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The Influence of CEO Decision-making and Corporate Strategy on Corporate Social Performance

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Abstract

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In the first essay of the dissertation, I evaluate the financial implications of corporate social performance and assess the validity of a widely used measure of social performance, the KLD social ratings. In the first part of this essay, I examine the relationship between CSP and financial performance. The results show that CSP has a negative relationship with short-term financial performance, but a positive relationship with long-term financial performance. In addition, I examine whether introducing the Sarbanes-Oxley Act had a substantial impact on the relationship between CSP and financial performance. The results show that enactment of the Sarbanes-Oxley Act may have caused changes in social perceptions about the importance of corporate social responsibility (CSR). In the second part of this essay, I examine the validity of the KLD social ratings. The analysis shows that the KLD social ratings effectively summarize the past CSP information of firms, but they predict future CSP less effectively.

In the second essay of the dissertation, I examine how CEO retirement may influence CSP. I propose that CEOs reduce investment in social issues when they are approaching retirement, resulting in a negative relationship between CEO retirement and CSP. To understand why CEOs close to retirement reduces CSR investment, I compare two possible CEO motivations. The results suggest that CEOs may reduce investment in CSR in order to improve profit figures, which will eventually improve their post-retirement career continuation chances. In further support of this finding, the results show that CEOs who remain on the board of directors after retirement are less likely to reduce investment in CSR than CEOs who do not.

In the third essay of the dissertation, I examine the influence of corporate diversification strategy on CSP. Previous work in this topic has ignored the important difference between firms pursuing unrelated and related diversification: the range of stakeholders and transferability of a brand. In this work, I note that unrelated diversifiers are likely to face much more diverse stakeholder demands than related diversifiers; moreover, they are likely to face bigger challenges in transferring the brand across subsidiaries. I propose that such differences will influence a firm's investment in social issues, and eventually will result in varying levels of CSP.
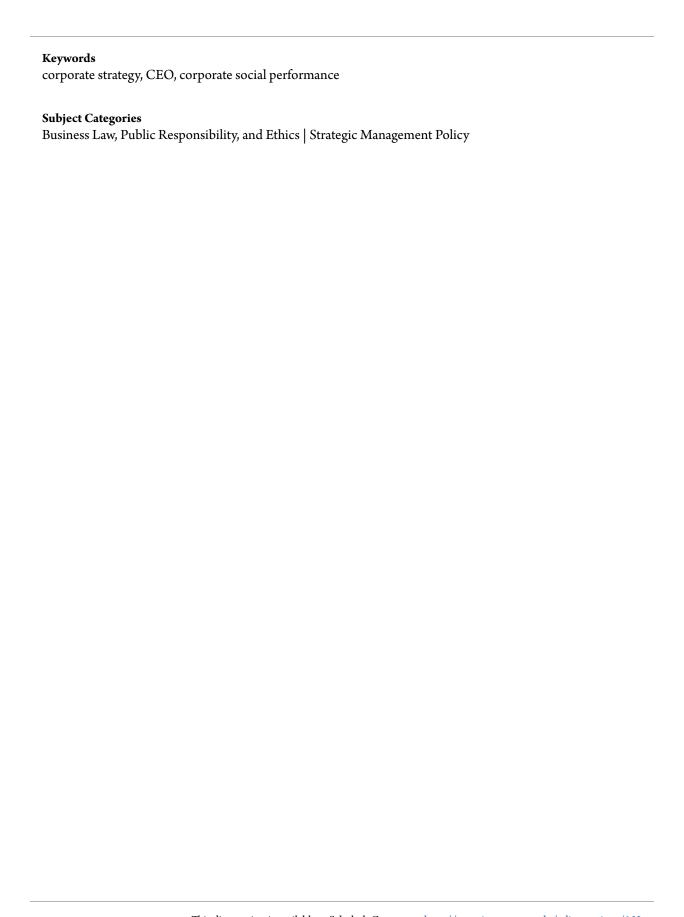
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To my parents, my fiancée, and my sister, with gratitude and love

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ABSTRACT

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on Corporate Social Performance

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In the first essay of the dissertation, I evaluate the financial implications of corporate social performance and assess the validity of a widely used measure of social performance, the KLD social ratings. In the first part of this essay, I examine the relationship between CSP and financial performance. The results show that CSP has a negative relationship with short-term financial performance, but a positive relationship with long-term financial performance. In addition, I examine whether introducing the Sarbanes-Oxley Act had a substantial impact on the relationship between CSP and financial performance. The results show that enactment of the Sarbanes-Oxley Act may have caused changes in social perceptions about the importance of corporate social responsibility (CSR). In the second part of this essay, I examine the validity of the KLD social ratings. The analysis shows that the KLD social ratings effectively summarize the past CSP information of firms, but they predict future CSP less effectively.

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CSP. To understand why CEOs close to retirement reduces CSR investment, I compare two possible CEO motivations. The results suggest that CEOs may reduce investment in CSR in order to improve profit figures, which will eventually improve their post-retirement career continuation chances. In further support of this finding, the results show that CEOs who remain on the board of directors after retirement are less likely to reduce investment in CSR than CEOs who do not.

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1. Introduction

Investment in social issues is emerging as an important strategic investment of firms (Hillman and Keim, 2001; Porter and Kramer, 2006; Zadek, 2004). Proponents of corporate social responsibility (CSR) argue that strong corporate social performance (CSP) can contribute to the financial performance (FP) of a firm, particularly in the long run (Kacperczyk, 2009; Ogden and Watson, 1999; Orlitzky, Schmidt, and Rynes, 2003). In the short run, firms may have to make some sacrifices by diverting limited organizational resources to social issues. However, in the long run, investment in social issues can improve the financial performance of a firm by improving its relationship with stakeholders (Hillman and Keim, 2001; McGuire, Sundgren, and Schneeweis, 1988).

Unfortunately, empirical studies on this topic have failed to reach a consensus on the CSP-FP relationship. Margolis and Walsh (2003) reviewed 109 empirical studies on this subject, published between 1972 and 2002, and found that 54 studies reported a positive CSP-FP relationship, 7 studies had a negative relationship, and 48 studies had an inconclusive relationship. In this essay, I provide a sharper test of the CSP-FP relationship by comparing the CSP-FP relationship in the short and long term. In addition, I examine how the CSP-FP relationship may change, depending on stakeholders' perceptions toward CSR by comparing the CSP-FP relationship before and after the Sarbanes-Oxley Act.

If CSP contributes to the financial performance by improving a firm's relationship with stakeholders, then stakeholder perceptions toward CSP make a logical context of the CSP-FP relationship. If stakeholders highly appreciate CSR, a firm's strong CSP will create financial value. However, if stakeholders do not value CSR, a firm's strong CSP may not have a meaningful impact on financial performance. Therefore, consideration of stakeholder perceptions toward CSR will allow us to observe a more precise CSP-FP relationship. Nonetheless, it is empirically challenging to measure stakeholder perceptions toward CSR. Not only are there a large number of relevant stakeholders (e.g., customers, community, government, employees, etc.), but it is also unclear as to which instruments can be used to measure stakeholder perceptions toward CSR.

An alternative approach to measuring stakeholder perceptions toward CSR is to identify a high-profile event with a far-reaching influence on a wide range of stakeholders. If we assume that such an event is associated with meaningful change in stakeholder perceptions toward CSR, its timing of occurrence could be used as a moderating variable that proxies changes in stakeholder perceptions toward CSR. In this essay, I suggest that the Sarbanes-Oxley Act is a good example of such an event. Enactment of the Sarbanes-Oxley Act was a high-profile event, which accompanied large-scale corporate scandals and drew extensive media attention. I expect that the Sarbanes-Oxley Act and the series of events surrounding the Act have changed social perceptions toward CSR in a manner that people become more sensitive to and appreciative of CSR.

In the first part of this essay, I examine several issues surrounding the CSP-FP relationship. First, I examine the relationship between CSP and short- and long-term

financial performance. Second, assuming that the Sarbanes-Oxley Act is a milestone event associated with a change in stakeholder perceptions toward CSR, I compare the CSP-FP relationship before and after the Sarbanes-Oxley Act. In the second part of this essay, I critically evaluate the CSP measure used in this dissertation, the Kinder, Lydenberg, and Domini (KLD) social ratings. The KLD social ratings are the CSP measure most extensively used in the literature (Chatterji, Levine, and Toffel, 2009; Waddock, 2003). However, despite extensive reliance on the KLD social ratings in the literature, very little work has been done to evaluate this measure critically (Chatterji *et al.*, 2009; Sharfman, 1996). Therefore, an evaluation of the KLD social ratings not only provides a foundation to this dissertation, but also to the entire empirical CSP literature.

The analysis of the first part of the essay shows that the CSP-FP relationship is negative in the short term, but positive in the long term. Further consideration of the Sarbanes-Oxley Act in the CSP-FP relationship shows that the positive relationship between CSP and long-term financial performance is more pronounced after the Sarbanes-Oxley Act, suggesting that the Sarbanes-Oxley Act may have improved social perceptions toward the value of CSR. In further support of the positive impact of the Sarbanes-Oxley Act on social perceptions toward CSR, the negative relationship between CSP and short-term financial performance is partially and positively moderated after the Sarbanes-Oxley Act. The analysis of the second part of the essay shows that the KLD social ratings do an effective job of summarizing the past CSP of the firm. This result lends some underpinnings to using the KLD social ratings in this dissertation and other empirical studies.

Part I

2. Literature and Hypotheses

2.1. Corporate social performance and financial performance

MacMillan (1978) argued that firms and their managers must understand and properly respond to the demand of "symbionts" such as employee groups, labor unions, and suppliers in order to achieve superior performance. Symbionts were defined as "elements of the environment on which the organization is dependent for inputs" (MacMillan, 1978: 66). The idea of symbionts and firms as interdependent systems has laid a foundation to the stakeholder view of the firm (Asher, Mahoney, and Mahoney, 2005; Clarkson, 1995; Cornell and Shapiro, 1987; Donaldson and Preston, 1995; Freeman, 1984), which has received much attention as an alternative paradigm to the shareholder view of the firm (Kacperczyk, 2009; Sundaram and Inkpen, 2004). The central argument of the stakeholder view is that firm performance and survival depend on how properly firms respond to stakeholder demands and social issues (Clarkson, 1995; Donaldson and Preston, 1995; Freeman, 1984; Freeman and Reed, 1983; Freeman, Wicks, and Parmar, 2004; Sundaram and Inkpen, 2004). Therefore, the stakeholder view of the firm suggests that socially responsible firms will do better than socially irresponsible firms.

The positive relationship between CSR and firm performance is expected to be more pronounced in the long term versus the short term because the positive CSP-FP relationship is an outcome of improvement in the firm-stakeholder relationship (Donaldson and Preston, 1995; Freeman, 1984; Kacperczyk, 2009; McGuire *et al.*, 1988; Ogden and Watson, 1999). When firms invest in social issues that stakeholders care about, firms earn trust, build a better brand image, and improve their relationship with

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stakeholders (Barnett, 2007; Barney and Hansen, 1994; Hillman and Keim, 2001). However, trust-earning, brand-building, and improvement of the firm-stakeholder relationship take time (Currall and Epstein, 2003; Freeman, 1984; Kacperczyk, 2009; Mayer, Davis, and Schoorman, 1995; Ogden and Watson, 1999; Uzzi, 1996). Therefore, investment in CSR will have a lagged positive effect on a firm's financial performance.

In contrast, in the short run, firms may have to endure some financial sacrifices when they invest in social issues. Spending resources on social issues such as philanthropy, diversity, environment, and human rights does not guarantee immediate profit generation (Deckop, Merriman, and Gupta, 2006; Short, 2004). Rather, it is more likely that investment in CSR will have a negative impact on short-term profit by diverting limited firm resources from other more practical uses such as manufacturing and sales (Holstein, 2008; Ogden and Watson, 1999; Porter and Kramer, 2006; Thomas and Ely, 1996; Zadek, 2004). Therefore, investment in CSR will have an immediate negative effect on firm performance.

Hypothesis 1. The relationship between CSP and financial performance will be

negative in the short term, but positive in the long term.

2.2. Role of stakeholder perceptions in the CSP-FP relationship

An obvious, yet overlooked point in examining the CSP-FP relationship is that it depends on how stakeholders perceive CSR. If stakeholders value the idea of CSR, firms that demonstrate strong CSP will be able to earn trust, build a good brand image, and improve stakeholder relationships in a more effective manner. In turn, those intangible resources will generate larger financial value for the firm. In contrast, if stakeholders do not

appreciate CSR, strong CSP of the firm may not generate a substantial financial outcome for the firm.

This idea is closely related to the idea of organizational legitimacy and how it benefits a firm. Stakeholders have opinions about what are socially acceptable or legitimate corporate goals and the means to achieve them (Oliver, 1992), but those opinions are subject to change. If stakeholders change their opinion about what are socially acceptable corporate goals and actions, organizational legitimacy associated with those goals and actions will change, as well (Ahmadjian and Robinson, 2001; Davis, Diekmann, and Tinsley, 1994; Kraatz and Zajac, 1996). For example, in the logging industry, clear-cutting forests was once a socially acceptable (legitimate) business practice, whereas today, forestry firms are judged by the extent to which their timber holdings are sustainably managed (Rowley and Berman, 2000). This attitudinal change suggests that firm actions (e.g., forest conservation), which were previously regarded as irrelevant and unnecessary, have become indispensable to success.

In the United States, the concept of socially responsible corporation and CSR has been given only lukewarm support (Economist, 2008; Friedman, 1970; Holstein, 2008). Milton Friedman even argued that the only social responsibility of business is to maximize profits, and that CSR is an example of agency problems (Friedman, 1970). However, highly publicized scandals of Adelphia, Enron, Tyco, Worldcom *et al.* in the early 2000s have triggered a society-wide discussion about social responsibility of business (Robertson, 2007). Newspapers and magazines churned out articles on what went wrong with American corporate ethics (Romano, 2005). Academic attention to CSR

has significantly increased, as well. A record number of studies on corporate ethics were published in prominent scholarly journals during this period (Robertson, 2007).

In this aftermath, the US Congress passed the Sarbanes-Oxley Act in July 2002, also known as the "Corporate and Auditing Accountability and Responsibility Act." The Sarbanes-Oxley Act is considered to be "the most far-reaching reforms of American business practice since the time of Franklin D. Roosevelt" (Bumiller, 2002). The passing of the Sarbanes-Oxley Act, which is an outcome of a society-wide consensus on the importance of ethical business practice, suggests that there have been substantive changes in American perceptions toward the importance of CSR during this period (Holstein, 2008; Robertson, 2007). Indeed, the Sarbanes-Oxley Act was devised with a specific purpose of overhauling securities and accounting law and punishing corrupt auditors. However, the extensive media coverage on ethical problems of American business surrounding it has brought public attention to much broader ethical issues related with business (Bumiller, 2002; Romano, 2005). US Securities and Exchange Commission (SEC) also explains that "The (Sarbanes-Oxley) Act mandated a number of reforms to *enhance corporate responsibility*, enhance financial disclosures and combat corporate and accounting fraud…"[1], clearly indicating that the Sarbanes-Oxley Act's ultimate goal is to promote more responsible business practice.

Assuming that the Sarbanes-Oxley Act has increased American stakeholders' perception about the importance of ethical business practices and corporate responsibility to some extent, I expect that the positive relationship between CSP and the long-term financial performance will be stronger after the Sarbanes-Oxley Act. Therefore, the

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[1] http://www.sec.gov/about/laws.shtml

suggested positive relationship between CSP and long-term financial performance in Hypothesis 1 will be more pronounced after the Sarbanes-Oxley Act than it was beforehand. If the Sarbanes-Oxley Act was a milestone event for changes in social perceptions toward CSR, I expect that the financial performance implications of CSR investment have become stronger after the Sarbanes-Oxley Act than before, thereby strengthening the positive relationship between CSP and long-term financial performance.

Hypothesis 2. The positive relationship between CSP and long-term financial performance will be more pronounced after the enactment of the Sarbanes-Oxley Act.

The Sarbanes-Oxley Act's positive impact on the CSP-FP relationship may not be limited to long-term financial performance. Although the nature of CSR (e.g., environmental protection, corporate philanthropy, governance transparency) suggests that the negative relationship between CSP and short-term financial performance is more likely, if stakeholder perceptions toward the importance of CSR have improved after the Sarbanes-Oxley Act, the negative relationship between CSP and short-term financial performance may be positively moderated by the enactment of the Sarbanes-Oxley Act. Therefore, I propose that the negative relationship between CSP and short-term financial performance will become weaker after enactment of the Sarbanes-Oxley Act.

Hypothesis 3. The negative relationship between CSP and short-term financial performance will be positively moderated by the enactment of the Sarbanes-Oxley Act.

Although the Sarbanes-Oxley Act is expected to have a substantial impact on social perceptions toward CSR, it may have a particularly strong impact on social

perceptions on the importance of corporate governance-related issues. Above all, the Sarbanes-Oxley Act was specifically aimed at overhauling corporate governance-related issues such as auditor independence, internal control assessment, and enhanced financial disclosure (Bumiller, 2002; Ribstein, 2002). The Sarbanes-Oxley Act's emphasis on improving corporate governance is clearly expressed on its description: "(the Sarbanes-Oxley) Act is the most sweeping federal law concerning corporate governance since the adoption of the initial federal securities laws", with its primary focus on specifically improving "the monitoring by independent directors, auditors, and regulators" (Ribstein, 2002: 5-6).

A number of prominent politicians' statements on the urgent need to improve corporate governance surrounding the passing of the Sarbanes-Oxley Act clearly delivered a message to the American public that the Act is a serious attempt to address the problems in corporate governance (Bumillier, 2002; Romano, 2005). Therefore, it is likely that the Sarbanes-Oxley Act has particularly increased the American stakeholder's appreciation of the corporate efforts to improve governance-related issues. For example, investors and the financial market may respond more favorably to a firm's attempt to improve its governance and transparency (e.g., increasing outsider representation in the board, avoiding excessive CEO compensation) after the Sarbanes-Oxley Act. Such favorable response by investors and the financial market will improve a firm's financial performance by increasing its stock price and lowering borrowing rates. Therefore, the proposed positive moderation effect of the Sarbanes-Oxley Act in hypothesis 2 and 3can be more pronounced on the relationship between corporate governance-related CSP and financial performance.

Hypothesis 4. The positive moderation effect of the Sarbanes-Oxley Act on the CSP-FP relationship will be more pronounced between the corporate governance−specific CSP and financial performance measures.
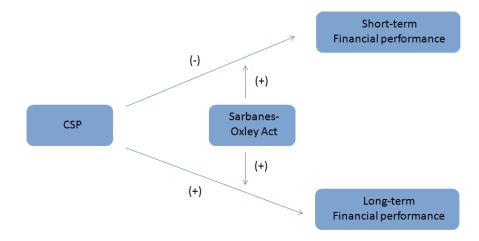
Figure 1. Conceptual Model and Summary of Hypotheses

3. Data and Method

3.1. Data Sources

The social performance data for the sample firms were collected from the Kinder, Lydenberg, Domini (KLD) Social Ratings database, which is the most trusted source of CSP measure in academic research (Chatterji, Levine, and Toffel, 2008a; Waddock, 2003; Waddock and Graves, 1997). The KLD Social Ratings database is published by KLD Research & Analytics, Inc. an independent Boston-based rating service that specializes in measuring corporate social performance across a range of dimensions related to stakeholder concerns. The KLD Social Ratings data are the most influential measure of CSP in the academic literature, and many investment managers refer to KLD's recommendations when it comes to social performance screening. For example, TIAA-CREF, the largest US retirement fund, announced that it divested its 1.25 million shares

of Coca-Cola stock, estimated at $52.4 million, following a periodic review of the Broad Market Social Index by KLD Research & Analytic Inc. on July 18, 2006. KLD saw shortcomings on the part of Coca-Cola in several areas, including labor and human rights in Colombia, environmental issues in India and the marketing of high-calorie drinks to children in the United States (Moon, 2007).

KLD's CSP ratings have several advantages over other rating schemes (Waddock and Graves, 1997). First, all companies in the S&P 500 are rated. Second, each company is rated on multiple attributes considered relevant to CSP. In each of these areas, KLD investigates a range of sources to determine, for example, whether the company has paid fines or penalties in an area or whether it has a major strength in the area. Third, a single group of researchers, working independently from the related companies or any particular brokerage house, applies the same set of criteria to related companies. Fourth, the criteria are applied consistently across a wide range of companies, with data gathered from a range of sources, both internal and external to the firm. KLD uses a variety of sources to capture social performance data about each company. Each company's investor relations office is sent a yearly questionnaire about CSP practices, and KLD maintains continuing relations with the investor relations office to assure accuracy of the data. KLD maintains the independence and integrity of its ratings, but the firm is willing to respond to company concerns where accuracy is at issue. Corporate data sources include annual reports, 10K forms, proxy statements, and quarterly reports, as well as reports issued for specific CSP arenas, such as the environment and the community. External data sources include articles about a company in the general business press (e.g., *Fortune*, *Business Week*, the *Wall Street Journal*), trade magazines, and in the general media. KLD staffers

also draw on relevant articles about companies from periodicals such as the *Chronicle of Philanthropy*, regional Environmental Protection Agency newsletters, academic journals, and, for legal or regulatory issues such as fines and penalties, the *National Law Journal*. External surveys and ratings are also used, where appropriate; for instance, *Working Mother's* listing of the 100 best companies for women to work (Waddock and Graves, 1997).

KLD data cover approximately 80 indicators in seven major Qualitative Issue Areas, including community, corporate governance, diversity, employee relations, the environment, human rights, and products. In addition, KLD data provide information for involvement in the following "Controversial Business Issues": Alcohol, Gambling, Firearms, Military, Nuclear Power, and Tobacco, where business involvement results in a negative indicator. It does not include ratings explicitly related to animal rights or biotechnology issues as of 2006. Each area has a number of strength and concern items, where a binary measure indicates the presence or absence of that particular strength/concern. For example, the Community category contains seven strength items (Charitable Giving, Innovative Giving, Non-US Charitable Giving, Support for Housing, Support for Education, Volunteer Programs, and Other Strength) and four concern items (Investment Controversies, Negative Economic Impact, Tax Disputes, and Other Concerns). Each year, KLD evaluates the companies in the database on each item through various sources, such as public records and media reports, monitoring of corporate advertising, surveys, and on-site evaluations.

To test the external validity of the KLD index, I looked at the correlation of the index with Fortune's reputation score (Moon, 2007; Sharfman, 1996). For the 207

companies listed in Fortune Magazine's 2005 list of America's Most Respected Companies, the correlation between the KLD index in 2005 and the Fortune Score in 2005 is positive and highly significant. The correlation coefficient is 0.2481 and is significant at the 0.1% level. The KLD Social Ratings will be used as a measure of CSP in all three essays in this dissertation. As I rely on the KLD Social Ratings extensively in this dissertation, I conduct a thorough evaluation of this measure in the second part of this essay.

To construct other explanatory and control variables used in essay 1, I collected financial data from the Compustat North America database. Since I do not have clear *ex ante* criteria to include or exclude certain firms in my analysis, I include all available firms in the KLD Social Ratings and the Compustat North America database.

To reduce the endogeneity problem arising from firm-level time-invariant unobserved heterogeneity, I adopt firm-fixed effects estimation (Kacperczyk, 2009; Khaled and Paton, 2005; Moon, 2007). The majority of previous studies have relied on cross-sectional or pooled data sets. It is well known that inferences based on cross-sectional analysis are likely to be invalid in the presence of significant firm heterogeneity. Random effects estimation yield consistent estimates only if we impose the strong assumption that firm effects are uncorrelated with the regressors. In case of CSP, there are good reasons for suspecting that this assumption is invalid. Omission of firm-fixed effects overlooks the unobserved heterogeneity issue and may incorrectly generate a positive coefficient of CSP on financial performance. Also controlling for firm-fixed effects is required in comparing samples of different periods. Due to the unbalanced panel data structure in the KLD database, samples of different periods do not contain the same firms. Therefore, by

controlling for firm-fixed effects, I can control for firm-level time-invariant unobserved heterogeneities that may account for differential impacts of CSP on the financial performance in the samples of different time periods.

3.2. Variables

Dependent variables

Financial performance. Three measures of financial performance are used to examine the impact of CSP on short-term and long-term financial performance. The three measures are Tobin's Q, market value (in $ millions), and Return-on-Asset (ROA). I used three measures of corporate financial performance, ROA, market value, and Tobin's Q. Those three measures were chosen based on their differential focus on measuring financial performance. First, ROA is an accounting-based measure of profitability. Second, market value is a market-based measure of firm performance. Third, Tobin's Q is a measure that combines advantages of both accounting-based measures and market-based measures of firm performance. Advocates of accounting-based measures argue that market-based performance measures are influenced by a range of factors unrelated to the activity of the individual firm (Shane and Spicer, 1983). Advocates of market-based performance measures question the objectivity and informational value of accounting data (Benson, 1982) and maintain that market performance is the dimension of financial performance most relevant to investors and shareholders. Therefore, I considered different measures of financial performance to deal with weakness of each performance measure. Probably the most popular market-based firm performance measure used in the management literature is the abnormal return (e.g., Lubatkin and Shrieves, 1986). However, abnormal return cannot be used as a market-based firm performance measure in this study because the

goal of abnormal return approach is to assess the impact of an event on market value of the firm. In essay 1, I do not examine influence of events on firm performance. In addition, I used absolute value of the three financial performance measures rather than change in values of those measures because I employed firm-fixed effects estimation. Therefore, in essence, my empirical models in the first essay examined how changes in CSP (t to t+1) affect changes in ROA, market value, and Tobin's Q (t to t+1). This approach allowed me to examine how improvement/deterioration in CSP may influence ROA, market value, and Tobin's Q. Therefore, my models are consistent with the approaches of previous studies that used changes in stock values as their dependent variable of market-based firm performance (e.g., Brammer and Millington, 2008). Following a previous study (Kacperczyk, 2009), for each measure, short-term financial performance is measured at one year into the future (t+1), and long-term financial performance is measured at two and three years into the future (t+2, t+3).

Explanatory variables

Corporate social performance (CSP). Following the common practice in the literature (Chatterji, Levine, and Toffel, 2008b; Graves and Waddock, 1994; Griffin and Mahon, 1997; Johnson and Greening, 1999; Waddock and Graves, 1997), I define the CSP of the firm as the sum of all strength items minus the sum of all concern items (80 indicators in seven major social issue categories, including community, corporate governance, diversity, employee relations, the environment, human rights, and products). Considering all dimensions of CSP reported in the KLD database improves the construct validity of the social performance measure, since CSP is a multidimensional concept (Brammer,

Pavelin, and Porter, 2006; Carroll, 1979; Griffin and Mahon, 1997; Hillman and Keim, 2001; Rowley and Berman, 2000).

Control variables

I included several control variables. To control for the possibility that the availability of financial slack resources affects CSP, I include controls for the debt ratio and free cash flow (in $ millions) (McKendall, Sanchez, and Sicilian, 1999; McWilliams and Siegel, 2000). Previous studies report that firm size may affect CSP (McGuire, Dow, and Argheyd, 2003; McGuire *et al.*, 1988; McWilliams and Siegel, 2000; Waddock and Graves, 1997). Firm size is measured as the logarithm of the dollar value of the total assets (in $ millions). All remaining inter-temporal trends and interfirm heterogeneity are controlled for with firm-fixed effects and year-dummy indicators. I estimate the following model to obtain the regression results in Table 2:

$$\text{Financial performance}_{it+1,2,3} = \beta_1 \text{CSP}_{it} + \gamma\, Z_{it} + \delta\, D_{it} + \varepsilon_{it}$$

Where Z_{it} is the vector of firm-level characteristics that affect CSP, D_{it} is the vector of the firm and year dummies, and ε_{it} is the error term. Z_{it} includes debt ratio, free cash flow, and firm size.

4. Results

Table 1 provides descriptive statistics and correlations among the variables used in the regression analysis. Correlations among the market value, firm size, and cash flow are fairly high and statistically significant at $p < 0.05$. However, high correlations among those variables are predictable and easily explainable because large firms usually have a high market value and generate more cash flow.

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Table 1. Descriptive Statistics and Pairwise Correlations for Sampled Firms[2]

Variable	N	Mean	SD	1.	2.	3.	4.	5.	6.
1. Tobin's Q	5059	2.1080	1.4246						
2. Market value	5059	10808	31278	0.1929*					
3. ROA	5059	0.0147	0.1340	0.1760*	0.0793*				
4. CSP	5059	-0.4466	2.4253	0.1448*	0.0853*	0.0595*			
5. Firm size	5059	7.8279	1.6429	-0.2160*	0.4963*	-0.0410*	-0.0477*		
6. Free cash flow	5059	745.84	2439.1	0.0075	0.7580*	0.1193*	0.0104	0.5022*	
7. Debt ratio	5059	0.2249	0.1945	-0.1450*	0.0001	-0.1963*	-0.0960*	0.2831*	0.0693*

Significance level: * $p < .05$

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[2] The sample data covers observations from 1992 to 2006.
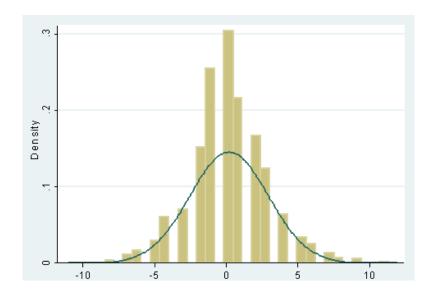
Figure 2. Histogram of CSP scores (All years)

Figure 2 shows the histogram of CSP scores (the KLD Social Ratings) over all years. The histogram is overlaid with a normal distribution line. The histogram of CSP scores shows no skewness, but it is leptokurtic, with an acute peak and thicker tails than a normal distribution.

To examine the CSP-FP relationship in the short and long term (Hypothesis 1), I regressed three financial performance variables (Tobin's Q, market value, and ROA) on CSP and the control variables. Table 2 summarizes the results of this test. The results show that for Tobin's Q and the Market value, the CSP-FP relationship changes from negative to positive as the time lag between CSP and the financial performance variable increases. This result suggests that the CSP-FP relationship is negative in the short term, but positive in the long term, thus lending support to Hypothesis 1. However, the predicted change in the CSP-FP relationship is not observed when the dependent variable was ROA.

