The Impact of Corporate Social Responsibility on Stock Returns: Evidence from the U.S. Stock Market

Honors Undergraduate Research Thesis

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Abstract

Corporate social responsibility, often abbreviated “CSR,” is a company’s practices and initiatives to take responsibility for the benefit of society. The purpose of this study is to examine the impact of corporate social responsibility on the stock returns of U.S. publicly-traded companies that constitute S&P Composite 1500 Index, based on the stock performances during 2000-2014. Following a disaggregate measure as well as conducting cross-sectional one-year lagged regression analyses, the study assesses the effect of three corporate social responsibility indicators from the KLD STATS database, including: (1) Environmental Performance; (2) Corporate Governance Performance; and (3) Social Performance indicators. All three variables are compared with an aggregated CSR rating score, measured as the KLD indicator. This analysis indicates a significant negative correlation between the overall aggregated CSR rating score and stock returns. Corporate Governance is the only indicator found to be statistically significant and inversely correlated with stock returns. Environmental performance has a stronger, though statistically non-significant, negative impact on stock returns compared to Social and Corporate Governance performance scores. Based on four cross-sectional models, the analyses in this study indicate that taking the CSR initiatives will in fact have negative effect on the stock performance as well as the development of the company.

KEYWORDS: Corporate Social Responsibility (CSR), Stock Return, S&P Composite 1500 Index
Acknowledgments

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Fields of Study

Major Field: Business Administration, Finance & Economics Specialization
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I. Introduction

The field of Corporate Social Responsibility (CSR) has become a fast-growing part of long-lasting enterprises in the recent decade. Businesses in the United States have also been very committed to CSR initiatives over the past few years. Figure 1 shows the levels of the activity of corporate social responsibility undertaken in 2010 around the world. In this figure, we can see that in the United States, level of CSR activity was relatively high.

Figure 1: World CSR Heat Map

Milton Friedman (1970) argued that the social responsibility of business is to increase its profit. Nevertheless, nowadays, businesses pursue the sustainability as well as social responsibility for various reasons. Companies not only consider the monetary incentives, but also consider their reputation when they demonstrate their corporate social responsibility. According to the International Business Report (2011) of Grant Thornton, the most important driver of corporate social responsibility for businesses in the United States is public attitudes/brand building. Moreover, according to the 2014 Grant Thornton International Business Report, 77% of businesses in the United States cited cost management as a key driver.

The nature of corporate social responsibility is based on the interests and connections of the external relations between the stakeholders such as the company, operators and its shareholders, and how they see and expect the realization of the sustainable development of the company. To some degree, it is beneficial for companies to carry out corporate social responsibility because it can help them gain the support from investors, stakeholders, and thus improve the internal and external environment for their sustainable development. The shared value framework, initially proposed by Porter and Kramer (2016), mentions that creating social value by addressing society’s needs and challenges can also create economic value for the business and shareholders.

As we know, the economic prospect of one company is reflected by its stock return and volatility. Will corporate social responsibility efforts affect the stock returns and the
efficiency of the capital market? Can high corporate social responsibility performance and high stock returns really co-exist? The answers to these questions will help improve the performance of the U.S. stock market.

In the following study, I will explore and test the correlation between corporate social responsibility performance and U.S. stock returns, based on the stock performance of S&P 1500 component companies. This research topic is crucial because the public is concerned more about corporate social responsibility today, and this field has become increasingly more prevalent. I will try to provide enough evidence to make this research study clear and compelling. These results will help people gain a better understanding of the impact of corporate social responsibility on performance. Furthermore, the results will also provide some insights for the publicly-traded companies and their investors. Companies will make good decisions on how much they should invest in corporate social responsibility activities. In addition, the investors will get an answer for this question: Does socially responsible investment (SRI) outperform conventional investment?

This research will also include the following chapters. Chapter II will discuss and explore some previous studies and existing research related to my research question, which is the relationship between the CSR performance and stock performance. Chapter III will give my hypotheses about the expected relationship between the CSR performance and stock returns of S&P 1500 component companies. Chapter IV will describe the data, possible variables that are employed in my research study, as well as the methods I use to
test my hypotheses. Chapter V will show the statistical results for my research question. In addition, Chapter VI will further discuss and interpret the statistical results, provide some insights and recommendation, and will conclude the research question. Chapter VII will discuss the limitations of the study and possible future research.

