficial to stakeholders. By reducing the information asymmetry, disclosures increase stock liquidity and lower the firm's cost of capital(Glosten and Milgrom, 1985; Botosan, 1997; Dhaliwal et al., 2011; Dhaliwal et al., 2012). On the shareholder's part, "publicly reported accounting information" improves corporate governance and reduces the conflict of interest between shareholders and managers(Bushman and Smith, 2001). On the debt holder's part, debt rating is negatively associated with voluntary disclosure scores (Francis, Nanda, and Olsson, 2008) and cor-

porate disclosure quality decreases the cost of debt(Sengupta, 1998).

Several studies investigate how to encourage CEOs to reveal more information to the public. For example, Nagar et al.(2003) find that CEO compensation structure is an important determinant of voluntary managerial forecasts. They find that stock compensation triggers a CEO to issue more voluntary managerial forecasts, because the stock compensation aligns the interest of the CEO and the stockholders. Similarly, He(2015) finds that higher CEO inside debt holdings are related to higher financial reporting quality.

In this paper, we examine the effect of CEO compensation structure on CSR disclosure based on the traditional voluntary disclosure framework. We predict that if the amount of a CEO's stock compensation and debt compensation is higher, he or she is more likely to issue CSR reports. Using hand collected data of S&P 500 firms' CSR disclosure from 2006 to 2011, we find that the amount of CEO's stock compensation is positively associated with the frequency of CSR disclosure of a firm.

Chen et al.(2008) found that family firms disclose less voluntary managerial forecast than non-family firms. It is because the agency conflicts between shareholders and CEOs are less severe for family firms. To strengthen the main results of this paper, we investigate

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

3) 178 firms over 385 non-financial S&P 500 firms disclosed CSR report at 2011.

whether CEOs who have less incentives to disclose will alter their disclosure activity conditional on the amount of stock compensation and debt compensation. We find that founder CEOs are less likely to issue CSR reports than non-founder CEOs. Furthermore we find that for even founder CEOs, if his or her stock compensation is higher, the probability of disclosing CSR is higher.

Our paper contributes to understanding the motivations behind voluntary CSR disclosures. First, we find that CEO compensation structure has a substantial explanatory power to explain the CEO's decision to disclose CSR. Merchant and Van der Stede(2007) argue that incentive systems such as stock compensation provides "management control benefits" and that one of the benefits is being "informational". That is, incentive systems align the self-interest of managers with that of the shareholders. This study provides empirical evidence for the informational role of incentive systems. Second, we analyze CSR disclosures using the traditional voluntary disclosure framework. Prior research rarely attempt to understand the nature of CSR reports using the literature of existing frameworks. This study can help researchers better understand the characteristics of CSR reports.

Third, the main result supports efficient contract theory, in which the CEO's stock or debt compensation can be aligned with the interest of CEO and stakeholder.

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

## II. Hypothesis Development

### 2.1 Corporate Social Responsibility Disclosure

The CSR report<sup>4)</sup> is "a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities."(GRI website<sup>5)</sup>). Standard CSR reports contain various information that are not included in the annual reports. In table 1, we summarize the relative percentage of GRI indicators<sup>6)</sup>. Only 11% of indicators are related with economic factors, whereas 37% of indicators are related with environment factors. The other 42 percent indicators contain labor, human rights, society activities,

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4) The CSR report is also called as sustainability report, non-financial report, and triple bottom line report.

5) <http://www.globalreporting.org/>

6) 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.

and product responsibility. Appendix 1 shows the table of contents of Verizon Communications' CSR report. It covers all the contents discussed above. In sum, CSR reports contain valuable new information to stakeholders.<sup>7)</sup> Firm's voluntary standalone CSR reports indicate their devotedness to provide incremental information. As a result, CSR disclosure can reduce a firm's cost of capital and analyst forecast errors(Dhaliwal et al., 2011; Dhaliwal et al., 2012). However, there is no regulation in the U.S. to force a firm to disclose reports related to CSR activity regularly, which means that CSR reports are voluntary issued.

There are three differences between CSR disclosures and other voluntary disclosures such as managerial forecasts. First, CEOs can manage the time horizon of disclosure. Because CSR reports are only issued once per several

years,<sup>8)</sup> and have no regulation for disclosure, firms can strategically choose the disclosure timing and the length of years covered in a report. Firms can moderate bad performance of CSR activities in a specific year by issuing a report covering multiple periods. Second, there is no legal regulation about CSR disclosure contents. GRI or other CSR reporting guides are voluntary guidelines, that is, firms can choose the scope of contents and the depth of disclosure. So firms can justify their bad CSR performance by showing their future plans for CSR investment or by explaining the reasons for the poor performance. In sum, CSR reports contain "good" information or at least "Justified poor" information. CSR reports can be the tools of redemption for poor CSR performance. Third, there is no legal regulation about CSR disclosure contents. There

〈Table 1〉 The indicators of GRI report

Variables	Number of indicators	%
<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 1 shows the contents of GRI report.

7) 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.