Tables 3 and 4 summarize the test results for Hypothesis 2. In Hypothesis 2, I proposed that the positive impact of CSP on long-term financial performance would be more pronounced after the Sarbanes-Oxley Act. A comparison of Tables 3 and 4 shows that the positive CSP-FP relationship in the long term (t+3) is more pronounced during the period after the Sarbanes-Oxley Act (Table 4, market value model) than during the period before the Sarbanes-Oxley Act (Table 3, market value model), thereby lending some support to the prediction of Hypothesis 2. However, a comparison of Tables 3 and 4 also reveals that the short-term CSP-FP relationship was only significantly negative after the Sarbanes-Oxley Act period, which contradicts the prediction of Hypothesis 3. To further study the short-term CSP-FP relationship surrounding the Sarbanes-Oxley Act, I checked the interaction effect of the Sarbanes-Oxley Act and CSP on short-term financial performance (Tables 5 and 6).

Table 2. Fixed Effects Estimation Results of the CSP-FP Relationship (1992-2006)

Dependent Variable	Tobin's q_{t+1}	Tobin's q_{t+2}	Tobin's q_{t+3}	Market Value$_{t+1}$	Market Value$_{t+2}$	Market Value$_{t+3}$	ROA$_{t+1}$	ROA$_{t+2}$	ROA$_{t+3}$
Intercept	5.3693***	3.5769***	5.1191***	-7231.9*	5912.8	9760.2	0.4544***	0.5611***	0.2394*
	(0.3601)	(0.4844)	(0.7794)	(3404.0)	(4891.5)	(7789.9)	(0.0408)	(0.0609)	(0.1062)
Firm size $_t$	-0.3795***	-0.1759**	-0.4683***	1899.6***	216.87	52.058	-0.0578***	-0.0760***	-0.0239†
	(0.0490)	(0.0656)	(0.1055)	(454.54)	(652.63)	(1043.4)	(0.0054)	(0.0081)	(0.0142)
Free cash flow $_t$	0.0000	0.0000	0.0000	2.9972***	2.8094***	0.9294*	0.0000†	0.0000	0.0000†
	(0.0000)	(0.0000)	(0.0000)	(0.1422)	(0.2209)	(0.3811)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	-1.9803***	-0.6286***	1.9694***	-2145.9*	-1239.3	-2384.1	0.1431***	0.2887***	0.0130
	(0.1245)	(0.1458)	(0.2447)	(1095.8)	(1449.8)	(2413.1)	(0.0131)	(0.0180)	(0.0328)
CSP $_t$	-0.0313***	-0.0218*	0.0289†	-151.41*	-125.13	419.03**	-0.0010	-0.0004	-0.0012
	(0.0081)	(0.0099)	(0.0166)	(75.154)	(100.60)	(161.86)	(0.0009)	(0.0012)	(0.0022)
Firm-Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	5059	3680	2356	5705	4158	2660	5715	4166	2667
N Firms	1483	1393	1280	1631	1543	1434	1634	1544	1436
Adjusted R-Squared	0.8295	0.8418	0.8472	0.9593	0.9603	0.9696	0.6346	0.5851	0.4859

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Fixed Effects Estimation Results of the CSP-FP Relationship (Before the Sarbanes-Oxley Act: 1992-2002)

Dependent Variable	Tobin's q_{t+1}	Tobin's q_{t+2}	Tobin's q_{t+3}	Market Value$_{t+1}$	Market Value$_{t+2}$	Market Value$_{t+3}$	ROA$_{t+1}$	ROA$_{t+2}$	ROA$_{t+3}$
Intercept	16.734***	7.9953***	4.1890***	32861†	20194	37629*	0.8530***	0.4690***	0.1960***
	(1.0261)	(1.0783)	(1.1006)	(16941)	(16222)	(14883)	(0.0551)	(0.0555)	(0.0537)
Firm size $_t$	-1.2294***	-0.8724***	-0.6783***	2875.3†	2162.5	-1691.1	-0.0626***	-0.0504***	-0.0195***
	(0.0957)	(0.0977)	(0.0989)	(1581.2)	(1513.4)	(1387.6)	(0.0049)	(0.0051)	(0.0050)
Free cash flow $_t$	-0.0000	-0.0000	-0.0002***	7.9018***	-0.4786	-4.1341***	0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.5714)	(0.5463)	(0.4990)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	0.4752†	0.6305*	0.7140**	-2538.7	-560.41	1264.2	0.0334*	0.0042	0.0200
	(0.2495)	(0.2582)	(0.2579)	(4116.8)	(3943.9)	(3629.9)	(0.0129)	(0.0135)	(0.0131)
CSP $_t$	0.0346†	0.0235	0.0087	-56.383	-74.841	-115.69	-0.0008	-0.0008	-0.0017†
	(0.0176)	(0.0181)	(0.0183)	(289.24)	(277.20)	(254.58)	(0.0009)	(0.0009)	(0.0009)
Firm-Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	2360	2339	2333	2654	2641	2627	2655	2642	2627
N Firms	481	480	483	519	518	517	519	519	517
Adjusted R-Squared	0.7601	0.7386	0.7078	0.8592	0.8844	0.9081	0.5475	0.5670	0.5470

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4. Fixed Effects Estimation Results of the CSP-FP Relationship (After the Sarbanes-Oxley Act: 2003-2006)

Dependent Variable	Tobin's q_{t+1}	Tobin's q_{t+2}	Tobin's q_{t+3}	Market Value$_{t+1}$	Market Value$_{t+2}$	Market Value$_{t+3}$	ROA$_{t+1}$	ROA$_{t+2}$	ROA$_{t+3}$
Intercept	9.6995***	2.8071*	-0.2772	30522*	40820*	-7598.7	0.9471***	0.3200**	-0.2835†
	(0.8582)	(1.1070)	(1.8901)	(13676)	(19423)	(35480)	(0.0846)	(0.1182)	(0.1715)
Firm size $_t$	-0.6173***	-0.1661	0.3005	1404.1	-2422.2	4612.7	-0.0556***	-0.0266*	0.0376*
	(0.0753)	(0.1017)	(0.1879)	(1188.4)	(1764.3)	(3360.0)	(0.0073)	(0.0107)	(0.0161)
Free cash flow $_t$	0.0000	0.0000	0.0000	3.5227***	4.5671***	0.9107*	0.0000	-0.0000	-0.0000*
	(0.0000)	(0.0000)	(0.0000)	(0.2447)	(0.3568)	(0.6690)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	-0.1249	-0.0024	-0.5917†	-1874.0	-2946.1	-5864.3	0.0206	0.0654**	0.0110
	(0.1522)	(0.1858)	(0.3288)	(2058.1)	(3174.4)	(5981.3)	(0.0127)	(0.0193)	(0.0288)
CSP $_t$	-0.0250**	-0.0304**	0.0007	-497.21**	-471.81*	1038.9**	0.0000	-0.0009	-0.0004
	(0.0089)	(0.0106)	(0.0187)	(149.32)	(198.03)	(374.33)	(0.0009)	(0.0012)	(0.0018)
Firm-Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	1787	1314	844	2005	1485	962	2008	1488	965
N Firms	491	464	428	531	506	472	531	506	1436
Adjusted R-Squared	0.8869	0.8963	0.9057	0.9687	0.9690	0.9700	0.6207	0.6297	0.7414

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Moderation Effect of the Sarbanes-Oxley Act on the CSP-FP Relationship (1992-2006)

Dependent Variable	Tobin's q_{t+1}	Market Value$_{t+1}$	ROA$_{t+1}$
Intercept	19.425***	69698***	0.7854***
	(0.5923)	(8928.5)	(0.0344)
Firm size $_t$	-1.3027***	118.92	-0.0539***
	(0.0495)	(753.57)	(0.0029)
Free cash flow $_t$	-0.0000†	5.2302***	0.0000***
	(0.0000)	(0.2339)	(0.0000)
Debt ratio $_t$	0.1850	224.26	0.0024
	(0.1425)	(2094.2)	(0.0080)
After SOX (2003-) $_t$	0.0317	-1663.3***	0.0189***
	(0.0347)	(530.17)	(0.0020)
CSP $_t$	0.0086	187.47	-0.0005
	(0.0115)	(175.83)	(0.0005)
After SOX x CSP $_t$	-0.0528***	-531.14**	-0.0002
	(0.0111)	(165.51)	(0.0006)
Firm-Fixed Effects	Included	Included	Included
N Firm-Years	4147	4659	4663
N Firms	547	571	571
Adjusted R-Squared	0.7403	0.8936	0.4921

Significance levels: $\dagger$ $p< .1$, $*$ $p < .05$, $**$ $p < .01$, $***$ $p < .001$

The results of Table 5 again confirm the previous interpretation of Tables 3 and 4: the negative relationship between CSP and short-term financial performance is stronger during the period after the Sarbanes-Oxley Act. In Table 5, the interaction term of CSP and the Sarbanes-Oxley Act is negative and statistically significant for Tobin's Q (β=-0.0528, p<0.0001) and the market value (β=-531.14, p<0.001), suggesting that the short-term CSP-FP relationship for Tobin's Q and the market value becomes more strongly negative after the Sarbanes-Oxley Act than before it. Therefore, the findings from Tables 3, 4, and 5 do not support Hypothesis 3.

I conducted an additional analysis to examine the relationship between CSP and short-term financial performance surrounding the Sarbanes-Oxley Act. In hypothesis 4, I predicted that the impact of the Sarbanes-Oxley Act may be more pronounced in corporate governance specific CSP. In order to examine this idea, I focused on a subset of the KLD Social Ratings on corporate governance. I regressed financial performance measures on corporate governance ratings only (Table 6). The result of this additional analysis is reported in Table 6, which shows that the interaction effect of the Sarbanes-Oxley Act and corporate governance rating is only statistically significant for Tobin's Q at $t+1$. Therefore, hypothesis 4 has a very weak support, if any.

Table 6. Moderation Effect of the Sarbanes-Oxley Act on the Corporate Governance-specific CSP-FP Relationship (1992-2006)

Dependent Variable	Tobin's q_{t+1}	Tobin's q_{t+2}	Tobin's q_{t+3}	Market Value$_{t+1}$	Market Value$_{t+2}$	Market Value$_{t+3}$	ROA$_{t+1}$	ROA$_{t+2}$	ROA$_{t+3}$
Intercept	9.5865***	10.540***	9.7738***	-24694***	7346.8	37100***	0.4366***	0.3815***	0.2632***
	(0.3536)	(0.3856)	(0.4362)	(5086.0)	(5653.9)	(6110.4)	(0.0251)	(0.0275)	(0.0287)
Firm size $_t$	-0.8802***	-1.0037***	-0.9150***	4441.6***	939.85	-2171.6**	-0.0468***	-0.0402***	-0.0250***
	(0.0439)	(0.0480)	(0.0544)	(632.13)	(704.73)	(763.82)	(0.0031)	(0.0034)	(0.0035)
Free cash flow $_t$	0.0000	-0.0000	-0.0000**	4.9251***	2.4176***	-0.6607*	0.0000	0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.2115)	(0.2553)	(0.2999)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	-0.5571***	-0.0171	0.3472	-3792.3*	-3139.3	-2598.3	-0.0249**	0.0073	0.0106
	(0.1355)	(0.1436)	(0.1625)	(1811.8)	(2066.5)	(2304.2)	(0.0089)	(0.0100)	(0.0108)
After SOX (2003-) $_t$	0.1794***	0.1793***	0.1524**	-664.02	1286.2*	2797.3***	0.0319***	0.0274***	0.0159***
	(0.0380)	(0.0404)	(0.0480)	(559.26)	(616.02)	(700.02)	(0.0027)	(0.0029)	(0.0032)
Corporate Governance rating $_t$	-0.1645***	-0.0816*	0.1062*	-1097.4*	-1177.5*	694.55	-0.0024	0.0020	0.0003
	(0.0369)	(0.0378)	(0.0414)	(537.60)	(567.61)	(593.60)	(0.0026)	(0.0027)	(0.0027)
After SOX x Corporate Governance rating $_t$	0.1631***	0.0615	0.0038	315.27	29.977	-1412.9†	0.0031	-0.0064†	-0.0040
	(0.0444)	(0.0480)	(0.0582)	(645.73)	(721.89)	(831.12)	(0.0031)	(0.0035)	(0.0039)
Firm-Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	4185	3682	3219	4744	4216	3691	4749	4220	3694
N Firms	555	544	532	576	568	559	576	569	560
Adjusted R-Squared	0.6954	0.7051	0.6847	0.8874	0.8930	0.9035	0.4511	0.4402	0.4526

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

4.1. Additional analysis on the CSP-FP relationship

I ran several sets of additional regressions using seven individual categories of the KLD Social Ratings (community, governance, diversity, employee relations, the environment, human rights, and products). More specifically, all of the tests performed in Table 2-6 were replicated by substituting the (overall) CSP score with seven individual categories of the KLD Social Ratings. The rationale behind this additional test was to see whether the relationships between (overall) CSP and financial performance would be similarly replicated across individual categories of the KLD Social Ratings. The results of this additional analysis did not reveal a similar pattern of relationship between the KLD individual categories and financial performance. I report the results of the additional analysis in Appendix 5-7.

A lack of significant findings in this additional analysis may speak to the multidimensional nature of CSP and individual firm difference in priority given to different social issue categories (Brammer *et al.*, 2006; Carroll, 1979; Griffin and Mahon, 1997; Hillman and Keim, 2001; Rowley and Berman, 2000). For example, a firm with a strong overall CSP may have weakness in environmental protection, while another firm with a similarly strong overall CSP may have strength in environmental protection. Let us assume that both firms show similarly strong financial performance. In this example, if we regress financial performance on environmental performance (an individual social issue category), we will not find a clear relationship. However, we will find a clear positive relationship between overall CSP and financial performance. Most likely, firms in the real world may have different priorities and may perform differently in different

social issues. Therefore, it is not very strange that we do not find a clear relationship between individual social issue categories and financial performance.

Indeed, a number of previous studies that used the KLD Social Ratings database urge researchers to use an aggregate measure of CSP rather than individual social issue categories. For example, Rowley and Berman (2000) criticize the validity and reliability of studies that used single or selective dimension(s) of the KLD ratings and urge simultaneous consideration of various dimensions of CSP. Griffin and Mahon (1997: 25) also claim that studies using selective dimensions of CSP ratings do not capture firms' social performance, as they "inadequately reflect the breadth of the construct." The multidimensional nature of CSP emphasized by previous studies suggests that the CSP-FP relationship will be more accurately examined when an aggregate CSP measure is used.

5. Conclusion and Discussion

In the first part of this essay, I compared the relationships between CSP and financial performance in short-term and long-term. The results showed that CSP has a negative relationship with short-term financial performance, but a positive relationship with long-term financial performance. This finding supports the view that the benefit from CSR investment comes from improvement in the firm-stakeholder relationship. In addition, I examined whether the Sarbanes-Oxley Act had a meaningful influence on the relationship between CSP and financial performance. The results showed that enactment of the Sarbanes-Oxley Act may have caused changes in social perceptions toward CSR.

The findings of this essay provide some answers to questions concerning CSR. First, many have questioned whether spending limited firm resources on CSR can be

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justified (See Margolis and Walsh, 2003 for a review). Given that the ultimate goal of the firm is to maximize shareholder wealth, the justification of CSR-related investment often depends on whether the CSR investment can improve financial performance. The findings of this essay suggest that justification of investment in CSR may depend on the investor's time horizon. The positive CSP-FP relationship in the long term suggests that investment in CSR can create financial value, but it takes time and patience. Therefore, for the investors with a long time horizon, spending firm resources in CSR can be a justifiable firm action. However, the negative CSP-FP relationship in the short term suggests that investment in CSR may not be justifiable from the perspective of the investors with a short time horizon. This idea suggests that there may be possible differences in the level of CSR-related investment depending on the ownership structure of the firm. For example, ownership by the short-term profit oriented institutional investors, such as mutual fund, may be negatively related with CSP of the firm.

Second, investment in CSR may create financial value, but it may depend on stakeholder perceptions toward CSR. Possible differences in social perceptions toward CSR before and after the Sarbanes-Oxley Act suggest that different times call for different values. Nowadays, the idea of CSR is considered more important than it was before. When stakeholders appreciate CSR, firms may benefit more by investing in CSR. Considering that stakeholders are becoming more sensitive to and appreciative of CSR (Hillman and Keim, 2001; Porter and Kramer, 2006; Zadek, 2004), CSR as a strategic investment is becoming more important. A closely related implication is that firms should understand differences in stakeholder perceptions toward CSR across different countries and regions. This implication may be particularly relevant to multinational firms. The

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Sarbanes-Oxley Act suggests that there are temporal differences in stakeholder perceptions toward CSR. However, such differences exist across countries and regions, as well.

This study suggests that consideration of finer-grained relationship between CSP and financial performance will help us understand the CSP-FP relationship better. More specifically, this study introduced the need to consider temporal difference (short-term vs. long-term financial performance) and moderating contexts (the Sarbane-Oxley Act) in the CSP-FP relationship. While this study's findings are interesting, there are several limitations. First, the measurement of CSP in this paper relied on an index measure, which may not be the most ideal measure of a firm's investment/performance level in CSP. If we can quantitatively measure a firm's actual spending on various social issues, it may provide a more accurate measure of a firm's investment in CSP. Alternatively, if we can quantitatively measure the level of improvement in social condition as a result of a firm's investment in CSP (e.g., financial value created for the society), it may also serve as a better measure of CSP and help us further clarify the CSP-FP relationship. Second, I used t+1, t+2, and t+3 time lags to operationalize short-term and long-term financial performance. However, how far along in the future should be considered as "long term" may be debatable. While some previous studies used similar approach to operationalize short-term and long-term performance (e.g., Kacperczyk, 2009), three years in the future may not appropriately capture long-term performance. However, as my data covers period only up to 2006, I was not able to use time lags longer than t+3 to test the CSP-FP relationship. Lastly, to capture the possible moderation effect of stakeholder perception on the CSP-FP relationship, this study relied on interaction with year dummies and split-

sample test. If we can directly measure changes in the level of stakeholder perception/appreciation of CSR, more accurate test of the moderation effect will be possible. Consideration and improvement of those limitations will allow future studies to provide a better understanding of how CSP can contribute to financial performance of the firm. I encourage future researchers to consider those issues in their investigation of the subject.

Part II

6. Literature and Hypotheses

6.1. Measurement issues in corporate social performance

Scholarly attention to corporate social performance (CSP) has greatly increased recently. Relevant research subjects include the impact of CSP on corporate financial performance (Griffin and Mahon, 1997; Margolis and Walsh, 2003; Waddock and Graves, 1997), the impact of CEO characteristics on CSP (Deckop *et al.*, 2006; Mahoney and Thron, 2006; McGuire *et al.*, 2003), the impact of firm characteristics on CSP (McWilliams and Siegel, 2000), and so on. In short, CSP is receiving increasing attention as both an antecedent and a consequence of corporate actions. However, as all burgeoning fields of research do, CSP-related research suffers from a number of limitations (Rowley and Berman, 2000).

One of the largest concerns shared by critics and researchers alike is whether currently used measures of CSP are accurately measuring the intended construct. Currently, the most popular measure of CSP among academics and practitioners is CSP ratings provided by the Kinder, Lydenberg, Domini Research & Analytics (KLD) database (Chatterji *et al.*, 2009; Waddock, 2003). Many influential socially responsible investment (SRI) funds (e.g., TIAA-CREF) have relied on the KLD social ratings to construct their investment portfolio of socially responsible firms. Also top-tier management journals have accepted research papers, which used the KLD social ratings to measure CSP. For example, the Strategic Management Journal has accepted at least 10 papers since 1999, and the Academy of Management Journal has accepted at least 5 papers since 1994.

Although a number of studies commented on possible problems with the KLD social ratings (Chatterji and Levine, 2006; Entine, 2003; Griffin and Mahon, 1997; Porter and Kramer, 2006; Rowley and Berman, 2000), only a few attempts have been made to examine the KLD social ratings in a rigorous manner. In one of the first studies on this issue, Sharfman (1996) examined convergent validity of the KLD social ratings by examining correlation between the KLD ratings and Fortune's corporate reputation scores. He found that the correlation between the KLD ratings and Fortune's reputation score was as high as 0.55, which is considerably high. However, the correlation analysis alone may not provide enough evidence to support validity of the KLD ratings as an appropriate measure of CSP, especially if Fortune's reputation score does not represent a proper measure of CSP (Brown and Perry, 1994; Fryxell and Wang, 1994). Recently, Chatterji *et al.* (2009) conducted a more rigorous validation of KLD's environment rating items. In this study, Chatterji *et al.* (2009) analyzed validity of KLD's environmental ratings by introducing an analytical model of environmental performance ratings and testing it using detailed quantitative data for environmental performance. Other attempts to examine measurement validity of the KLD data merely remain at comparison of correlation sizes of the KLD data with other data (Sharfman, 1996).

Despite Chatterji *et al.*'s (2009) validation effort on environmental performance category in KLD ratings, other categories of the KLD ratings remain largely unexamined. In addition to environmental performance, the KLD social ratings cover six major social performance categories, including *Diversity, Governance, Employee Relations, Community, Human Rights,* and *Product*, each of which may provide equally important information to stakeholders (KLD, 2006). In this paper, I attempt to evaluate accuracy of

the KLD social rating items in *Diversity* and *Governance* categories by comparing those ratings with information from other sources. I focus on the *Diversity* and *Governance* categories because of the practical significance of these two categories to stakeholders and availability of the alternative data sources on those categories.

An ideal measure of social performance should have both backward-looking ability (that is, summing up historical social performance) and forward-looking ability (that is, predicting future social performance) of relevant social performance categories (Chatterji *et al.*, 2009). In this paper, I intend to examine these backward-looking and forward-looking abilities of KLD's rating items in *Diversity* and *Governance* categories.

6.2. Social performance in diversity and governance

Workforce diversity and corporate governance are important social performance areas that constitute overall CSP of the firm. Diversity in workforce can affect firms in several ways and thus provides useful information to stakeholders. First, workforce diversity lowers employee turnover rate and absenteeism from dissatisfied employees (Robinson and Dechant, 1997; Thomas and Ely, 1996). Also diversity enhances the ability of a firm to attract the most talented applicants from a larger labor pool, regardless of ethnicity or gender (Robinson and Dechant, 1997; Thomas and Ely, 1996). Lastly, it has also been argued that workforce diversity improves the ability of a firm to appeal to a broader customer base and compete more effectively in the global marketplace (Robinson and Dechant, 1997; Thomas and Ely, 1996). In sum, a diverse workforce may benefit a firm by creating cost savings for a firm, enhancing its workforce productivity, and expanding its customer base.

Strong corporate governance and a high level of transparency may contribute to the firm and its shareholders. Strong governance and transparency may enable shareholders to earn superior risk-adjusted returns, make better decisions about monitoring managers, and lower the company's cost of capital (Brown and Caylor, 2006; Gompers, Ishii, and Metrick, 2003). The opposite is also true: companies weak in governance and transparency represent increased investment risks, result in a higher cost of capital, have greater agency problems, and show weaker financial performance (Core, Holthausen, and Larcker, 1999). Considering that workforce diversity and corporate governance constitute important parts of social performance of the firm, stakeholders would like to understand a firm's performance in those areas. However, given that both social performance categories consist of multiple dimensions, stakeholders who do not have enough resources to examine multiple dimensions of social performance often rely on readily available CSP ratings. Therefore, stakeholders would be interested in the true ability of the CSP rating that claims to measure the level of workforce diversity and corporate governance of the firm.

First, stakeholders would be interested in how well the CSP rating can summarize past social performance (backward-looking ability). Rosen, Sandler, & Shani (1991) explained that some stakeholders care about past social performance of the firm because they want to ensure that the firm's good present financial performance is not attributable to unethical or socially dubious behavior from the past. Chatterji *et al.* (2009) named stakeholders with such a motive as "deontological". Another group of stakeholders, "consequentialist" would also be interested in the ability of the CSP rating to summarize past social performance. Consequentialist stakeholders intend their investment and

purchases to promote socially responsible behavior and punish irresponsible behavior of the firm (Chatterji *et al.*, 2009), and eventually "change the world".[3] For example, TIAA-CREF, the largest US retirement fund, claims that by carefully evaluating previous CSP records of firms, it can effectively choose socially responsible firms and influence the future ESG (environmental, social, governance) policies of the firms in which it invests.[4]

Also, even purely financial profit-oriented stakeholders would be interested in the backward-looking ability of the CSP rating, if strong past CSP means a better future financial performance. A recent view on CSP emphasizes the importance of CSP as an "insurance" mechanism (Gardberg and Fombrun, 2006; Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009; McGuire *et al.*, 1988). This view suggests that strong past corporate social performance creates a form of goodwill or moral capital for the firm that works as insurance-like protection against possible negative events and therefore lowers the overall amount of risk in the firm financial performance. Therefore, if the CSP rating can effectively summarize past social performance and thus the level of moral capital accumulated by the firm, stakeholders with a pure financial profit orientation would be also interested in the backward-looking ability of the CSP rating.

Scholars conducting empirical research using CSP ratings would be interested in the backward-looking ability of the CSP ratings as well. Most, if not all, empirical research on CSP uses CSP ratings as measures that capture the level of CSP in the preceding time period (e.g., Berman, Wicks, Kotha, and Jones, 1999; Graves and

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[3,2] TIAA-CREF, "About TIAA-CREF" (http://www.tiaa-cref.org/about/socially-responsible-investing/index.html, accessed April 25, 2009).

Waddock, 1994; Hillman and Keim, 2001; McGuire *et al.*, 2003; Waddock and Graves, 1997). Therefore, unless the CSP ratings effectively summarize the past social performance of firms, many empirical studies that relied on the CSP ratings may lose their validity.

Second, stakeholders would be also interested in how well the CSP rating can predict the future firm social performance (forward-looking ability). If a high CSP rating means a better social performance in the future, both deontological and consequentialist stakeholders would find the information from the CSP rating instrumental in guiding their decisions: High CSP ratings imply that a firm will continue to do business in a responsible manner in the future. Therefore both deontological and consequentialist investors may feel safe in investing in a firm with high CSP ratings. Also, purely financial profit-oriented stakeholders would be interested in the predictability of the CSP rating, if better future social performance means superior future financial performance (Waddock and Graves, 1997). Lastly, scholars conducting empirical research have used CSP ratings as measures that reflect both the level of past and future social performance (e.g., Godfrey *et al.*, 2009; Kacperczyk, 2009). Therefore, empirical scholars would be interested in the future-predicting ability of CSP ratings as well, particularly if they are considering the CSP ratings as variables that capture the level of firms' commitment to social issues in the future.

7. Data and Method

7.1. KLD diversity and governance ratings

I focus on the *Diversity* and *Governance* categories because of the practical significance of these social issues to stakeholders and availability of the alternative data sources on

those categories. As explained earlier, diversity and governance are important social issues to both stakeholders and shareholders. More importantly, I needed alternative sources of objective information about firm performance on social issues to examine validity of the KLD ratings. Among the seven social issues covered by the KLD database, diversity and governance were categories which I could obtain information from other objective data sources. *Diversity* and *Governance* categories consist of five and seven sub-ratings, respectively (See Appendix 1). I was able to obtain alternative information for four ratings among the twelve sub-ratings.

First, from the *Diversity* category, I chose *CEO Diversity* and *Board of Directors (BOD) Diversity*, for which alternative sources of data are available. According to KLD's ratings definition document (KLD, 2006: 6), *CEO Diversity* is a dichotomous rating which denotes "if the company's chief executive officer is a woman or a member of minority group". Similarly, *BOD Diversity* is a dichotomous rating that measure if "women, minorities, and/or the disabled hold four seats or more (with no double counting) on the board of directors, or one-third or more of the board seats if the board numbers less than 12" (KLD, 2006: 6). KLD provides only the "strength item" for these two *Diversity* rating items. That is, KLD only evaluates if a company is doing particularly well in those areas. If a company does well in each item, it assigns 1 and 0 otherwise.

Second, from the *Governance* category, I picked *Top Management Team* (*TMT*) *Compensation* and *Reporting Transparency* also because alternative sources of data are available for those items. KLD (2006: 5) explains that *TMT Compensation* (strength, concern) is a dichotomous rating which indicates if "the company has recently awarded notably low (strength)/high (concern) levels of compensation to its top management or its

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board members". The *Reporting Transparency* item is also a dichotomous rating which measures if "the company is particularly effective in reporting on a wide range of social and environmental performance measures, or is exceptional in reporting on one particular measure" (KLD, 2006: 5). In contrast to the two *Diversity* items, where only strength is rated, KLD provides both strength and concern for the *TMT Compensation* and *Reporting Transparency* items. That is, KLD measures whether a firm is particularly strong or particularly weak in these areas. Therefore I used three separate measures for the *TMT Compensation* category: *Net TMT Compensation (concern minus strength)*, *TMT Compensation Concern (1/0),* and *TMT Compensation Strength (1/0)*.[5] While KLD reports both strength and concern for *Reporting Transparency* as well, I chose not to use the *Reporting Transparency Concern* item, which is available only from 2006. In contrast, KLD rated *Reporting Transparency Strength* from as early as 1996. Because combining both strength and concern for the *Reporting Transparency* item will result in loss of information before 2006, I decided to use *Reporting Transparency strength* only (henceforth, *Reporting Transparency*).

7.2. Diversity and governance performance information from other sources

Data on diversity and governance performance were obtained from several independent databases. First, CEO diversity information was obtained from the Compustat's Executive Compensation (Execucomp) database. However, the Execucomp database provides information only about CEO gender and not about CEO ethnicity. Therefore, CEO diversity performance is measured as a dichotomous variable indicating if the CEO

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[5] TMT Compensation Concern indicates if a firm rewards notably high compensation, whereas TMT Compensation Strength indicates if a firm rewards notably low compensation. Therefore, a large value in Net TMT Compensation (concern minus strength) means a firm is awarding notably high compensation to its TMT.

is a female. The number of observations is 10436. The period included is 1992 to 2008. The number of firms included is 1928.

Second, BOD diversity information was obtained from the Investor Responsibility Research Center (IRRC) database, which provides detailed information about individual board members. The IRRC database provides both gender and ethnicity information for the board members. However, the IRRC database does not provide information about whether a director is disabled or not. Using the IRRC database, I calculated the ratio of female and minority directors on the board. Specifically, I calculated four measures of the board diversity using the IRRC database. First, I calculated a binary diversity measure that reflects female and minority director composition, exactly following KLD's approach except for the director's disabled status (Assigning 1, if four or more directors are either female or minority, or 1/3 of directors are either female or minority when the total board member is less than 12, and assigning 0 otherwise). Second, I calculated a continuous measure of BOD diversity, which is the percentage of female and minority members (without double counting) on the board. Third, I calculated the percentage of females on the board. Lastly, I calculated the percentage of minorities on the board. The number of observations is 11810. The period included is 1996 to 2007. The number of firms included is 3939.