II. Literature Review

Brammer, Brooks and Pavelin (2006)

The authors investigated the relationship between corporate social performance and stock returns based on a sample of U.K. quoted companies. Instead of simply using an aggregate measure, they created their own guide for examining the interactions on the firms’ financial performances using a set of disaggregated social responsibility indicators, which represented environmental, employment and community impacts, as well as a composite CSR score. Moreover, the authors used the data at the firm level rather than at the fund level. And they also provided the empirical evidence and multi-factor models to explain the variation in returns. They finally concluded that firms with higher social performance scores tend to get lower returns. This paper is indispensable, and it is a guide for my research study because it provides unique methodology and empirical evidence that can be applied to the study of U.S. companies.

Wang (2011)
Wang examined the impact of fulfilling corporate social responsibility on stock performance based on the Taiwan Stock Exchange for the time period of 2001-2009. In his research, he constructed a local CSR index based on socially responsible investment and corporate contributions to stakeholders. He constructed high, medium and low CSR portfolios based on the CSRI to examine short-run and long-run stock returns relative to market indices, value stocks, and growth stocks. This research made a conclusion that fulfilling corporate social responsibility has a significantly positive impact on stock performance. In addition, Wang suggested that a firm could not only serve as a good corporate citizen, but also pursue the growth of stockholder’s wealth. This research provides some insights for my research analysis about whether companies could meet the ideal level of shareholder value, while in the meantime conduct corporate social responsibility.

Flammer (2013)

The author analyzed the effect of corporate social responsibility on corporations’ stock prices, which mainly focused on “environmental” aspect. He made two hypotheses; first, shareholders react to the announcements of eco-friendly corporate initiatives in a positive manner. Second, shareholders react negatively to the announcements of eco-harmful corporate events. By conducting an event study for all U.S. publicly-traded corporations from 1980 to 2009 and focusing on their environment news, the author drew
a conclusion that people do care about environmental information and thus help improve the competitiveness of corporations as evidenced by the shareholders’ stock market reaction. Also, environmental CSR is a resource with decreasing marginal returns. However, the results in this article were only concerned with the short-run stock market reaction. This paper is useful because the author narrowed down the large topic of corporate social responsibility to the environmental aspect and eco-friendly initiatives in studying stock returns of U.S. corporations. The analysis can be a good comparison of my hypothesis that Corporate Governance category actually has the significant influence on stock returns.

Valerie (2014)

Valerie examined the effect of corporate social responsibility and irresponsibility announcements on the stock returns of S&P 500 index during 2002-2012. The analysis comprised of short-term event study where the dates of news about CSR and CSI are utilized as the event dates, and long-term study that was assessed through double-sorting and multivariate regression with the sample size consisting of 304 companies. The short-term study shown that news about CSR and CSI all yield a negative reaction from the shareholders, but that of CSI is stronger. The long-term study shown that the corporate social responsibility practices negatively impacts the stock returns in 2 years following their completion. This research study is useful because it has more comprehensive and
detailed analysis of the study of corporate social responsibility and stock returns, including both short-term and long-term study. And it provides some guidance for my future studies.

**Vujicic (2015)**

The author presented an investigation of the relationship between corporate social responsibility (CSR) ratings and financial performance of U.S. firms in terms of stock returns based on the data over a two-year period beginning in 2002. In this research study, the author used some existing evidence and studies to introduce the relationship between the corporate social responsibility ratings and firms’ financial performance. He also combined results and reached conclusions by comparing various indicators, including disaggregated social responsibility indicators, as well as overall CSR score. The author didn’t utilize a new methodology to explore the relationship; instead, he closely followed that of Brammer et al (2006). He used the same set of CSR indicators of U.S. firms: Environment, Community and Employment. However, this paper is still helpful for getting an overview of the impact of different kinds of CSR indicators on stock returns, and providing insights for my regression model.
III. Hypotheses

In this study, the correlation between corporate social responsibility and stock returns will be tested. Some previous studies concluded that the corporate social responsibility performance has a positive influence on the stock returns, while others believed they are negatively correlated (See Chapter II – Literature Review). These supporting research papers help provide a basic understanding of this research field, and useful guidance for this research. Engaging in sustainability or corporate social responsibility activity is very costly for some companies if conducted improperly. On the one hand, it is likely to increase their costs, and thus reduce their profits as well as impair their financial performance. On the other hand, the adoption of corporate social responsibility may put their shareholders in an unfavorable position.