8) In our sample, 884 CSR reports are issued from 2006 to 2011 and 243 firms issue CSR reports at least once during 2006 to 2011. This result indicates that a firm generally issues a CSR report once per two years.

are only guides such as GRI for CSR reports

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

CEOs have private information about firm's risk and future operating performance because they are closer to firm activities than shareholders are (Jensen and Meckling, 1976). There are several reasons why shareholders want CEOs to reveal their private information. First, the disclosure of private information lowers a firm's cost of equity by reducing the information asymmetry (Botosan, 1997; Dhaliwal et al., 2011; Dhaliwal et al., 2012). More disclosure also increases stock liquidity through less information asymmetry (Glosten and Milgrom, 1985). Third, the disclosure enhances corporate governance. Therefore the voluntary disclosure of manager's private information can mitigate manager's "shirking and perquisite consumption" (Bushman and Smith, 2001). But revealing private information of managers generally reduces the rent extraction behavior of managers. Indeed, hiding information from the shareholders are beneficial for CEOs. For example, self-interested managers have motives to aggravate information asymmetry by choosing projects that maximize their own interest (Edlin and Stiglitz, 1995). Managers are also difficult to replace if there is information asymmetry between shareholders and managers (Shleifer and Vishny, 1989). Consequently,

without more incentives (e.g. compensation) for disclosure, CEOs would not disclose their private information (Jensen and Meckling, 1976; Nagar, 1999). Then the natural question is what mechanism urges CEOs to reveal their private information to the shareholders?

Nagar et al. (2003) find that stock-based compensation effectively promotes managerial forecasts, because stock compensation is positively linked to announcing more information about a firm. This relation can be supported by several arguments. First, stock compensation is based on "a timely performance measure" - stock price, that is if stock price is positively affected by issuing managerial forecasts, managers would issue more managerial forecasts. Second, both quality and quantity of disclosure is important in setting the stock price.

The impact of issuing CSR report on the stock market is very similar to that of issuing managerial forecasts. Several papers show that reporting CSR activities is beneficial to shareholders. For example, the analyst forecast becomes more accurate when a firm issue more CSR reports (Dhaliwal et al., 2012). Dhaliwal et al. (2011) show that CSR disclosure can decrease a firm's cost of capital. Similarly, Matsumura, Prakash, and Vera-Muñoz (2012) find that if a firm reports a decrease in carbon emissions, the firm value increases. Recently, environmental information of the firm is closely monitored by its stakeholders including stock market participants. 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, by announcing a decrease in carbon emissions through CSR reporting, a firm can increase own firm value. A firm's CSR reporting of bad CSR performance is also reasonable choice for a manager, because the manager can strategically select the contents of CSR reporting when covering the bad CSR performance of a firm.

In this paper, we focus on the role of stock-based incentives in inducing CSR disclosure. Stock holdings of managers directly represent the relation of stock price and managerial wealth. If the market rewards better disclosure policies such as CSR disclosures, the disclosures will increase the benefits for managers with greater shareholdings(Nagar et al., 2003). So we argue that CEOs who have higher stock compensation are more likely to disclose CSR reports for their interests. This logic suggests our first hypothesis:

*H1: If CEOs' stock compensation increases, CEOs will issue more CSR reports.*

There are several studies suggesting that the private information of CEOs is also val-

uable to debt holders. Francis et al.(2008) find that firms with higher credit rating(e.g. AAA) have higher voluntary disclosure scores.<sup>9)</sup> Corporate disclosure quality, measured by AIMR scores, is negatively associated with a firm's cost of debt(Sengupta, 1998). However, a self-interested CEO would not reveal his/her private information without adequate incentives because more disclosure reduces CEO's ability to extract rents(Jensen and Meckling, 1976).

We argue that CEOs' debt compensation encourages voluntary disclosure, and CSR disclosure in particular. 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. If a firm goes bankrupt, CEOs are not guaranteed to receive their pensions or deferred compensation in the future. So the default risk of CEOs' debt compensation is same as the default risk of debt. If CEOs have large inside debt, they tend to protect the value of their holdings by performing less risky projects and financial policies(Cassel, Huang, Sanchez, and Stuart, 2012). Large inside debt contracts lead CEOs to avoid risky projects and keep liquidity in patterns which might be attractive to the other lenders (Jensen and Meckling, 1976; Edmans and

9) Voluntary disclosure score is a proxy for voluntary disclosure. Francis et al.(2008) construct voluntary disclosure score using 677 firms' annual reports and 10-K filings in fiscal 2001.

Liu, 2011). So, CEOs' debt compensation causes CEOs to be on the same side of debt holder.

Goss and Roberts(2011) show that weak CSR firms pay more for bank loans than strong CSR firms. Chava(2011) also finds that if a firm suffers from environmental concerns, bankers would demand more interest for their loans. In sum, good CSR performance is beneficial for debtholders. Similar to the argument of H1, CSR reports of a firm is one of the most effective and efficient ways to reveal a firm's good CSR performance to stakeholders. It is also important for managers to issue CSR reports when the CSR performance of a firm is poor. Managers can influence the debt holders by explaining the reasons for poor CSR performance.

To the extent that CSR reporting is beneficial for debt holders and CSR report conveys good news to the debt market participants, we expect that the CEOs who have large inside debt could have incentives to disclose their private information. Our second hypothesis as follows.

*H2: If CEOs' debt compensation increases, CEOs will issue more CSR reports.*

### 2.3 The CSR disclosure decision of founder CEO

To understand the relation between CEO

compensation structure and the frequency of CSR disclosure more deeply, we investigate whether CEOs who have low incentives to disclose will also change their disclosure activity conditional on the amount of stock compensation and debt compensation.

Prior studies argue that founder CEOs have different behavior characteristics for disclosure compared to other firms(Anderson, Mansi, and Reeb, 2003; Chen et al., 2008). Family owners' investment horizon is longer than other shareholders(Anderson et al., 2003). Hence the benefit of timely disclosure is less attractive to the family owners(McNichols and Trueman, 1994). In addition, the agency problem between managers and shareholders is not severe because founder CEOs' directly manage firms' operating and financing activities. Furthermore founder CEOs can monitor managers more effectively. As a result, founder CEOs have lower demand for disclosure about their private information because of their direct monitoring(Bushman, Chen, Engel, and Smith, 2004). But founder CEOs also have incentives to voluntarily release bad information to the public to avoid litigation risk. Withholding bad information would cause reputation costs, since investors punish negative earnings surprises(Skinner, 1994). Following this argument, Chen et al.(2008) find that compared to nonfamily firms, firms with founder CEOs are less likely to issue long-run forecasts and short-run forecasts that contains good news.