Third, TMT compensation information was collected from the Execucomp database. The Execucomp database provides total compensation (bonus, salary, stock-based compensation, retirement plans and etc.) information for each senior executive of a firm. Using this data, I calculated the annual sum of the TMT total compensation and divided it by 1,000, because of the very large value of this item. As a result, the order of

this variable is millions of dollars. The number of observations is 12780. The period included is 1992 to 2008. The number of firms included is 1946. This is a continuous variable.

Lastly, information on reporting transparency was collected from CorporateRegister.com (www.corporateregister.com). KLD's Reporting Transparency rating measures if a firm is "effective in reporting on a wide range of social and environmental performance measures" (KLD, 2006: 5). I assumed that the firms that publish stand-alone annual reports on corporate social responsibility/performance (CSR/CSP) can be counted as effectively reporting on social and environmental issues. Therefore, I tracked whether a firm published annual CSR/CSP reports in a given year. CorporateRegister.com provides this CSR/CSP report publishing information for 524 US firms as of February, 2009. Using this information, I constructed a yearly binary variable "CSR reporting", which indicates if a firm published a CSR/CSP report in that year. The information provided by CorporateRegister.com was verified by the author using all 524 companies' websites. The number of observations is 6053. The period included is 1996 to 2008. The number of firms included is 524.

Control variables

Following Chatterji *et al.* (2009) I controlled for industry (using 2-digit SIC code), log total assets, and log total sales. All control variables are collected from the Compustat Fundamental Annual database.

7.3. Backward-looking (past-summarizing) ability of the KLD ratings

A good rating of corporate diversity and governance should sum up relevant past corporate performance in corresponding areas. I assessed the extent to which four of the

KLD *Diversity* and *Governance* ratings effectively summarize firms' past diversity- and governance-related performance by estimating the following equation:

$$\text{KLD Rating}_{it+1} = \beta_1 \text{ Diversity/Governance performance measure}_{it} + Z_{it}\,\gamma + \varepsilon_{it} \quad (1)$$

The control variables Z_{it} included year dummies and two measures of corporate size: log of assets and log of sales. I ran models both with and without industry dummies. I used logistic models to estimate the dichotomous *CEO diversity*, *BOD diversity*, *TMT Compensation (strength, concern),* and *Reporting Transparency* ratings and an OLS model to estimate the *Net TMT Compensation (concern minus strength)* rating.

7.4. Forward-looking (future-predicting) ability of the KLD ratings

I next assessed the extent to which the KLD ratings predict corporate performance in corresponding areas. To understand this ability, I estimated the following equation that predicts diversity/governance performance based on corresponding KLD ratings for one-year earlier:

$$\text{Diversity/Governance performance measure}_{it+1} = \beta_1 \text{ KLD Rating}_{it} + Z_{it}\,\gamma + \varepsilon_{it} \quad (2)$$

The functional forms I estimated (OLS, logistic, tobit) depended on the characteristics of diversity/governance performance measures I used (continuous, binary, ratio). Again, the control variables Z_{it} included year dummies and two measures of corporate size.

I was also interested in assessing whether the KLD ratings have incremental predictive power beyond the autocorrelation of past diversity/governance performance measures. To the extent that the KLD ratings are measuring management quality that has not yet affected diversity/governance performance, the KLD ratings should be able to predict future diversity/governance performance conditioned on historical performance.

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To test this possibility, I estimated the same models as in equation (2), but included as an additional control variable the dependent variable (diversity/governance performance measures) lagged one year (Chatterji *et al.*, 2009; Keele and Kelly, 2006).

Diversity/Governance performance measure$_{it+1}$= β_1 KLD Rating$_{it}$ + β_2 Diversity/Governance performance measure$_{it}$ + Z_{it} γ + ε_{it} (3)

Significant coefficients on the KLD rating (β_1) in this equation would suggest that KLD's ratings are assessing the effects of current diversity and governance management plans and investments on future diversity and governance performance beyond any autocorrelation in social performance.

8. Results

8.1. Correlation between the KLD ratings and data from other sources

For preliminary examination of the KLD ratings, I performed correlation analysis for all four KLD items. First, I compared CEO gender information from the Execucomp database with KLD's *CEO Diversity* item. KLD's CEO diversity measures whether a CEO is a woman or a minority. Unfortunately, the Execucomp database does not provide CEO ethnicity information. The correlation between the Execucomp's CEO gender information and KLD's *CEO Diversity* item was 0.4695 and highly statistically significant at p<0.01.

Second, I calculated four measures of the board diversity from the IRRC database and compared them with KLD's *BOD Diversity* item. First, I calculated a binary diversity measure that reflects female and minority director composition, exactly following KLD's approach (Assign 1, if four or more directors are either female or minority, or 1/3 of directors are either female or minority when the total board member is less than 12, and

assign 0 otherwise). Second, I calculated a continuous measure of diversity, which is the percentage of female and minority members on the board. Third, I calculated the female percentage and the minority percentage on the board separately. The correlation between the first diversity measure (binary measure) and the KLD *BOD Diversity* item was 0.5737 and significant at p<0.01. The correlation between the second measure of diversity (continuous measure) and KLD *BOD Diversity* was 0.4940 and significant at p<0.01. The correlation between the female percentage on the board and KLD *BOD Diversity* was 0.4356 and significant at p<0.01 level. Lastly, the correlation between the minority percentage on the board and KLD *BOD Diversity* was 0.3450 and significant at p<0.01.

Table 7. Summary Statistics

Execucomp CEO diversity data and KLD's *CEO Diversity* rating

Variable	N	Mean	SD	Min	Max
CEO gender (Execucomp)	10436	0.0247221	0.1552844	0	1
CEO diversity (KLD)	10436	0.0417785	0.2000921	0	1

IRRC director diversity data and KLD's *BOD Diversity* rating

Variable	N	Mean	SD	Min	Max
IRRC diversity measure 1 (binary)	11810	0.1479255	0.3550411	0	1
IRRC diversity measure 2 (%)	11810	0.1542385	0.1363457	0	1
IRRC female director %	11810	0.1028167	0.0916477	0	0.625
IRRC minority director %	11810	0.052436	0.0814283	0	1
Board diversity (KLD)	11810	0.111939	0.3153048	0	1

Execucomp TMT compensation data and KLD's *TMT Compensation* rating

Variable	N	Mean	SD	Min	Max
TMT compensation (Execucomp)	12780	14.90297	23.98166	0	1101.419
TMT compensation strength (KLD)	12780	0.0766823	0.2660971	0	1
TMT compensation concern (KLD)	12780	0.3812207	0.4857056	0	1
TMT compensation net (KLD)	12780	-0.3045383	0.5918782	-1	1

CSR reporting practice data and KLD's *Reporting Transparency* rating

Variable	N	Mean	SD	Min	Max
CSR reporting	6053	0.2648274	0.4412777	0	1
Transparency strength (KLD)	6053	0.0736825	0.2612750	0	1

Third, the correlation between TMT compensation value from the Execucomp database and the KLD *TMT Compensation concern* (high compensation) item was 0.2910 and significant at p<0.01. The correlation between Execucomp's TMT compensation value and the KLD *Net TMT Compensation (concern minus strength)* item was 0.2811 and significant at p<0.01.

Lastly, KLD's *Reporting Transparency* rating indicates if the company is particularly effective in reporting on a wide range of social and environmental performance measures, or is exceptional in reporting on one particular measure. I checked the correlation between this item and a firm's annual CSR/CSP report publication status. The correlation between the annual CSR/CSP report publication status and KLD's *Reporting Transparency* item was 0.4112 and significant at p<0.01. The number of observations is 6053.

The correlation analysis of four *Diversity* and *Governance* rating items shows that there are substantial and highly statistically significant contemporaneous correlations between the KLD social ratings and corresponding social performance variables collected from other databases.

Table 8. Summarizing Ability of Past Performance (KLD Diversity Category)

	KLD CEO diversity $_{t+1}$		KLD BOD diversity $_{t+1}$							
	Logistic		Logistic							
Execucomp CEO gender (binary) $_t$	4.2067***	4.6869***								
	(0.1774)	(0.2307)								
IRRC BOD diversity 1 (binary) $_t$			3.0914***	3.0396***						
			(0.0878)	(0.0936)						
IRRC BOD diversity 2 (%) $_t$					12.882***	13.025***				
					(0.4136)	(0.4443)				
IRRC BOD female % $_t$							17.673***	18.046***		
							(0.5775)	(0.6307)		
IRRC BOD minority % $_t$									8.4480***	8.3706***
									(0.4131)	(0.4449)
Log assets $_t$	0.3172***	0.5979***	0.0021	0.0877	0.1022*	0.1122	0.2600***	0.2767***	0.0512	0.1181
	(0.0586)	(0.1187)	(0.0410)	(0.0890)	(0.0414)	(0.0891)	(0.0400)	(0.0862)	(0.0367)	(0.0790)
Log sales $_t$	-0.3259***	-0.6135***	0.4521***	0.4583***	0.3106***	0.3827***	0.3865***	0.4620***	0.4790***	0.4836***
	(0.0678)	(0.1187)	(0.0501)	(0.0939)	(0.0514)	(0.0941)	(0.0492)	(0.0909)	(0.0448)	(0.0835)
Year dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies		Included		Included		Included		Included		Included
Observations	6599	6599	8358	8358	8358	8358	8358	8358	8358	8358
Firms	1440	1440	1507	1507	1507	1507	1507	1507	1507	1507
Adjusted R^2	0.2235	0.2332	0.3415	0.3611	0.2803	0.3015	0.2450	0.2686	0.1653	0.2044

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

8.2. Evidence of backward-looking (past-summarizing) ability of the KLD ratings

Table 8 shows that KLD's *CEO Diversity* rating is strongly predicted by Execucomp's CEO gender information and that KLD's *BOD Diversity* rating is also strongly predicted by four BOD diversity performance measures constructed based on the IRRC database. Also, Table 10 shows that the KLD *Reporting Transparency* and *TMT Compensation* ratings are each strongly predicted by annual CSR/CSP report publication status information and the TMT compensation measures constructed based on data collected from Execucomp. The significant coefficients of diversity and governance performance measures suggest that KLD's four *Diversity* and *Governance* ratings effectively summarize past corporate diversity and governance performance (Chatterji *et al.*, 2009).

8.3. Evidence of forward-looking (future-predicting) ability of the KLD ratings

I ran a number of models to assess the extent to which the KLD ratings effectively predict social performance in corresponding areas. I first regressed each diversity and governance performance metric on four KLD *Diversity* and *Governance* ratings while controlling for industry, year, and company size (equation 2). I then repeated the models, conditioning as well on the lagged dependent variable (equation 3).

The KLD *CEO Diversity* (strength) item is highly statistically significant (p<0.01) and of the expected sign (positive) in predicting CEO gender data provided by the Execucomp database. The coefficient of logistic regression (Table 9) suggests that when KLD rates a firm as diverse in the CEO position (having a female or minority CEO), it is 68 times (=exp(4.2182)) more likely that the firm will have a female CEO than a male CEO in the future. KLD's *BOD Diversity* (strength) item is also highly significant (p<0.01) and of the expected sign (positive) in predicting the board of director diversity

information from the IRRC database. The coefficient of the logistic model (Table 9) shows that when KLD rates a firm as having a diverse board, it is 15 times (=exp(2.6894)) more likely that the firm will have a diverse board in terms of gender or ethnicity. KLD's *Reporting Transparency* and *TMT Compensation* have a similar strong predictability in future corporate social performance. The coefficient of the logistic model (Table 8) for *Reporting Transparency* suggests that when KLD rates a firm as transparent in reporting social and environmental issues, the firm is 10 times (=exp(2.3327)) more likely to publish a CSR/CSP report in the next year. The coefficient of the OLS model (Table 8) for *TMT Compensation* (concern) shows that when KLD rates a firm as awarding its TMT too much compensation, the firm will award approximately $8,084,200 more to its top executives as a group in the following year. However the result shows that KLD's *TMT Compensation* (strength) item does not predict the TMT compensation information from the Execucomp database in a statistically significant manner.

My next question regarding the predictability of the KLD social ratings is whether the KLD ratings can predict future corporate social performance beyond what is predicted by past corporate social performance. To understand this, I added lagged dependent variables of corporate social performance measures collected from other data sources (equation 3). The results indicate that although the magnitude of the predictability of KLD *Diversity* and *Governance* ratings decline substantially in the models that include the lagged dependent variables, they remain statistically significant and of the expected sign for *BOD Diversity* and *TMT Compensation* (Table 9 and 11). The decline in the coefficients suggests that a substantial portion of the estimated effect size in the base models is due to autocorrelation. For *BOD Diversity*, the proportion of the effect size in

the base models in table 9 due to autocorrelation ranges from 51% (IRRC BOD diversity 1 model) to 88% (IRRC BOD female % model). For *TMT Compensation*, the proportion of the effect size attributable to autocorrelation ranges from 34% (KLD Compensation, concern minus strength) to 35% (KLD Compensation, concern). In sum, I concluded that KLD *Diversity* and *Governance* ratings are only modestly effective in predicting future social performance.

Unfortunately, for *CEO Diversity* and *Reporting Transparency*, inclusion of the lagged dependent variable resulted in drop of observations due to high overlap between the dependent variable and the lagged dependent variable. For *CEO Diversity* the lagged variable perfectly predicted the dependent variable and dropped out of the estimation. That is, for *CEO Diversity*, the dependent variable and the lagged dependent variables have the same values across all 4913 observations. Actually, this is not very surprising considering that the length of the time-series of the data is not very long (average 4.5 years for a firm). This suggests that either transitions between female and male CEOs did not occur during the observation period, or even if CEO transitions did occur, the transitions must have been between the same gender CEOs.

For *Reporting Transparency*, among the 4527 observations used, only 165 observations have different values for the dependent variable and the lagged dependent variable. This suggests that during the period of observation, 165 firms started/ceased to publish CSR/CSP reports. Still, the number of observations with different values was too small to estimate the effect of the lagged dependent variable.

Table 9. Predicting Ability of Future Performance (KLD Diversity Category)

	Execucomp CEO gender (binary) $_{t+1}$ Logistic		IRRC BOD diversity 1 (binary) $_{t+1}$ Logistic		IRRC BOD diversity 2 (%) $_{t+1}$ Tobit		IRRC BOD female % $_{t+1}$ Tobit		IRRC BOD minority % $_{t+1}$ Tobit	
KLD CEO diversity $_t$ (strength)	4.2182*** (0.2211)	n/a								
KLD BOD diversity $_t$ (strength)			2.6894*** (0.0926)	1.3010*** (0.1168)	0.1615*** (0.0039)	0.0327*** (0.0029)	0.0952*** (0.0028)	0.0109*** (0.0018)	0.0681*** (0.0026)	0.0203*** (0.0019)
Log assets $_t$	-0.1406 (0.1958)	n/a	0.1735* (0.0743)	0.1134 (0.0881)	0.0047* (0.0023)	0.0002 (0.0015)	-0.0029† (0.0016)	-0.0011 (0.0010)	0.0074*** (0.0015)	0.0020† (0.0011)
Log sales $_t$	0.1144 (0.1998)	n/a	0.2709*** (0.0781)	0.2310* (0.0925)	0.0223*** (0.0023)	0.0080*** (0.0016)	0.0147*** (0.0017)	0.0042*** (0.0010)	0.0082*** (0.0015)	0.0036** (0.0011)
Year dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Lagged dependent variable		Included		Included		Included		Included		Included
Observations	4913	0	8251	8251	8380	8380	8380	8380	8380	8380
Firms	1440	0	1570	1570	1597	1597	1597	1597	1597	1597
Adjusted R^2	0.2232	n/a	0.3276	0.5056	0.3797	0.7185	0.2822	0.7299	0.2614	0.6123

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10. Summarizing Ability of Past Performance (KLD Governance Category)

	KLD transparency $_{t+1}$ (strength) Logistic		KLD compensation $_{t+1}$ (concern-strength) OLS		KLD compensation $_{t+1}$ (concern) Logistic		KLD compensation $_{t+1}$ (strength) Logistic	
CSR reporting (binary) $_t$	2.9162*** (0.1810)	2.4824*** (0.1961)						
Execucomp TMT compensation/1000 (continuous) $_t$			0.0029*** (0.0001)	0.0021*** (0.0001)	0.0390*** (0.0019)	0.0310*** (0.0019)	-0.0149*** (0.0040)	-0.0053 (0.0036)
Log assets $_t$	-0.2121** (0.0818)	0.7052*** (0.1916)	0.0048 (0.0053)	0.1019*** (0.0093)	0.0324 (0.0233)	0.4727*** (0.0448)	0.0640† (0.0377)	-0.3401*** (0.0702)
Log sales $_t$	0.6405*** (0.1044)	0.0765*** (0.2003)	0.1306*** (0.0059)	0.0683*** (0.0095)	0.3587*** (0.0264)	0.1134* (0.0447)	-0.6472*** (0.0432)	-0.4790*** (0.0708)
Year dummies	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies		Included		Included		Included		Included
Observations	4039	4039	11595	11595	11595	11595	11595	11595
Firms	402	402	1855	1855	1855	1855	1855	1855
Adjusted R^2	0.2025	0.2362	0.1828	0.2467	0.1818	0.2406	0.0582	0.0918

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 11. Predicting Ability of Future Performance (KLD Governance Category)

	CSR reporting (Binary)$_{t+1}$ Logistic		Execucomp TMT compensation/1000 (Continuous)$_{t+1}$ OLS					
KLD transparency $_t$ (strength)	2.3327*** (0.2299)	n/a						
KLD compensation $_t$ (concern – strength)			5.5625*** (0.5408)	3.6518*** (0.5029)				
KLD compensation $_t$ (concern)					8.0842*** (0.6512)	5.2472*** (0.6076)		
KLD compensation $_t$ (strength)							-0.1033 (1.0863)	-0.3442 (1.0028)
Log assets $_t$	0.7098*** (0.1065)	n/a	2.6310*** (0.5475)	1.5950** (0.5077)	2.4687*** (0.5466)	1.5033** (0.5074)	3.1726*** (0.5368)	1.9217*** (0.4963)
Log sales $_t$	0.7053*** (0.1113)	n/a	4.2992*** (0.5625)	2.7143*** (0.5224)	4.3795*** (0.5604)	2.7823*** (0.5211)	4.7605*** (0.5549)	2.9806*** (0.5139)
Year dummies	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included	Included	Included	Included	Included	Included	Included
Lagged dependent variable		Included		Included		Included		Included
Observations	4527	0	10882	10882	10882	10882	11248	11248
Firms	461	0	1876	1876	1876	1876	1876	1876
Adjusted R^2	0.3578	n/a	0.1878	0.3032	0.1914	0.3046	0.1819	0.3029

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

8.4. Additional explanatory power of the KLD ratings

If the KLD ratings can measure the management and firm quality and characteristics that will influence future social performance, adding the KLD ratings to the lagged dependent variable model should substantially enhance the explanatory power. To understand if this is so, I examined if adding the KLD ratings would substantially increase the model fit statistics— adjusted R^2 (Table 12). The baseline model predicts social performance in diversity and governance categories based on control variables—firm size (sales, assets), year, and industry. The upper left boxed cells in Table 12 represent the fit statistics of the baseline models, to which I compared a "KLD model" that adds the KLD rating variable in each category (upper right cells in Table 12), a "Lag model" that adds the 1-year lag of the dependent variable (social performance) to the baseline model (lower left cells in Table 6), and a "Full model" that adds both the KLD rating variables and the 1-year lagged dependent variable (lower right cells in Table 12). I was not able to compare fit statistics among the four models for CEO diversity and reporting transparency because the lagged dependent variable models and full models were not estimated.

 In predicting social performance in BOD diversity*,* adding the KLD rating to the baseline model increased the adjusted R^2 by 0.1757, while adding the lagged BOD diversity variable to the baseline model increased the adjusted R^2 by 0.3352. Although both increments are statistically significant, adding the KLD rating only increased explanatory power 52.41% as much as adding the lagged social performance variable. In predicting TMT compensation, the additional explanatory power of the KLD rating is even lower. For TMT compensation models, adding the KLD rating to the baseline model increased the adjusted R^2 by 0.0115, while adding the lagged BOD diversity variable

increased the adjusted R^2 by 0.1200. Again, both increments are statistically significant. However, adding the KLD rating increased explanatory power only 9.58% as much as adding the lagged social performance variable.

Comparison of the KLD model and the lag model with the full model reveals a similar difference in incremental explanatory power of the KLD rating and the lagged social performance variable. For BOD diversity models, adding the KLD rating to the lag model increased the adjusted R^2 by 0.0174, whereas adding the lagged social performance variable to the KLD model increased the adjusted R^2 by 0.1769. Adding the KLD rating increased explanatory power only 9.83% as much as adding the lagged social performance variable. Similarly, For TMT compensation models, adding the KLD rating to the lag model increased the adjusted R^2 by 0.0047, whereas adding the lagged social performance variable to the KLD model increased the adjusted R^2 by 0.1132. Again, the KLD rating has a much lower incremental explanatory power than the lagged social performance variable: The KLD rating increased explanatory power only 4.15% as much as adding the lagged social performance variable.

However, the KLD ratings have statistically significant incremental explanatory power. This suggests that the KLD ratings do identify a small but statistically significant difference in the quality and characteristics of management and firm that will influence future social performance.

Table 12. Comparison of Model Fit Statistics

CEO Diversity
Logistic model

		Difference Significance of difference
Baseline 0.0687	KLD 0.2232	0.1545 424.45***
Lag n/a	Full n/a	

BOD Diversity 1
Logistic model

		Difference Significance of difference
Baseline 0.1519	KLD 0.3276	0.1757 962.58***
Lag 0.4871	Full 0.5045	0.0174 121.35***
Difference Significance of difference 0.3352 1988.03***	0.1769 1146.80***	

Reporting Transparency
Logistic model

		Difference Significance of difference
Baseline 0.3204	KLD 0.3578	0.0374 142.09***
Lag n/a	Full n/a	

TMT Compensation (concern)
OLS model

		Difference Significance of difference
Baseline 0.1799	KLD 0.1914	0.0115 154.18***
Lag 0.2999	Full 0.3046	0.0047 74.88***
Difference Significance of difference 0.1200 1721.80***	0.1132 1642.50***	

Table cells present a fit statistics for nested models. The baseline model includes log assets, log sales, and industry dummies (2-digit SIC codes). The KLD model adds the KLD rating to the baseline model. The Lag model adds 1-year lag of the dependent variable to the baseline model. The full model adds both sets of variables to the baseline model. The cells contain adjusted-R^2 values and the surrounding figures display the difference in these values and the LR chi-squared test statistic indicating whether these differences are statistically significant with * $p < .05$, ** $p < .01$, *** $p < .001$.

8.5. Robustness check

First, I used clustered standard error by firm id for all models. Second, I re-estimated all empirical models using two to five year lagged explanatory variables. Third, I re-estimated all tobit models using (1) OLS estimation after logit transforming the ratio variables and (2) generalized linear model (GLM) (Papke and Wooldridge, 1996). Fourth, I re-estimated all logit models using probit estimation. Lastly, I included additional controls of return on assets. The result remained the same after all five additional robustness checks.

9. Conclusion and Discussion

Comparison of KLD's *Diversity* and *Governance* ratings with data from other sources shows that KLD *Diversity* and *Governance* ratings do a reasonable job of aggregating past social performance in the four areas of CEO diversity, BOD diversity, reporting transparency, and TMT compensation. This result is consistent with Chatterji *et al.* (2009) who found that KLD's environmental ratings effectively summarize past environmental performance. Also, the KLD ratings in *Diversity* and *Governance* categories strongly predict all four social performance variables. However, the explanatory power of KLD's ratings in predicting future social performance substantially decreases when lagged social performance variables are included. This finding is also consistent with Chatterji *et al.* (2009) who concluded that the KLD ratings do a less satisfactory job of predicting future social performance.

However, the KLD ratings' somewhat weak ability to predict future social performance does not seem to pose a serious threat to the current empirical literature that

relies on the KLD ratings, because most of the current empirical literature, if not all, uses the KLD social ratings as a measure that summarizes past CSP of the firm rather than a measure that predicts the future CSP (e.g., Berman *et al.*, 1999; Graves and Waddock, 1994; Hillman and Keim, 2001; McGuire *et al.*, 2003; Waddock and Graves, 1997). Perhaps, the weak future predictability of the KLD ratings may pose a more serious problem to investors and financial analysts who have relied on the KLD ratings to forecast future social performance of the firm. My results show that there are strong autocorrelations in social performance in *Diversity* and *Governance* categories. Also past social performance variables have a greater explanatory power than the KLD ratings in predicting future social performance. Therefore, investors who are interested in specific areas of social performance may be better off in predicting future social performance of firms by relying on more direct measures of past social performance than on the KLD ratings.

However, considering that many SRI funds and investors often intend to understand overall CSP of the firm rather than CSP of the firm in specific areas[6], it may still be difficult for those investors to find a good alternative to the KLD social ratings, which cover quite a broad range of social issues (Deckop *et al.*, 2006; KLD, 2006). Also, the KLD social ratings show a limited future predictability only when social performance in the past is controlled for. Therefore, when past social performance data is not available, the KLD social ratings may still serve as a reasonable alternative to predict the future social performance. Furthermore, even when autocorrelation is accounted for, the KLD

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[6] TIAA-CREF, "About TIAA-CREF" (http://www.tiaa-cref.org/about/socially-responsible-investing/index.html, accessed April 25, 2009).

ratings still predicted BOD diversity and TMT compensation in a statistically significant manner. In fact, considering that simple autocorrelations often have substantially high predictive power compared to subjective judgment (e.g., ratings) (Dawes, Faust, and Meehl, 1989; Grove and Meehl, 1996), the finding that KLD's *BOD Diversity* and *TMT Compensation* rating remained statistically significant even after autocorrelation is accounted for is quite remarkable.

This paper, to my knowledge, is one of the earliest attempts to examine the validity of the KLD social performance ratings. Only recently, Chatterji *et al.* (2009) first attempted to validate KLD's environmental ratings by comparing them with environmental performance data in a rigorous manner. Despite the absence of attempts to validate the KLD social ratings, the empirical literature on CSP has relied on the KLD ratings without much concern. Fortunately, both Chatterji *et al.* (2009) and the current study found that the KLD ratings are doing a reasonable job of aggregating past CSP, lending some support to the reliance on the KLD ratings as a measure of CSP. However, the KLD ratings aspire to measure a much broader range of social issues (Deckop *et al.*, 2006) than what have been examined so far. Therefore, it may be still too early to confirm the validity of the KLD social ratings as an appropriate measure of CSP. I invite future studies that examine other areas of the KLD ratings such as human rights, employee relations, and community. Also, more comprehensive data on workforce diversity and corporate governance will allow future studies to conduct more thorough validations of the KLD ratings than what has been conducted in the current study.

Essay Two. Corporate social responsibility? None of my business any more: The CEO horizon problem in corporate social performance

1. Introduction

Scholars from diverse disciplines commonly note that CEO departure may have a negative effect on the competitive advantage of the firm (Allen, Panian, and Lotz, 1979a; Beatty and Zajac, 1987; Butler and Newman, 1989; Carroll, 1984; Dechow and Sloan, 1991; Grusky, 1963; Haveman, 1993). While there could be several possible reasons, discontinuity of investment in strategic resources is one of the most frequently discussed suspects (Cheng, 2004; Conyon and Florou, 2006; Dechow and Sloan, 1991; Murphy and Zimmerman, 1993; Smith and Watts, 1982). Considering that new CEOs may have a different opinion on the priority of investment, certain discontinuities in strategic investment are inevitable. However, an avoidable and therefore more frustrating problem is an intentional negligence of departing CEOs in long-term investment programs.

It has been observed that retiring CEOs tend to reduce investment in long-term oriented strategic resources, the benefit of which is unlikely to be realized before their retirement (Dechow and Sloan, 1991; Sabac, 2008; Smith and Watts, 1982). Instead, retiring CEOs often focus on short-term oriented items that can boost accounting-based profit figures. The extant literature maintains that this "horizon problem" arises mostly as a result of the compensation maximization motivation of retiring CEOs (Cheng, 2004; Dechow and Sloan, 1991; Gibbons and Murphy, 1992; Murphy and Zimmerman, 1993; Smith and Watts, 1982). When CEOs are receiving a substantial amount of profit-based

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compensation (e.g., bonus), they can maximize their compensation at retirement by improving accounting-based firm performance figures. Based on this assumption, shareholders have been advised that they may grant stock-based long-term compensations to a CEO, which connects the CEO's compensation to long-term firm performance, to solve the horizon problem.

While the compensation maximization motivation argument makes sense, the validity of this behavioral assumption has not been directly examined. The problem is that if CEOs are reducing long-term investment not to maximize their compensation at retirement but to achieve some other purpose, the suggested solution of granting stock-based compensation simply may not work and shareholder wealth will be wasted. Therefore, it is critical to understand the exact motivation behind this opportunistic CEO behavior. In this paper, I evaluate the validity of the compensation maximization hypothesis by comparing it with the post-retirement career concern hypothesis, which proposes that retiring CEOs focus on accounting-based performance measures to improve their chances of continuing to work after retirement.

The significance of the horizon problem in strategic management is that compromise in the competitive advantage of the firm is inevitable when the retiring CEO scales down investment in long-term strategic resources. Therefore, the horizon problem should be considered a critical issue in the resource-based view (RBV) of the firm. However, despite the importance of the subject, scholarly interest has been limited almost exclusively to R&D and advertising investments (Cheng, 2004; Conyon and Florou, 2006; Dechow and Sloan, 1991; Smith and Watts, 1982). Only recently have other areas of

long-term investment started to receive scholarly attention (e.g., Matta & Beamish, 2008). Such limited scholarly attention may inadvertently lead shareholders to a limited, and thus insufficient, vigilance in those areas only. However, if the horizon problem is rooted in a generalizable behavioral motivation, it should be more prevalent than we currently realize. Therefore, examination of the horizon problem in other areas can increase the alertness of shareholders on this issue and promote a more thorough protection of shareholder wealth. The present study seeks to address the limitations of prior research by evaluating the untested behavioral assumption and to provide an additional step toward understanding the horizon problem by introducing a new context of corporate social performance (CSP).