For example, Friedman (1970) emphasized that conducting corporate social responsibility activities could raise conflict of interests between managers and shareholders, which is known as the Principal-Agent problem. When agents, such as managers, take account of a much wider range of goals including setting up the CSR plan, it can be detrimental to the company as a whole if managers act in their own self-interest. Accordingly, I hypothesize that The higher the overall CSR rating score, the lower the stock return for a publicly-traded company. This is described by the following hypotheses:
**Hypothesis 1a:** Company with a higher overall CSR rating score will incur lower stock returns.

**Hypothesis 1b:** Overall CSR rating score of one company will not have a significant impact on its stock returns.

Three categories of corporate social responsibility ratings will be included in the analysis (See Chapter IV – Data Description and Methodology in detail). Previous studies claimed that some specific categories have more significant and robust influence on stock returns than the other categories. For instance, recent empirical work shows that Environmental CSR activities contribute more to the stock returns. Flammer (2013) examined that Environmental aspect has the greatest importance. However, at a macro and organizational level, corporate governance performance is more concerned. Corporate governance balances the interests of company’s stakeholders, such as shareholders and the community, and directs the company to pursue its strategic goals successfully and legally. Corporate governance performance can prevent some financial problems, ensure sustainable development of publicly-traded companies, and help gain recognition from shareholders.

Nevertheless, Koerniadi (2014) found that corporate governance has a significant negative impact on the risk of a firm and the variability of stock returns. Kouwenberg (2014) claimed that poorly governed companies have a higher market risk of stocks, and therefore
investors can earn a risk premium and higher cost of equity by buying companies with poor corporate governance. Thus, I anticipate that Environmental, Social and Corporate Governance will contribute to a different negative extent to the stock performance. Below are my hypotheses for this:

**Hypothesis 2a:** Different categories of CSR ratings will have different effects on the stock returns. Corporate Governance category has the most significant negative influence on stock returns.

**Hypothesis 2b:** Different categories of CSR ratings will have different effects on the stock returns. Social or Environmental category has the most significant negative influence on stock returns.

### IV. Data Description and Methodology

#### I. Sample Selection

S&P 1500 Component Companies

#### II. Dependent Variable

**A. Stock Returns (r_t)**

In this study, stock return is an important dependent variable that helps measure the stock performance. I will adopt monthly stock returns for S&P 1500 component companies from 2000-2014, a 15-year period, in order to test the effect of corporate social
responsibility performance on stock performance on a more precise basis. Those companies that have missing values and extreme outliers will be excluded from this study.

\[
\text{Stock return} = \frac{\text{Stock price}_t - \text{Stock price}_{t-1}}{\text{Stock price}_{t-1}}
\]

**III. Independent Variable**

**A. Corporate Social Responsibility Indicators**

In order to measure corporate social responsibility, I will employ the KLD STATS (STATISTICAL TOOL FOR ANALYZING TRENDS IN SOCIAL AND ENVIRONMENTAL PERFORMANCE), an annual data set which provides detailed social ratings of environmental, social, corporate governance, and controversial business involvement performance of publicly-traded companies. With a total number of 3100 companies covered, the KLD STATS also includes the corporate social responsibility ratings for Domini 400 Social Index, S&P 500 component companies, 1000 Largest US Companies and 2000 Small Cap US Companies and so on. The annual KLD data set contains the following information: Company information (Name, Ticker, unique security identifiers), and environmental, social, corporate governance, and controversial business involvement performance indicators assessing positive and negative company corporate social responsibility performance. In this study, I will chiefly focus on three categories: 1) Environmental Performance ($\text{ENV}_{t-1}$), 2) Corporate Governance Performance ($\text{GOV}_{t-1}$), and 3) Social Performance ($\text{SOC}_{t-1}$). These categories are the most important indicators
that relate to the corporate social responsibility performance. Moreover, I will use the aggregated CSR rating score: KLD rating ($\text{KLD}_{t-1}$). This will be further explained in IV.