However, they find that these CEOs are more likely to release “bad news earnings warnings”. CSR disclosure focuses long term relationship between firm and stakeholders and consists of good or justified bad news. Consequently, we argue that firms are less likely to disclose CSR reports.

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

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

It is possible that founder CEOs would issue more CSR reports if their interests are tied to the interest of stakeholders (if the amount of stock and debt compensation is high). The role of founder CEOs’ stock or debt compensation is different from the role of founder CEOs’ shareholding. For example, the stock compensation of founder CEOs is either for exercising-and-selling the stock compensation<sup>10)</sup> or for increasing the shareholding to strengthen the ownership. If founder CEOs’ economic incentive for stock or debt compensation overwhelms the reasons for not disclosing CSR activities, founder CEOs with large amount of stock or debt compensation will is-

sue CSR reports. However, it is also possible that founder CEOs are only concerned about their shareholding, and are less concerned about relatively small amount of stock compensation or debt compensation (compared to the value of their shareholdings). Consequently, founder CEOs are not affected by the compensation to decide whether or not to issue CSR reports. Therefore, we propose null hypotheses for H4a and H4b.

*H4a: The amount of founder CEO’s stock compensation is not related to the issue of CSR reports*

*H4b: The amount of founder CEO’s debt compensation is not related to the issue of CSR reports*

### III. Sample and Research Design

#### 3.1 Data and sample selection

Following prior studies (Simnett, Vanstraelen, and Chua, 2009; Dhaliwal et al., 2011; Dhaliwal et al., 2012), we collect S&P 500 firms’ standalone CSR reports from Corporate Register.<sup>11)</sup> Our sample starts from the fiscal

10) Dhaliwal, Erickson, and Heitzman (2009) show that the number of transactions by CEO that the stock option is “exercise-and-selling” is much higher than that the number of transactions by CEO that the stock option is “exercise-and-hold”.

11) <http://www.corporateregister.com/>



year of 2006 to 2011, because debt compensation data is available from 2006. We obtain financial data from Compustat and stock return data from CRSP. We use ExecuComp database for our CEO characteristic variables.

We exclude financial firms(SIC codes 6000-6999) from the sample, because characteristic of financial firms are different from the other firms. We also exclude firms without control variables. These requirements result in our final sample of 2,007 firm-year observations. To mitigate any undue influence from outliers, we winsorize all continuous variables at the top and bottom 1%.

### 3.2 Research Design

To test our hypothesis, we use the probit model. All regressions in Section III are clustered by firm. In the probit model, we control for other determinant of CSR disclosure to eliminate potential confounding effects. Because CSR disclosure decision is one of the firms' overall voluntary disclosure strategy, we 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). Our probit regression model for H1, H2, and H3 is specified as follows:

$$CSR_{i,t} = LogStockcomp_{i,t} + LogDebtcomp_{i,t} + Founder\_CEO_{i,t} + LogSale_{i,t}$$

$$+ BTM_{i,t} + Leverage_{i,t} + ROA_{i,t} + Ret_{i,t} + Ownership_{i,t} + Competition_{i,t} + Year\ Indicators + Industry\ Indicators + \varepsilon_{i,t} \quad (1)$$

The dependent variable is  $CSR_{i,t}$ , which is 1 if a firm discloses a CSR report for the fiscal year t, and 0 otherwise. The variables of interest are  $LogStockcomp_{i,t}$ ,  $LogDebtcomp_{i,t}$ , and  $Founder\_CEO_{i,t}$ .  $LogStockcomp_{i,t}$  is defined as the natural logarithm of CEO's stock compensation during the fiscal year t. Stock compensation is the sum of the fair value of stock grants and option grants.  $LogDebtcomp_{i,t}$  is defined as the natural logarithm of a CEO's debt compensation for the fiscal year t. Debt compensation is the change in the pension value during the fiscal year.  $Founder\_CEO_{i,t}$  is 1 if CEO is the founder of a firm, and 0 otherwise.

We control for firm size( $LogSale_{i,t}$ ), because size can be the proxies for various factors motivating firms to issue disclosure such as public pressure or financial resources(Lang and Lundholm, 1993). We use size as the natural log of sales. 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 we include book-to-market ratio( $BTM_{i,t}$ ) that is calculated as the book value of equity at the fiscal year-end divided by the market

value of equity at the fiscal year-end. We also control the debt ratio of a firm ( $Leverage_{i,t}$ ), because debt holders demand greater disclosure (Leftwich, Watts, and Zimmerman, 1981).  $Leverage_{i,t}$  is defined as the ratio of total liabilities to total assets. If a firm achieves good financial performance, the firm can allocate much resource to the CSR activities and disclosure. So we add return on assets ( $ROA_{i,t}$ ) and stock return ( $RET_{i,t}$ ) to the regression.  $ROA_{i,t}$  is computed as net income divided by the book value of total asset at the fiscal-year-end.  $Ret_{i,t}$  is calculated by monthly compounded annual stock returns. In addition, the portion of CEO's ownership affects the disclosure strategy of the firm.<sup>12)</sup> Hence, we include  $Ownership_{i,t}$ .  $Ownership_{i,t}$  is the percentage of CEO stock holdings for a firm at the fiscal-year-end. Dye (1985) find that proprietary costs caused by product market competition can lower disclosure incentives. Hence, we include  $Competition_{i,t}$ .  $Competition_{i,t}$  is 1 minus Herfindahl-Hirschman Index to control for industry competition. We calculate Herfindahl-Hirschman index by summing the squares of the market shares of all companies in each industry. We define industry based on Fama-French 48 industry classification.