A firm's reputation as socially responsible has recently emerged as a valuable firm resource (Fombrun, 1996; Hillman and Keim, 2001; Margolis and Walsh, 2003; McWilliams, Siegel, and Wright, 2006; Porter and Kramer, 2006; Waddock and Graves, 1997; Zadek, 2004). Reputation as a socially responsible firm is formed slowly through a long, consistent investment in positive corporate social performance and is difficult to imitate in the short term (Deckop *et al.*, 2006; Hillman and Keim, 2001; Short, 2004). Therefore, to build a reputation as a socially responsible firm, the firm should make a consistent expenditure in social responsibility–related areas. However, as expenditure in social responsibility tends not to have an immediate impact on accounting-based profit measures (Chatterji and Levine, 2006; Deckop *et al.*, 2006; Ogden and Watson, 1999), it is likely that retiring CEOs reduce expenditure in social responsibility–related areas.

Therefore, investment in corporate social performance provides an excellent context in which to examine the CEO horizon problem.

In the context of CSP, I raise the following three questions. First, how does the retirement of a CEO affect a firm's CSP? Second, what is the motivation behind this opportunistic CEO behavior? Finally, how can the negative impact of CEO retirement on CSP be mitigated? Using a panel data set of 583 large US firms during the period between 1992 and 2006, I find that the retirement of a CEO negatively impacts CSP. The result suggests that the negative impact of CEO retirement on CSP can be attributed to the post-retirement career continuation concern of the CEO rather than the compensation maximization motivation. In further support of this, it is found that the negative impact is mitigated when the retiring CEO is provided a post-retirement career as a board member. However, granting stock-based long-term compensation to CEOs does not have a statistically significant moderating effect. The finding suggests some practical implications for shareholders. Manipulation of the CEO compensation mechanism may not always be an effective solution to prevent opportunistic behavior of retiring CEOs. Instead, retaining a retiring CEO as a board member can be an effective solution to curb the horizon problem in the context of CSP.

2. Theory and Hypotheses

2.1. Corporate social performance as a source of competitive advantage

Corporate social performance (CSP) has recently emerged as an important long-term investment that leads to competitive advantage (Fombrun, 1996; Hillman and Keim, 2001; Holstein, 2008; Porter and Kramer, 2006; Waddock and Graves, 1997; Zadek, 2004).

Chatterji and Levine (2006: 31) argue that firms that invest in social performance are "building valuable long-term relationships and assets." The United Nation's 2007 Global Compact report states that "companies that proactively manage ESG (environment, social, government) issues are better placed vis-à-vis their competitors to generate long-term tangible and intangible results" (UN, 2007: 48).

Indeed, aligning strategy to address responsible business practices can give a firm a leg up on the competition and contribute to the organization's long-term success in many ways (Zadek, 2004). First, a socially responsible company can build a strong reputation, an important resource that will improve the company's image and strengthen its brand. Also, a firm that has a good reputation on labor issues face relatively few labor problems in the future, and customers are favorably disposed toward its products (Creyer and Ross, 1997; McGuire *et al.*, 1988; Schuler and Cording, 2006). Nowadays consumers deeply care about the social performance of the companies from which they buy. In a recent study, 60% of consumers surveyed answered that they would switch brands if more socially responsible alternatives were available (Holstein, 2008). Furthermore, diversity in a workforce can enhance the ability of a firm to attract the best talent from the labor pool, regardless of race, ethnicity, or gender (Robinson and Dechant, 1997; Thomas and Ely, 1996). In addition, being proactive on environmental issues can lower the costs of complying with present and future environmental regulations, and environmental responsiveness can enhance firm efficiencies and drive down operating costs (Hart, 1995; Russo and Fouts, 1997a; Shrivastava, 1995). Similarly, good social performance can also decrease a firm's financial costs. Investors may consider less

socially responsible firms to be riskier because of potential problems with regulating bodies and with customers. For example, the government may levy fines, and bring lawsuits against socially irresponsible firms, such as those filed against pharmaceutical, chemical, and asbestos firms, that could threaten a firm's very existence (McGuire *et al.*, 1988).

2.2. Impact of breaks in the resource accumulation process on competitive advantage

The resource-based view and evolutionary economics agree that breaks in the resource accumulation process may seriously damage the long-term competitive advantage of the firm. The resource-based view scholars maintain that, to achieve long-term competitive advantage, managers must carefully plan and execute the resource accumulation process by controlling the timing of and level of expenditure in strategic resources (Amit and Schoemaker, 1993; Barney, 1991; Dierickx and Cool, 1989). Dierickx and Cool (1989: 1504) note that "a key dimension of strategy formulation may be identified as the task of making appropriate choices about strategic expenditures with a view to accumulating required resources and skills." This view suggests that unexpected discontinuities in the flow of strategic investment may disrupt the delicate resource accumulation process.

Evolutionary economics' idea of organizational routine also explains why interruptions in strategic expenditure can damage the building of long-term competitive advantage. Organizational routine requires constant investment and maintenance to avoid obsolescence and achieve effectiveness (Nelson and Winter, 1982; Winter, 1995). If a proper expenditure is not allocated for the continuance of an organizational routine,

smooth operation of the routine will be interrupted and the routine will become rusty. Nelson and Winter (1982: 99) maintain that "organizations remember by doing," and infrequent use of routines increases rustiness and lowers effectiveness of operation. For firms, socially responsible operation also requires continuous maintenance and utilization of relevant organizational routines. Maintaining good employee relationships and diversity in the workforce requires well-maintained organizational routines in human resources. Timely and adequate response to heterogeneous demands of employees and effective resolution of conflicts in a diverse workforce can be daunting tasks without proper organizational routines. Being environmentally responsible requires consistent monitoring of regulatory changes and public opinions about environment.

As suggested by the resource-based view and evolutionary economics, consistent attention and careful investment are required to build a sustainable competitive advantage through CSP. If we understand the goal of CSP as building trusted relationships with key stakeholders (Barnett, 2007; Freeman, 1984; Hillman and Keim, 2001; Jones, 1995; Waddock and Graves, 1997), it becomes clearer why consistency in the investment in CSP is important. Establishing a good and trustworthy relationship with other parties requires consistency in behavior (Mayer *et al.*, 1995; Uzzi, 1996) because trust is built slowly but destroyed quickly (Currall and Epstein, 2003). Inconsistency in CSP can easily destroy any trust or reputation gained from previous good CSP and seriously degrade the firm's stakeholder relations (Barnett, 2007).

2.3. The horizon problem in corporate social performance

The horizon problem hypothesis proposes that retiring CEOs may reduce expenditure in long-term investment programs if the return on investment is not likely to be realized while they remain in the firm (Dechow and Sloan, 1991; Murphy and Zimmerman, 1993; Smith and Watts, 1982). The funds withheld from the long-term investment may then be used toward other short-term needs of the firm. As a result, the accounting-based profit of the firm will improve. Investment in CSP provides one probable context where the horizon problem may occur, since the reduction of expenditures in areas such as environmental protection, transparent financial management, employee safety, and product safety is unlikely to be caught immediately (Deckop *et al.*, 2006; Short, 2004).

Scholars who observe this opportunistic CEO behavior suggest that retiring CEOs can maximize their personal wealth at the expense of shareholder wealth by boosting accounting-based profit (Cheng, 2004; Dechow and Sloan, 1991; Gibbons and Murphy, 1992; Murphy and Zimmerman, 1993; Smith and Watts, 1982). Specifically, when retiring CEOs' compensation package includes a profit-based bonus plan, CEOs can maximize their compensation by improving the accounting-based profit figures. Smith and Watts (1982: 146), who first proposed the existence of the horizon problem, explain that profit-based compensation "gives managers incentives to turn down positive NPV projects with long pay back and to take negative value projects that impose expenses only after the manager retires." In support of this, Dechow and Sloan (1991) find that retiring CEOs who receive profit-based bonus plans reduce expenditure in R&D investment during their final years in office.

The possible occurrence of the CEO horizon problem in the context of corporate social performance is predicated on two assumptions. First, the size of firm expenditure in CSP is substantial enough to motivate CEOs to manipulate it. Second, CEOs have a great influence in determining the social responsibility–related expenditure. Regarding the first assumption, if the size of the firm expenditure in social responsibility–related areas is trivial, withholding the expenditure in CSP may not make much difference in the bottom line. However, according to company annual reports, corporate expenditure in social responsibility is quite substantial. For example, Sony spent $40 million in social contribution activities in 2007 (Sony, 2008). Nike spent $100 million in product and cash donations in 2005 and 2006 each and sets a minimum donation target of $315 million by the end of 2011 (Nike, 2006). Starbucks donated $26.2 million to diverse causes in 2007, reportedly a small part of its total social responsibility expenditure (Starbucks, 2007). Regarding the second assumption, it seems that CEOs have a significant influence in deciding the magnitude of social responsibility–related firm expenditure. While some firms have dedicated personnel or committees in charge of CSP (Porter and Kramer, 2006), many CEOs have extensive decision-making power and ability to significantly influence their firm's expenditure in CSP (Embley, 1993; Kochan, 2002; Orlitzky and Swanson, 2002). For example, in the 2007 UN Global Compact Annual Review, 71% of the firms surveyed answered that their CSP policies and practices are developed and managed by the CEO (United Nations, 2007).

Considering that retiring CEOs may have incentives to reduce expenditure in long-term investment items and improve accounting-based profit, they may also reduce

expenditure in social responsibility–related areas, which can have a substantial impact on accounting-based profit figures. Assuming that the firm's corporate social performance is a close function of its social responsibility–related expenditure, I expect that the reduction in social responsibility– related expenditure made by the retiring CEOs will lead to a drop in CSP. Therefore, I hypothesize that:

Hypothesis 1. CEO retirement will have a negative impact on CSP.

Another possibility is that CEO retirement may have a positive impact on CSP. Several previous studies have proposed the hypothesis of 'CEO legacy' (yet without empirical evidence) (Burton & Beckman 2007, Freeman 2004). According to this hypothesis, retiring CEO may wish to leave a positive legacy, which may include the image as a socially-responsible CEO. If so, retiring CEOs may increase expenditure in social responsibility and CEO retirement will have a positive impact on CSP, as opposed to the prediction of Hypothesis 1. While this is a possible scenario, I expect that this is a less likely relationship for three reasons.

First, even if the CEO approaching retirement substantially increases expenditure in CSP, doing so is less likely to earn the CEO a reputation as a socially-responsible CEO, because it takes a substantial amount of time of demonstrating consistency in behavior to build a reputation (Fombrun and Shanley, 1990; Gray and Balmer, 1998; Herbig, Milewicz, and Golden, 1994). Therefore, for the CEOs who want to leave a lasting image of themselves as a socially-responsible CEO, the best bet would be to start to invest in social issues in a consistent manner well ahead of his or her departure from the firm. In other words, there is a time compression diseconomy in building a reputation (Dierickx

and Cool, 1989): Sudden increase in investment in social issues will not effectively build the reputation as a socially-responsible CEO.

Second, often, it is not the CEO who gets the credit when the firm acts in a socially responsible manner. It is true that CEOs play a major role in CSP-related firm decisions (Embley, 1993; Kochan, 2002; Orlitzky and Swanson, 2002). However, evidence suggests that stakeholders do not usually attribute a firm's CSP-related strengths or weaknesses to its CEO. For example, firms that are considered socially responsible (e.g., Johnson & Johnson) have been given credits for nurturing an organizational culture or system (e.g., Credo) that promotes social responsibility. Similarly, people tend to remember the names of firms that were involved in negative CSP-related accidents (e.g., Nike, Exxon) rather than the names of CEOs who served during the negative accidents. Given that it is often the company name rather than the CEO's name that is remembered, CEOs may not have a strong incentive to increase expenditure in CSP, even if they want their name to be remembered.

Third, the vast majority of previous studies that examined the relationship between CEO retirement and firm expenditure have supported the negative relationship (e.g., Cheng, 2004; Dechow and Sloan, 1991; Gibbons and Murphy, 1992; Murphy and Zimmerman, 1993; Smith and Watts, 1982). I reviewed the relevant literature on the subject and did not find any study that reported a positive relationship between CEO retirement and firm expenditures in long-term investment. Previous studies on the CEO retirement and firm expenditure (e.g., R&D, advertising) have reported either a negative relationship or neutral relationship. Although the expenditure in CSP has not been

considered in any of previous studies, considering that expenditure in CSP has similar characteristics with previously studied firm expenditures in that it is long-term oriented expenditure, it is more reasonable to expect a similar (negative) pattern in the CEO retirement and CSP-related investment.

2.4. Compensation maximization as a motivation for the horizon problem

The preceding description of the horizon problem and the CEO motivation behind it suggests that if a larger portion of CEO compensation is dependent on profit-based compensation (bonus plan), CEOs may withhold even larger expenditures from the long-term investment, aggravating the horizon problem. Therefore, according to this logic, if profit-based compensation takes up a larger portion of CEOs' total compensation, retiring CEOs will have an incentive to further reduce expenditure in social responsibility–related areas, leading to a sharper drop in CSP.

Based on the untested assumption that this compensation maximization is the primary motivation behind the horizon problem, Dechow and Sloan (1991) examine occurrence of the horizon problem using a sample of CEOs, all of whom receive bonus plans. Although they find that CEOs in their sample indeed reduce expenditure in R&D at retirement, this research design falls short of being able to say anything meaningful about the true CEO motivation. In order for the compensation maximization motivation to hold, it is necessary to compare whether the horizon problem occurs in a controlled group where CEOs do not receive bonus plans. If CEOs who do not receive bonus plans show a similar behavior of long-term investment reduction near retirement, compensation maximization cannot be validated. As such, it is possible that Dechow and Sloan's

sampling strategy overlooks a possible correlation between bonus plan and other possibly unmeasured characteristics of CEOs in their sample. That is, this sampling strategy is vulnerable to the omitted variable bias. If CEOs in the sample have other motivations behind the horizon problem that are unmeasured and omitted in the empirical specification, the drop in long-term investment could have been caused by the reasons other than compensation maximization.

However, if the horizon problem is indeed caused by the compensation maximization motivation, we may be able to observe a finer-grained relationship between bonus plans and the horizon problem. In an attempt to examine the validity of compensation maximization as a primary motivation for the horizon problem, I hypothesize that the larger the size of CEO compensation based on a profit-based bonus plan, the more a retiring CEO will reduce expenditure for social responsibility–related areas, leading to a sharper drop in CSP.

> *Hypothesis 2. The negative impact of CEO retirement on CSP will intensify if profit-based compensation takes a large portion of the total compensation of the CEO.*

If compensation maximization is the primary motivation behind the CEO horizon problem, a logical solution to the CEO horizon problem would be to tie CEO wealth to firm performance after retirement (Dechow and Sloan, 1991; Smith and Watts, 1982). If a substantial part of their compensation is determined by long-term (post-retirement) firm performance, retiring CEOs may be reluctant to reduce expenditure in the long-term investment, which may damage the performance of the firm after their retirement, and

ultimately their compensation. Therefore, the larger the portion of stock-based compensation in the total compensation, the less likely retiring CEOs are to reduce expenditure in long-term investments, because doing so puts a large portion of their wealth at risk.

In support of this argument, previous studies on the horizon problem find that granting stock-based compensation mitigates the impact of CEO retirement on the reduction in R&D investment (Dechow and Sloan, 1991; Gibbons and Murphy, 1992; Smith and Watts, 1982; Yermack, 1995). Given that stock options and restricted stock grants are the long-term compensation mechanisms that can effectively tie CEO wealth to post-retirement firm performance (Hall, 2000; Hall and Murphy, 2003), I expect that if those stock-based compensations take up a larger portion of a CEO's total compensation, the retiring CEO will have a disincentive to reduce expenditure in social responsibility–related areas. Therefore, when stock-based compensation takes a larger portion of CEO total compensation, the negative impact of CEO retirement on CSP will become weaker.

Hypothesis 3. The negative impact of CEO retirement on CSP will weaken if stock-based compensation takes a large portion of the total compensation of the CEO.

2.5. Post-retirement career continuation as a motivation for the horizon problem

While compensation maximization is a possible cause of the horizon problem, we cannot rule out other causes altogether. Another possibility behind the horizon problem that has been given scant attention is that retiring CEOs who are concerned about their chances of continuing to work after retirement may reduce the long-term investment to boost

accounting-based profit figures. It is known that strong accounting-based profit figures near retirement greatly improve the likelihood of CEOs working post-retirement (Brickley, Linck, and Coles, 1999).

Although it may sound somewhat contradictory that retiring CEOs care about continuing their careers, an impressive body of human resource and psychology studies shows that retirees care greatly about continuing to work after retirement (Adams and Rau, 2004; England and Misumi, 1986; Feldman, 1994; Gill, 1999; Harpaz, 2002; Kim and Feldman, 2000; Morse and Weiss, 1955). For example, only 11% of US workers fully withdraw from the workforce after retirement (Doeringer, 1990). In another study, 82% of US workers over the age of 65 surveyed responded that they would continue to work after retirement even without any financial reward (Morse and Weiss, 1955). The literature identifies several reasons why people are eager to remain in the workforce after retirement. Working gives retired people meaning in their life and a sense of self-worth, and satisfies the need for social contact and other important psychological social needs (Atchley, 1989; Gill, 1999; Harpaz, 2002; Morse and Weiss, 1955). Therefore, not surprisingly, "many managers remain active during retirement, through serving on corporate and community boards, entering politics, acting as consultants, and so on" (Brickley *et al.*, 1999: 342).

Among several options of post-retirement careers for CEOs, serving as a director of corporate board seems to be the most popular option for retiring CEOs. In addition to the continued high income stream, serving as a corporate director provides many attractive nonfinancial rewards to retired CEOs, such as influence, networking, status,

and involvement in the corporate world (Harford, 2003; Mace, 1986). The continuity theory suggests that retirees try to sustain structure in their daily lives by participating in the activities that are the most similar to those they performed before retirement (Atchley, 1989; Kim and Feldman, 2000). For retired CEOs, serving as director of a corporate board may be the most similar to their previous jobs and therefore provide a similar structure and continuity. In support of the prediction from the continuity theory, a survey result shows that 88% of retired CEOs hold at least one board seat, 42% hold three or more seats, and 28% hold four or more (Brickley *et al.*, 1999).

However, if accounting-based profit figures do not affect the likelihood of their working after retirement, retiring CEOs have little incentive to manipulate firm profit, even if they are eager to continue to work after retirement. Quite interestingly, strong accounting-based profit figures near retirement have been found to significantly improve the retired CEO's chance of working after retirement, particularly the chance of serving as a board of director of other companies (Brickley *et al.*, 1999; Kaplan and Reishus, 1990). This finding suggests that CEOs who want to increase their chances of serving on outside corporate boards after retirement have incentives to boost accounting-based profit figures near retirement. Therefore, it is also likely that the retiring CEO's concern for post-retirement career continuation will lead to the horizon problem.

Assuming that CEOs are concerned about their chances of working after retirement at least to some extent, I expect that the concern will be greater among CEOs retiring at relatively younger ages, because they have more years to remain in the active workforce (Gibbons and Murphy, 1992; Kim and Feldman, 2000). In contrast, older

CEOs may have less expectation of and interest in continuing to work after retirement. For example, the older retirees are the most likely to have health problems that make continued participation in the workforce more difficult (Anderson and Burkhauser, 1985; Colsher, Dorfman, and Wallace, 1988). Therefore, if the CEO horizon problem is attributable to the post-retirement career continuation concern, I expect that CEOs retiring at a younger age will be more strongly motivated to reduce expenditure in CSP and have incentive to improve accounting-based profit.

Hypothesis 4. The negative impact of CEO retirement on CSP will intensify if the retiring CEO retires at a younger age.

While retiring CEOs may be concerned about their chances of continuing to work after retirement, if they know ahead of time that they will serve on their own board after retirement, they may have little incentive to manipulate accounting-based profit figures to increase their chances of working after retirement. In most cases when CEOs remain on their own corporate board, they are informed well ahead of their retirement that they will be retained (Vancil, 1987). Such CEOs may have little incentive to manipulate accounting-based profit figures at the expense of long-term strategic investments, as opposed to those CEOs who will seek external post-retirement work opportunities.

Also, for CEOs who remain members of their firm's board, reducing investment in CSP may not be a wise decision for their own future. If damage in firm reputation as a result of a decline in CSP (e.g. an environmental disaster, a labor problem) is attributable to the reduction in investment during the tenure of the retired CEO who now serves on the board, shareholders and the board may find that CEO accountable. If firm reputation

and financial performance decline as a result of a decline in investment in CSP during the CEO's final years, it is quite obvious who is to blame.

The scenario of how the retention of retiring CEOs may prevent the horizon problem has a close analogy in the concept of the repeated game. If a participant is expecting the end in a game, it will act opportunistically to maximize its payoff, as the end is nearing. However, if the participant is expecting the game to continue, it will refrain from acting opportunistically and care about other parties' interests (Axelrod, 1984). Therefore, retention of the CEO on the board can be understood as extension of game between the CEO and the firm. In summary, if concern for post-retirement career continuation drives the reduction in CSP-related investment during a CEO's final years, I expect that retaining the retiring CEO on the board of directors will positively moderate the negative relationship between CEO retirement and decline in CSP.

Hypothesis 5. The negative impact of CEO retirement on CSP will weaken if the retiring CEO remains as a board member after departing from the CEO post.
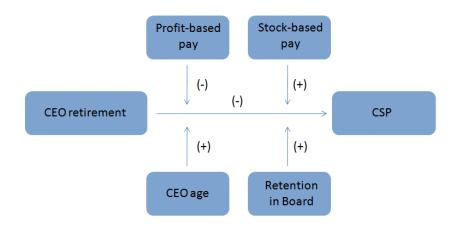
Figure 3. Summary of Research Hypotheses

3. Data and Method

3.1. Data Sources

The study sample starts with the 1,000 largest US firms (in terms of market capitalization), for two reasons. First, I focus on large firms since I assume that the expenditure in social responsibility–related areas should be substantial enough to motivate CEOs to manipulate it. Previous studies show that large firms spend more money in social responsibility–related areas (McGuire *et al.*, 2003; McGuire *et al.*, 1988; McWilliams and Siegel, 2000; Waddock and Graves, 1997). Second, I choose US firms because of their significance in the global economy and the availability of social performance data. The social performance data for the sample firms is collected from the Kinder, Lydenberg, Domini (KLD) Social Ratings database (Chatterji *et al.*, 2008a; Waddock, 2003; Waddock and Graves, 1997). To construct other explanatory and control variables, I collect financial data from the Compustat North America database and CEO-related variables from the Compustat Executive Compensation (ExecuComp) database and the U.S. Securities and Exchange Commission's (SEC) EDGAR database for company filings (www.sec.gov/edgar.shtml). Since the ExecuComp database provides CEO-related data only from 1993 to 2006, the sample period is limited accordingly. After the three databases are matched, the effective sample size is reduced to 583 firms. The effective sample size in multivariate analysis is 3681 observations.

3.2. Variables

Dependent variable

Corporate social performance (CSP). Following the common practice in the literature (Chatterji *et al.*, 2008b; Graves and Waddock, 1994; Griffin and Mahon, 1997; Johnson and Greening, 1999; Waddock and Graves, 1997), I define the CSP of the firm as the sum of all strength items minus the sum of all concern items.[7] Considering all dimensions of CSP reported in the KLD database improves the construct validity of the social performance measure, since CSP is a multidimensional concept (Brammer *et al.*, 2006; Carroll, 1979; Griffin and Mahon, 1997; Hillman and Keim, 2001; Rowley and Berman, 2000). Rowley and Berman (2000) criticize the validity and reliability of studies that used single or selective dimension(s) of KLD ratings and urge simultaneous consideration of various dimensions of CSP. Griffin and Mahon (1997: 25) also claim that studies using selective dimensions of CSP ratings do not capture firms' social performance, as they "inadequately reflect the breadth of the construct." A large value of this variable suggests that the firm is generally rated highly across various areas of social performance. Based on the assumption that CSP rating is a lagged function of firm expenditure in social responsibility–related areas, I measure CSP ratings at year *t+1*. In effect, I assume that CSP at year *t+1* is the outcome of firm expenditure in social responsibility–related areas during year *t*.

Explanatory variables

CEO retirement. CEO retirement is a dichotomous variable indicating the year the CEO of the firm stepped down from the position as a result of retirement. If the CEO steps

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[7] I also used a modified index calculated in the following way: seven qualitative issue areas–corporate governance, community, diversity, employee relations, environment, product quality and safety, and human rights–receive a weight of 1, while involvement in alcohol, firearms, gambling, military, nuclear, and tobacco categories receive a weight of 0.5. This weighting scheme is closer to what Waddock and Graves (1997) used after consulting an expert panel. This modified index puts more weight on the effort and attitude of the company toward social performance, rather than the products they provide. The result remained unchanged.

down at year t, the variable is marked 1 and otherwise 0. Among several possible reasons for CEO departure, I focus only on cases explicitly identified as "retired" and exclude cases identified as "resigned" or "deceased". I exclude resignation and death cases from my sample for several reasons. First, the horizon problem has been conceptually theorized in the context of CEO retirement (Dechow and Sloan, 1991; Murphy and Zimmerman, 1993; Smith and Watts, 1982). Second, including resignation cases can aggravate the endogeneity problem (Murphy and Zimmerman, 1993; Weisbach, 1995). For example, if a disaster in CSP is a legitimate cause for a CEO's resignation, it is possible that the findings merely reflect the endogeneity of management change, whereby poor CSP potentially led an active board to replace a CEO, and CSP simultaneously dropped. Also, poor financial performance is likely to result in both the resignation of CEO and a decline in long-term investments such as CSP (Murphy and Zimmerman, 1993). Third, in the case of involuntary resignation (being fired), it is unrealistic to assume that CEOs could have anticipated the timing of their departure and had enough time beforehand to manipulate long-term investments.[8] A CEO who is fired will most likely be asked to leave with short notice. Although it is possible that some CEOs resigning voluntarily may anticipate the timing of their departure and manipulate long-term investment beforehand, because I could not acquire detailed information about the exact reason for resignation, I take a safe approach by excluding all resignation cases. Still, considering the fact that firms are usually euphemistic about the reasons for CEO

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[8]To determine whether the CEO horizon problem can be observed in cases of CEO departure other than retirement, I ran the full model (Model 6, Table 15) using the samples of (1) resignation only and (2) resignation and death observations, where none of my hypotheses was supported. This result lends some support to the idea that resigning CEOs may not have time to manipulate investment in CSP before their departure.

departure (Boeker, 1992; Fredrickson, Hambrick, and Baumrin, 1988), I expect that most cases reported as resignations are involuntary. In addition, I exclude cases of CEO departure by death because it is unlikely that CEOs anticipate their timing of death. In contrast, in the case of retirement, whether voluntary (early retirement) or involuntary (legal retirement age), CEOs can decide on or anticipate the exact timing of their departure well ahead of time. Lastly, it is reported that retirement constitutes the majority of CEO departures (Brickley, 2003; Engel, Hayes, and Wang, 2003; Sabac, 2008). This pattern is observed in my sample as well. In my sample, the number of resignations and deaths is relatively small (resign: 244 observations, 42 CEOs, death: 43 observations, 8 CEOs) and excluding them has little impact on the results.[9]

Retention on the board after departure. This dichotomous variable denotes whether the retiring CEO is serving as a board member of the firm two years after having stepped down from the CEO position. I measure in this way to make sure that the retention is not counted as a result of possible recording errors in the ExecuComp database. Examination of 10-Ks and other corporate annual reports shows that sometimes the ExecuComp database erroneously reports that a CEO has remained in the firm as a director. Measuring CEO retention after two years of retirement can minimize the impact of possible measurement errors in the ExecuComp database. Measuring retention at year *t+2* also follows the conventional approach in the literature (Brickley *et al.*, 1999).

CEO age. CEO age is measured as the age of CEO as of year *t*.

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[9] I ran regressions using a sample that includes resignation and death cases. While the significance of some control variables declined slightly, the result remained unchanged.

Ratio of profit-based compensation. The ratio of profit-based compensation is measured as the ratio of bonus in the total compensation of the CEO. According to the ExecuComp database, total compensation comprises fixed salary, bonus, total value of stock options granted, total value of restricted stocks granted, long-term incentive payouts, and all other compensation. The ratio of profit-based compensation is measured at year t.

Ratio of stock-based compensation. The ratio of stock-based compensation is measured as the ratio of the value of stock options evaluated using the modified Black-Scholes method (Black and Scholes, 1973; Kerr and Kren, 1992) plus the value of restricted stock granted to the CEO in his or her total compensation. The value of restricted stock is determined as of the date of the grant. The ratio of stock-based compensation is measured at year t

Control variables

Following previous studies, I control for several variables that may influence CSP. All control variables are lagged by one year relative to the dependent variable and measured at year t. Previous studies report that firm size and firm profitability may affect CSP (McGuire *et al.*, 2003; McGuire *et al.*, 1988; McWilliams and Siegel, 2000; Waddock and Graves, 1997). Firm size is measured as the logarithm of the dollar value of total assets (in \$ millions), and profitability is measured as return-on-asset.[10] In addition to the possible effect on CSP, profitability may explain the retirement of the CEO. That is, poor financial performance may trigger retirement. Therefore, by controlling for firm profitability, I provide a partial remedy for a spurious relationship between CEO

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[10] Firm size measured as the number of employees and firm profitability measured as return-on-equity were used alternatively. The result remained unchanged.

retirement and CSP drop, both of which can be caused by a drop in firm performance. To control for the possibility that availability of financial slack resources affects CSP, I include controls for financial leverage and free cash flow (in $ millions) (McKendall *et al.*, 1999; McWilliams and Siegel, 2000). Since the existence of intangible assets (e.g., technological capability, brand strength) may also affect CSP (McWilliams and Siegel, 2000, 2001; Waddock and Graves, 1997), I include market-to-book ratio, which reflects the value of intangible assets of the firm (Barth and Kasznik, 1999; Dechow, Hutton, Meulbroek, and Sloan, 2001; Ikenberry, Lakonishok, and Vermaelen, 1995). Market-to-book ratio is used as a measure of intangible assets over other measures such as R&D and advertising expenditure because as many as 80% of observations in my sample are missing R&D and advertising expenditure information. Using R&D and advertising expenditure decreases my sample size drastically (from 3681 to 774), resulting in a significant loss of information. All remaining inter-temporal trends and interfirm heterogeneity are controlled for with firm fixed effects and year dummy indicators. I estimate the following model to get the regression result in Table 15:

$$CSP_{it+1} = \beta_1 CEO\ retirement_{it} + \beta_2 CEO\ retirement_{it} * bonus/total\ compensation_{it} +$$
$$\beta_3 CEO\ retirement_{it} * stock\text{-}based\ compensation/total\ compensation_{it} + \beta_4 CEO$$
$$retirement_{it} * CEO\ age_{it} + \beta_5 CEO\ retirement_{it} * CEO\ retention\ on\ the\ board_{it+2} + \gamma\ Z_{it}$$
$$+ \delta\ D_{it} + \varepsilon_{it}$$

where Z_{it} is the vector of firm-level characteristics that affect CSP, D_{it} is the vector of firm and year dummies, and ε_{it} is the error term. Z_{it} includes free cash flow, profitability, financial leverage, value of intangible assets, CEO age, and firm size.