Methodology.

B. Stock Performance

In addition to the Environmental, Corporate Governance and Social sustainability performances, I will also control for stock performance variables:

1) Book-To-Market Ratio:

$$\text{Book to market} = \frac{\text{Book Value of Firm}}{\text{Market value of Firm}}$$

I will use the natural logarithm of Book-To-Market ($\text{LNBTM}_{t-1}$).

2) Size (Market Capitalization or Market Cap):

$$\text{Market Cap} = \text{price} \times \text{shares outstanding}$$

I will use the natural logarithm of Market Cap ($\text{LNCAP}_{t-1}$).

3) Profitability (Return-On-Equity, $\text{ROE}_{t-1}$):

$$\text{Return on equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

4) Finally, I will control for last year’s return of each company. ($r_{t-1}$ or $\text{RET}_{t-1}$)
Table I displays the detailed description of all the variables included in the regression equations.

Table I: Regression Variable Description

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
</tr>
</thead>
</table>
| ENV           | Environmental Performance indicator, measured as the total strengths minus total concerns in environment rating categories of KLD STATS. Issue Areas Include (From KLD Intro):  
  - Strengths: Environmental Opportunities – Beneficial Products and Services, Clean Tech, Waste Management – Toxic Emissions and Waste, etc.  
  - Concerns: Regulatory Compliance, Toxic Emissions and Waste, and Substantial Emissions, etc. |
| GOV           | Corporate governance performance indicator, measured as the total strengths minus total concerns in governance rating categories of KLD STATS. Issue Areas Include (From KLD Intro):  
  - Strengths: Political Accountability Strength, Transparency Strength, and Limited Compensation, etc.  
  - Concerns: Governance Structures, Controversial Investments, and Bribery & Fraud, etc. |
SOC

Social performance indicator, measured as the total strengths minus total concerns in: Community, Human rights, Employee Relations, Diversity and rating categories of KLD STATS.

Issue Areas Include (From KLD Intro):

- **Community**
  - Strengths: Charitable Giving, etc.
  - Concerns: Investment Controversies, etc.
- **Human rights**
  - Strengths: Labor Rights Strength, etc.
  - Concerns: Indigenous Peoples Relations Concern, etc.
- **Employee Relations**
  - Strengths: Employee Involvement, etc.
  - Concerns: Health and Safety Concern, etc.
- **Diversity**
  - Strengths: Women & Minority Contracting, etc.
  - Concerns: Non-Representation, etc.
- **Products**
  - Strengths: R&D/Innovation, etc.
  - Concerns: Product Safety, etc.

KLD

Composite CSR rating, measured as the total strengths minus total concerns in thirteen categories of KLD rating data, including Community, Corporate governance, Diversity, Employee relations,
Environmental, Humanity rights, Product, an Alcohol, Gambling, Tobacco, Firearms, Military as well as Nuclear power (controversial business involvement indicators).

<table>
<thead>
<tr>
<th>LNBTM</th>
<th>Book-To-Market ratio, which can find the value of a company, and identify the undervalued or overvalued securities. If the Book-To-Market Ratio &gt; 1, the stock is undervalued. If the Book-To-Market Ratio &lt; 1, the stock is overvalued. In this study, we will use the natural logarithm of BTM.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNCAP</td>
<td>Market Cap, or Size, which measured as the total dollar market value of a company’s outstanding shares. In this study, we will use the natural logarithm of CAP.</td>
</tr>
<tr>
<td>ROE</td>
<td>Return on equity, or a company’s profitability, which indicates how efficiently a company is managing the equity that shareholders have invested.</td>
</tr>
<tr>
<td>r</td>
<td>Stock returns.</td>
</tr>
<tr>
<td>$\epsilon_t$</td>
<td>Error term.</td>
</tr>
</tbody>
</table>

**IV. Methodology**

The method I will use to enrich my research study is statistical analysis, which includes multivariate cross-sectional regression analysis. I will follow the aggregate vs. disaggregate measure of Brammer, S., Brooks, C., & Pavelin, S. (2006). In order to closely
examine the effect of the CSR activities on the stock returns, not only the aggregated CSR rating will be used, but the disaggregated CSR indicators will also be used to evaluate effects of environmental, social and corporate governance activities on stock returns.