To test H4a and H4b, we include two interaction terms,  $Founder\_CEO_{i,t} * LogStockcomp_{i,t}$

and  $Founder\_CEO_{i,t} * LogDebtcomp_{i,t}$ . We predict that the coefficients of these two interaction terms are positive. Our probit regression model to test H4a and H4b is as follows:

$$\begin{aligned}
 CSR_{i,t} = & LogStockcomp_{i,t} + Founder\_CEO_{i,t} \\
 & * LogStockcomp_{i,t} + LogDebtcomp_{i,t} \\
 & + Founder\_CEO_{i,t} * LogDebtcomp_{i,t} \\
 & + Founder\_CEO_{i,t} + LogSale_{i,t} \\
 & + BTM_{i,t} + Leverage_{i,t} + ROA_{i,t} \\
 & + Ret_{i,t} + Ownership_{i,t} \\
 & + Competition_{i,t} + Year\ Indicators \\
 & + Industry\ Indicators + \varepsilon_{i,t} \quad (2)
 \end{aligned}$$

## IV. Results

### 4.1 Descriptive Statistics

Panel A of Table 2 reports the number of firms that disclose CSR reports and the mean of stock and debt compensation by year. Approximately 31% of firms issue CSR reports in year 2006 and almost 58% of firms disclose CSR information in 2010. However, the proportion decreases in 2011. The proportion of CSR reporting firms are fluctuating by year. Therefore, we can reject the possibility that the frequency of CSR disclosure is affected by year trend. Similarly, the amount

12) The demand to provide more disclosure is low for the CEOs who own the firm because there is no information asymmetry between the owner and the CEO.

of stock compensation(log) and debt compensation(log) has no significant year trend.

Panel B of Table 2 provides descriptive statistics for the variables which are used in our test. About 44% of firm-years disclose CSR

report from 2006 to 2011. Average stock compensation of CEO is about 6 million dollars and average debt compensation of CEO is about 1 million dollars, respectively. The median of stock compensation and debt com-

〈Table 2〉 Descriptive statistics of the sample

Panel A: The number of firms that disclose CSR reports and the mean of stock and debt compensation by year

Year	No. of firms	No. of CSR reports	The proportion of CSR reporting firms	Amount of stock compensation	Amount of debt compensation
2006	276	85	30.8%	7.487	4.281
2007	349	115	33.0%	7.545	3.860
2008	350	148	42.3%	7.838	3.784
2009	352	174	49.4%	7.801	4.091
2010	353	203	57.5%	8.150	4.053
2011	327	159	48.6%	8.071	4.228

Panel B: Descriptive statistics

Variables <sup>a</sup>	N	Mean	Standard deviation	Q1	Median	Q3
<i>CSR</i>	2,007	0.440	0.497	0.000	0.000	1.000
<i>Stockcomp (raw value)</i>	2,007	5.962	5.429	2.578	4.657	7.676
<i>Debtcomp (raw value)</i>	2,007	1.047	1.647	0.000	0.181	1.488
<i>LogStockcomp</i>	2,007	7.825	2.411	7.855	8.446	8.946
<i>LogDebtcomp</i>	2,007	4.039	3.477	0.000	5.202	7.306
<i>Founder_CEO</i>	2,007	0.039	0.195	0.000	0.000	0.000
<i>LogSale</i>	2,007	9.068	1.153	8.277	8.996	9.731
<i>BTM</i>	2,007	0.443	0.281	0.240	0.387	0.594
<i>Leverage</i>	2,007	0.570	0.184	0.444	0.578	0.698
<i>ROA</i>	2,007	0.070	0.068	0.035	0.068	0.108
<i>Ret</i>	2,007	0.126	0.408	-0.124	0.096	0.317
<i>Ownership(%)</i>	2,007	0.78%	3.06%	0.00%	0.04%	0.22%
<i>Competition</i>	2,007	0.939	0.054	0.934	0.948	0.969

〈Table 2〉 Descriptive statistics of the sample (continue)

## Panel C: The difference in various variables between CSR disclosure observations and non-CSR disclosure observations

Variables <sup>a</sup>	CSR=1	CSR=0	Diff <sup>b</sup>	t-statistic
<i>LogStockcomp</i>	8.274	7.472	0.802***	7.50
<i>LogDebtcomp</i>	5.106	3.200	1.906***	12.66
<i>Founder_CEO</i>	0.029	0.047	-0.018**	-2.04
<i>LogSale</i>	9.640	8.618	1.022***	21.95
<i>BTM</i>	0.457	0.432	0.025*	1.95
<i>Leverage</i>	0.598	0.548	0.051***	6.14
<i>ROA</i>	0.070	0.071	0.000	-0.06
<i>Ret</i>	0.127	0.126	0.000	0.02
<i>Ownership(%)</i>	0.64%	0.89%	-0.002*	-1.81
<i>Competition</i>	0.937	0.940	-0.003	-1.18

Table 2 shows the descriptive Statistics of the sample. The total sample consists of 2,007 firm-year observations from 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 ExecuComp database. Return data and financial data are obtained from CRSP and COMPUSTAT, respectively. The continuous variables are winsorized at the top and bottom 1%.