4. Results

Table 13 provides descriptive statistics of the sample data. As my models include several interaction terms of explanatory variables, I use centered variables before generating all multiplicative terms to reduce the impact of multicollinearity on my results (Aiken and West, 1991; Jaccard, Turrisi, and Wan, 1990). Furthermore, I conduct additional checks to examine the impact of multicollinearity. Specifically, I build hierarchically nested models (Baum, Calabrese, and Silverman, 2000) as well as compute variance inflation factors (VIF) for individual variables in the models. For the full model that includes all interaction terms (Model 6, Table 15), the maximum VIF was 2.36 for CEO age, which is substantially lower than the rule-of-thumb cut-point of 10 (Kennedy, 2002). Therefore I conclude that multicollinearity is not a serious threat in my regression models. The descriptive statistics reported in Table 1 are values before centering.

Table 13. Descriptive Statistics and Pairwise Correlations for Sampled Firms (1993-2006)

Variable	N	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.CSP	3681	-0.0594	2.7119										
2.CEO retirement	3681	0.1284	0.3345	-0.0041									
3.CEO retention on the board	3681	0.2425	0.4287	-0.0035	0.2656*								
4.CEO age	3681	56.610	6.6766	-0.0683*	0.2964*	0.1824*							
5.Firm size	3681	8.4399	1.4928	-0.1042*	0.0687*	-0.0496*	0.0737*						
6.Firm profitability	3681	5.9378	7.4323	0.1187*	0.0023	0.0254	0.0519*	-0.1413*					
7.Financial leverage	3681	0.0368	0.1401	0.0008	0.098	-0.0201	0.0040	0.3225*	-0.1491*				
8.Free cash flow	3681	0.0001	0.0013	0.0582*	0.0407*	0.0018	0.0346*	0.1599*	0.2610*	-0.2910*			
9.Intangible assets	3681	1.6000	1.7003	0.1864*	-0.0088	0.0436*	-0.0871*	-0.2127*	0.5004*	-0.1787*	0.1718*		
10.% Profit-based compensation	3681	0.2278	0.1760	-0.0085	0.0475*	0.0166	0.0735*	0.0668*	0.1617*	0.0268*	0.0825*	-0.0625*	
11.% Stock-based compensation	3681	0.4996	0.2839	-0.0213	-0.0421*	-0.0923*	-0.1007*	0.2064*	-0.0172*	0.0109	0.0019	0.1414*	-0.6127*

Significance level: * $p < .05$

The main treatment effect in the suggested models is retirement of the CEO. However, since this is not a randomly assigned experiment, CEO retirement can be endogenous. To correct for a possible endogeneity problem associated with the CEO retirement decision, I deploy the Heckman correction method (Hamilton and Nickerson, 2003; Heckman, 1979; Shaver, 1998). In the first-stage probit model (Table 14), I estimate the probability of CEO retirement. The predicted probability of CEO retirement is used to generate the inverse Mills ratio to be included in the second-stage model. Following the literature, I include several explanatory variables as predictors of CEO retirement in the first-stage probit model. In the literature, firm size (Fredrickson *et al.*, 1988; Grusky, 1961, 1963, 1964; Kriesberg, 1962; Trow, 1960), firm profitability and cash flow (Allen, Panian, and Lotz, 1979b; Brickley, 2003; Eitzen and Yetman, 1972; McEachern, 1975; Pfeffer and Salancik, 1977; Tushman, Virany, and Romanelli, 1985), financial leverage (Helmich, 1978; Pfeffer and Leblebici, 1973), characteristics of compensation (Fredrickson *et al.*, 1988; Yermack, 1995; Zajac, 1990), and executive age (Brickley, 2003; Murphy, 1999; Yermack, 1995) are considered to have either direct or indirect influence on executive retirement. In keeping with the previous studies, the result of the first-stage model shows that firm size, firm profitability, and CEO age are relevant predictors of CEO retirement in the sample data. [11]

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[11] I also used propensity score correction using a logit model in the first-stage. The result of the second-stage regression remained the same.

Table 14. First-Stage Probit Estimates of CEO Retirement

Dependent Variable	CEO Retirement $_{t+1}$
Firm size $_t$	0.0464*
	(0.0202)
Firm profitability $_t$	-0.0076†
	(0.0040)
Financial leverage $_t$	0.1559
	(0.1858)
Free cash flow $_t$	9.4680
	(20.653)
% Profit-based compensation $_t$	-0.0074
	(0.1976)
% Stock-based compensation $_t$	0.0711
	(0.1293)
CEO age $_t$	0.0728***
	(0.0043)
Year dummies	Included
N Firm-years	4177
N Firms	602
Pseudo R-squared	0.1308

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 15. Fixed Effects Estimation Result with Self-selection Correction

Dependent Variable: CSP $_{t+1}$	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	-1.8055	-1.8006	-1.7848	-1.7717	-1.7341	-1.7076
	(1.7110)	(1.7140)	(0.7163)	(1.7163)	(1.6977)	(1.7020)
Firm size $_t$	0.1279	0.1277	0.1261	0.1158	0.1158	0.1137
	(0.1009)	(0.1010)	(0.1010)	(0.1009)	(0.1007)	(0.1008)
Firm profitability $_t$	0.0080	0.0081	0.0081	0.0077	0.0075	0.0076
	(0.0053)	(0.0053)	(0.0053)	(0.0053)	(0.0052)	(0.0053)
Financial leverage $_t$	1.3532**	1.3588**	1.3602**	1.3447**	1.3587**	1.3653**
	(0.4324)	(0.4292)	(0.4284)	(0.4365)	(0.4368)	(0.4330)
Free cash flow $_t$	115.33†	114.48†	113.74†	117.49†	120.08†	118.47†
	(68.975)	(69.178)	(69.234)	(67.349)	(66.850)	(67.079)
Intangible assets $_t$	-0.0320	-0.0324	-0.0327	-0.0317	-0.0308	-0.0315
	(0.0226)	(0.0226)	(0.0226)	(0.0225)	(0.0226)	(0.0226)
% Profit-based compensation $_t$	-0.7700**	-0.7832**	-0.7808**	-0.7881**	-0.7944**	-0.8000**
	(0.2744)	(0.2759)	(0.2760)	(0.2740)	(0.2737)	(0.2757)
% Stock-based compensation $_t$	-0.5089**	-0.5129**	-0.5116**	-0.5215**	-0.5174**	-0.5179**
	(0.1757)	(0.1763)	(0.1766)	(0.1758)	(0.1760)	(0.1796)
CEO age $_t$	-0.0048	-0.0047	-0.0044	-0.0027	-0.0006	-0.0001
	(0.0111)	(0.0111)	(0.0112)	(0.0111)	(0.0111)	(0.0112)
Retention on the board after retirement $_{t+2}$	0.2173	0.2152	0.2125	0.2452	0.1904	0.1826
	(0.1863)	(0.1865)	(0.1868)	(0.1881)	(0.1902)	(0.1911)
CEO retirement $_t$	-0.0943	-0.0978	-0.0979	-0.2504*	-0.3687**	-0.3715**
	(0.0909)	(0.0914)	(0.0914)	(0.1024)	(0.1254)	(0.1250)
CEO retirement $_t$ x % profit-based compensation $_t$		0.2698	0.4563			0.4565
		(0.4386)	(0.5384)			(0.5408)
CEO retirement $_t$ x % stock-based compensation $_t$			0.1923			0.2760
			(0.3326)			(0.3367)
CEO retirement $_t$ x CEO age $_t$				0.0321*	0.0321*	0.0314*
				(0.0144)	(0.0143)	(0.0143)
CEO retirement $_t$ x retention on the board after retirement $_{t+2}$					0.3957*	0.4083*
					(0.1648)	(0.1662)
Inverse Mills ratio (λ)	0.1174	0.1133	0.1115	-0.0866	-0.0848	-0.0857
	(0.4394)	(0.7308)	(0.4398)	(0.4474)	(0.4466)	(0.4472)
Firm-fixed effects & year dummies	Included	Included	Included	Included	Included	Included
N Firm-years	3681	3681	3681	3681	3681	3681
N Firms	583	583	583	583	583	583
Adjusted R-squared	0.7543	0.7543	0.7542	0.7547	0.7551	0.7551

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

In the second-stage model (Table 15), I use firm and year fixed effects estimation. The result of the Hausman test strongly indicates that the fixed-effects model is preferable to the random-effects model (chi-square=49.89, p-value=0.0000). A likelihood-ratio test shows that year dummies, though collectively significant (chi-square=118.65, p-value=0.0000), are not individually significant. Since no year dummy is individually significant, I do not report coefficients of year dummies. Across all second-stage models (Table 15), I allow heteroskedasticity in the error term, and calculate Huber-White robust standard errors clustered at each firm level in the estimation. Also, I account for possible within-firm autocorrelation by using clustered error.

Furthermore, the model can be exposed to several endogeneity issues. First, the reverse causality problem can bias the estimation. While I presume a causal direction from CEO departure to change in CSP, it is also possible that change in CSP, particularly a significant drop in CSP, can lead to the forced retirement of the CEO. In order to examine the possible reverse causality, I regress the retirement of CEO at year $t+1$ on CSP ratings and other variables that may influence retirement of the CEO at year t (Danneels, 2008; Staw, Barsade, and Koput, 1997). The result of this test shows that a drop in CSP does not lead to CEO retirement in a statistically significant manner, providing no support for reverse (Granger) causality. Therefore, the panel data support that the direction of causality of the lagged effects runs from CEO retirement to CSP.

Second, it is possible that firms included in the KLD database may be self-selected. Firms that are strong in CSP will disclose information about their social

performance, and therefore firms in the KLD database could be those that are strongly biased toward positive ratings. However, the CSP ratings of KLD firms provide substantial cross-section variation among firms and its distribution shows a shape very close to the normal distribution, which mitigates the self-selection concern.

The results of Model 4 through Model 6 support Hypothesis 1, which states that CEO retirement will have a negative impact on CSP. Models 2 and 3 test the validity of compensation maximization as a motivation for the CEO horizon problem and stock-based compensation as a solution. The coefficients of both interaction terms are not statistically significant, suggesting that the horizon problem in the context of CSP is not driven by the compensation maximization motivation and thus may not be solved by granting stock-based compensation. Alternatively, Models 4 and 5 test the validity of post-retirement career continuation as a motivation for the horizon problem and the retention of the CEO as a director as a solution to the problem. The coefficient of the interaction term of CEO retirement and CEO age is positive and significant (β=0.0321, p-value=0.025), suggesting that CEOs retiring at younger ages are likely to reduce expenditure in social responsibility–related investment by a greater amount. In accordance with post-retirement career continuation as a motivation for the horizon problem, retention of CEO as a director seems to be an effective means to mitigate the horizon problem in the context of CSP. The coefficient of the interaction term of CEO retirement and CEO retention is positive and significant (β=0.3957, p-value=0.016), suggesting that if a retiring CEO is retained in the firm as a director of the board, the

negative impact of CEO retirement on CSP is mitigated. The results of Models 4 and 5 do not change in Model 6, where all explanatory variables are included.

The results suggest that the drop in CSP at CEO retirement can be attributed to the CEO's desire to continue to work after retirement and thus can be mitigated if the CEO is retained in the board after retirement. To test this possibility, I examined the interaction effect of CEO age on the relationship between retirement and CSP. As explained, the logic was that if CEO's desire to continue to work explains a drop in CSP, CEOs retiring at younger age, who likely have more interest and energy to work, may reduce CSP investment by greater amount. However, a possible problem in this logic is that some CEOs who retire at 'younger age' may do so because they just don't want to work anymore. For example, if a CEO retires at the age of fifty even if he/she could serve as a CEO for ten more years or so, it is less convincing to argue that he/she is interested in working. Therefore, if the results were driven by those CEOs who retire very young to enjoy life with no interest in working, the argument of the paper may not hold. To check this, I removed observations of CEOs who retired before sixty (199 obs) and ran the full model again. The results show that all hypotheses (H1, H4, and H5) were supported at the same p-value level. Therefore, I ruled out the possibility that the results were driven by CEOs who retire very young and may have no intention to work after retirement. Figure 4 shows the distribution of CEO age at retirement in the sample. Average CEO age at retirement is 61.8 years. Minimum CEO age at retirement is 47 and maximum CEO age at retirement is 77.
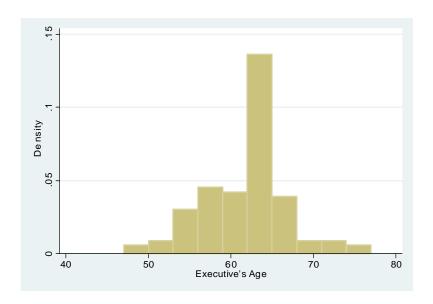
Figure 4. CEO Age at Retirement in the Sample Data

Another possible criticism is that the negative relationship between CEO retirement and CSP could have been driven by CEOs who served as CEOs for a relatively short period. Vancil (1987) reported that many CEOs are fired during the first three years on the job. If CEOs serve only for a relatively short amount of time, those CEOs may not have a real substantial influence on long-term investment items. Therefore, to check this, I removed observations of CEOs who served five years or less (115 obs) and ran the full model again. The results remained the same and all hypotheses (H1, H4, and H5) were supported at the same p-value level. Therefore, I ruled out the possibility that the results were driven by CEOs who serve for a relatively short period, who may not have exerted a meaningful influence on long-term investment items. Figure 5 shows the distribution of CEO tenure length in the sample. Average CEO tenure is 14.46 years. Minimum CEO tenure length is 1 year and maximum CEO tenure length is 57 years.
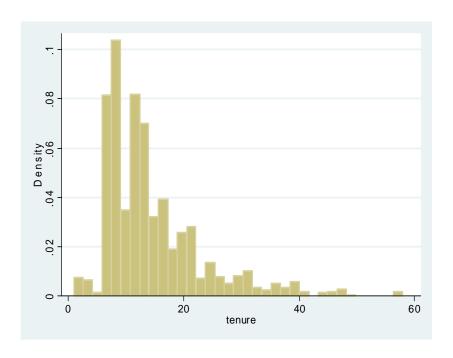
Figure 5. CEO Tenure in the Sample Data

Regarding control variables, financial leverage and free cash flow are found to have positive impacts on CSP, suggesting that the existence of financial slack can have a positive influence on the social performance of the firm. However, the coefficients of CEO compensation variables are not in accordance with the findings of previous studies (Deckop *et al.*, 2006; Mahoney and Thron, 2006; McGuire *et al.*, 2003). While previous studies report a positive relationship between stock-based compensation and CSP, my result suggests that stock-based compensation has a negative impact on CSP.

4.1. Additional analysis on the relationship between CEO retirement and CSP

I constructed two partial measure of CSP. First measure comprises community, governance, environment, and product categories (4 items). Second measure comprises diversity, employee, and human rights (3 items). I did not run two-stage model for this

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additional analysis because the result of Table 15 suggests that self-selection is not an issue in my data. Then, I replicated the regressions reported in Table 3. This additional analysis is summarized in Table 16. The result indicates that for the 4-items CSP measure, the same relationship reported in Table 15 is observed. However, when the 3-items CSP measure was used, no variables were statistically significant.

Table 16. Relationship between CEO Retirement and subsets of CSP categories

Dependent Variable $_{t+1}$	Model 1	Model 2
Intercept	1.9899**	-1.5827**
	(0.6069)	(0.5600)
Firm size $_t$	-0.2637	0.2436**
	(0.0747)	(0.0691)
Firm profitability $_t$	0.0012	0.0012
	(0.0028)	(0.0034)
Financial leverage $_t$	0.9294***	0.4181
	(0.2449)	(0.3037)
Free cash flow $_t$	22.187	101.54**
	(37.900)	(35.115)
Intangible assets $_t$	-0.0284*	-0.0182
	(0.0115)	(0.0150)
% Profit-based compensation $_t$	-0.2929	-0.3474*
	(0.1822)	(0.1694)
% Stock-based compensation $_t$	-0.2547*	-0.1988†
	(0.1180)	(0.1132)
CEO age $_t$	0.0115	-0.0151*
	(0.0077)	(0.0071)
Retention on the board	-0.1583	0.3335*
after retirement $_{t+2}$	(0.1303)	(0.1402)
CEO retirement $_t$	-0.2875***	-0.1286
	(0.0848)	(0.0862)
CEO retirement $_t$ x % profit-based	-0.0166	-0.1872
compensation $_t$	(0.3646)	(0.3420)
CEO retirement $_t$ x % stock-based	0.0964	-0.0730
compensation $_t$	(0.2299)	(0.2183)
CEO retirement $_t$ x CEO age $_t$	0.0263**	0.0107
	(0.0091)	(0.0090)
CEO retirement $_t$ x retention on the	0.2953**	0.1045
board after retirement $_{t+2}$	(0.1142)	(0.1095)
Firm-fixed effects & year dummies	Included	Included
N Firm-years	3681	3681
Adjusted R-squared	0.7338	0.7263

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Model 1: Four KLD categories (community, governance, environment, & product)
Model 2: Three KLD categories (diversity, employee, human right)

5. Conclusion and Discussion

Many CEOs openly acknowledge that strong corporate social performance is an important investment leading to sustainable competitive advantage of the firm. However, the findings of this study suggest that CEOs may become less enthusiastic about the social performance of their firms when they are about to leave. If reputation as a socially responsible firm is a fragile resource that can be easily destroyed by inconsistency in firm efforts (Barnett, 2007), shareholders may heed the continuity of investment in social responsibility–related areas, particularly during CEO succession periods. In this paper, I examine the possible occurrence of the horizon problem in a new context of CSP and evaluate the behavioral motivation behind the horizon problem. While previous studies assume that CEO compensation maximization is a primary motivation for the horizon problem, my results suggest that compensation maximization does not explain the horizon problem in the CSP context. On the contrary, the retiring CEO's concern for career continuation seems to offer a better explanation. Furthermore, the result suggests that retention of retiring CEOs may work as an effective means to curb the horizon problem in the context of CSP.

While shareholders may attempt to eliminate myopic and opportunistic managerial behavior by providing stock-based compensation to executives, my results suggest that long-term incentive mechanisms may not always be effective. Recently Matta and Beamish (2008) reported that equity holdings and in-the-money stock options aggravate the risk aversion of retiring CEOs in the context of international M&A. This study also finds that stock-based compensation does not curb the horizon problem in the

context of CSP. A possible explanation may involve the nature of CSP-related investments. R&D investment, which has been the traditional context of the horizon problem in the literature, has a relatively well defined impact on long-term financial performance. But the impact of CSP on financial performance is still not clearly understood (Margolis and Walsh, 2003; Orlitzky *et al.*, 2003). Although CEOs publicly attest to the importance of CSP, if they in fact consider the impact of reduction in CSP-related investment on the long-term financial performance to be highly uncertain, they may be more willing to reduce the investment in CSP, even if a significant amount of their compensation is tied to long-term firm performance. In that case, providing stock-based compensation may not effectively control the retiring CEO's behavior on CSP-related investment.

Another possible motivation behind the CEO horizon problem discussed in the literature but not discussed in this study is "legacy conservation" (Matta and Beamish, 2008). According to this hypothesis, retiring CEOs are concerned about preserving their reputation and legacy and therefore refrain from choices that may damage their achievements as CEOs. In the context of CSP, this legacy conservation argument suggests that retiring CEOs may be concerned about protecting their image and reputation as socially responsible CEOs. Therefore, if legacy conservation is the primary motivation in CSP context, we may observe consistency or even improvement in social performance near CEO retirement because retiring CEOs would not want to ruin their legacy or reputation as socially responsible. However, my data does not support this

legacy conservation hypothesis in the CSP context. This suggests that legacy conservation may not be the main concern of CEOs when it comes to CSP.

A possible alternative explanation for the negative relationship between CEO retirement and CSP is that during times of CEO change, the CSP of firms may drop as a result of relative inattention to social responsibility–related issues from the CEOs, the top management team, and the board of directors. It is well known that firms consume substantially more managerial attention and organizational resources during CEO succession than at other times (Brady and Helmich, 1984; Grusky, 1963; Lorsch and Khurana, 1999; Pitcher, Chreim, and Kisfalvi, 2000; Vancil, 1987). Therefore, it is possible that firms just cannot afford to spend resources on social responsibility–related issues during periods of CEO change, and that CSP drops as a result. However, although it is a possible alternative explanation, this scenario seems to be less likely considering that the negative relationship between CEO departure and CSP is not supported in the samples where CEO departure is caused by resignation or death. If the drop in CSP is caused by inattention to social responsibility–related issues during the chaos and trials of CEO change, it should be worse or at least as bad if a CEO resigns or dies, both of which pose more challenging transitions than retirement.

Lastly, the paper speaks to the need to maintain an independent function or personnel in charge of CSP. The fact that decision making in CSP is greatly influenced by CEOs in many firms (e.g., Embley, 1993; Kochan, 2002; Orlitzky *et al.*, 2003) implies that CSP programs of those firms are vulnerable to inconsistencies and changes, particularly during times of CEO succession. However, if building a reputation through

CSP requires consistency most of all, the effectiveness of CEO-controlled CSP programs may not be ideal. Also, leaving CSP-related investment decisions to the CEO or other individual executives is not desirable in terms of accumulation of expertise and know-how. A group of people or system that collectively manages CSP-related investment will suffer much less from attrition of relevant expertise and know-how (Nelson and Winter, 1982).

This study has several limitations. First, I was not able to examine the direct link between CEO retirement and expenditure in CSP because of unavailable data. Instead, I rely on CSP ratings of the firm, based on an assumption that CSP rating is a direct outcome of CSP-related expenditure. However, as is pointed out in several critical reviews of CSP research, currently available CSP ratings may not be ideal (Chatterji and Levine, 2006; Porter and Kramer, 2006). While KLD's CSP rating is the most influential and frequently used measure of CSP in the literature (Chatterji and Levine, 2006; Rowley and Berman, 2000; Waddock and Graves, 1997), the KLD rating has its own problems. For example, critics suggest that the KLD rating uses largely qualitative and subjective measures, which make it difficult to produce comparable and reliable metrics. However, the KLD rating relies less than other measures on survey response, which has a very low response rate, and also has made more effort to improve the quality of information collected on firms (Chatterji and Levine, 2006). While the KLD rating may not be a perfect measure of CSP, it is probably the best of those currently available (Chatterji *et al.*, 2008b; Sharfman, 1996; Waddock, 2003; Waddock and Graves, 1997).

Second, this paper focuses on CEOs without considering other senior executives. Previous studies noted that focusing only on CEOs may fail to provide a complete picture of decision making at the upper echelons (Gupta, 1988; Hambrick, 1994; Hambrick and Mason, 1984). They argue that strategic decision making should be considered as a concerted outcome of agreement and compromise within the top management team. However, decision making on corporate social performance is mainly driven by the CEO and much less by other senior executives (Embley, 1993; Kochan, 2002; Orlitzky and Swanson, 2002; UN, 2007). Therefore, the current study's focus on CEO retirement may be justified. How top management team composition and backgrounds may affect social responsibility–related decision making provides an interesting research question for future researchers.

Essay Three. How do corporate diversification strategies shape subsequent corporate social performance of the firm?

1. Introduction

In the strategy literature, antecedents of corporate diversification have been one of the most widely discussed topics (Hoskisson and Hitt, 1990; Ramanujam and Varadarajan, 1989). In contrast, research on consequences of corporate diversification has focused almost exclusively on corporate financial performance (Chakrabarti, Singh, and Mahmood, 2007; Hoskisson and Hitt, 1990; Markides and Williamson, 1994; Palepu, 1985; Palich, Cardinal, and Miller, 2000; Rumelt, 1974; Singh and Montgomery, 1987). Corporate financial performance is the most important measure of how well a firm is doing, but in overlooking other important dimensions of firm performance it often fails to provide information on long-term viability (Kaplan and Norton, 1996; Luo, 2006). For example, corporate social performance (CSP) can serve as a complementary measure of firm performance, particularly as a predictor of long-term firm performance and viability (Chatterji and Levine, 2006; Handy, 2002; Kacperczyk, 2009; Martin, 2002; Ogden and Watson, 1999). While CSP as a useful predictor of long-term firm performance is gaining increasing empirical support (Kacperczyk, 2009; Ogden and Watson, 1999), strategy scholars have not yet given much thought to how social performance of the firm can be connected to such topics as corporate diversification.

McWilliams and Siegel (2001) proposed a positive relationship between a firm's degree of overall diversification and its CSP. However, conceptual elaborations on and

empirical tests of this proposition are found only for the case of international diversification (Christmann, 2004; Sharfman, Shaft, and Tihanyi, 2004). In an attempt to advance the inquiry on the relationship between corporate diversification and CSP, this paper examines the impact of unrelated, related, and international diversification on CSP. McWilliams and Siegel's (2001) proposed relationship between overall diversification and CSP is based on the cost-sharing advantage of diversified firms. While the argument is sound and logical, if the impact of diversification on CSP is driven by the cost-sharing capacity of diversified firms, we may not see a meaningful difference in social performance between firms pursuing unrelated and related diversification. In this paper, I propose that there are important differences between unrelated and related diversification that can have differential effects on the subsequent social performance of firms.

I propose that firms pursuing unrelated diversification strategies have strong incentives to achieve positive CSP. First, unrelated diversifiers usually face a wide range of varying demands from stakeholders in distant industries of their subsidiaries. In an attempt to respond to these varied demands, unrelated diversifiers attend to a wide range of social concerns, leading to their achieving positive CSP. Second, while effective resource transfer across subsidiaries is a key to the competitive advantage of the diversified firm, it is a highly challenging task for unrelated diversifiers. In an attempt to achieve competitive advantage through resource sharing across subsidiaries, unrelated diversifiers may seek ways to enhance the transferability of resources. When it comes to the brand, firms can enhance transferability by emphasizing the abstract association of the brand through demonstration of strong social performance. In contrast, related

diversification does not engender similar incentives to positive social performance. Therefore, related diversification will not lead to positive CSP. Lastly, firms pursuing international diversification are under strong pressure and monitoring from influential international stakeholders, which provide them with a strong incentive for positive social performance.

Using a panel data set of 518 large US firms from 1993 to 2006, I find that unrelated diversification and international diversification positively affect CSP, while related diversification affects it negatively. The positive impact of unrelated diversification on CSP raises an interesting question about the value of unrelated diversification, which often has been criticized because of its negative impact on short-term financial performance. If CSP can serve as a relevant predictor of long-term firm performance and viability (Chatterji and Levine, 2006; Kacperczyk, 2009; Ogden and Watson, 1999), the positive impact of unrelated diversification on CSP speaks to a benefit of unrelated diversification that has been overlooked in the literature.

2. Theory and Hypotheses

2.1. Relationship between unrelated diversification and stakeholder demands

CSP measures the improvement in social condition by a firm's voluntary actions and is a multidimensional concept that covers a range of social issues related to the firm's operation (Carroll, 1979; Griffin and Mahon, 1997; Rowley and Berman, 2000). For example, a firm's CSP is measured and aggregated across a number of areas such as environmental contribution, humanitarian contribution, workforce diversity, employee relations, corporate governance, and product safety (Waddock and Graves, 1997).

Because CSP is multidimensional, a firm's achievement of positive CSP means that the firm is paying attention to diverse areas of social issues (Kacperczyk, 2009).

Previous studies on antecedents of CSP have identified a number of determinants of CSP, which include organizational slack (e.g., profitability) (McGuire *et al.*, 2003; McWilliams and Siegel, 2000; Waddock and Graves, 1997), value of intangible resource (McWilliams and Siegel, 2000, 2001), managerial compensation (Deckop *et al.*, 2006; Mahoney and Thron, 2006; McGuire *et al.*, 2003), governance structure (e.g., board constitution) (Johnson and Greening, 1999), and managerial employment risk (Kacperczyk, 2009). The suggested relationship between those variables and CSP can be characterized as either a firm's ability or motivation to invest in CSP. For example, organizational slack or profitability speaks to the ability of the firm to invest in CSP-related issues. In contrast, other determinants speak to the motivation of the firm to invest in CSP-related issues. Managerial compensation, governance structure, employment risk, and value of intangible resource are predicted to determine the level of a firm's investment in CSP, because those variables increase or decrease motivation (incentive) of managers to invest in CSP.

The suggested relationship between corporate diversification and CSP is also related to the motivation of the firm to invest in CSP-related issues. When firms pursue an unrelated diversification strategy, they enter industries that are very different from the ones they are currently in (Chatterjee and Wernerfelt, 1991; Markides and Williamson, 1994) and as a result will face very different groups of stakeholders from those they are familiar with (Brammer *et al.*, 2006; Porter, 1980, 1985). Moreover, stakeholders in

different industries demand that firms put different priorities on various categories of social issues, and firms respond accordingly (Brammer and Millington, 2008). For example, Russo and Fouts (1997b) show that importance of environmental issues significantly differs among firms in different industries. Also, Adams and Hardwick (1998) find that the importance of corporate charitable donations varies significantly across industries. Therefore, a firm simultaneously operating in unrelated industries will face a wider range of social issues with which stakeholders want that firm to engage. In short, increasing level of diversification gives incentives (motivation) to a firm to invest in more diverse social issues.

Considering that failure to respond appropriately to stakeholder demands can threaten the firm's survival (Donaldson and Preston, 1995; Freeman, 1984; Jones, 1995), firms have to respond to their stakeholders' demands at least to some degree. Therefore, while coping with the demands of diverse stakeholder groups across unrelated industries and markets, firms pursuing the unrelated diversification strategy are likely to respond to a broader range of social concerns and show better social performance than related diversifiers. For example, the top management team of GE, a firm pursuing an extensive unrelated diversification strategy, admits that "there is a tendency by many to expect GE to be *all things to all stakeholders*" (GE, 2008: 11, emphasis added) and states that it strives to meet the demands of a wide range of stakeholders of GE's unrelated subsidiaries.