- **Aggregate and Disaggregate Measure**
  - Aggregate: Use KLD rating, which is an aggregated CSR rating variable.
  - Disaggregate: Use disaggregated CSR variables, including Environmental, Social and Corporate Governance performance.

- **Cross-Sectional Regression Analyses**
  - Every month, regress individual stock returns on their CSR performance scores as well as the other control variables from the previous year. Test whether the one-year lagged CSR variables have a significant effect on companies’ current returns.
  - Assess the effect of three CSR indicators, and all three variables are compared with the aggregated KLD rating score.

In order to observe the direct effect of the three CSR indicators (Environmental, Corporate Governance and Social) on the stock returns, and analyze the contribution of each indicator, the regression equation for the disaggregate measure is expressed as follow:

\[
   r_{i,t} = \beta_0 + \beta_1 ENV_{i,t-1} + \beta_2 GOV_{i,t-1} + \beta_3 SOC_{i,t-1} + \epsilon_t \quad (1)
\]

Accordingly, the aggregate regression equation that examines the effect of the composite CSR ratings on the stock returns is:
\[ r_{i,t} = \beta_0 + \beta_1 KLD_{i,t-1} + \epsilon_t \quad (2) \]

In order to observe the effect of CSR variables much precisely, we will add the other stock performance control variables to our cross-sectional regression equation. Therefore, the regression equation becomes:

\[ r_{i,t} = \beta_0 + \beta_1 ENV_{i,t-1} + \beta_2 GOV_{i,t-1} + \beta_3 SOC_{i,t-1} + \beta_4 LNBTM_{i,t-1} + \beta_5 LN\text{CAP}_{i,t-1} \]
\[ + \beta_6 ROE_{i,t-1} + \beta_7 r_{i,t-1} + \epsilon_t \quad (3) \]

Accordingly, an aggregate equation that shows the effect of the composite CSR ratings on the stock returns will be:

\[ r_{i,t} = \beta_0 + \beta_1 KLD_{i,t-1} + \beta_2 LNBTM_{i,t-1} + \beta_3 LN\text{CAP}_{i,t-1} + \beta_4 ROE_{i,t-1} + \beta_5 r_{i,t-1} \]
\[ + \epsilon_t \quad (4) \]

V. Data Analysis and Results

The average performance score of different corporate social responsibility indicators for S&P 1500 component companies are shown below (Figure 2). CSR scores from 1999-2013 are used because we are examining the effect on a one-year lagged basis. As the figure illustrates, firstly, from 1999-2013 S&P 1500 publicly-traded companies always had positive Social performance except 2010 and 2011, and companies tend to perform the best in Social category than in the other categories, especially from 1999-2002. Then, on average S&P 1500 publicly-traded companies didn’t have positive Governance
performance from 2003-2011. Also, from 1999-2013, the average Environmental scores for the sample companies were nearly negative except 2010, 2012 and 2013. Overall, for the sample companies, average performance scores of all the corporate social responsibility categories became positive beginning in 2012.

**Figure 2: Average Performance Score of CSR Indicators from 1999-2013**

![Performance Score of Different CSR Indices](image)

Before conducting the multivariate cross-sectional regression analysis, the correlation analysis is conducted. Table II shows the correlation between the variables that are included in our regression analysis. Correlation can provide some insights, and show the strength of the relationship between the variables clearly. As we can see, overall, the
CSR indicators and stock returns are negatively correlated, which means that as the corporate social responsibility performance of Environmental, Social and Corporate Governance of one company increases, the stock returns are likely to decrease. In addition, correlation matrix can help identify the existence of multicollinearity before we start the regression analysis. If we have some variables that are highly correlated, there may exist an multicollinearity. The set of disaggregated CSR indicators are highly correlated with the composite CSR rating. Therefore, it further prove that we should use both the aggregated measure and the disaggregated measure to test the effect of CSR.
Table II: Correlation Between Variables