## a. Variable Definitions:

- CSR* = 1 if a firm discloses CSR for the fiscal year t, and 0 otherwise;
- LogStockcomp* = the natural logarithm of stock compensation (stock grant and option grant) of CEO during the fiscal year t (in millions of dollar) ;
- LogDebtcomp* = the natural logarithm of debt compensation (change in pension value) of CEO during the fiscal year t (in millions of dollar);
- Founder\_CEO* = 1 if CEO is the founder of a firm, and 0 otherwise;
- LogSale* = the natural logarithm of sales for the fiscal year t;
- BTM* = the book value of equity at the fiscal year-end divided by the market value of equity at the fiscal year-end;
- Leverage* = total liabilities 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* = 1 minus Herfindahl-Hirschman Index. The Herfindahl-Hirschman Index is calculated by summing the squares of the market shares of all companies in each industry. The firm's market share is calculated by a firm's sales over total sales of all companies in an industry. We define industry based on Fama-French 48 industry classification;
- Industry Indicators* = Industry indicators are constructed based on Fama-French 48 industry classification;

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

compensation is smaller than the mean value of stock compensation and debt compensation, that is, the distribution of CEO's stock compensation and debt compensation is right skewed. Hence we use the natural logarithm of compensation variables (*LogStockcomp*, *LogDebtcomp*) in our test. The percentage of founder CEO in total sample is 3.9%, which indicates that 3.9% of firms have CEOs who are the founder of the firm or the heir of the founder. The mean (median) *LogSale* is 9.068 (8.996). *BTM* is 0.443 (0.387) for the mean (median). It shows that the mean and median *ROA* are 0.070 and 0.068, whereas the mean and median *Ret* are 0.126 and 0.096, respectively. The average ownership of a CEO for a firm is 0.78%.

Panel C of Table 2 describes the comparison

of variables between CSR disclosure firms and non-CSR disclosure firms. *LogStockcomp* and *LogDebtcomp* of CSR firms are significantly higher than those of non-CSR firms. The mean of *LogStockcomp*(*LogDebtcomp*) for CSR disclosure sample is 0.802(1.906) higher than that for non-CSR disclosure sample. In addition, the proportion of founder CEO (*Founder\_CEO*) is 1.8% lower for CSR disclosure firms than for non-CSR disclosure firms. The size (*LogSale*) and Leverage (*Leverage*) of CSR observations are significantly higher than those of non-CSR observations.

Table 3 presents Pearson correlation matrix for key variables. *LogStockcomp* is significantly and positively associated with *CSR* (0.17, P-value < 0.01). *LogDebtcomp* is also significantly and positively correlated with

〈Table 3〉 Pearson correlation matrix <sup>a</sup>

	(1) <i>CSR</i>	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(2) <i>LogStockcomp</i>	0.17***									
(3) <i>LogDebtcomp</i>	0.27***	0.20***								
(4) <i>Founder_CEO</i>	-0.05**	-0.09***	-0.15***							
(5) <i>LogSale</i>	0.44***	0.16***	0.31***	0.02						
(6) <i>Btm</i>	0.04*	0.04	0.10***	-0.03	0.16***					
(7) <i>Leverage</i>	0.14***	0.10***	0.33***	-0.10***	0.23***	-0.06**				
(8) <i>ROA</i>	0.00	-0.05**	-0.09***	-0.01	-0.06**	-0.48***	-0.32***			
(9) <i>Ret</i>	0.00	0.01	-0.01	0.06***	-0.09***	-0.29***	-0.07***	0.13***		
(10) <i>Ownership</i>	-0.04*	-0.17***	-0.14***	0.38***	-0.02	-0.03	-0.05**	0.00	0.05**	
(11) <i>Competition</i>	-0.03	-0.06***	-0.09***	0.03	-0.06***	0.11***	-0.08***	-0.05**	0.00	0.05**

Table 3 presents Pearson correlation matrix for our important variables. 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.

*CSR* (0.27, P-value < 0.01). These results indicate that CEOs who earn higher stock compensation or debt compensation are more likely to disclose CSR reports. *FOUNDER\_CEO* is significantly and negatively associated with *CSR* (-0.05, P-value < 0.01), that is, the founder CEO is less likely to disclose their CSR performance. In sum, these univariate results support our H1, H2, and H3. The size is also an important determinant for voluntary disclosure. The correlation between *LogSale* and *CSR* is significantly positive (0.44, P-value < 0.01). *Leverage* is also positively associated with *CSR* (0.14, P-value < 0.01), which suggests firms issue more CSR reports because of the debt holders' pressure for disclosure.

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

Table 4 presents the results of probit regression that tests the Equation (1).

We expect CEOs are more likely to issue their private CSR information if their stock compensation is higher. Therefore, we expect the coefficient on *LogStockcomp<sub>i,t</sub>* in Equation (1) to be significantly positive. The results presented in Table 4 support our hypothesis 1. In column (1) of Table 4, the coefficient for *LogStockcomp<sub>i,t</sub>* is 0.043 and significant at 5% level (Z-statistic : 2.16). The test results for H2 are presented in Column (2). The coefficient estimate of *LogDebtcomp<sub>i,t</sub>* is

significantly positive (0.053, Z-statistic : 3.19). The results in Column (2) support H2, which suggests that given CEOs' wealth ties to the debt holders', the frequency of CSR disclosure increases. We predict founder CEOs are less likely to issue CSR reports because there is less information asymmetry of owners (founder CEOs). Therefore, the benefit of voluntary disclosure is less important for owners (founder CEOs). In Column (3), our H3 is supported. The coefficient for *Founder\_CEO<sub>i,t</sub>* is negative and significant at 10% level (-0.532, Z-statistic : -1.91). We include all three variables- *LogStockcomp<sub>i,t</sub>*, *LogStockcomp<sub>i,t</sub>*, *Founder\_CEO<sub>i,t</sub>* - in Column (4). Although the significance levels of three variables are slightly decreased, the coefficients of three variables are still significant. In sum, H1, H2, and H3 are supported.