2.2. Brand transferability and social performance

Porter (1987) explains that resource sharing is the main source of competitive advantage for the diversified firm. However, for unrelated diversifiers, resource sharing is a much more challenging task because of the greater differences in their end-products (Chatterjee and Wernerfelt, 1991; Hill, Hitt, and Hoskisson, 1992). This suggests that an unrelated diversifier seeking to share resources across its subsidiaries should spend extra effort to enhance those resources' transferability. Although the main competitive advantage of unrelated diversifiers may lie elsewhere, such as an internal capital market (Anand and Jayanti, 2005), effective sharing of firm resources across subsidiaries certainly adds to their competitive advantage. For example, sharing the brand across subsidiaries can help firms reduce their advertising costs.

Chatterjee and Wernerfelt (1991) define the transferability of a resource as an ability of a resource to be used in more than one end-product. In the case of brand, transferability can be enhanced by emphasizing the abstract association ability of the brand (Johnson, 1984; Park, Milberg, and Lawson, 1991; Sujan and Dekleva, 1987). Abstract association of a brand is defined as imagery- or symbol-related association that invokes general ideas about the firm and not of any particular or concrete products (Hoeffler and Keller, 2002; Park *et al.*, 1991). When a firm brand has a high level of abstract association, it can be more easily associated with a wide range of unrelated products that the firm provides (Johnson, 1984; Park *et al.*, 1991; Sujan and Dekleva, 1987). Reddy, Holak, and Bhat (1994: 246) explain, "A symbolic brand's more abstract image suggests that it provides broader appeal, which can be extended to a wider variety

of new products." This suggests that an unrelated diversifier can extend its brand across unrelated product offerings more easily when it maintains a highly abstract brand.

A firm's commitment to social issues and demonstration of positive social performance generate a strongly positive yet highly abstract brand image (Drumwright, 1996; File and Prince, 1998; Hoeffler and Keller, 2002; Lichtenstein, Drumwright, and Braig, 2004). First, communicating a firm's commitment to social issues improves the abstract association of a brand, which is focused on the general image of a firm, but does not affect specific product-related perceptions (Hoeffler and Keller, 2002). Second, positive social performance by the firm engenders a strong positive image of the brand by enhancing the credibility and moral integrity associated with the brand (Brown and Dacin, 1997; Lichtenstein *et al.*, 2004; McGuire *et al.*, 1988).

This argument suggests that unrelated diversifiers can benefit by building a brand with a positive abstract association through the demonstration of positive social performance. Therefore, I expect that unrelated diversifiers will spend more resources in social responsibility–related areas and achieve positive social performance. Considering that an unrelated diversifier will be exposed to a wide range of stakeholder demands and positive social performance will help it apply the brand more easily across its unrelated products, I expect that the unrelated diversification strategy will lead to positive CSP.

Hypothesis 1. An unrelated diversification strategy will have a positive impact on the subsequent corporate social performance of the firm.

In contrast to unrelated diversifiers, related diversifiers tend to face similar stakeholders as they diversify into new industries. For example, when Coca-Cola entered

the bottled water industry, they faced environmental activist groups that oversee the use of water sources, which it had already dealt with in the carbonated beverage industry (e.g., Food & Water Watch). Also, regulatory bodies apply similar regulations and rules across related industries. Therefore, related diversifiers will tend to focus on a relatively limited range of social concerns. In addition, related diversifiers have little incentive to build an abstract brand image, because a brand that is narrowly defined in a specific area applies well across their closely related product offerings (Johnson, 1984; Park *et al.*, 1991; Sujan and Dekleva, 1987).

Since related diversifiers do not have clear incentives to achieve positive social performance, a related diversification strategy will not lead to positive CSP. However, this does not necessarily mean that related diversifiers will show a negative CSP. If related diversifiers respond well to a narrow range of social issues pertaining to their related subsidiaries, they will be able to avoid earning a negative CSP. Therefore, it is expected that related diversification will have either a negative or neutral relationship with subsequent CSP. Hence, I propose a set of alternative hypotheses on the relationship between related diversification and CSP.

Hypothesis 2a. A related diversification strategy will have a negative impact on the subsequent corporate social performance of the firm.

Hypothesis 2b. A related diversification strategy will have no impact on the subsequent corporate social performance of the firm.

2.3. International diversification and corporate social performance

Firms going international are exposed to more diverse and influential stakeholders (e.g., foreign customers, international activist groups, and international media) and thus need to pay more careful attention to their social performance (Christmann, 2004; Sharfman *et al.*, 2004; Strike, Gao, and Bansal, 2006). For example, firms with strong international presence become a popular target of international activist groups; "An ever-expanding army of non-governmental organizations (NGOs) stands ready to do battle with multinational companies at the slightest sign of misbehavior" (Economist, 2008). The case of Nestle provides a good example. While Nestle is using only 0.0008% of global water sources, it is the most frequently targeted firm of international environmentalist groups that address water waste issues. In fact, the inefficiency of agricultural irrigation, which uses 70% of the world's water supply, is a far more pressing issue, but one with no equally convenient target (Porter and Kramer, 2006).

As firms pursuing international diversification are likely to be exposed to more diverse as well as more influential corporate monitoring bodies (e.g., high-profile NGOs, international media), behaving in a socially responsible manner is not an option but an imperative for them. If socially irresponsible behavior in any overseas operations is detected by influential international monitoring bodies, worldwide operations of the firm will suffer financial loss and damage to brand image, which often take a substantial time and resources to recover from. Therefore, firms pursuing an international diversification strategy have strong incentives to pay more attention to corporate social performance than domestic firms do. Hence,

Hypothesis 3. An international diversification strategy will have a positive impact on the subsequent corporate social performance of the firm.
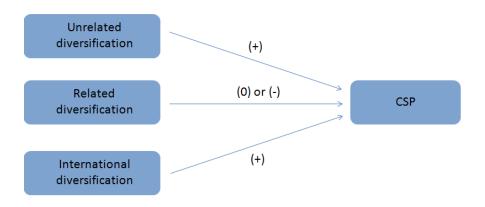
Figure 6. Summary of Research Hypotheses

3. Methods

3.1. Data Sources

The sample for this study starts from 1,000 largest US firms in terms of market capitalization. I choose large firms for my sample because large firms are more likely to pursue diversification, both product-wise and geographically (Hoskisson and Hitt, 1990; Ingham and Thompson, 1995; Markides and Williamson, 1996). Also, their strategic behaviors and performance are critical for the global economy (Perrow, 1986; Wang and Zajac, 2007). The social performance data for the sample firms is collected from the Kinder, Lydenberg, Domini (KLD) Social Ratings database, which is the most trusted source of CSP measure in academic research (Chatterji *et al.*, 2008a; Waddock, 2003; Waddock and Graves, 1997). To construct other explanatory and control variables, I

collect financial data from Compustat's North America database and Compustat's Executive Compensation (ExecuComp) database. Since the ExecuComp database provides data from 1993 to 2006, the sample period is limited accordingly. After the three databases are matched, the effective sample size is reduced to 518 firms. The effective sample size in analysis is 3290 observations.

3.2. Variables

Dependent variable

Corporate social performance (CSP). Following the common practice in the literature (Chatterji *et al.*, 2008a; Graves and Waddock, 1994; Griffin and Mahon, 1997; Johnson and Greening, 1999; Waddock and Graves, 1997), I define the CSP of the firm as the sum of all strength items minus the sum of all concern items.[12] Considering all dimensions of CSP reported in the KLD database improves the construct validity of the social performance measure, since CSP is a multidimensional concept (Brammer *et al.*, 2006; Carroll, 1979; Griffin and Mahon, 1997; Hillman and Keim, 2001; Rowley and Berman, 2000). Scholars have criticized the validity and reliability of studies that used single or selective dimension(s) of KLD rating and urged for simultaneous consideration of various dimensions of CSP (Griffin and Mahon, 1997; Rowley and Berman, 2000). A large value for this variable suggests that the firm is generally rated highly across various social responsibility areas. CSP is measured at time *t+1*.

Explanatory variables

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[12] I also used a modified index calculated in the following way: seven qualitative issue areas (i.e., corporate governance, community, diversity, employee relations, environment, product quality and safety, and human rights categories) receive a weight of 1, while involvement in alcohol, firearms, gambling, military, nuclear, and tobacco categories receives a weight of 0.5. This weighting scheme, closer to what Waddock and Graves (1997) used after consulting an expert panel, puts more weight on the effort and attitude of the company toward social performance, rather than the products they provide. The result remained unchanged.

Related/unrelated diversification. Since I hypothesize the different impact of related and unrelated diversification on subsequent CSP of the firm, I need separate measures of related and unrelated diversification. Only the entropy measure of diversification distinguishes between related and unrelated diversifications (Chatterjee and Blocher, 1992; Hoskisson, Hitt, Johnson, and Mosel, 1993; Jacquemin and Berry, 1979; Palepu, 1985). Palepu (1985) explains that the entropy measure overcomes the limitation of the earlier diversification indices and allows the decomposition of a firm's total diversity into two additive components: (1) an unrelated component that measures the extent to which a firm's operational output is distributed in product across unrelated industry groups and (2) a related component that measures the distribution of the operational output among related products within the industry groups. The entropy measure of related diversification DR is defined as follows. First, let DR_j be defined as the related diversification arising out of operating in several segments within an industry group j. DR_j can be written as

$$DR_j = \sum_{i \in j} P^j{}_i \ln(1 / p^j{}_i)$$

where $P^j{}_i$ is defined as the share of the segment i of group j in the total sales of the group. Since my sample firms operate in several industry groups, their total related diversification DR is a function of DR_j, j=1,…,M. It is defined as

$$DR = \sum_{j=1}^{M} DR_j \, P^j$$

where P_j is the share of the jth group sales in the total sales of the firm. Note that DR is the weighted average of the related diversification within all the M groups. Each

group gets a weightage equal to its share, a measure of its importance in the total operations of the firm.

Let DU be the unrelated diversification. This arises out of operating across several industry groups. Therefore, DU is defined as

$$DU = \sum_{j=1}^{M} P^{j}{}_{i} \ln(1/p^{j}{}_{i})$$

International diversification. International diversification refers to a firm's expansion beyond its domestic market into other regions or countries (Ghoshal, 1987). I adopt the most commonly used measure of international diversification in the literature, the foreign sales ratio defined as a firm's foreign sales divided by its total sales (Capar and Kotabe, 2003; Geringer, Beamish, and da Costa, 1989; Geringer, Tallman, and Olsen, 2000; Grant, Jammine, and Thomas, 1988; Tallman and Li, 1996). All diversification measures are measured at time *t*.

Control variables

Following previous studies, I include controls for financial leverage and free cash flow (in \$ millions) (McKendall *et al.*, 1999; McWilliams and Siegel, 2000). Since the existence of intangible assets (e.g., R&D capability, brand strength) may also affect CSP (McWilliams and Siegel, 2000, 2001; Waddock and Graves, 1997), I include market-to-book ratio, which measures the value of intangible assets (Barth and Kasznik, 1999; Dechow *et al.*, 2001; Ikenberry *et al.*, 1995). Market-to-book ratio is used rather than other measures such as R&D and advertising expenditure because up to 80% of my observations are missing that information. I also control for firm size and firm

profitability (McGuire *et al.*, 2003; McGuire *et al.*, 1988; McWilliams and Siegel, 2000; Waddock and Graves, 1997). Firm size is measured as number of employees (in thousands) (Lee, Shenkar, and Li, 2008) and profitability is measured as return-on-equity (ROE). Lastly, because CEO compensation structure influences CSP (Deckop *et al.*, 2006; Mahoney and Thron, 2006; McGuire *et al.*, 2003), I include ratios of bonus and stock-based compensation in total CEO compensation. All control variables are measured at time *t*. I estimate the following model to get the regression result in Table 2:

$$CSP_{it+1} = \beta_1 \text{unrelated diversification}_{it} + \beta_2 \text{related diversification}_{it} + \beta_3 \text{international diversification}_{it} + Z_{it}\,\gamma + D_{it}\,\delta_{it} + \varepsilon_{it,}$$

where Z_{it} is the vector of firm-level characteristics that affect CSP, D_{it} is the vector of firm and year dummies, and ε_{it} is the error term. Z_{it} includes free cash flow, profitability, financial leverage, value of intangible assets, firm size, and ratios of bonus and stock-based compensation in total CEO compensation.

4. Analysis

Table 17 provides descriptive statistics for the sample data. Correlations are relatively low, with a few exceptions.

I also check the correlation between both related and unrelated diversification and advertising expenditure, using observations that have advertising expenditure information (n=1290). In hypothesis 1, I argue that unrelated diversifiers have an incentive to achieve positive CSP, which will enable them to build an abstract yet positive brand and to apply it across their unrelated products. This argument is based on an implicit assumption that brand is a highly important firm resource for unrelated diversifiers. The presence of a

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strong positive correlation between unrelated diversification and advertising expenditure will lend some underpinnings to the assumption. The correlation coefficient between unrelated diversification and advertising expenditure (ρ=0.2614, p-value<0.001) is more than double the one between related diversification and advertising expenditure (ρ=0.1237, p-value<0.001). This strong positive correlation suggests that brand is a more important resource for unrelated diversifiers than for related diversifiers.

Table 17. Descriptive Statistics and Pairwise Correlations for Sampled Firms (1993-2006)

Variable	N	Mean	S.D.	1.	2.	3.	6.	7.	8.	9.	10.	11.	12
1.Corporate social performance	3290	0.0571	2.6684										
2.Unrelated diversification	3290	0.2533	0.3681	-0.2009*									
3.Related diversification	3290	0.2680	0.3884	-0.0646*	0.0902*								
4.International diversification	3290	0.0229	0.0826	-0.0489*	0.0578*	-0.0070							
5.Firm size	3290	31.001	50.737	0.0018	0.2325*	0.0557*	-0.0064						
6.Firm profitability	3290	17.470	103.24	-0.0208	0.0182	0.0154	-0.0124	0.0090					
7.Financial leverage	3290	0.2724	0.5352	-0.1372*	0.0899*	0.0640*	-0.0245	0.0229	-0.0528*				
8.Free cash flow	3290	192.32	965.95	0.0785*	0.0518*	-0.0114	-0.0282	0.2660*	0.0726*	-0.1076*			
9.Intangible assets	3290	1.7990	1.9300	0.1749*	-0.2186*	-0.1504*	0.0170	-0.0879*	0.0895*	-0.3011*	0.2322*		
10.% Earning-based compensation	3290	0.2279	0.1791	0.0153	0.0704*	0.0169	0.0039	0.0239	0.0592*	0.0139	0.0954*	-0.0571*	
11.% Stock-based compensation	3290	0.4915	0.2891	-0.0405*	-0.0372*	0.0232	-0.0195	0.0690*	-0.0112	-0.0202	0.0068	0.1341*	-0.6489*

Significance level: * $p < .05$

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A possible problem in my dataset is that firms included in the KLD database may be self-selected. Firms that are strong in CSP will disclose information about their social performance, and therefore firms in the KLD database could be those that are strongly biased toward positive ratings. However, the CSP ratings of KLD firms provide substantial cross-section variation among firms and its distribution shows a shape very close to the normal distribution, which mitigates the self-selection concern.

To control for firm-level unobserved heterogeneity, I use firm fixed-effects estimation. The result of the Hausman test strongly indicates that the fixed-effects model is preferable to the random-effects model (chi-square=101.80, p-value=0.0000). I also include year dummies to control for temporal heterogeneity. A likelihood-ratio test shows that year dummies are strongly significant, both collectively and individually (chi-square=147.46, p-value=0.0000).

5. Results

Model 2 shows that unrelated diversification positively affects subsequent CSP of the firm in a statistically significant manner (β=0.3656, p-value=0.027). In contrast, related diversification does not positively affect subsequent CSP. In Model 3, the relationship between related diversification and CSP is negative and statistically significant (β=-0.3684, p-value=0.004). Therefore, hypothesis 2a is supported. Lastly, in keeping with the findings of previous studies, international diversification (β=1.3017, p-value=0.003, Model 4) has a positive and statistically significant impact on subsequent CSP. The full model (Model 5), which includes all three types of diversification, shows that all three hypotheses remain supported.

Table 18. Firm and Year Fixed Effects Estimation Result

Dependent Variable: CSP $_{t+1}$	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	0.4461**	0.3485*	0.4904**	0.3933*	0.3470*
	(0.1552)	(0.1612)	(0.1557)	(0.1560)	(0.1627)
Firm size $_t$	-0.0108***	-0.0114***	-0.0108***	-0.0110***	-0.0115***
	(0.0018)	(0.0018)	(0.0018)	(0.0018)	(0.0018)
Firm profitability $_t$	-0.0005*	-0.0005*	-0.0005*	-0.0005*	-0.0005*
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Financial leverage $_t$	-0.0863	-0.0818	-0.0864	-0.0907	-0.0869
	(0.0684)	(0.0684)	(0.0683)	(0.0683)	(0.0682)
Free cash flow $_t$	0.0003***	0.0003***	0.0003***	0.0003***	0.0002***
	(0.00004)	(0.00004)	(0.00004)	(0.00004)	(0.00004)
Intangible assets $_t$	-0.0561*	-0.0553*	-0.0556*	-0.0586*	-0.0573*
	(0.0212)	(0.0212)	(0.0228)	(0.0229)	(0.0228)
% Earning-based compensation $_t$	-0.2194	-0.2304	-0.2126	-0.1935	-0.1963
	(0.2699)	(0.2697)	(0.2695)	(0.2696)	(0.2692)
% Stock-based compensation $_t$	-0.4004*	-0.4048*	-0.3973*	-0.3956*	-0.3964*
	(0.1726)	(0.1725)	(0.1724)	(0.1724)	(0.1720)
Unrelated diversification $_t$		0.3656*			0.3326*
		(0.1651)			(0.1650)
Related diversification $_t$			-0.3684**		-0.3617**
			(0.1269)		(0.1269)
International diversification $_t$				1.3017**	1.3249**
				(0.4371)	(0.4364)
Firm-fixed effects & year dummies	Included	Included	Included	Included	Included
N Firm-years	3290	3290	3290	3290	3290
N Firms	518	518	518	518	518
Adjusted R-squared	0.7428	0.7432	0.7435	0.7435	0.7445

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$

I hypothesize that unrelated diversification and international diversification will lead to positive social performance. Therefore, it is possible that firms pursuing unrelated diversification and international diversification at the same time may show even stronger CSP. To check the possible interaction effects between different diversification strategies, I add two multiplicative terms between international diversification and related/unrelated diversification. However, the result of this additional test shows that neither multiplicative term is statistically significant. The direction and significance of other explanatory variables remain unchanged when the two multiplicative terms are added.

Lastly, while I propose a causal direction from different diversification strategies to subsequent CSP, it is also probable that positive CSP will build intangible assets, such as reputation and brand, that will affect the type of diversification the firm will pursue. Therefore, to check this possible reverse causal direction, I regress the three diversification strategies at time $t+1$ on CSP at time t (Danneels, 2008; Staw *et al.*, 1997). The result of the additional test shows that CSP has no statistically significant impact at the conventional level (p-value<0.05) on any subsequent diversification strategies, providing no support for reverse (Granger) causality (see Table 19).

The incremental R^2 of models including explanatory variables are relatively small. To check whether diversification variables and interaction variables add to the explanatory power of the model in a statistically significant manner, I conducted likelihood ratio tests. First, likelihood ratio tests show that the fit of the models that additionally included each diversification variable increased in a statistically significant manner (unrelated diversification: likelihood ratio χ^2=13.49, p=0.0002, related

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diversification: likelihood ratio χ^2=7.77, p=0.0053, international diversification: likelihood ratio χ^2=8.94, p=0.0028). Also, when I added all three diversification variables to the base model, the fit of the model improved in a statistically significant manner (likelihood ratio χ^2=29.80, p=0.0000). The likelihood ratio tests show that despite the small incremental R^2, diversification variables do improve the explanatory power of the model in a statistically meaningful manner.

Table 19. Reverse Causality Test Result

Dependent Variable $_{t+1}$	Unrelated Diversification	Related Diversification	International Diversification
Intercept	0.2446***	0.1205**	0.0350***
	(0.0387)	(0.0459)	(0.0076)
Firm size $_t$	0.0013†	-0.0003	0.0002*
	(0.0007)	(0.0006)	(0.0008)
Firm profitability $_t$	0.00001	-0.00001	0.0000
	(0.00001)	(0.00001)	(0.0000)
Financial leverage $_t$	-0.0279**	-0.0068	0.0040
	(0.0107)	(0.0116)	(0.0030)
Free cash flow $_t$	0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)
Intangible assets $_t$	-0.0020	-0.0054	0.0012
	(0.0039)	(0.0052)	(0.0011)
% Earning-based compensation $_t$	0.0793†	0.0387	-0.0086
	(0.0412)	(0.0602)	(0.0161)
% Stock-based compensation $_t$	0.0246	0.0083	0.0021
	(0.0241)	(0.0384)	(0.0102)
CSP $_t$	0.0051	-0.0120†	0.0011
	(0.0044)	(0.0065)	(0.0010)
Firm-Fixed effects & year dummies	Included	Included	Included
N Firm-years	2687	2687	2687
N Firms	500	500	500
Adjusted R-squared	0.8293	0.7631	0.4667

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

6. Conclusion and Discussion

This study advances research on corporate diversification and corporate social performance by revealing the ramifications of different diversification strategies on subsequent CSP of the firm. Prior research on this subject has only considered the impact of international diversification of the firm on CSP (Bouquet and Deutsch, 2007; Christmann, 2004; Sharfman *et al.*, 2004). Considering that the difference between related and unrelated diversification has been central to the corporate diversification and strategy literature, the lack of attention to the relationship between related/unrelated diversification and CSP is surprising.

In this paper, I propose that unrelated diversifiers have incentives to demonstrate good social performance, while related diversifiers do not. First, presence in unrelated industries and markets increases exposure to a wide range of stakeholder demands and diverse social concerns. While responding to diverse social issues, unrelated diversifiers will achieve positive social performance. Second, strong social performance contributes to enhanced brand transferability across the products of unrelated subsidiaries. Therefore, unrelated diversifiers with good social performance will be in a better position to leverage their corporate brands. Related diversification does not provide similar incentives.

In proposing the possible relationship between unrelated diversification and subsequent CSP, I argue that unrelated diversifiers have to address to a wider range of stakeholder demands, which will result in positive social performance. According to the stakeholder theory, failure to respond to stakeholder demands will lead to poor financial

performance and even threaten the survival of the firm (Freeman, 1984). Therefore, unrelated diversifiers will have to spend more organizational resources and managerial attention than related diversifiers on attending to stakeholder demands. The phenomenon of "diversification discount" (Anand and Jayanti, 2005; Berger and Ofek, 1995; Lang and Stulz, 1994) may be partially attributable to this extra burden on unrelated diversifiers to meet a broader range of stakeholder demands. Highly diversified firms not only suffer from lack of coherence in terms of underlying resources (Wernerfelt and Montgomery, 1988), but also have to deal with a wide range of stakeholder demands that can put them at a further competitive disadvantage. While it is not clear how much financial burden stakeholders demands may actually place on firms pursuing unrelated diversification, the possible relationship between stakeholder demands and the diversification discount may deserve more scholarly attention.

The results also raise an interesting question related to the debate about the diversification discount, which views unrelated diversification as an inefficient and inferior diversification strategy. The diversification discount argument is based on the observation of the relationship between diversification and (short-term) financial performance measures (Ansoff, 1965; Bettis, 1981; Lecraw, 1984; Markides and Williamson, 1994; Palepu, 1985; Palich *et al.*, 2000; Rumelt, 1974; Singh and Montgomery, 1987). If CSP can serve as a meaningful predictor of long-term firm viability (Chatterji and Levine, 2006; Handy, 2002; Kacperczyk, 2009; Kaplan and Norton, 1996; Martin, 2002; Ogden and Watson, 1999), then the positive impact of unrelated diversification on CSP suggests that an unrelated diversification strategy may

contribute to long-term firm viability via its positive impact on CSP. Considering that accounting-based performance measures and stock prices often fail to predict long-term firm performance and viability, consideration of corporate social performance as a complementary measure of firm performance may enrich our understanding of the questions we ask in strategy research.

Lastly, the findings provoke another interesting debate on the value of unrelated diversification. If unrelated diversification demands that firms attend to a broader range of stakeholders, from the social welfare perspective, unrelated diversification may do a larger good for society. This idea resonates with the work of Khanna and Palepu (1997), who vindicate the value of unrelated diversification in the emerging economy. In an environment where proper institutional support is missing, unrelated diversification can contribute to the prosperity not only of the firms but also of the larger society, given that the firms pursuing unrelated diversification will attend to the demands of a wider range of stakeholders. For example, the rapid social as well as economic development of South Korea in the early '80s and India in the late '90s is largely attributable to the growth of local firms pursuing the unrelated diversification strategy. If we accept the idea that unrelated diversifiers may do more social good than related diversifiers, the image of unrelated diversifiers as wasteful dinosaurs (Khanna and Palepu, 1997) may deserve a reevaluation.

7. Conclusion of the dissertation and directions for future research

This dissertation attempts to provide a more balanced view on corporate social performance (CSP) by examining both the antecedents and consequences of CSP. Based on partial evidence that CSP contributes to the financial performance of a firm, I proceed to examine the impact of previously overlooked factors on CSP. In this dissertation, I addressed three questions related to CSP. First, I examined whether CSP has a positive influence on the financial performance of a firm and compared the CSP-financial performance relationship between the short and long term (Essay 1, Part I). Second, I examined the measurement validity of a popular measure of the empirical CSP literature (Essay 1, Part II), which was also used in this dissertation. Third, I examined how corporate factors at different levels (CEO retirement, corporate diversification) affect CSP of the firm (Essays 2 & 3).

The findings of the first essay suggest that consideration of relevant contexts, such as temporal difference in financial performance and change in stakeholder perceptions toward CSP, can help researchers uncover fine-grained relationships between CSP and financial performance. The lack of consideration of such contexts in previous studies has added confusion to the CSP-financial performance relationship (Margolis and Walsh, 2003). Therefore, I encourage future researchers to consider more contexts that can moderate or mediate the CSP-financial performance relationship. Such efforts will further our understanding of the benefits and costs of CSP. In addition, the findings of the first essay lend some support to using the KLD database as a measure of CSP in the empirical CSP research. Therefore, this essay lays a foundation to the other two essays in

the dissertation, as well as to the entire empirical body of CSP research. Examining the measurement validity of the KLD database has been called for by many previous researchers; yet, a response to this call has been limited (Chatterji *et al.* 2009; Sharfman, 1996).

In the second and third essays, I turned to understanding the antecedents of CSP. Specifically, I examined how CEO retirement and corporate diversification may affect CSP. In the second essay, I found that a CEO's personal interest-seeking surrounding his retirement may negatively affect the CSP of the firm. This finding suggests that the CEO succession process may have a harmful effect on a firm's resource accumulation. However, considering that CEO succession is an inevitable event, shareholders need a remedy for the negative effect of CEO succession on CSP, such as retention of the retiring CEO on the board of directors. Therefore, the findings of the second essay have implications for the CSP and corporate governance literature. First, this study is a rare attempt to study the role of CEOs in CSP. Second, this study provides a new empirical context to study opportunistic CEO behavior and motivation surrounding CEO retirement.

In the third essay, I uncovered a differential effect of unrelated and related diversification on CSP. I found that the level of unrelated diversification is positively related to CSP, while the level of related diversification is not. The corporate diversification literature has focused on the financial performance implications of diversification, while ignoring its social implications. The positive relationship between unrelated diversification and CSP suggests that this may be one of the overlooked benefits of unrelated diversification, given that CSP can contribute to financial

performance. Even if CSP does not contribute to financial performance, the positive relationship between unrelated diversification and CSP suggests that from a social welfare perspective, unrelated diversification has some merit.

This dissertation speaks to several theoretical and empirical issues in the literature. First, CSP is a complex resource that contributes to firm performance through interaction with stakeholders. However, empirical CSP studies often overlook this basic idea and do not take the role of stakeholders seriously in investigating the benefits and costs of CSP. In this dissertation, I examined the role of stakeholders by comparing the CSP-financial performance relationship between two different periods (before and after the Sarbanes-Oxley Act). Another closely related research opportunity is to compare regional or international differences in the CSP-financial performance relationship. Due to various reasons, such as economic development and cultural background, different countries (regions) may put differing importance on CSP. Therefore, this research question can pose valuable managerial implications to multinational firms and their managers. However, I must admit that there is a critical empirical challenge in obtaining a generalizable measure of CSP across different countries. As of now, there is no generalizable measure of CSP for firms from different countries.

Second, among many factors that determine CSP, managerial factors deserve more scholarly attention. Scholars have paid much attention to firm-level variables such as slack resources, based on an assumption that profitable firms can afford to invest in CSP. While firm characteristics such as slack resources may explain a firm's investment in CSP, this is only half of the story. That is, firms rich in resources or those that have

certain characteristics may not automatically invest in CSP. Such heterogeneity in CSP investment can be explained by investigating the role of managers in CSP investment. Particularly, considering that top managers, such as CEOs, are the main drivers of CSP-related decision-making, we can further our understanding of the heterogeneity in CSP by examining executive-level managerial factors. While I examined the role of CEO (retirement) in this dissertation, it is possible that other executives may exert similar influence on CSP-related decisions. For example, firms recently started to appoint executives dedicated to dealing with CSP-related issues. If these "CSP executives" are truly in charge of making corporate-wide CSP-related decisions, much of the heterogeneity in CSP attributed to managerial factors can be explained. Therefore, this provides a good research question for future studies. However, an empirical challenge is that we do not have clear criteria to identify the existence of such executives. Not only do these executives not have a clear or consistent title, but their influence and status within the top management team also greatly varies. Such a lack of comparability in CSP executives across firms poses a substantial challenge to this research opportunity.

Lastly, corporate or firm strategies other than corporate diversification will be related to CSP. For example, strategic alliances may be another candidate of such corporate- or firm-level variables. Researchers found that firms observe each other to mimic or adjust actions. The social network literature has argued that both formal and informal linkages between firms play an important role for such mimetic isomorphism. In the case of CSP, we may predict that firms connected to other firms with strong CSP may invest more in CSP, or firms with strong CSP may be drawn to each other. In line with

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this argument, Sullivan *et al.* (2007) found that firms committing unethical behaviors are ostracized by their partners in the alliance network. Another possible inter-firm connection that may affect CSP is director interlocking among firms. Given that directors are close advisors to top managers, the director interlock network may affect the CSP of the firm even more strongly than the strategic alliance network.