<table>
<thead>
<tr>
<th></th>
<th>RET</th>
<th>KLD&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>SOC&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>GOV&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>ENV&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>LNCAP&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>LNBTM&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>ROE&lt;sub&gt;t-1&lt;/sub&gt;</th>
<th>RET&lt;sub&gt;t-1&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>RET</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KLD&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0034</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0005</td>
<td>0.691</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>GOV&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0009</td>
<td>0.36</td>
<td>0.0973</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
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<td>ENV&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0017</td>
<td>0.124</td>
<td>0.172</td>
<td>-0.00140</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LNCAP&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0135</td>
<td>0.301</td>
<td>0.422</td>
<td>0.163</td>
<td>-0.0812</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNBTM&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>0.023</td>
<td>-0.0927</td>
<td>-0.0821</td>
<td>-0.0422</td>
<td>0.0066</td>
<td>-0.305</td>
<td>1</td>
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</tr>
<tr>
<td>ROE&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.019</td>
<td>-0.0009</td>
<td>-0.0029</td>
<td>-0.0002</td>
<td>-0.0005</td>
<td>-0.01</td>
<td>0.0323</td>
<td>1</td>
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<tr>
<td>RET&lt;sub&gt;t-1&lt;/sub&gt;</td>
<td>-0.0259</td>
<td>-0.0061</td>
<td>-0.0069</td>
<td>0</td>
<td>0.0101</td>
<td>-0.0434</td>
<td>0.0274</td>
<td>-0.02</td>
<td>1</td>
</tr>
</tbody>
</table>
Then, the results of the cross-sectional regression analysis are as follows:

**Table III: Regression Results**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Model 1</th>
<th>(2) Model 2</th>
<th>(3) Model 3</th>
<th>(4) Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.0157***</td>
<td>0.0156***</td>
<td>0.0223***</td>
<td>0.0229***</td>
</tr>
<tr>
<td></td>
<td>(3.63)</td>
<td>(3.61)</td>
<td>(3.43)</td>
<td>(3.46)</td>
</tr>
<tr>
<td>KLD_{t-1}</td>
<td>-0.000248*</td>
<td>-0.00021*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.70)</td>
<td>(-1.65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNCAP_{t-1}</td>
<td>-0.000816</td>
<td>-0.000861</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.49)</td>
<td>(-1.52)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNBTM_{t-1}</td>
<td>0.002072**</td>
<td>0.002067**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.10)</td>
<td>(2.09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE_{t-1}</td>
<td>-0.001977**</td>
<td>-0.001968**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.99)</td>
<td>(-1.97)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RET_{t-1}</td>
<td>-0.018908***</td>
<td>-0.019556***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.62)</td>
<td>(-2.73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC_{t-1}</td>
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<tr>
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<td>GOV_{t-1}</td>
<td>-0.000526**</td>
<td></td>
<td>-0.000539**</td>
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<tr>
<td></td>
<td>(-2.29)</td>
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<tr>
<td>ENV_{t-1}</td>
<td>-0.00071</td>
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<td>-0.00072</td>
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</tr>
<tr>
<td></td>
<td>(-1.44)</td>
<td></td>
<td>(-1.58)</td>
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</table>

_t statistics in parentheses_

* p<0.1, ** p<0.05, *** p<0.01
VI. Discussion

I. Interpretations

Overall, from the regression results in Part V, the effect of aggregated CSR rating on stock returns, as shown by the significant coefficient estimate of KLD rating in both Model 1 and Model 3, is negative. Moreover, as we can see, the disaggregated CSR indicators also have negative effects on one company’s stock returns. From Table III, being statistically significant at a 5% level, the one-year lagged value of the corporate governance score is the only indicator that has a significant effect on the stock returns, as indicated by the relatively large t-stat of -2.29 in Model 2. If one company engaged in corporate governance activities last year, for each increment in the performance score of its corporate governance activity, the company will expect a 0.000526 decrease in its stock returns, holding all else equal.