The estimated coefficients on *LogSale<sub>i,t</sub>* and *BTM<sub>i,t</sub>* are consistent with the results from prior studies. The coefficient for *LogSale<sub>i,t</sub>* in all columns is positive and significant at 1% level. This result indicates that public pressure captured by firm's size is higher, the probability of CSR disclosure becomes higher (Lang and Lundholm, 1993). The coefficient for *BTM<sub>i,t</sub>* is significantly and negatively correlated with *CSR<sub>i,t</sub>*. As we predict, the firm which has greater information asymmetry and agency problem issue more CSR reports (Verrecchia, 1990; Eng and Mak, 2003).

<Table 4> The effect of CEO compensation on CSR disclosure <sup>a</sup>

Independent Variables <sup>b</sup>	Predicted sign	(1) Coefficients (z-statistic)	(2) Coefficients (z-statistic)	(3) Coefficients (z-statistic)	(4) Coefficients (z-statistic)
Constant		-6.446 (-1.25)	-6.017 (-1.19)	-5.851 (-1.13)	-6.555 (-1.29)
<i>LogStockcomp<sub>i,t</sub></i>	+	0.043** (2.16)			0.036* (1.81)
<i>LogDebtcomp<sub>i,t</sub></i>	+		0.053*** (3.19)		0.049*** (2.90)
<i>Founder_CEO<sub>i,t</sub></i>	-			-0.532* (-1.91)	-0.494* (-1.75)
<i>LogSale<sub>i,t</sub></i>	+	0.732*** (11.16)	0.706*** (10.54)	0.749*** (11.40)	0.707*** (10.62)
<i>BTM<sub>i,t</sub></i>	-	-0.441* (-1.93)	-0.460** (-2.01)	-0.449* (-1.93)	-0.488** (-2.11)
<i>Leverage<sub>i,t</sub></i>	+	0.104 (0.29)	-0.126 (-0.34)	0.069 (0.18)	-0.185 (-0.50)
<i>ROA<sub>i,t</sub></i>	+	0.848 (1.11)	0.715 (0.95)	0.689 (0.91)	0.626 (0.83)
<i>Ret<sub>i,t</sub></i>	+	-0.002 (-0.02)	-0.008 (-0.09)	0.025 (0.29)	-0.006 (-0.07)
<i>Ownership<sub>i,t</sub></i>	-	0.008 (0.50)	0.007 (0.42)	0.015 (0.99)	0.022 (1.55)
<i>Competition<sub>i,t</sub></i>	+/-	-0.844 (-0.14)	-0.591 (-0.10)	-1.323 (-0.22)	-0.210 (-0.03)
<i>Year Indicators</i>		YES	YES	YES	YES
<i>Ind Indicators</i>		YES	YES	YES	YES
Observations		2,007	2,007	2,007	2,007
Pseudo R-squared		26.56%	27.05%	26.55%	27.50%

Table 4 reports the effect of CEO compensation on CSR disclosure. Z-statistics are reported in parentheses under each estimated coefficients. Standard errors are clustered by firm. To mitigate any undue influence from outliers, all continuous variables are winsorized at the top and bottom 1%. The symbols \*, \*\*, and \*\*\* correspond to 10 percent, 5 percent, and 1 percent significance levels, respectively.

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

$$CSR_{i,t} = LogStockcomp_{i,t} + LogDebtcomp_{i,t} + Founder\_CEO_{i,t} + LogSale_{i,t} + BTM_{i,t} + Leverage_{i,t} + ROA_{i,t} + Ret_{i,t} + Ownership_{i,t} + Competition_{i,t} + Year Indicators + Industry Indicators + \epsilon_{i,t} \quad (1)$$

b. See Table 2 for the variable definitions.

〈Table 5〉 The Effect of founder CEO's compensation on disclosure decision <sup>a</sup>

Independent Variables <sup>b</sup>	Predicted sign	Coefficients (z-statistic)
Constant		-6.479 (-1.27)
<i>LogStockcomp<sub>i,t</sub></i>	+	0.025 (1.25)
<i>Founder_CEO<sub>i,t</sub>*LogStockcomp<sub>i,t</sub></i>	+	<b>0.139*</b> (1.65)
<i>LogDebtcomp<sub>i,t</sub></i>	+	<b>0.052***</b> (3.06)
<i>Founder_CEO<sub>i,t</sub>*LogDebtcomp<sub>i,t</sub></i>	+	-0.085 (-1.24)
<i>Founder_CEO<sub>i,t</sub></i>	-	<b>-1.390**</b> (-2.02)
<i>LogSale<sub>i,t</sub></i>	+	<b>0.717***</b> (10.59)
<i>BTM<sub>i,t</sub></i>	-	<b>-0.522**</b> (-2.26)
<i>Leverage<sub>i,t</sub></i>	+	-0.195 (-0.53)
<i>ROA<sub>i,t</sub></i>	+	0.607 (0.80)
<i>Ret<sub>i,t</sub></i>	+	0.002 (0.03)
<i>Ownership<sub>i,t</sub></i>	-	<b>0.02*</b> (1.71)
<i>Competition<sub>i,t</sub></i>	+/-	-0.280 (-0.05)
<i>Year Indicators</i>		Yes
<i>Ind Indicators</i>		Yes
Observations		2,007
Pseudo R-squared		27.77%

Table 5 reports the effect of CEO compensation on CSR disclosure. Z-statistics are reported in parentheses in the right side of each estimated coefficient. Standard errors are 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.