As discussed above, the research questions addressed in this dissertation invoke a number of related research questions concerning CSP. A brief discussion of possible research opportunities suggests that there are many questions that remain unsolved in the field of CSP. I believe that such a plethora of research opportunities can be attributed to the lack of attempts to apply traditional strategy topics to the subject of CSP. A recent review of the CSP literature shows that researchers often approach the subject of CSP from an ethics or stakeholder theory perspective (Margolis and Walsh, 2003), thereby not paying enough attention to strategic management theories or frameworks. As exemplified in this dissertation, the ideas and topics of strategic management have good potential for application to the subject of CSP. Also, an extension of strategy research questions to CSP will enrich our understanding in both disciplines. Therefore, I invite future researchers to apply more strategy topics and frameworks in order to better understand the CSP of firms. I believe that this dissertation provides an example of research that connects the bridge between strategic management and CSP.

Appendix

Appendix 1. List of Strength and Concern Items in the KLD Social Ratings Database

Category	Strength	Concern
Community	Charitable giving	Investment controversies
	Innovative giving	Negative economic impact
	Non-US charitable giving	Tax disputes
	Support for housing	Other concern
	Support for education	
	Volunteer programs	
	Other strengths	
Corporate governance	Limited compensation to top management	High compensation to top management
	Ownership strength	Ownership concern
	Transparency strength	Accounting concern
	Political accountability strength	Transparency concern
	Other strength	Political accountability concern
		Other concern
Diversity	CEO	Controversies
	Promotion	Non-representation
	Board of directors	Other concern
	Work/life benefits	
	Women & minority contracting	
	Employment of the disabled	
	Gay & lesbian policies	
	Other strength	

Category	Strength	Concern
Employee relations	Union relations	Union relations concern
	No-layoff policy	Health and safety concern
	Cash profit sharing	Workforce reductions
	Employee involvement	Retirement benefits concern
	Retirement benefits strength	Other concern
	Health and safety strength	
	Other strength	
Environment	Beneficial products and services	Hazardous waste
	Pollution prevention	Regulatory problems
	Recycling	Ozone depleting chemicals
	Clean energy	Substantial emissions
	Communications of environmental performance	Agricultural chemicals
	Property, plant, and equipment	Climate change
	Other strength	Other concern
Human rights	Indigenous peoples relations strength	Indigenous peoples relations concern
	Labor rights strength	Labor rights concern
	Other strength	Other concern
Products	Quality superiority	Product safety concern
	R&D/Innovation	Marketing/Contracting concern
	Benefits to economically disadvantaged	Antitrust
	Other strength	Other concern

Category	Strength	Concern
Alcohol		Licensing, manufacturing, retailing of alcohol and ownership relation to an alcohol company
Gambling		Licensing, manufacturing, supporting of gambling products and services and ownership relation to a gambling company
Tobacco		Licensing, manufacturing, retailing of tobacco products and ownership relation to a tobacco company
Firearms		Manufacturing and retailing of firearms and ownership relation to a firearms company
Military		Manufacturing of weapons and weapon systems, ownership relation to a military company
Nuclear		Construction of nuclear power plants, supplying nuclear power fuel, parts, and services, and ownership relation to a nuclear company

Appendix 2. Selected previous studies on consequences of CSP (CSP-FP relationship)

Authors	Methodology	Focus on CSR/CSP	Key findings
Abowd et al. (1990)	Event study	Human resource decisions	No consistent pattern of increased or decreased stock price
Worrell et al. (1991)	Event study	Layoff programmes	Investors react negatively to layoff announcements, especially when they are due to financial distress
Wright and Ferris (1997)	Event study	Divestment from South Africa	Divestment had a negative effect on shareholder value Negative relationship between CSR and FP
Aupperle et al. (1985)	Regression	An overall firm-level index of CSP	There is a neutral relationship between CSP and FP
Russo and Fouts (1997)	Regression	Environmental performance	There is a positive relationship between environmental performance and FP
Waddock and Graves (1997)	Regression	An overall firm-level index of CSP	There is a positive relationship between CSP and FP
McWilliams and Siegel (2000)	Regression	An overall firm-level index of CSP	There is a neutral relationship between CSP and FP
Hillman and Keim (2001)	Regression	'Social issues' CSP and 'stakeholder management' CSP	'Stakeholder management' CSP is positively correlated with shareholder wealth creation, while 'social issues' CSP is not
Godfrey et al. (2009)	Regression	An overall firm-level index of CSP	Strong CSP protects shareholder value from future negative CSR-related events
Choi and Wang (2009)	Regression	An overall firm-level index of CSP	Strong CSP contributes to persistence of superior FP

Appendix 3. Selected previous studies on antecedents of CSP

Authors	Methodology	Focus on CSR/CSP	Key findings
Johnson and Greening (1999)	Regression	'People' dimension of CSP and 'product quality' dimension of CSP	There is significant relationships between executive salary, stock ownership, BOD composition and CSP
McWilliams and Siegel (2000)	Regression	An overall firm-level index of CSP	R&D investment is positively related with CSP
McGuire et al. (2003)	Regression	An overall firm-level index of CSP	There is a neutral relationship between CEO stock options and CSP
Christman (2004)	Regression	Environmental policy standardization level	Multinational firms are more likely to have a strong environmental policy
Bansal (2004)	Regression	Environmental performance	There is a positive relationship between international experience and environmental performance
Coombs and Giley (2005)	Regression	'stakeholder management' CSP	Strong CSP is negatively associated with CEO salaries
Brammer et al. (2006)	Regression	Corporate philanthropy contribution	There is a positive relationship between international presence and corporate philanthropy
Deckop et al. (2006)	Regression	An overall firm-level index of CSP	There is a negative relationship between CEO stock options and CSP
Mahoney and Thron (2006)	Regression	An overall firm-level index of CSP	There is a negative relationship between CEO stock options and CSP
Strike et al. (2006)	Regression	An overall firm-level index of CSP	There is a positive/negative relationship between international diversification and CSP
David et al. (2007)	Regression	An overall firm-level index of CSP	Shareholder activism reduces CSP
Kacperczyk (2009)	Regression	An overall firm-level index of CSP	Managerial employment protection increases CSP

Appendix 4. Previous studies on the KLD measure validation

Authors	Methodology	Detailed approach	Key findings
Sharfman (1996)	Correlation analysis	Compared KLD ratings with Fortune's reputation score	KLD ratings are significantly positively related with Fortune's reputation score
Chatterji et al. (2009)	Regression	Examined KLD environmental ratings' ability to summarize past & predict future social performance	KLD ratings effectively summarize past environmental performance and predict future environmental performance

Appendix 5. Relationship between individual categories of the KLD Social Ratings and market value

Fixed Effects Estimation Results (2003-2006)

Dependent Variable: Market Value $_{t+1}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-19588***	-20280*	-21019*	-21083*	-20068*	-20719*	-21081*
	(9413.7)	(9430.6)	(9456.5)	(9462.3)	(9505.4)	(9436.7)	(9457.0)
Firm Size $_t$	3429.8***	3385.1**	3590.8***	3579.3***	3460.6***	3520.5***	3570.0***
	(1070.8)	(1074.7)	(1075.5)	(1076.5)	(1081.8)	(1073.8)	(1077.5)
Free cash flow $_t$	3.2249***	3.3002***	3.2579***	3.2551***	3.2514***	3.2077***	3.2601***
	(0.2281)	(0.2290)	(0.2291)	(0.2293)	(0.2291)	(0.2296)	(0.2296)
Debt ratio $_t$	-1465.0	-1524.8	-1449.6	-1467.8	-1479.9	-1600.2	-1481.4
	(1743.6)	(1747.6)	(1753.0)	(1752.7)	(1751.9)	(1750.0)	(1753.0)
CSP $_t$	-2155.5***	-1004.9**	-154.73	49.303	-452.03	-2006.4*	-124.40
	(556.51)	(344.60)	(323.37)	(310.36)	(429.60)	(840.60)	(495.60)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	2008	2008	2008	2008	2008	2008	2008
Adjusted R-Squared	0.9675	0.9674	0.9672	0.9672	0.9672	0.9673	0.9672

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: Market Value $_{t+2}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	18499 (13958)	18701 (13902)	18434 (13913)	18616 (13907)	22749 (13859)	17776 (13875)	18400 (13883)
Firm Size $_t$	-870.60*** (1597.6)	-924.29 (1594.0)	-854.41 (1591.4)	-884.20 (1592.4)	-1403.6 (1588.2)	-810.06 (1588.6)	-913.76 (1590.6)
Free cash flow $_t$	4.3306*** (0.3385)	4.3435*** (0.3389)	4.3319*** (0.3386)	4.3232*** (0.3387)	4.3607*** (0.3364)	4.2984*** (0.3384)	4.3393*** (0.3383)
Debt ratio $_t$	-568.63 (2392.0)	-601.18 (2390.9)	-575.18 (2391.4)	-538.19 (2392.2)	-756.33 (2376.1)	-654.08 (2387.8)	-693.80 (2391.0)
CSP $_t$	-109.33 (697.16)	-326.83 (440.27)	-82.004 (410.32)	206.52 (398.57)	-2059.3*** (575.55)	-1835.4† (1025.6)	-836.89 (647.44)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	1494	1494	1494	1494	1494	1494	1494
Adjusted R-Squared	0.9686	0.9686	0.9686	0.9686	0.9690	0.9687	0.9686

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: Market Value $_{t+3}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-2504.8 (25790)	-5334.2 (26040)	-3543.8 (25951)	1524.6 (25932)	3351.5 (25924)	-1323.3 (26177)	-825.80 (26017)
Firm Size $_t$	2542.2 (3071.5)	2995.5 (3107.2)	2624.4 (3088.8)	2103.7 (3088.4)	1851.8 (3088.7)	2441.5 (3114.0)	2356.6 (3101.0)
Free cash flow $_t$	0.6453 (0.6188)	0.8545 (0.6156)	0.8134 (0.6173)	0.8028 (0.6157)	0.7975 (0.6142)	0.8915 (0.6166)	0.8513 (0.6196)
Debt ratio $_t$	-3556.4 (3918.5)	-4014.9 (3944.2)	-3775.3 (3938.7)	-3159.6 (3941.8)	-3914.4 (3925.7)	-3701.3 (3947.7)	-3765.1 (3946.9)
CSP $_t$	3104.4** (1167.0)	1227.8 (846.96)	953.95 (652.21)	1305.6† (671.50)	-2582.2* (1105.5)	245.53 (1824.7)	-828.92 (1382.1)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	988	988	988	988	988	988	988
Adjusted R-Squared	0.9687	0.9684	0.9684	0.9685	0.9686	0.9682	0.9682

Significance levels: $\dagger$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

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Fixed Effects Estimation Results (1992-2002)

Dependent Variable: Market Value $_{t+1}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-49624***	-48669***	-51610***	-49905***	-49914***	-50261***	-49736***
	(7801.7)	(7802.9)	(7768.6)	(7804.5)	(7795.2)	(10125)	(7790.9)
Firm Size $_t$	6917.5***	6746.6**	7019.3***	6957.5***	6978.1***	7109.6***	6923.2***
	(934.95)	(936.53)	(929.61)	(933.81)	(933.82)	(1297.4)	(933.19)
Free cash flow $_t$	10.848***	10.846***	10.644***	10.864***	10.879***	6.3141***	10.816***
	(0.3826)	(0.3817)	(0.3827)	(0.3821)	(0.3822)	(0.4627)	(0.3825)
Debt ratio $_t$	-8987.4**	-8952.6**	-9681.6**	-8883.8**	-8947.9**	-6191.7†	-8936.5**
	(3146.1)	(3141.5)	(3134.2)	(3152.1)	(3144.5)	(3644.5)	(3142.5)
CSP $_t$	537.06	-1718.5*	2401.9***	55.746	690.24	-2322.4	-1381.7*
	(681.85)	(689.22)	(468.12)	(526.27)	(673.87)	(1543.7)	(667.79)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3461	3461	3461	3461	3461	2736	3461
Adjusted R-Squared	0.8066	0.8070	0.98083	0.8066	0.8066	0.8476	0.8068

Significance levels: $\dagger\ p < .1$, $*\ p < .05$, $**\ p < .01$, $***\ p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: Market Value $_{t+2}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-32055***	-30267***	-33826***	-32604***	-32533***	-2687.0	-32340***
	(8020.9)	(8005.3)	(8001.7)	(8025.2)	(8014.2)	(9582.1)	(8013.6)
Firm Size $_t$	4782.6***	4462.67***	4890.8***	4848.5***	4879.4***	2309.5†	4818.1***
	(961.05)	(960.70)	(957.37)	(960.06)	(959.95)	(1213.7)	(959.71)
Free cash flow $_t$	6.9086***	6.9038***	6.7573***	6.9323***	6.9577***	0.5046	6.8969***
	(0.3929)	(0.3912)	(0.3938)	(0.3925)	(0.3925)	(0.4324)	(0.3930)
Debt ratio $_t$	-7598.2*	-7524.7*	-8088.3*	-7358.6*	-7512.02*	-2391.6	-7491.09*
	(3238.2)	(707.71)	(3231.7)	(541.49)	(3236.1)	(3411.3)	(3235.8)
CSP $_t$	861.41	-3117.2***	1958.3***	253.65	1050.1	-1474.0	-1114.0
	(701.22)	(707.71)	(482.58)	(541.49)	(696.35)	(1443.5)	(685.29)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3447	3447	3447	3447	3447	2722	3447
Adjusted R-Squared	0.8177	0.8188	0.8187	0.8176	0.8178	0.8800	0.8178

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: Market Value $_{t+3}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-2484	-11411	-13537†	-13096†	-12923†	36882***	-12824
	(7848.9)	(7848.9)	(7847.3)	(7854.1)	(7846.2)	(8835.2)	(7845.2)
Firm Size $_t$	3226.8***	3033.8***	3311.7***	3297.6***	3308.6***	-2471.6*	3275.9***
	(939.67)	(941.17)	(938.20)	(938.84)	(939.06)	(1131.3)	(938.76)
Free cash flow $_t$	3.8691***	3.8781***	3.8095***	3.8945***	3.9099***	-2.5560***	3.8736***
	(0.3839)	(0.3828)	(0.3855)	(0.3834)	(0.3836)	(0.4027)	(0.3840)
Debt ratio $_t$	-6205.6†	-6098.6†	-6384.7*	-5918.1†	-6082.9†	877.21	-6075.5†
	(3176.3)	(3170.5)	(3177.1)	(3182.9)	(3175.5)	(3195.6)	(3174.9)
CSP $_t$	954.79	-2110.9**	982.91*	334.72	506.45	-1168.1	-738.25
	(687.00)	(695.51)	(473.56)	(530.49)	(682.93)	(1351.2)	(671.40)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3428	3428	3428	3428	3428	2703	3428
Adjusted R-Squared	0.8399	0.8403	0.8400	0.8398	0.8398	0.9021	0.8398

Significance levels: $†$ *p* < .1, * *p* < .05, ** *p* < .01, *** *p* < .001

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Appendix 6. Relationship between individual categories of the KLD Social Ratings and Tobin's Q

Fixed Effects Estimation Results (2003-2006)

Dependent Variable: Tobin's Q_{t+1}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-6.4885***	6.4763***	6.4851***	6.4313***	6.5240***	6.4592***	6.4592***
	(0.5297)	(0.5292)	(0.5289)	(0.5289)	(0.5308)	(0.5290)	(0.5290)
Firm Size $_t$	-0.5075***	-0.5077***	-0.5054***	-0.5016***	-0.5129***	-0.5049***	-0.5050***
	(0.0634)	(0.0634)	(0.0633)	(0.0633)	(0.0636)	(0.0634)	(0.0634)
Free cash flow $_t$	0.00002†	0.00002†	0.00002†	0.00002†	0.00002†	0.00002†	0.00002†
	(0.00001)	(0.00001)	(0.0001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
Debt ratio $_t$	-0.3368**	-0.3396**	-0.3321**	-0.3408**	-0.3403**	-0.3404**	-0.3399**
	(0.1278)	(0.1278)	(0.1278)	(0.1277)	(0.1277)	(0.1279)	(0.1279)
CSP_t	-0.0329	-0.0190	-0.0278	-0.0251	-0.0349	-0.0206	-0.0115
	(0.0317)	(0.0196)	(0.0186)	(0.0176)	(0.0248)	(0.0485)	(0.0282)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	1980	1980	1980	1980	1980	1980	1980
Adjusted R-Squared	0.8855	0.8855	0.8856	0.8856	0.8856	0.8855	0.8855

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: Tobin's Q_{t+2}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	4.1246***	4.0275***	3.9169***	3.8566***	3.9648***	3.8231***	3.8265***
	(0.8346)	(0.8306)	(0.8285)	(0.8284)	(0.8284)	(0.8302)	(0.8291)
Firm Size$_t$	-0.2425**	-0.2313**	-0.2296**	-0.2209**	-0.2362**	-0.2214*	-0.2214*
	(0.0870)	(0.0867)	(0.0868)	(0.0867)	(0.0869)	(0.0867)	(0.0867)
Free cash flow$_t$	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
Debt ratio$_t$	0.0160	0.0069	0.0058	0.0043	-0.0028	0.0031	-0.0001
	(0.1513)	(0.1513)	(0.1515)	(0.1517)	(0.1514)	(0.1516)	(0.1517)
CSP_t	-0.0802**	-0.0472*	-0.0314	-0.0032	-0.0593*	-0.0329	-0.0261
	(0.0355)	(0.0229)	(0.0216)	(0.0206)	(0.0298)	(0.0543)	(0.0340)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	1459	1459	1459	1459	1459	1459	1459
Adjusted R-Squared	0.8988	0.8987	0.8985	0.8983	0.8987	0.8983	0.8983

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: Tobin's Q $_{t+3}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.2071	0.2698	0.2156	0.2558	0.4255	0.3249	0.1579
	(1.2839)	(1.2857)	(1.2857)	(1.2823)	(1.2878)	(1.2861)	(1.2869)
Firm Size $_t$	0.2108	0.2013	0.2101	0.2057	0.1836	0.1990	0.2179
	(0.1511)	(0.1516)	(0.1512)	(0.1509)	(0.1517)	(0.1513)	(0.1517)
Free cash flow $_t$	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)
Debt ratio $_t$	-0.1776	-0.1726	-0.1779	-0.1595	-0.1828	-0.1670	-0.1777
	(0.2252)	(0.2252)	(0.2252)	(0.2253)	(0.2246)	(0.2251)	(0.2251)
CSP $_t$	0.0195	-0.0303	-0.0012	0.0392	-0.0843	0.0978	0.0387
	(0.0540)	(0.0420)	(0.0299)	(0.0310)	(0.0537)	(0.0868)	(0.0664)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	951	951	951	951	951	951	951
Adjusted R-Squared	0.9088	0.9089	0.9088	0.9091	0.9093	0.9091	0.9089

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Fixed Effects Estimation Results (1992-2002)

Dependent Variable: Tobin's Q_{t+1}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	6.8629***	6.9646***	6.8243***	6.8397***	-6.8378***	10.395***	6.8451***
	(0.4356)	(0.4362)	(0.4350)	(0.4355)	(0.4353)	(0.6346)	(0.4348)
Firm Size$_t$	-0.6277***	-0.6400***	-0.6214***	-0.6229***	-0.6211***	-0.9982***	-0.6245***
	(0.0571)	(0.0572)	(0.0570)	(0.0570)	(0.0571)	(0.0801)	(0.0570)
Free cash flow$_t$	0.00009***	0.00009***	0.00008***	0.00009***	0.00009***	0.00005*	0.00009***
	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)
Debt ratio$_t$	-0.0419	-0.0398	-0.0486	-0.0301	-0.0350	0.1790	-0.0247
	(0.1918)	(0.1913)	(0.1916)	(0.1918)	(0.1916)	(0.2295)	(0.1914)
CSP$_t$	0.0539	-0.1351	0.0698**	0.0019	0.0518	0.1212	0.1123**
	(0.0406)	(0.0413)	(0.0281)	(0.0314)	(0.0409)	(0.0967)	(0.0407)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3347	3347	3347	3347	3347	2681	3347
Adjusted R-Squared	0.7021	0.7505	0.7031	0.7019	0.7021	0.7179	0.7028

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: Tobin's Q $_{t+2}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	7.4164***	7.4941***	7.4044***	7.3968***	7.4058***	11.043***	7.4083***
	(0.4226)	(0.4233)	(0.4223)	(0.4223)	(0.4222)	(0.6197)	(0.4217)
Firm Size $_t$	-0.7272***	-0.7372***	-0.7246***	-0.7246***	-0.7231***	-1.0804***	-0.7259***
	(0.0555)	(0.0555)	(0.0554)	(0.0553)	(0.0553)	(0.0780)	(0.0553)
Free cash flow $_t$	0.0000	0.0000	0.0000	0.0000	0.0000	-0.00006*	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.00002)	(0.0000)
Debt ratio $_t$	0.5077**	0.5068**	0.5106**	0.5227**	0.5061**	1.0391***	0.5142**
	(0.1846)	(0.1843)	(0.1846)	(0.1849)	(0.1845)	(0.2226)	(0.1843)
CSP $_t$	0.0281	-0.1039*	0.0021	0.0313	0.0537	0.1510	0.1164**
	(0.0400)	(0.0407)	(0.0278)	(0.0305)	(0.0403)	(0.0933)	(0.0394)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3317	3317	3317	3317	3317	2654	3317
Adjusted R-Squared	0.7073	0.7079	0.7072	0.7074	0.7074	0.7234	0.7082

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: Tobin's Q $_{t+3}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	7.8430***	7.8488***	7.8688***	7.8466***	7.8528***	10.421***	7.8535***
	(0.4303)	(0.4319)	(0.4298)	(0.4301)	(0.4302)	(0.6248)	(0.4296)
Firm Size $_t$	-0.7573***	-0.7592***	-0.7615***	-0.7602***	-0.7591***	-0.9890***	-0.7606***
	(0.0564)	(0.0566)	(0.0563)	(0.0563)	(0.0563)	(0.0789)	(0.0563)
Free cash flow $_t$	-0.00005**	-0.00005**	-0.00005**	-0.00006**	-0.00005**	-0.0001***	-0.00005**
	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)
Debt ratio $_t$	0.7412***	0.7366***	0.7548***	0.7496***	0.7345***	1.2580***	0.7385***
	(0.1856)	(0.1855)	(0.1855)	(0.1858)	(0.1855)	(0.2201)	(0.1853)
CSP $_t$	-0.0367	0.0047	-0.0675*	0.0378	0.0228	0.1292	0.1123**
	(0.0402)	(0.0415)	(0.0282)	(0.0310)	(0.0408)	(0.0943)	(0.0398)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3295	3295	3295	3295	3295	2639	3295
Adjusted R-Squared	0.6952	0.6951	0.6957	0.6952	0.6951	0.6931	0.6959

Significance levels: † *p* < .1, * *p* < .05, ** *p* < .01, *** *p* < .001

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Appendix 7. Relationship between individual categories of the KLD Social Ratings and ROA

Fixed Effects Estimation Results (2003-2006)

Dependent Variable: ROA_{t+1}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.4420***	0.4371***	0.4443***	0.4462***	0.4432***	0.4424***	0.4427***
	(0.0680)	(0.0679)	(0.0678)	(0.0679)	(0.0682)	(0.0679)	(0.0679)
Firm Size $_t$	-0.0458***	-0.0450***	-0.0456***	-0.0463***	-0.0460***	-0.0459***	-0.0459***
	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)	(0.0081)
Free cash flow $_t$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	0.0046	0.0048	0.0053	0.0049	0.0046	0.0043	0.0045
	(0.0132)	(0.0132)	(0.0132)	(0.0132)	(0.0132)	(0.0132)	(0.0132)
CSP_t	-0.0004	0.0039	-0.0051*	0.0034	-0.0007	-0.0051	-0.0012
	(0.0042)	(0.0026)	(0.0024)	(0.0023)	(0.0032)	(0.0063)	(0.0037)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	2011	2011	2011	2011	2011	2011	2011
Adjusted R-Squared	0.5662	0.5668	0.5675	0.5668	0.5662	0.5663	0.5662

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: ROA $_{t+2}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.3390**	0.3451**	0.3457**	0.3444**	0.3536**	0.3426**	0.3473**
	(0.1033)	(0.1029)	(0.1030)	(0.1029)	(0.1032)	(0.1027)	(0.1027)
Firm Size $_t$	-0.0321**	-0.0326**	-0.0328**	-0.0327**	-0.0338**	-0.0326**	-0.0334**
	(0.0118)	(0.0118)	(0.0117)	(0.0118)	(0.0118)	(0.0117)	(0.0117)
Free cash flow $_t$	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	0.0589**	0.0593**	0.0592**	0.0590**	0.0590**	0.0587**	0.0584**
	(0.0177)	(0.0177)	(0.0177)	(0.0177)	(0.0177)	(0.0177)	(0.0177)
CSP $_t$	0.0038	0.0009	0.0003	-0.0011	-0.0033	-0.0125†	-0.0062
	(0.0051)	(0.0032)	(0.0030)	(0.0029)	(0.0042)	(0.0075)	(0.0048)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	1497	1497	1497	1497	1497	1497	1497
Adjusted R-Squared	0.5840	0.5838	0.5837	0.5838	0.5840	0.5849	0.5845

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Dependent Variable: ROA $_{t+3}$

Independent variable (CSP $_t$)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	-0.0703	-0.0702	-0.0676	-0.0869	-0.0570	-0.0922	-0.0909
	(0.1951)	(0.1962)	(0.1954)	(0.1954)	(0.1958)	(0.1966)	(0.1951)
Firm Size $_t$	0.0193	0.0192	0.0191	0.0212	0.0175	0.0216	0.0221
	(0.0232)	(0.0234)	(0.0232)	(0.0232)	(0.0233)	(0.0234)	(0.0232)
Free cash flow $_t$	-0.00001*	-0.00001**	-0.00001*	-0.00001*	-0.00001**	-0.00001*	-0.00001*
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	-0.0324	-0.0318	-0.0318	-0.0344	-0.0326	-0.0324	-0.0309
	(0.0296)	(0.0297)	(0.0296)	(0.0297)	(0.0296)	(0.0296)	(0.0296)
CSP $_t$	-0.0082	-0.0006	-0.0025	-0.0057	-0.0077	-0.0112	0.0165
	(0.0088)	(0.0063)	(0.0049)	(0.0050)	(0.0083)	(0.0137)	(0.0103)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	991	991	991	991	991	991	991
Adjusted R-Squared	0.5564	0.5556	0.5558	0.5568	0.5564	0.5562	0.5579

Significance levels: † *p* < .1, * *p* < .05, ** *p* < .01, *** *p* < .001

Fixed Effects Estimation Results (1992-2002)

Dependent Variable: ROA_{t+1}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.3720***	0.3738***	0.3718***	0.3726***	0.3724***	0.4827***	0.3716***
	(0.0301)	(0.0302)	(0.0301)	(0.0301)	(0.0301)	(0.0421)	(0.0301)
Firm Size $_t$	-0.0402***	-0.0405***	-0.0402***	-0.0402***	-0.0404***	-0.0528***	-0.0401***
	(0.0036)	(0.0036)	(0.0036)	(0.0036)	(0.0036)	(0.0054)	(0.0036)
Free cash flow $_t$	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000*	0.0000***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	-0.0103	-0.0103	-0.0104	-0.0106	-0.0099	0.0023	-0.0102
	(0.0121)	(0.0121)	(0.0121)	(0.0121)	(0.0121)	(0.0151)	(0.0121)
CSP_t	0.0001	-0.0025	0.0003	-0.0008	-0.0062	-0.0104	0.0040
	(0.0026)	(0.0026)	(0.0018)	(0.0020)	(0.0026)	(0.0064)	(0.0025)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3463	3463	3463	3463	3463	2738	3463
Adjusted R-Squared	0.5241	0.5243	0.5241	0.5242	0.5251	0.5196	0.5245

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: ROA_{t+2}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.3809***	0.3822***	0.3810***	0.3843***	0.3816***	0.4486***	0.3804***
	(0.0305)	(0.0305)	(0.0305)	(0.0304)	(0.0304)	(0.0425)	(0.0304)
Firm Size $_t$	-0.0420***	-0.0422***	-0.0420***	-0.0421***	-0.0422***	-0.0476***	-0.0418***
	(0.0036)	(0.0036)	(0.0036)	(0.0036)	(0.0036)	(0.0053)	(0.0036)
Free cash flow $_t$	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000**	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	0.0011	0.0010	0.0011	-0.0008	0.0014	0.0107	0.0013
	(0.0123)	(0.0122)	(0.0123)	(0.0123)	(0.0122)	(0.0151)	(0.0122)
CSP_t	-0.0003	-0.0016	0.00005	-0.0048*	-0.0056*	-0.0013	0.0080**
	(0.0026)	(0.0026)	(0.0018)	(0.0020)	(0.0026)	(0.0064)	(0.0026)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3448	3448	3448	3448	3448	2723	3448
Adjusted R-Squared	0.4941	0.4941	0.4941	0.4950	0.4949	0.4959	0.4957

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Dependent Variable: ROA_{t+3}

Independent variable (CSP_t)	Community	Governance	Diversity	Employee	Environment	Human right	Product
Intercept	0.2250***	0.2281***	0.2272***	0.2306***	0.2268***	0.2386***	0.2257***
	(0.0301)	(0.0301)	(0.0301)	(0.0300)	(0.0300)	(0.0393)	(0.0300)
Firm Size $_t$	-0.0215***	-0.0221***	-0.0218***	-0.0219***	-0.0219***	-0.0221***	-0.0216***
	(0.0036)	(0.0036)	(0.0036)	(0.0035)	(0.0035)	(0.0050)	(0.0035)
Free cash flow $_t$	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Debt ratio $_t$	0.0152	0.0147	0.0153	0.0121	0.0151	0.0276†	0.0149
	(0.0121)	(0.0121)	(0.0121)	(0.0121)	(0.0121)	(0.0142)	(0.0121)
CSP_t	-0.0029	-0.0027	-0.0015	-0.0065**	-0.0060*	-0.0004	0.0069**
	(0.0026)	(0.0026)	(0.0018)	(0.0020)	(0.0026)	(0.0060)	(0.0025)
Firm Fixed Effects & Year Dummies	Included	Included	Included	Included	Included	Included	Included
N Firm-Years	3428	3428	3428	3428	3428	2703	3428
Adjusted R-Squared	0.4695	0.4695	0.4694	0.4712	0.4703	0.4949	0.4707

Significance levels: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: KLD did not report Human Right strength/concerns before 1995. As a result, when Human Right ratings were used as an explanatory variable, the number of observations is smaller during the pre-2003 period.