Furthermore, from Table III, while adding other stock control variables, corporate governance performance scores are still significant at a 5% level with a negative coefficient estimate of -0.000539, which further reveals that the one-year lagged Corporate Governance activities will have a significant negative effect on the stock returns.

Therefore, it can be concluded that last year’s fulfilled corporate social responsibility activity will in fact have a negative effect on the current stock returns of publicly-traded companies. In addition, the Corporate Governance performance has a significant effect on the stock returns than the Social or Environmental performance has. These results are consistent with my Hypothesis 1a and 2a. From the analysis, taking the corporate social responsibility initiatives, especially in the corporate governance category,
will not be a good way for the companies to improve their stock performance and maximize shareholder value.

II. Insights

- For companies:

1) In Figure 2, we can see that the publicly-traded companies tend to contribute, and perform the best in Social activities. This may indicate that, in these years, companies have realized the smallest and non-significant negative effect of the Social activities on stock returns.

2) We cannot deny the fact that conducting corporate social responsibility activity has many benefits for companies such as enhancing their reputation. But sometimes, it is still very hard for companies to obtain a balance between the costs and benefits of CSR. If not conducted properly, corporate social responsibility activity can be very costly. Therefore, companies should balance the costs of implementing the sustainable business practices against their benefits.

3) For a socially responsible company, do not expect all your investors to support your social actions.

- For investors:

1) According to the U.S. Social Investment Forum (SIF) Foundation’s 2016 Report on Sustainable and Responsible Investing Trends, approximately $8.72 trillion of the $40.3 trillion in total U.S. investments is involved in socially responsible investing, or Sustainable, responsible and impact investing (SRI). However, investors should
still expect socially responsible investment underperformance because of the loss of diversification as well as the additional constraints on portfolio. Investors who embrace SRI tend not to buy stakes from companies that are not “doing the right thing”. For instance, those companies that sell harmful products, such as tobacco, are excluded by SRI investors because they do not fit the criteria for corporate social responsibility. Thus, it may restrict the pool of investable companies.

2) Altruistic shareholders and socially responsible investors are willing to forego returns to become socially responsible and have moral feeling.

III. Recommendation: Voluntary or Mandatory?

- As we have discussed before, higher CSR ratings tend to have a negative effect on future stock returns. Therefore, government can introduce the CSR legislation or mandatory regulation. When all companies do the right thing, those companies previously with high CSR performance scores will be affected less by such regulation. For example, in the U.S., under section 404 of the Sarbanes Oxley Act, all publicly-traded companies are required to give details of their spending, hold executives accountable for accounting statements, and have internal procedures for financial reporting. It aims to reduce the corporate fraud and make the company to be effective on improving social welfare. Nevertheless, making CSR mandatory is still not without cost.
VII. Limitations/Future Research

This research could provide an understanding about the correlation between the corporate social responsibility and stock returns for the companies and investors. Nevertheless, due to the limited time and resources, some important questions still remain unsettled, and I am aware of the limitations of the study. For example, the research was conducted on the one-year lagged basis, which does not show separate short term and long term effects. It would be better if it was conducted separately.

Valerie (2014) found that in the short term, CSR yields a negative reaction from the shareholders. In the long term, the CSR practices negatively impacts the stock returns in two years following their completion. However, Wang (2011) illustrated that CSR practices have a significantly positive impact on stock performance in both short run and long run. For the future research, I will test both the short-term effect and long-term effect of CSR on stock returns. In addition, on account of other underlying factors that are not indicated in this study, for example, the reaction from the shareholders to various CSR activities in the short run, I will conduct event studies to examine the impact of company’s announcement of CSR activities, or the impact of company’s change in CSR policy on the stock prices, and find the abnormal returns.

Moreover, it is necessary to test the best level for publicly-traded companies to conduct corporate social responsibility activities, or to keep balance between corporate social responsibility performance and shareholder value. These can lead to a conclusion on whether it is feasible for publicly-traded companies to not only meet the ideal level of shareholder value and stock performance, but also fulfill corporate social responsibility activities.
References