- 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:

$$\begin{aligned}
 CSR_{i,t} = & \text{LogStockcomp}_{i,t} + \text{Founder\_CEO}_{i,t} * \text{LogStockcomp}_{i,t} + \text{LogDebtcomp}_{i,t} \\
 & + \text{Founder\_CEO}_{i,t} * \text{LogDebtcomp}_{i,t} + \text{Founder\_CEO}_{i,t} + \text{LogTA}_{i,t} + \text{BTM}_{i,t} + \text{Leverage}_{i,t} + \text{ROA}_{i,t} \\
 & + \text{Ret}_{i,t} + \text{Ownership}_{i,t} + \text{Competition}_{i,t} + \text{Year Indicators} + \text{Industry Indicators} + \varepsilon_{i,t} \quad (2)
 \end{aligned}$$

- b. See Table 2 for the variable definitions.



〈Table 6〉 Replication of main results using alternative definitions for compensation

Independent Variables <sup>a</sup>	Predicted sign	(1) Coefficients (z-statistic)	(2) Coefficients (z-statistic)
Constant		-5.924 (-1.16)	-5.969 (-1.17)
<i>Stockcomp<sub>i,t</sub></i>	+	0.000** (2.31)	0.000 (1.27)
<i>Founder_CEO<sub>i,t</sub>*Stockcomp<sub>i,t</sub></i>	+		0.001*** (2.76)
<i>Debtcomp<sub>i,t</sub></i>	+	0.001** (2.49)	0.001*** (2.67)
<i>Founder_CEO<sub>i,t</sub>*Debtcomp<sub>i,t</sub></i>	+		-0.001 (-0.99)
<i>Founder_CEO<sub>i,t</sub></i>	-	-0.570** (-2.13)	-1.024*** (-3.13)
<i>LogSale<sub>i,t</sub></i>	+	0.703*** (10.51)	0.713*** (10.52)
<i>BTM<sub>i,t</sub></i>	-	-0.476** (-2.07)	-0.517** (-2.24)
<i>Leverage<sub>i,t</sub></i>	+	-0.001 (0.00)	-0.078 (-0.21)
<i>ROA<sub>i,t</sub></i>	+	0.700 (0.92)	0.577 (0.75)
<i>Ret<sub>i,t</sub></i>	+	0.015 (0.17)	0.018 (0.21)
<i>Ownership<sub>i,t</sub></i>	-	0.02 (1.17)	0.01 (1.00)
<i>Competition<sub>i,t</sub></i>	+/-	-0.83 (-0.14)	-0.740 (-0.12)
<i>Year Indicators</i>		Yes	Yes
<i>Ind Indicators</i>		Yes	Yes
Observations		2,007	2,007
Pseudo R-squared		27.20%	27.53%

Table 6 reports the replication of main results using alternative definitions for compensation. We define *Stockcomp* as CEO's stock compensation during the fiscal year t over a firm's market value of equity. *Debtcomp* is estimated as CEO's debt compensation for the fiscal year t over a firm's market value of equity. Z-statistics are reported in parentheses in the right side of each estimated coefficient. Standard errors are 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.

a. See Table 2 for the variable definitions.

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

In table 5, we add two interaction terms,  $Founder\_CEO_{i,t} * LogStockcomp_{i,t}$  and  $Founder\_CEO_{i,t} * LogDebtcomp_{i,t}$ , to test H4a and H4b. If higher stock compensation or debt compensation makes founder CEOs to better manage firms for the interest of stakeholders, the coefficients for  $Founder\_CEO_{i,t} * LogStockcomp_{i,t}$  and  $Founder\_CEO_{i,t} * LogDebtcomp_{i,t}$ , are positive. However, if founder CEOs are only concerned about their existing shareholding, the coefficients for  $Founder\_CEO_{i,t} * LogStockcomp_{i,t}$  and  $Founder\_CEO_{i,t} * LogDebtcomp_{i,t}$  are negative.

In Table 5, only H4a is weakly supported. The coefficient for  $Founder\_CEO_{i,t} * LogStockcomp_{i,t}$  is positively significant at 10% level, however, the coefficient for  $Founder\_CEO_{i,t} * LogDebtcomp_{i,t}$ , is insignificant. These results suggest that even founder CEOs disclose more CSR reports when they earn more stock compensation. The reason why H4b 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 5 are similar to the result of table 4.

### 4.4 Sensitivity analysis

CEO compensation is directly tied to the firm size. To control the size effect on com-

penensation, we scale CEO compensation variable by the market value of equity and re-estimated equation (1) and equation (2). The column (1) of Table 6 and the column (2) of Table 6 represent the results for re-estimation equation (1) and equation (2), respectively. The results are all very similar to the results in Table 4 and Table 5. Therefore, our results are not sensitive to the scale effect of size on compensation.

## V. Conclusion

In this paper, we test the determinants for CSR disclosure in traditional voluntary disclosure framework and find that higher CEOs' stock compensation and debt compensation lead to CEOs to issue more CSR disclosures. In addition, we find that same as Chen et al. (2008) that founder CEOs are less likely to disclose voluntary CSR disclosure. However, if founder CEOs' stock compensation becomes higher, even founder CEOs disclose CSR reports.