Bibliography

Adams G, Rau B. 2004. Job seeking among retirees seeking bridge employment. *Personnel Psychology* **57**(3): 719-744

Adams M, Hardwick P. 1998. An analysis of corporate donations: United Kingdom evidence. *Journal of Management Studies* **35**(5): 641-654

Ahmadjian CL, Robinson P. 2001. Safety in Numbers: Downsizing and the Deinstitutionalization of Permanent Employment in Japan. *Administrative Science Quarterly* **46**(4): 622-654

Aiken LS, West SG. 1991. *Multiple regression: Testing and interpreting interactions*. Sage: Thousand Oaks, CA

Allen MP, Panian SK, Lotz RE. 1979a. Managerial succession and organizational performance: A recalcitrant problem revisited. *Administrative Science Quarterly* **24**(2): 167-180

Allen MP, Panian SK, Lotz RE. 1979b. Managerial succession and organizational performance: A recalcitrant problem revisited. *Administrative Science Quarterly* **24**: 167-180

Amit R, Schoemaker PJH. 1993. Strategic assets and organizational rent. *Strategic Management Journal* **14**(1): 33-46

Anand BN, Jayanti S. 2005. Strategies of unrelated diversification. *Harvard Business Case*(9-705-480)

Anderson KH, Burkhauser RV. 1985. The retirement-health nexus: A new measure for an old puzzle. *Journal of Human Resources* **20**(3): 315-330

Ansoff HI. 1965. *Corporate strategy*. McGraw-Hill: New York

Asher CC, Mahoney JM, Mahoney JT. 2005. Towards a property rights foundation for a stakeholder theory of the firm. *Journal of Management and Governance* **9**(1): 5-32

Atchley R. 1989. A continuity theory of aging. *Gerontologist* **29**: 183-190

Axelrod R. 1984. *The evolution of cooperation*. Basic Books: New York

Barnett ML. 2007. Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review* **32**(3): 794-816

Barney J. 1991. Firm resources and sustained competitive advantage. *Journal of Management* **17**(1): 99-120

Barney JB, Hansen MH. 1994. Trustworthiness as a source of competitive advantage. *Strategic Management Journal* **15**(special issue): 175-190

Barth ME, Kasznik R. 1999. Share repurchases and intangible assets. *Journal of Accounting and Economics* **28**(2): 211-241

Baum J, Calabrese T, Silverman BS. 2000. Don't go it alone: Alliance network composition and startups performance in Canadian biotechnology. *Strategic Management Journal* **21**(special issue): 267-294

Beatty RP, Zajac EJ. 1987. CEO change and firm performance in large corporations: Succession effects and manager effects. *Strategic Management Journal* **8**(4): 305-317

Berger PG, Ofek E. 1995. Diversification's effect on firm value. *Journal of Financial Economics* **37**(1): 39-65

Berman SL, Wicks AC, Kotha S, Jones TM. 1999. Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal* **42**(5): 488-506

Bettis RA. 1981. Performance differences in related and unrelated diversified firms. *Strategic Management Journal* **2**(4): 379-393

Black F, Scholes M. 1973. The pricing of options and corporate liabilities. *Journal of Political Economy* **81**(3): 637-654

Boeker W. 1992. Power and managerial dismissal: Scapegoating at the top. *Administrative Science Quarterly* **37**(3): 400-421

Bouquet C, Deutsch Y. 2007. The impact of corporate social performance on a firm's multinationality. *Journal of Business Ethics* **80**(4): 755-769

Brady G, Helmich D. 1984. *Executive succession*. Prentice Hall: Englewood Cliffs, NJ

Brammer SJ, Millington A. 2008. Does it pay to be different? An analysis of the relationship between corporate social and financial performance. *Strategic Management Journal* **29**(12): 1325-1343

Brammer SJ, Pavelin S, Porter LA. 2006. Corporate social performance and geographical diversification. *Journal of Business Research* **59**(9): 1025-1034

Brickley JA. 2003. Empirical research on CEO turnover and firm-performance: A discussion. *Journal of Accounting and Economics* **36**(1): 227-233

Brickley JA, Linck JS, Coles JL. 1999. What happens to CEOs after they retire? New evidence on career concerns, horizon problems, and CEO incentive. *Journal of Financial Economics* **52**: 341-377

Brown B, Perry S. 1994. Removing the financial performance halo from Fortune's "most admired" companies. *Academy of Management Journal* **37**(5): 1347-1359

Brown LD, Caylor ML. 2006. Corporate governance and firm valuation. *Journal of Accounting and Public Policy* **25**(4): 409-434

Brown TJ, Dacin PA. 1997. The company and the product: Corporate associations and consumer product responses. *Journal of Marketing* **61**(1): 68-84

Bumiller E. 2002. Bush signs bill aimed at fraud in corporations, *The New York Times*:

Butler S, Newman H. 1989. Agency control mechanisms, effectiveness and decision making in an executive's final year with a firm. *Journal of Institutional and Theoretical Economics* **145**: 451-464

Capar N, Kotabe M. 2003. The relationship between international diversification and performance in service firms. *Journal of International Business Studies* **34**(4): 345-355

Carroll AB. 1979. A three-dimensional model of corporate performance. *Academy of Management Review* **4**(4): 497-505

Carroll GR. 1984. Dynamics of publisher succession in newspaper organizations. *Administrative Science Quarterly* **29**(1): 93-113

Chakrabarti A, Singh K, Mahmood I. 2007. Diversification and performance: Evidence from East Asia firms. *Strategic Management Journal* **28**(1): 101-120

Chatterjee S, Blocher J. 1992. Measure of firm diversification: Is it robust? *Academy of Management Journal* **35**(4): 874-888

Chatterjee S, Wernerfelt B. 1991. The link between resources and type of diversification: Theory and evidence. *Strategic Management Journal* **12**(1): 33-48

Chatterji A, Levine D. 2006. Breaking down the wall of codes: Evaluating non-financial performance measurement. *California Management Review* **48**(2): 29-51

Chatterji AK, Levine DI, Toffel MW. 2008a. How well do social ratings actually measure corporate social responsibility. *Journal of Economics and Management Strategy (Forthcoming)*

Chatterji AK, Levine DI, Toffel MW. 2008b. *How well do social ratings actually measure corporate social responsibility?*: HBS Technology & Operations Mgt. Unit Research Paper No. 07-051

Chatterji AK, Levine DI, Toffel MW. 2009. How well do social ratings actually measure corporate social responsibility? *Journal of Economics and Management Strategy* **18**(1): 125-169

Cheng S. 2004. R&D expenditures and CEO compensation. *The Accounting Review* **79**(2): 305-328

Christmann P. 2004. Multinational companies and the natural environment: Determinants of global environmental policy standardization. *Academy of Management Journal* **47**(5): 747-760

Clarkson MBE. 1995. A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review* **20**(1): 92-117

Colsher PL, Dorfman LT, Wallace RB. 1988. Specific health conditions and work-retirement status among the elderly. *Journal of Applied Gerontology* **7**: 485-503

Conyon MJ, Florou A. 2006. The pattern of investment surrounding CEO retirements: UK evidence. *The British Accounting Review* **38**(3): 299-319

Core JE, Holthausen RW, Larcker DF. 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* **51**(3): 371-406

Cornell B, Shapiro A. 1987. Corporate stakeholders and corporate finance. *Financial Management* **16**(1): 5-14

Creyer EH, Ross WT. 1997. The Influence of firm behavior on purchase intentions: Do customers really care about business ethics? *Journal of Consumer Marketing* **14**: 421-432

Currall S, Epstein M. 2003. The fragility of organizational trust: Lessons from the rise and fall of Enron. *Organizational Dynamics* **32**(2): 193-206

Danneels E. 2008. Organizational antecedents of second-order competences. *Strategic Management Journal* **29**(5): 519-543

Davis GF, Diekmann KA, Tinsley CH. 1994. The Decline and Fall of the Conglomerate Firm in the 1980s: The Deinstitutionalization of an Organizational Form. *American Sociological Review* **59**(4): 547-570

Dawes RM, Faust D, Meehl PE. 1989. Clinical versus actuarial judgment. *Science* **243**: 1668-1674

Dechow PM, Hutton AP, Meulbroek L, Sloan RG. 2001. Short-sellers, fundamental analysis, and stock returns. *Journal of Financial Economics* **61**(1): 77-106

Dechow PM, Sloan RG. 1991. Executive incentives and the horizon problem. *Journal of Accounting and Economics* **14**(1): 51-89

Deckop JR, Merriman KK, Gupta S. 2006. The effects of CEO pay structure on corporate social performance. *Journal of Management* **32**(3): 329-342

Dierickx I, Cool K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science* **35**(12): 1504-1511

Doeringer PB. 1990. Economic security, labor market flexibility, and bridges to retirement. In PB Doeringer (Ed.), *Bridges to retirement*. Cornell University ILR Press: Ithaca, NY

Donaldson T, Preston LE. 1995. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review* **20**(1): 65-91

Drumwright M. 1996. Company advertising with a social dimension: The role of noneconomic criteria. *Journal of Marketing* **60**(4): 71-81

Economist. 2008. Special report on corporate social responsibility:

Eitzen DS, Yetman N. 1972. Managerial change, longevity, and organizational effectiveness. *Administrative Science Quarterly* **17**(1): 110-116

Embley LL. 1993. *Doing well while doing good: The marketing link between business & nonprofit causes*. Prentice Hall: Englewood Cliffs, NJ

Engel E, Hayes RM, Wang X. 2003. CEO turnover and properties of accounting information. *Journal of Accounting and Economics* **36**(1): 197-226

England GW, Misumi J. 1986. Work centrality in Japan and the United States. *Journal of Cross-Cultural Psychology* **17**(4): 399-416

Entine J. 2003. The myth of social investing: A critique of its practice and consequences for corporate social performance research. *Organization and Environment* **16**(3): 352-368

Feldman DC. 1994. The decision to retire early: A review and conceptualization. *Academy of Management Review* **19**(2): 285-311

File KM, Prince RA. 1998. Cause related marketing and corporate philanthropy in the privately held enterprise. *Journal of Business Ethics* **17**(14): 1529-1539

Fombrun C. 1996. *Reputation: Realizing value from the corporate image*. Harvard Business School Press: Boston, MA

Fredrickson JW, Hambrick DC, Baumrin S. 1988. A model of CEO dismissal. *Academy of Management Review* **13**(2): 255-270

Freeman RE. 1984. *Strategic management: A stakeholder approach*. Prentice-Hall: Englewood Cliffs, NJ

Freeman RE, Reed DL. 1983. Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review* **25**(3): 88-106

Freeman RE, Wicks AC, Parmar B. 2004. Stakeholder theory and "The Corporate Objective Revisited". *Organization Science* **15**(3): 364-369

Friedman M. 1970. The social responsibility of business is to increase its profit, *The New York Times*: New York

Fryxell G, Wang J. 1994. The fortune corporate 'reputation' index: Reputation for what? *Journal of Management* **20**(1): 1-14

Gardberg NA, Fombrun C. 2006. Corporate citizenship: Creating intangible assets across institutional environments *Academy of Management Review* **31**(2): 329-346

GE. 2008. 2007-2008 Citizenship report:

Geringer JM, Beamish P, da Costa RC. 1989. Diversification strategy and internationalization: Implications for MNE performance. *Strategic Management Journal* **21**(1): 51-80

Geringer JM, Tallman S, Olsen DM. 2000. Product and international diversification among Japanese multinational firms. *Strategic Management Journal* **21**(1): 51-80

Ghoshal S. 1987. Global strategy: An ongoing framework. *Strategic Management Journal* **8**(5): 425-440

Gibbons R, Murphy KJ. 1992. Optimal incentive contracts in the presence of career concerns: Theory and evidence. *Journal of Political Economy* **100**(3): 468-505

Gill F. 1999. The meaning of work: Lessons from sociology, psychology, and political theory. *Journal of Socio-Economics* **28**(6): 725-743

Godfrey PC. 2005. The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review* **30**(4): 777-798

Godfrey PC, Merrill CB, Hansen JM. 2009. The relationship between corporate social responsiblity and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal* **30**(4): 425-445

Gompers PA, Ishii JL, Metrick A. 2003. Corporate governance and equity prices. *Quarterly Journal of Economics* **118**(1): 107-155

Grant RM, Jammine AP, Thomas H. 1988. Diversity, diversification, and profitability among British manufacturing companies, 1972-84. *Academy of Management Journal* **31**(4): 771-801

Graves SB, Waddock SA. 1994. Institutional owners and corporate social performance. *Academy of Management Journal* **37**(4): 1034-1046

Griffin JJ, Mahon JF. 1997. The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research. *Business and Society* **36**(1): 5-31

Grove WM, Meehl PE. 1996. Comparative efficiency of informal (subjective, impressionistic) and formal (mechanical, algorithmic) prediction procedures: The clinical-statistical controversy. *Psychology, Public Policy, and Law* **2**(2): 293-323

Grusky O. 1961. Corporate size, bureaucratization, and managerial succession. *American Journal of Sociology* **67**(3): 263-269

Grusky O. 1963. Managerial succession and organizational effectiveness. *American Journal of Sociology* **69**(1): 21-31

Grusky O. 1964. The effects of succession: A comparative study of military and business organization. In M Janowitz (Ed.), *The new military*. Russell Sage Foundation: New York

Gupta AK. 1988. Contingency perspectives on strategic leadership: Current knowledge and future research direction. In DC Hambrick (Ed.), *The executive effect: Concepts and methods for studying top managers*: 147-178. JAI Press: Greenwich, CT

Hall BJ. 2000. What you need to know about stock options. *Harvard Business Review* **78**(2): 121-129

Hall BJ, Murphy KJ. 2003. The trouble with stock options. *Journal of Economic Perspectives* **17**(3): 49-70

Hambrick DC. 1994. Top management groups: A conceptual integration and reconsideration of the "team" label. In BM Staw, LL Cummings (Eds.), *Research in organizational behavior*, Vol. 16: 171-214. JAI Press: Greenwich, CT

Hambrick DC, Mason PA. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review* **9**(2): 193-206

Hamilton BH, Nickerson JA. 2003. Correcting for endogeneity in strategic management research. *Strategic Organization* **1**(1): 51-78

Handy C. 2002. What's a business for? *Harvard Business Review* **80**(12): 49-55

Harford J. 2003. Takeover bids and target directors' incentives: The impact of a bid on directors' wealth and board seats. *Journal of Financial Economics* **69**(1): 51-83

Harpaz I. 2002. Expressing a wish to continue or stop working as related to the meaning of work. *European Journal of Work and Organizational Psychology* **11**(2): 177-198

Hart S. 1995. A natural-resource-based view of the firm. *Academy of Management Review* **20**(4): 986-1014

Haveman H. 1993. Ghosts of managers past: Managerial succession and organizational mortality. *Academy of Management Journal* **36**(4): 864-881

Heckman J. 1979. Sample selection bias as a specification error. *Econometrica* **47**(1): 153-161

Helmich DL. 1978. Organizational volatility and rates of leader succession. *Journal of Management* **4**(1): 25-41

Hill CWL, Hitt MA, Hoskisson RE. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. *Organization Science* **3**(4): 501-521

Hillman AJ, Keim GD. 2001. Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal* **22**(2): 125-139

Hoeffler S, Keller KL. 2002. Building brand equity through corporate societal marketing. *Journal of Public Policy and Marketing* **21**(1): 78-89

Holstein WJ. 2008. Fine-tuning corporate social responsibility, *Business Week*:

Hoskisson RE, Hitt MA. 1990. Antecedents and performance outcomes of diversification: A review and critique of theoretical perspectives. *Journal of Management* **16**(2): 461-509

Hoskisson RE, Hitt MA, Johnson RA, Mosel DA. 1993. Construction validity of an objective (entropy) categorical measure of diversification strategy. *Strategic Management Journal* **14**(3): 215-235

Ikenberry D, Lakonishok J, Vermaelen T. 1995. Market underreaction to open market share repurchases. *Journal of Financial Economics* **39**(2): 181-208

Ingham H, Thompson S. 1995. Deregulation, firm capabilities and diversifying entry decisions: The case of financial services. *Review of Economics and Statistics* **77**(1): 177-183

Jaccard J, Turrisi C, Wan C. 1990. *Interaction effects in multiple regression*. Sage: Newbury Park, CA

Jacquemin AP, Berry CH. 1979. Entropy measure of diversification and corporate growth. *The Journal of Industrial Economics* **27**(4): 359-369

Johnson MD. 1984. Consumer choice strategies for comparing noncomparable alternatives. *Journal of Consumer Research* **11**(3): 741-753

Johnson RA, Greening DW. 1999. The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal* **42**(5): 564-576

Jones TM. 1995. Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review* **20**(2): 404-437

Kacperczyk A. 2009. With greater power comes greater responsibility? Takeover protection and corporate attention to stakeholders. *Strategic Management Journal* **30**(3): 261-285

Kaplan R, Norton DP. 1996. *The balanced scorecard*. Harvard Business School Press: Boston, MA

Kaplan S, Reishus D. 1990. Outside directorships and corporate performance. *Journal of Financial Economics* **27**(2): 389-410

Keele L, Kelly NJ. 2006. Dynamic models for dynamic theories: The ins and outs of lagged dependent variables. *Political Analysis* **14**(2): 186-205

Kennedy P. 2002. *A guide to econometrics*. Blackwell: Malden, MA

Kerr JL, Kren L. 1992. Effect of relative decision monitoring on chief executive compensation. *Academy of Management Journal* **35**(2): 370-397

Khaled E, Paton D. 2005. The impact of environmental performance on firm performance: Static and dynamic panel data evidence. *Structural Change and Economic Dynamics* **16**(3): 395-412

Khanna T, Palepu K. 1997. Why focused strategy may be wrong for emerging markets. *Harvard Business Review* **75**(4): 41-51

Kim S, Feldman DC. 2000. Working in retirement: The antecedent of bridge employment and its consequences for quality of life in retirement. *Academy of Management Journal* **43**(6): 1195-1210

KLD. 2006. *Getting Started with KLD Stats and KLD's Ratings Definitions*. KLD Research & Analytics, Inc.: Boston

Kochan TA. 2002. Addressing the crisis in confidence in corporations: Root causes, victims, and strategies for reform. *Academy of Management Executive* **16**(3): 139-141

Kraatz MS, Zajac EJ. 1996. Exploring the Limits of the New Institutionalism: The Causes and Consequences of Illegitimate Organizational Change. *American Sociological Review* **61**(5): 812-836

Kriesberg L. 1962. Careers, organization size, and success. *American Journal of Sociology* **68**: 355-359

Lang LHP, Stulz RM. 1994. Tobin's Q, corporate diversification, and firm performance. *Journal of Political Economy* **102**(6): 1248-1280

Lecraw DJ. 1984. Diversified strategy and performance. *Journal of Industrial Economics* **33**(2): 179-198

Lee S, Shenkar O, Li J. 2008. Cultural distance, investment flow, and control in cross-border cooperation. *Strategic Management Journal* **29**(10): 1117-1125

Lichtenstein DR, Drumwright ME, Braig BM. 2004. The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing* **68**(4): 16-32

Lorsch JW, Khurana R. 1999. Changing leaders: The board's role in CEO succession. *Harvard Business Review* **77**(3): 96-105

Lubatkin M, Shrieves, R. 1986. Towards reconciliation of market performance measures to strategic management research. Academy of Management Review **11**(3): 497-512

Luo Y. 2006. Political behavior, social responsibility, and perceived corruption: A structuration perspective. *Journal of International Business Studies* **37**(6): 747-766

Mace M. 1986. *Directors: Myth and reality*. Harvard Business School Press: Boston, MA

MacMillan IC. 1978. *Strategy formulation: Political concepts*. West Publishing Co.: St. Paul, Minnesota

Mahoney LS, Thron L. 2006. An examination of the structure of executive compensation and corporate social responsibility: A Canadian investigation. *Journal of Business Ethics* **69**(2): 149-162

Margolis JD, Walsh JP. 2003. Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly* **48**(2): 268-305

Markides CC, Williamson PJ. 1994. Related diversification, core competences and corporate diversification. *Strategic Management Journal* **15**(2): 149-165

Markides CC, Williamson PJ. 1996. Corporate diversification and organizational structure: A resource-based view. *Academy of Management Journal* **39**(2): 340-367

Martin RL. 2002. The virtue matrix: Calculating the return on corporate responsibility. *Harvard Business Review* **80**(3): 68-75

Matta E, Beamish PW. 2008. The accentuated CEO career horizon problem: Evidence from international acquisitions. *Strategic Management Journal* **29**(7): 683-700

Mayer RC, Davis JH, Schoorman FD. 1995. An integrative model of organizational trust. *Academy of Management Review* **20**(3): 709-734

McEachern W. 1975. *Managerial control and performance*. Heath: Lexington, MA

McGuire JB, Dow S, Argheyd K. 2003. CEO incentives and corporate social performance. *Journal of Business Ethics* **45**(4): 341-359

McGuire JB, Sundgren A, Schneeweis T. 1988. Corporate social responsibility and firm financial performance. *Academy of Management Journal* **31**(4): 854-872

McKendall M, Sanchez C, Sicilian P. 1999. Corporate governance and corporate illegality: The effect of board structure on environmental violations. *International Journal of Organizational Analysis* **7**(3): 201-223

McWilliams A, Siegel D. 2000. Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal* **21**(5): 603-610

McWilliams A, Siegel D. 2001. Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review* **26**(1): 117-127

McWilliams A, Siegel DS, Wright PM. 2006. Corporate social responsibility: Strategic implications. *Journal of Management Studies* **43**(1): 1-18

Moon JJ. 2007. Essays in empirical analysis of corporate strategy and corporate responsibility, *Business and Public Policy Department*. University of Pennsylvania: Philadelphia

Morse NC, Weiss RS. 1955. The function and meaning of work and the job. *American Sociological Review* **20**(2): 191-198

Murphy KJ. 1999. Executive compensation. In O Ashenfelter, D Card (Eds.), *Handbook of labor economics*: 2485-2563. Elsevier: Amsterdam

Murphy KJ, Zimmerman JL. 1993. Financial performance surrounding CEO turnover. *Journal of Accounting and Economics* **16**: 273-315

Nelson RR, Winter SG. 1982. *An evolutionary theory of economic change*. Belknap Press: Cambridge, MA

Nike. 2006. Innovate for a better world: 05-06 Corporate Social Responsiblity Report. Nike Corporation

Ogden S, Watson R. 1999. Corporate performance and stakeholder management: Balancing shareholder and customer interests in the U.K. privatized water industry. *Academy of Management Journal* **42**(5): 526-538

Oliver C. 1992. The antecedents of deinstitutionalization. *Organizational Studies* **13**: 563-588

Orlitzky M, Schmidt FL, Rynes SL. 2003. Corporate social and financial performance: A meta-analysis. *Organization Studies* **24**(3): 403-441

Orlitzky M, Swanson DL. 2002. Value attunement: Toward a theory of socially responsible executive decision making. *Australian Journal of Management* **27**(special issue): 119-128

Palepu K. 1985. Diversification strategy, profit performance and the entropy measure. *Strategic Management Journal* **6**(3): 239-255

Palich LE, Cardinal LB, Miller CC. 2000. Curvilinearity in the diversification-performance linkage: An examination of over three decades of research. *Strategic Management Journal* **21**(2): 155-174

Papke LE, Wooldridge J. 1996. Econometric methods for fractional response variables with an application to 401(k) plan participation rates. *Journal of Applied Econometrics* **11**(6): 619-632

Park CW, Milberg S, Lawson R. 1991. Evaluation of brand extensions: The role of product feature similarity and brand concept consistency. *Journal of Consumer Research* **18**(2): 185-193

Perrow C. 1986. *Complex organizations: A critical essay*. Random House: New York

Pfeffer J, Leblebici H. 1973. Executive recruitment and the development of interfirm organizations. *Administrative Science Quarterly* **18**(4): 449-461

Pfeffer J, Salancik G. 1977. Organization context and the characteristics and tenure of hospital administrators. *Academy of Management Journal* **20**(1): 74-88

Pitcher P, Chreim S, Kisfalvi V. 2000. CEO succession research: Methodological bridges over troubled waters. *Strategic Management Journal* **21**: 625-648

Porter ME. 1980. *Competitive strategy*. Free Press: New York

Porter ME. 1985. *Competitive advantage*. Free Press: New York

Porter ME. 1987. From competitive advantage to corporate strategy. *Harvard Business Review* **65**(3): 43-59

Porter ME, Kramer MR. 2006. Strategy and society: The link between competitive advantage and corporate social responsibility *Harvard Business Review* **84**(12): 78-92

Ramanujam V, Varadarajan P. 1989. Research on corporate diversification: A synthesis. *Strategic Management Journal* **10**(6): 526-551

Reddy SK, Holak SL, Bhat S. 1994. To extend or not to extend: Success determinants of line extensions. *Journal of Marketing Research* **31**(2): 243-262

Ribstein, LE. 2002. Market vs. regulatory response to corporate fraud: A critique of the Sarbanes-Oxley Act of 2002. *Illinois Law and Economics Working Papers Series* LE02-008

Robertson CJ. 2007. An analysis of 10 years of business ethics research in Strategic Management Journal: 1996-2005. *Journal of Business Ethics* **80**(4): 745-753

Robinson G, Dechant K. 1997. Building a business case for diversity. *Academy of Management Executive* **11**(3): 21-31

Rosen BN, Sandler DM, Shani D. 1991. Social issues and socially responsible investment behavior: A preliminary empirical investigation. *Journal of Consumer Affairs* **25**(2): 221-234

Rowley T, Berman S. 2000. A brand new brand of corporate social performance. *Business and Society* **39**(4): 397-418

Rumelt R. 1974. *Strategy, structure and economic performance*. Harvard Business School: Cambridge, MA

Russo M, Fouts P. 1997a. A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal* **40**: 534-559

Russo MV, Fouts PA. 1997b. A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal* **40**(3): 534-559

Sabac F. 2008. Dynamic incentives and retirement. *Journal of Accounting and Economics* **46**(1): 172-200

Schuler DA, Cording M. 2006. A corporate social performance-corporate financial performance behavioral model for consumers. *Academy of Management Review* **31**(3): 540-558

Sharfman MP. 1996. The construct validity of the Kinder, Lydenberg & Domini social performance ratings data. *Journal of Business Ethics* **15**(3): 287-296

Sharfman MP, Shaft TM, Tihanyi L. 2004. A model of the global and institutional antecedents of high-level corporate environmental performance. *Business and Society* **43**(1): 6-36

Shaver JM. 1998. Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival? *Management Science* **44**(4): 571-585

Short J. 2004. *Are we wasting time with the corporate social performance-financial performance link?*: Paper presented at the annual meeting of the Academy of Management, New Orleans

Shrivastava P. 1995. The role of corporations in achieving ecological sustainability. *Academy of Management Review* **20**(4): 122-160

Singh J, Montgomery CA. 1987. Corporate acquisition strategies and economic performance. *Strategic Management Journal* **8**(4): 377-386

Smith C, Watts R. 1982. Incentive and tax effects of executive compensation plans. *Austrailian Journal of Management* **7**(2): 139-157

Sony. 2008. CSR Report 2008. Sony Corporation

Starbucks. 2007. 2007 Corporate Social Responsibility Report. Starbucks Corporation

Staw BM, Barsade SG, Koput KW. 1997. Escalation at the credit window: A longitudinal study of bank executive's recognition and write-off of problem loans. *Journal of Applied Psychology* **82**(1): 130-142

Strike VM, Gao J, Bansal P. 2006. Being good while being bad: Social responsibility and the international diversification of US firms. *Journal of International Business Studies* **37**(5): 850-862

Sujan M, Dekleva C. 1987. Product categorization and inference making: Some implications for comparative advertising. *Journal of Consumer Research* **14**(3): 372-378

Sullivan BN, Haunschild PR, Page K. 2007. Organizations non gratae? The impact of unethical corporate acts on interorganizational networks. *Organization Science* **18**(1): 55-70

Sundaram A, Inkpen A. 2004. The corporate objective revisited. *Organization Science* **15**(3): 350-363

Tallman S, Li J. 1996. Effects of international diversity and product diversity on the performance of multinational firms. *Academy of Management Journal* **39**(1): 179-196

Thomas D, Ely R. 1996. Making differences matter: A new paradigm for managing diversity. *Harvard Business Review* **74**(5): 79-90

Trow D. 1960. Membership succession and team performance. *Human Relations* **13**(3): 259-269

Tushman M, Virany B, Romanelli E. 1985. Executive succession, strategic reorientations and organizational evolution. *Technology in Society* **7**: 293-313

UN. 2007. UN global compact annual review. United Nations: New York

Uzzi B. 1996. The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review* **61**(4): 674-698

Vancil RF. 1987. *Passing the baton: Managing the process of CEO succession*. Harvard Business School Press: Boston, MA

Waddock SA. 2003. Myths and realities of social investing. *Organization and Environment* **16**(3): 369-380

Waddock SA, Graves SB. 1997. The corporate social performance-financial performance link. *Strategic Management Journal* **18**(4): 303-319

Wang L, Zajac E. 2007. Alliance or acquisition? A dyadic perspective on interfirm resource combinations. *Strategic Management Journal* **28**(13): 1291-1317

Weisbach MS. 1995. CEO turnover and the firm's investment decisions. *Journal of Financial Economics* **37**(2): 159-188

Wernerfelt B, Montgomery CA. 1988. Tobin's q and the importance of focus in firm performance. *American Economic Review* **78**(1): 246-250

Winter SG. 1995. The four Rs of profitability: Rents, resources, routines, and replication. In CA Montgomery (Ed.), *Resource-based and evolutionary theories of the firm: Towards a synthesis*. Kluwer Academic Publishers: Boston, MA

Yermack D. 1995. Do corporations award CEO stock options effectively? *Journal of Financial Economics* **39**(2): 237-269

Zadek S. 2004. The path to corporate responsibility. *Harvard Business Review* **82**(12): 125-132

Zaheer S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal* **38**(2): 341-363

Zajac EJ. 1990. CEO selection, succession, compensation and firm performance: A theoretical integration and empirical analysis. *Strategic Management Journal* **11**(3): 217-230