Our research has some caveats. First, most of the control variables that we use in our main model are obtained from the traditional voluntary disclosure studies (Nagar et al., 2003; Chen et al., 2008; Dhaliwal et al., 2011). If the characteristic of CSR disclosure is different from the characteristic of voluntary disclosure such as managerial forecasts,

there might be omitted variable problems in our regression. Second, because we hand collected data from Corporate Register.com, if the website missed some reports, we would also lost some data. Third, we do not examine the quality of CSR disclosures. CEOs' compensation structure would be more related to the quality of CSR reports than the issuance of CSR reports. Although these caveats exist, our research widens the understanding about the determinants of CSR disclosure.

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## 〈Appendix 1〉 The 2011 CSR report of Verizon Communications



### Tackling the World's To-Do List

VERIZON  
COMMUNICATIONS  
2010-2011  
CORPORATE  
RESPONSIBILITY  
REPORT

- 1 Who We Are**
- 2 Message from the Chairman**
- 5 Focusing on Our Priorities**
  - Ethics & Governance
  - Partnering with Communities
  - Empowering Employees
  - Protecting the Environment
  - Service & Innovation
- 17 Leading by Example**
  - Putting Our Thumbprint on the World
- 25 Harnessing People Power**
  - Posts from Across Verizon
  - Investing in Our Employees
- 37 Tackling the World's To-Do List**
  - Innovations for a Connected World
  - Solutions for Stronger Communities
  - Toward a More Sustainable World
- 57 Profile and Performance**
  - The Outside Perspective
  - Awards and Honors



## CEO의 연봉구조가 CSR 공시에 미치는 영향

권세원\* · 김범준\*\* ·곽수근\*\*\* · 신재용\*\*\*\*

### 요 약

CSR 공시의 결정요인에 대해서는 현재까지 본격적으로 연구되어 있지는 아니하다. 본 연구에서는 전통적인 자발적 공시에 대한 선행연구들의 이론을 이용하여 CEO의 연봉 구조와 CSR 공시를 연결시켜 본다. Nagar, Nanda, and Wysocki (2003)의 논문에 따라, 본 연구자들은 보다 주식관련 보상이 CEO에게 많이 주어진다면 CEO의 이익과 주주들의 이익이 서로 동조되기 때문에 CEO들이 보다 빈번하게 CSR 공시를 할 것이라고 예측한다. 유사하게, 우리는 CEO의 연금 등 부채 성격의 보상계약이 채권자들의 이익과 CEO의 이익을 일치시킬 것이라고 예상한다. 채권자들이 경영진들의 사적 정보를 더 많이 공시하는 것을 선호하기 때문에, 본 연구자들은 CEO의 부채 성격의 보상계약과 CEO의 CSR 공시 빈도는 양의 상관관계가 있을 것으로 예측한다. 본 연구자들은 예측한대로, CEO의 주식보상과 부채성격의 보상이 늘어날수록 기업들이 CSR 공시를 더 빈번하게 함을 밝혀내었다. 기존 선행연구들에서는 창립자인 CEO들은 자발적 공시를 덜 빈번하게 함을 언급한다(Chen, Chen, and Cheng, 2008). 그러나 본 연구에서는 만약 창립자인 CEO가 상당한 양의 주식보상을 받는다면, 기업들이 CSR 공시를 할 가능성이 상승함을 밝혔다. 본 연구는 자발적 공시의 이론 체계와 CSR 공시를 연결하여 이해하였다는데 공헌점이 있다.

주제어: 최고경영자 보수, CSR 보고서, 자발적공시, 창립 최고경영자

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- 저자 권세원은 현재 서울대학교 경영대학 경영학과 회계학 박사과정에 재학 중이다. 서울대학교 경영학과 및 동 대학원에서 경영학 석사를 취득하였으며, 공인회계사 자격 취득 후 삼일회계법인에서 약 4년 가량 회계감사를 담당하였다. 주요연구분야는 경영진의 성과보상, 기업지배구조, Accrual anomaly 등이다.
- 저자 김범준은 현재 가톨릭대학교 경영학부 회계학 전공 조교수로 재직 중이다. 서울대학교 경영학과를 졸업하고 동 대학원에서 경영학 석사와 박사학위를 취득하였다. 삼정회계법인 공인회계사로 시작하여, 이후 KISDI, 삼일PwC컨설팅에서 통신 및 방송산업 전문가로서 다양한 분야의 경영컨설팅 업무를 수행하였다. 주요연구분야는 성과평가와 보상, 기업지배구조, 규제산업에서 원가기반 가격결정 등이다.
- 저자 박수근은 현재 서울대학교 경영대학 경영학과 회계학 교수로 재직 중이다. 서울대학교 경영대학을 졸업하고 미국 노스캐롤라이나 대학교 대학원에서 경영학 석사를 취득하였다. 이후 서울대학교 경영대학 학장 (2007년-2009년), 중소기업학회 회장(2009년), 한국경영학회 회장(2011년) 등을 역임하였다. 또한, 2010년부터 현재까지 동반성장위원회 적합업종실무위원회 위원장을 맡고 있다. 주요 연구분야는 부채조달비용 및 배당정책, 감사 품질 및 감사보수 등이다.
- 저자 신재용은 현재 서울대학교 경영대학 경영학과 회계학 교수로 재직 중이다. 서울대학교 경영학과를 졸업하고 동 대학원에서 석사학위를 취득하였다. 이후 KISDI에서 근무 후 미국 위스컨신 매디슨 대학교 대학원에서 경영학 석사를 취득하였다. 2010년에는 미국 회계학회 관리회계분과, “가장 영향력 있는 논문상”을 수상하였으며, 2014년부터 삼일회계법인 지명교수를 역임하고 있다. 주요연구분야는 경영진의 성과 보상, 상대평가제도, 기업지배구조 등이다.